

# ***Price and Quantity Verification Program Manual***



**State of California  
Department of Food and Agriculture  
Division of Measurement Standards  
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## **FORWARD**

The State of California has adopted, as regulation\*, the most current edition of the National Institute of Standards and Technology (NIST) HANDBOOK 133 (HB 133), CHECKING THE NET CONTENTS OF PACKAGED GOODS. As of January 2005, only editorial changes have been done to the Fourth Edition.

- \* California Business and Professions Code Section 12211  
California Code of Regulations, Title 4, Division 9, Chapter 11, Section 4600

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Handbook 133 provides procedures for sampling a “lot” to determine compliance with net weight laws and regulations, and specifies test procedures for certain commodities and types of commodities. This manual does not replace or duplicate Handbook 133; it is to be used in conjunction.

Procedures should be read completely and understood before testing any commodity. As Handbook 133 is a California regulation, all of it must be implemented exactly as written. Training by Division personnel may be required prior to actual commodity testing.

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The most recent Draft of Handbook 133 is available from the web site for the National Institute of Standards and Technology.

<http://ts.nist.gov/WeightsAndMeasures/pubs.cfm>

4<sup>th</sup> Edition of NIST Handbook 133 (Microsoft Word and Adobe Acrobat PDF Formats)

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Price and Quantity Verification Program/DMS

## **DISCLAIMER**

**This manual contains information, methods, and procedures to assist weights and measures officials in their duties. It is not intended to supplant or supersede any law or regulation. Officials must check the cited reference prior to taking any enforcement action. Direct any questions to the appropriate Division of measurement Standards field office or Supervising Special Investigator or Branch Chief.**

# QUANTITY CONTROL MANUAL

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## **THE PRICE AND QUANTITY VERIFICATION PROGRAM**

The primary function of weights and measures is to ensure that equity prevails in all commercial transactions involving quantity representations. The assurance of full weight and measure, and the elimination of fraud and misrepresentation have been objectives from the beginning of quantity determinations.

The Price and Quantity Verification Program fulfills this objective by monitoring commerce at all levels: retail, wholesale, and manufacturing, in order to minimize measurement errors in representations for both packaged and over-the-counter sales, and to ensure the accuracy of commodity pricing.

Californians spend about 800 billion dollars in commodities subject to Price and Quantity Verification inspection each year. Thousands of purchases are made each year by the program to monitor sales price accuracy. The purchased items are then tested in county and state laboratories for quantity and compliance with labeling requirements.

### **BASIC FUNCTIONS OF THE PROGRAM**

To serve the people of California by fair and equitable enforcement of all laws relating to Price and Quantity Verification. The functions are achieved by:

- A. Evaluation of marketplace conditions.
  - 1. Package inspections to verify the accuracy of the net content statements of:
    - (a) commodities packaged and sold on the same premises;
    - (b) wholesale and retail packages at the point of packaging, shipping, destination, or sale.
  - 2. Verification of accuracy in pricing commodities assuring that the purchaser is correctly charged the stated or advertised price of an item.
  - 3. Verification of accurate net quantity and price for bulk or non-packaged commodities sold via a scale, meter, or any other weighing, measuring, or counting device.
  - 4. Ensuring consumer check-stands permit customer monitoring of stored price information when it is recalled from an automated system.
- B. Enforcement of the California Business and Professions Code relating to accuracy of quantity and price whether represented and priced by weight, measure or count.
- C. Enforcement of the Fair Packaging and Labeling Act to provide potential customers with information needed to compare values and to prevent unfair and deceptive packaging practices.

## **BENEFITS**

All segments of California society benefit from the program.

- A strong economic base is formed from which commerce may grow.
- Citizens have confidence in label representations and the ability to compare values.
- Customers and businesses are assured through monitoring that overcharges for goods and misleading advertising of quantity or price are kept to a minimum.
- Business and industry have a foundation for fair competition in the marketplace.

## **HISTORY**

The basis for the Price and Quantity Verification Program was provided for in 1850. The first session of the California Legislature passed an act to establish standard weights and measures in conformity with the standards established by Congress.

Through the years following this act, packaged commodities were inspected on a very limited basis. There were no sampling plans, and all packages in a lot had to be individually weighed or measured. For the most part, this was time consuming and not cost effective. In an effort to increase effectiveness, several amendments were enacted which enhanced or repealed parts of the original weights and measures law.

In December 1960, California adopted Sampling Procedures into the California Code of Regulations. The average net content of a large lot of packages could now be determined by checking a few samples from the entire lot leading to cost-effective inspections of large numbers of wholesale and retail packages.

California Sampling procedures were replaced in 1996 with the adoption of the National Institute of Standards and Technology Handbook 133 and referenced in Business and Professions Code 12211.

## **FORMS AND ROUTING**

- A. Audit Form (see Section 7), Notice of Violation (see page 1-3), Sales Price Report (see Section 2)
1. Original for County records.
  2. Copy to your area Price and Quantity Verification Investigator.
  3. Copy to the person in possession.
- B. Package Inspection Report or PIR (see Section 8)
1. Original for County records.
  2. Copy to your area Price and Quantity Verification Investigator.
  3. Copy to the person in possession.
  4. Copy to the county where the packer or warehouse facility is located.
  5. If the lot has been ordered Off Sale and will be transported to another location:
    - a. Copy to the destination county.
    - b. Copy in the "Hold - Off Sale" card envelope.
- C. Test Purchase/Sale Report (see Section 5), Commodity Test Report (See Section 4), Legal Action Report (see Section 13)
1. Original for County records.
  2. Copy to your area Price and Quantity Verification Investigator.
- D. "Hold - Off Sale" Card (see Section 9)

Attach the card to the lot, using the provided self-stick envelope. The Hold - Off Sale card is in a postcard format. The issuing agency is to place its name and address on the reverse side so that the card may be mailed back by the agency supervising the disposition of the lot. It is also recommended that you put your phone number on the side that describes the property.

- E. Official Property Receipt (see page 1-4)

Available from your area Price and Quantity Verification Investigator, this form is used as a receipt for, and record of, property that is being taken by the weights and measures official. The white copy is given to the person from whom the property was taken. The canary copy is retained by the weights and measures official now in possession of the property, and the pink copy is attached to the property. You do not need to send a copy of this form to your area specialist.

F. Labeling Violation Report and Inquiry (see Section 10)

1. Original for County records.
2. Copy to your area Price and Quantity Verification Investigator.
3. Copy to the person in possession.
4. If the packages have been ordered Off Sale and will be transported to another location:
  - a. Copy to the destination county.
  - b. Copy in the "Hold - Off Sale" card envelope.
5. If the violation will be referred to another county or agency, in or out-of-state, complete the "Inquiry" section and send copies according to the following section, "Label Violations, Label Violation Report: Procedure and Routing."

G. Out-of-State Correspondence

Except for labeling violations covered under the section, "Labeling Violations, Proper Handling" on the following page and Notices of Violation, matters involving out-of-state correspondence should be handled through the Division of Measurement Standards.

H. Inspection Reports

Whenever you are out, it is good to be in the habit of keeping field notes that include who you spoke with, answers to any questions you asked store personnel, observations regarding the condition or location of scales or other equipment used, changes or improvements made in response to a prior inspection, a summary of inspection results, etc.

It is good to be in the practice of asking questions of personnel at the location to help identify problems that exist at retail, wholesale, or point of pack. These questions help you answer: "Who is responsible for the violation?", "How long has the violation been occurring?", "Is it a local issue or statewide?", "Do I have enough information to prove a violation occurred?", and others.

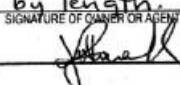
Your field notes along with pictures, inspection forms, and copies of any Notices of Violation can serve as a basis to a written report. Reports do not need to be long to be good. Often times a few short paragraphs can adequately summarize your observations. The report needs to answer the basic questions of who, what, when, where, why, and how. An inspection report should document and demonstrate that a violation occurred and accurately reflect the conditions at the location during the time of inspection.

NOTE: Please fill in all forms legibly, correctly, and completely. Mail copies of all Inspection Reports, Notices of Violation, and Legal Action Reports to your local Price and Quantity Verification Investigator weekly.

**NOTICE OF VIOLATION**

Anytime you observe a violation a Notice of Violation (NOV) form (40-033) should be filled out. The NOV serves as written document that states what law was violated, where the violation occurred, when it was observed, who was notified of the deficiency, who issued the violation and when it was issued.

The form should be filled out completely, taking special care to describe the violation. For example the statement, "Improper Computation of Value" tells you what the violation is but does not describe it. If there was improper computation of value resulting in an overcharge write down how many items overcharged, what items were they, how much was the dollar value of the overcharge. The example below shows a different violation of the law and a description of the violation.

STATE OF CALIFORNIA DEPARTMENT OF FOOD AND AGRICULTURE DIVISION OF MEASUREMENT STANDARDS				ORIGINAL TO COUNTY
NOTICE OF VIOLATION				YELLOW TO OWNER OR AGENT
				PINK TO STATE
COUNTY <b>MISSION</b>				
BUSINESS NAME <b>Project Lumber Co,</b>	ADDRESS <b>675 N. Wood St,</b>	CITY <b>Mills</b>	ZIP <b>99550</b>	PHONE <b>891 076 3245</b>
NAME <b>Lake Small</b>	HOME ADDRESS	CITY	ZIP	PHONE
<b>YOU ARE HEREBY NOTIFIED THAT YOU ARE IN VIOLATION OF SECTION(S)</b>				
SECTION(S) <b>12024, 12603<sup>(b)</sup>, 12611</b>	Check Appropriate Boxes		<input checked="" type="checkbox"/> BUSINESS AND PROFESSIONS CODE OF CALIFORNIA	
SECTION(S) <b>6.4</b>			<input checked="" type="checkbox"/> CALIFORNIA CODE OF REGULATIONS	
SECTION(S)			<input type="checkbox"/> PENAL CODE OF CALIFORNIA	
DESCRIPTION OF OFFENSE(S) <b>BP12024 - selling in less quantity than represented: 2 lots of fence materials were removed from sale for not making stated widths (OSOs 62-010908 A+B)</b> <b>BP 12603<sup>(b)</sup> - Regulations established by Director net quantity shall be accurately stated</b> <b>BP 12611 - Unlawful to sell a product w/o correct label. Redwood rails only represent by length. Should have all three dimensions stated.</b>				
SIGNATURE OF OWNER OR AGENT OF OWNER 	TITLE <b>John May</b>	DATE <b>01/29/08</b>	TIME <b>1:35 pm</b>	
<b>THESE VIOLATIONS MAY SUBJECT YOU TO PENALTIES AS PROVIDED FOR IN DIVISION 5 OF THE BUSINESS AND PROFESSIONS CODE OF CALIFORNIA OR THE PENAL CODE OF CALIFORNIA.</b>				
BY <b>Emma Peels</b>	TITLE <b>Wts &amp; Measures Inspector</b>	PHONE <b>891-067-7077</b>		

Usually the NOV form is filled out and signed by the person at the location where the violation was observed, but in some cases the company that caused the violation is not in your County or the State. When this occurs, the NOV form can be sent certified mail with a signature card to the company in violation. Put the number for the certified letter in the "Signature of Owner or Agent" box and write the day it is mailed for the "Date" box. Make sure to send a copy of all NOVs to your area Price and Quantity Verification Investigator.

**OFFICIAL PROPERTY RECEIPTS**

The Official Property Receipt form (49-009) can be requested from your area Price and Quantity Verification Investigator. This form is used as a receipt or record of property that has been taken by the weights and measures official for evidence, testing, or other purpose. Three copies are made from the form. The white copy is given to the person from whom the property was taken. The canary colored copy is retained by the weights and measures official who takes possession of the property and the pink copy is attached to the property. This form does not need to be sent to your area Price and Quantity Verification Investigator, unless requested.

Please fill out the form thoroughly so that evidence can be returned to the property owner when the case is completed. When property is returned the bottom line giving the "Date Returned", "Signature of Person" receiving the property, and the name of the "Investigator" who returned the property can be filled in. If the initial owner does not want the product back, dispose of the product appropriately and document the final disposition.

STATE OF CALIFORNIA  
DEPARTMENT OF FOOD AND AGRICULTURE  
DIVISION OF MEASUREMENT STANDARDS

COUNTY MISSION	DATE 01/09/08	TIME 1:30	AM PM	NO. EP-1
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49 - 009 Rev. 11/92

**OFFICIAL PROPERTY RECEIPT**

RECEIVED FROM Jake Small	TITLE General Manager		
LOCATION Project Lumber Co.; 675 N Wood St; Mills, CA 99550			
DESCRIPTION OF PROPERTY 1 piece "1" x 4" x 42" 1 gate labeled 36" x 42"			
<input checked="" type="checkbox"/> EVIDENCE <input type="checkbox"/> FOR TEST <input type="checkbox"/> OTHER			
SEALER Ken Lake	INVESTIGATOR Emma Peele		
DATE RETURNED	SIGNATURE OF PERSON	TITLE	INVESTIGATOR
<b>OWNER MUST PRESENT THIS RECEIPT WHEN CLAIMING PROPERTY</b>			
WHITE - OWNER	REMARKS:		
CANARY - STATE / COUNTY	_____		
PINK - ATTACH TO PROPERTY	_____		

## **GENERAL PROCEDURES**

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## **PRICE VERIFICATION INSPECTION**

### **SCANNING SYSTEM, MANUAL ENTRY, AUTOMATED PRICE LOOK-UP (PLU), STOCK-KEEPING UNIT (SKU)**

#### A. Equipment

1. Sales Price Report, Form 49-007, original and two copies
2. Calculator
3. Calibrated one or two-pound weight (optional)
4. "Scanning Gun" (optional)
5. Digital Camera
6. Current copy of the California Business and Professions Code\*
7. Current copy of the California Code of Regulations\*
8. Current copy of the Price and Quantity Verification Program Manual\*
9. Notice of Violation (NOV), Form 40-033 (Rev. 11/01) or County NOV form

\*Available online at <http://www.cdfa.ca.gov/dms>

#### B. Special Notes

**Some stores have a policy that requires that a member of their staff be present during the inspection. If someone from the store accompanies you, make sure they understand that they are not to change any prices in the system or remove the expired or incorrect sales signs until the inspection is finished.**

**Before beginning price verification of the selected items, remember that the system can not be in "Training Mode" or "Manager's Price Checking Mode" as some systems use a different data base for pricing in these modes. The best evidence is a transaction receipt that is given to the customer. An "On-Demand Receipt", "Price Quote", "Inventory Data Sheet", etc, are not considered valid receipts.**

**In order to obtain a valid receipt for the inspection, ask store personnel to complete the transaction as if you were a regular customer, paying cash for the total amount. The store can do a "Post Void" of the transaction or void out items individually afterwards. Remind them that they will receive a copy of the inspection Report for their records to help explain what happened to the sale and that the receipt can be marked with the words "Price Verification Inspection, Receipt not valid for returns or exchanges" or words of similar import if they are worried about possible misuse of the evidence.**

**When using a scanning gun, take all items with a pricing discrepancy to a check-stand to be verified. A receipt must be obtained as proof of the price charged.**

1. This procedure may be used to check the accuracy of prices charged when the establishment represents prices in advertisements, on item displays, attached to items for sale, etc. Methods commonly employed include a device to interpret a code on the purchased item, an automated price look-up method where codes (PLU, Price Look-Up; SKU, Stock Keeping Unit; RF tags, Radio Frequency tags; Icons, etc.) are read or manually entered, or where a clerk “rings up” (manually keys in a price) the item price. It also allows for checking price extensions on multiples or bulk goods.
2. A separate inspection to verify that adequate tares are taken can be done for items weighed at the time of sale, see Test Purchase procedure, page 5-1.
3. A device designed to read a radio frequency tag or optical code and record or to print the bar code (scanning gun) may be used for the inspection in lieu of taking the items to a check-stand to be scanned. Use of a “reader” may not result in a receipt. Whatever method is used, a Subtotal Price Charged must be recorded on the inspection report. If violations are found, a receipt is needed for evidence that a violation occurred.
4. CRV redemption, core charges, appliance recycling charges, etc., associated with an item for sale, should be recorded as separate item and, if possible, should immediately follow the associated commodity. You may have to re-ring individual items to determine which of the charges are attributable to individual items. In California, items subject to CRV reimbursement charges must be so marked by the packager or they can not charge CRV for that item.

### C. Definitions and Data Entry

Basic data such as the Business Name, Address, Date of inspection, Time of inspection, Date of the Sale Advertisements, and your County name should be filled out first. Additionally, if your County wants to track the Business Type (Department Store, Auto Parts Store, Grocery Store, etc) or the form is being used for survey purposes, there is a space for that information below the Business Name and Address. A space to write in a community's sales tax is included to help document under- or overcharges due to charging the wrong sales tax. After putting a mark in the appropriate box to demonstrate the Inspection Type and Price Recall Method, document only those items that were improperly charged in the body of the form.

1. Inspection Type: Mark whether the inspection is Routine Initial, Special (Surveillance Requests, Surveys, etc), a complaint, or follow-up to your Routine Initial Inspection.
2. Price Recall method: Mark all that would apply when a store uses a Scanner, PLU (Price Look Up), SKU (Stock Keeping Units), Icons, or Manual entry.
3. Commodity: Description of the Item that is having its price verified. e.g. “Boys, Bifco, shorts-husky size”. The SKU or UPC numbers can be documented in this column or the column for “Other information”.
4. Sale Price, advertised (Adv.): The advertised price for a commodity taken from a newspaper, flyer, brochure, radio, television, internet or other media that is available outside of the store. (These are often additionally made available inside the store as well as via circulars, flyers, or mail). If the information is from a flyer or other printed media, write down the page number along with the offer, (e.g. All Towels, 50% off regular price, page 12), and take a copy of the advertisement to attach to your

Sales Price Report when the item incorrectly charges.

5. Sale Price, in store: The advertised price for a commodity taken from a separate sign (posted on walls, topper sign on display, manager special, etc), temporary shelf advertisement or any other representation that is found at the store other than copies of a mailer, circular, flyer, or other published advertisement insert defined in the instruction 4. A “sale” price indicates that there is some amount of reduction in the price when compared to the regular price.
6. Shelf Price: This can also be the regular price of an item. The shelf price is posted directly underneath or above the product.
7. Item Price: The price of the commodity that is attached to the item using a sticker, stamp, label or tag.
8. Regular Price: The regular selling price of an item. It does not include any represented discounts.
9. Tax Item: Check the appropriate box (“Y” for yes or “N” for no) to mark whether or not the item is taxable. Often the receipt will be of assistance, but be aware that price programming is not always correct at identifying items subject to tax. Improper charges can occur when a store charges or fails to charge tax.
10. Price Charged: The price displayed on the customer view screen and/or printed on the receipt, whether the item is scanned, entered then voided, or purchased.
11. Correct Price: The lowest of the advertised, quoted, posted, and/or marked price for which the buyer is qualified (i.e. for coupon or club card discounts, the buyer would need to present the required coupon or card to qualify). If there are no under or overcharges, this will be the same as the price charged. Be aware that store personnel may use this term with a different meaning.
12. Error/Undercharge: When the price charged for an item is less than the correct price. The dollar value is determined by subtracting the correct price from the price charged. Take time to look at sales circulars, other advertisements, and any additional evidence offered by the store to verify whether or not the item actually is an undercharge.
13. Error/Overcharge: When the price charged for an item is more than the correct price. The dollar value is determined by subtracting the correct price from the price charged.
14. Percent Overcharge (% over chrg): The dollar value of the overcharge divided by the correct price for that item then multiplied by 100:  
$$[(\text{price charged} - \text{correct price}) / \text{correct price}] \times 100.$$

Do not do this calculation if the total Error is a net undercharge.
15. Item Count: The number of items on the shelf or available for sale.
16. Other Information: Use this column to write additional information that helps document the incorrectly charged item. Include information like explanations from store personnel as to what caused the item to charge incorrectly, the SKU or UPC code can be documented in this column or under the commodity description column, etc.

17. Subtotal: Document the subtotal taken from the store's generated receipt for the "Price Charged" column. Subtract or Add the Total Error, T.E. from the receipt's subtotal and put that in the "Correct Price" column.
18. Tax: Document the tax charged for the items verified in the "Price Charged" column. If the error for the tax was due to the incorrect price being charged for the items, leave the tax for the "Correct Price" column blank. If the store charged the wrong tax rate or taxed non-taxable items, then determine the proper amount of tax and write that in the "Correct Price" column. If a store charges too much tax, that is an overcharge and would be noted in the remarks.
19. Total: Document the total from the receipt, verifying that the store's system calculated the correct total.
20. Algebraic Error (Total Error): The difference between the total of all overcharges and the total of all undercharges. The total error may be either an overcharge (+) when the customer is asked to pay more than the correct price, or an undercharge (-) when the customer is asked to pay less than the correct price.
21. Percent Total Overcharge (% overchrg): When there is a total overcharge, this is the dollar value of the Algebraic Error (Total Error, TE) divided by the correct price subtotal, excluding sales tax, and then multiplied by 100.
22. Number Inspected (No. Inspected): This number represents the number of transactions checked, not necessarily the actual number of items rung up. When testing the price for purchasing multiples, all items are combined for one transaction, e.g. to test the price representation of "2 for \$5.00 or 1 for \$2.99", you would pick up two items to test the transaction. This is not necessary when only a single price representation is displayed since the price for multiples or for a single item must then be a true extension of the represented price, e.g. Items represented only as "2 for \$1.00" would have a price extension of \$0.50 each.
23. Number Overcharges (No. Overcharges): This number represents the number of transactions where an over charge occurred.
24. Number Undercharges (No. Undercharges): This number represents the number of transactions where an under charge occurred.
25. Remarks: In this box record a description of the appropriate California Business and Professions Code section violated and check the box below this section. Check the box as to whether or not the commodities were purchased, returned or held for evidence, and write in any other pertinent information. You may also use this area to not other important information (e.g. number of checkstands or number of sales items selected for your sample).
26. Owner/Agent: The owner or agent needs to sign in this box and print their name below.
27. Title: The store's owner or agent should print their official title in this box.

28. Sealer: Write in the name of your jurisdiction's Sealer.
29. By: Name/s of Investigator/s documenting the inspection results.

D. General Procedures (Counties without an Ordinance)

1. For a typical supermarket, drug and variety store, or department store, approximately 30 items from throughout the store should be selected. Fewer items may be selected for smaller stores and more for larger establishments. About half of these should be represented as on-sale, price reduced, or be indicated in some manner that they are "special buys". These should include in-store specials, markdowns, or close-outs. Advertised items may be pre-selected using flyers or newspaper advertisements.

Section 12024.2 of the California Business and Professions Code states that representations such as "5 for a \$1.00" or "1/2 pound for \$5.99" require that price extensions be true when not represented as a condition (i.e. \$0.20 each and \$11.98 per pound). A sign that states both "5 for \$1.00 or \$0.25 each" expresses a condition for receiving the discount for the purchase of 5 items. Unless a pricing condition is expressed for multi-buy items, the sample should not include more than one of the same item. No deliberate effort should be made to select mismarked or mispriced items. Multi-buy discount items are considered to be one item.

If the establishment uses equipment to print a bar code on packages weighed and labeled on the premises (e.g., meat, deli, bakery), select an additional five or more of these packages for price verification. Do not overlook items that use Icons, PLUs, or RF tags instead of barcodes. Also look for reduced-price aged or day-old items that require the clerk to properly update the barcode to match the reduced prices.

2. When, in addition to conducting an inspection of the store, you are investigating a complaint, following-up on a suspect item, or questioning an item not part of the sample, these specific items should be selected and evaluated separately from the rest of the sample. Fill out a separate Sales Price Report to document the results of those items.
- If you are going to identify yourself before having the prices computed or scanned, proceed with Section E - Disclosure Procedure. If you are conducting an undercover inspection, skip to Section F - Undercover Procedure, on page 2-8.

E. Disclosure Procedure

1. Place the sample items in a market basket if available. Make sure you select items with PLUs (for example fruits, vegetables or bulk items). You may place the item in your basket or record the identity, product code, and price per pound for later use. Take one of each type and size of produce bags or containers available for the customer's use. These will be used to verify the tare taken at the check-stand.
2. Contact the store management, explain the nature of the price inspection, and request the items in the basket be scanned, or entered in a manner that will give a regular

customer receipt showing a description of each item and/or price charged, subtotal for the items, tax charged, and the total price. **Do not conduct the test in “Training Mode” or the “Manager’s price checking mode.” Some systems use a different database for pricing in these modes. Do not operate the equipment or scan the items yourself; store personnel must do this.**

3. After the items have been entered and returned to the basket, consecutively place the calibrated weight, along with each of the bags or containers on the scale. Ask the checker to charge for this as if it were one of the selected bulk items. Check for entry of the correct item code, weight, price per pound, computed price, and tare deduction. Continue with the remainder of the produce codes and containers. Note: this does not permit evaluation of clerk training for elements such as placing two or three items on the scale while deducting tare for only one container (cluster weighing).
4. Taking the receipt tape, return the items to the display shelves. As each item is replaced, check for agreement between the receipt, item price, shelf price, and “special” price. Record any overcharges or undercharges. It is an overcharge, if the scanned or entered price on the receipt is greater than the lowest of the posted, marked, or advertised price. If the CRV, deposit, core charge, recycling fee is incorrectly charged it should be shown on a separate line immediately below the product entry whether or not the associated item incurred a separate pricing error. This will make it clear what errors occurred. ***Since it is not possible to purchase an item without paying associated fees such as CRV, Core Charges, or sales tax, this would be considered one overcharge for that item even though it is possible to have the item, the CRV or associated charge, and/or the tax all incorrectly charge in the one transaction. If any part of the transaction overcharges, it would be considered an overcharge.*** An undercharge occurs if the receipt charge is less than the lowest of the above. Carefully note all critical information, such as the number of displays and the approximate number of overcharged or undercharged items on display. Take pictures of the display, price representations, the overcharge item and its bar code to document the violation. ***If the store charges the incorrect sales tax, simply note that in the comments box and put the correct calculated sales tax in the column marked “correct price” and in the appropriate box.***
5. Record on the Sale Price Report all available information for each item with any difference between the advertised, item or shelf prices, and the price charged.
6. Discuss the results of the inspection with the person in charge and have that person sign the form along with his or her title. Leave a copy with the store. Attach the receipt tape to your copy. Mail one copy, with a copy of the receipt attached and any pictures taken during the inspection, to the local DMS office.

**ALL PRICING ERRORS MUST BE CORRECTED BEFORE LEAVING THE STORE.  
SEE CITATION PROCEDURE MANUAL FOR APPROPRIATE ENFORCEMENT  
ACTION.**

STATE OF CALIFORNIA  
DEPARTMENT OF FOOD AND AGRICULTURE  
DIVISION OF MEASUREMENT STANDARDS

BUSINESS NAME: Super Duper Discount Center  
ADDRESS: 109 So. Main St.  
Rock Ridge, CA  
BUSINESS TYPE: Department & Variety Store

Date: June 9, 2008  
Time: 1:20 PM  
Sale Adv. Date: 6/7/2009  
Tax Rate: 7.50%

**SALES PRICE REPORT**

QC - 49 - 007C (Rev. 2/07)

COUNTY: Mission INSPECTION TYPE:  Routine Initial  Special  Complaint  Follow-up PRICE RECALL METHOD:  Scanner  PLU  SKU  Icons  Manual

Commodity	Sale Price		Shelf Price	Item Price	Regular Price	Tax		Price Charged	Correct Price	Error		% over chrg	Item Count	Other Information											
	Adv.	in store				Y	N			under charge	over charge														
Batman Cap; Item # 612-612	pg. 9, \$4.99		none	none	\$ 5.99	x		\$ 5.99	\$ 4.99		\$1.00	20.0	16	Copy of Ad over Cap Display.											
Micromachine 4 x 4 Pick-up; UPC 0657890555590			\$ 3.19	\$ 2.49	uk	x		\$ 3.19	\$ 2.49	-	\$0.70	28.1	5	Recent Price increase. No corrections made to Item Price.											
Never Die Marine Battery; Item # 654-857	pg. 16, \$49.95		\$ 49.95	none	\$ 69.95	x		\$ 69.95	\$ 49.95	-	\$20.00	40.0	3	expired shelf tag, sale price not in system.											
Century House Paint; Item # 675-675		Special-\$15.97	none	none	uk	x		\$ 13.97	\$ 15.97	\$2.00	-	-	25	price wrong in computer											
Mixed Nuts- Economy Pack, UPC 135790086421		40% off Reg.Price	40% off	\$ 19.95	\$ 19.95		x	\$ 19.95	\$ 11.97	-	\$7.98	66.6	10	Marked as Clearance Item.											
Everyone's Water (23.7 fl oz) UPC 01359787215		2/\$1.00 till 7/4/08	\$ 1.00	none	\$ 1.00		x	\$ 1.00	\$ 0.50	-	\$0.50	100.0	38	Cashier did not take discount											
CRV on Water								\$ 0.10	\$ 0.05	-	\$0.05	100.0		wrong CRV rate used											
Remarks: Complainant was overcharged on 6/7/08 for Batman Cap, toy truck, marine battery, mixed nuts & Water (Sale price as well as CRV). Complainant was refunded by manager after bringing it to store's attention. No correction, continuing overcharges.																									
															Subtotal	\$ 177.05	\$ 148.82	\$ 2.00	\$30.23	Total Error		\$28.23	No. Inspected		10
															Tax	\$ 12.39				Total Error		\$28.23	No. Overcharges		5
															Total	\$ 189.44				% overchrg		18.9%	No. Undercharges		1
Violations of California B&P Code: <input checked="" type="checkbox"/> 12024.2 <input type="checkbox"/> 12024.6 <input type="checkbox"/> 13300						Comodities: <input checked="" type="checkbox"/> Purchased <input type="checkbox"/> Returned <input checked="" type="checkbox"/> Held for evidence																			
I have reviewed and received a copy of this report. (Owner/Agent) Manny Marshall <i>Manny Marshall</i>						Title: Store Director			Sealer: J. Goodman			By: J. Steed <i>J. Steed</i>													

#### F. Undercover Procedure

1. Place the sample items in a market basket. Inconspicuously record shelf prices or “special” prices. Items from bulk displays should also be considered for testing.
2. Proceed through the check-stand as a normal customer. When a payment amount is announced by the clerk you may identify yourself, ask that store management be contacted and proceed as in Disclosure Procedure, Step E6. If you wish to maintain undercover identity, purchase the items and keep the receipt.
3. Leave the store to check weigh any produce or bulk items and complete the report. Compare the purchase price on the receipt with the advertised, item, or shelf prices recorded earlier. Record any overcharges or undercharges. It is an overcharge if the price charged is greater than the lowest of the posted, marked, or advertised price, excluding sales tax and CRV which are considered separately. If the CRV, deposit, core charge, recycling fee is incorrectly charged it should be shown on a separate line immediately below the product entry whether or not the associated item incurred a separate pricing error. This will make it clear what errors occurred. ***Since it is not possible to purchase an item without paying associated fees such as CRV, Core Charges, or sales tax, this would be considered one overcharge for that item even though it is possible to have the item, the CRV or associated charge, and/or the tax all incorrectly charge in the one transaction. If any part of the transaction overcharges, it would be considered an overcharge.*** An undercharge occurs if the charge is less than the lowest of the above, excluding sales tax and CRV value.
4. Return to the store, or if undercover identity is to be maintained, have a different official go into the store. Review displays and any placards, representations, advertisements or flyers for items having a difference between the advertised, item or shelf prices, and the price charged. Record on the Sale Price Report all available information about items with differences.
5. Request that the person in charge meet with you. Review the results of the inspection and have that person sign the form along with his or her title. If the items are not to be purchased, have the sale voided and return the items to the shelf. Keep the receipt or a copy and attach it to your copy of the Sales Price Report. Leave a copy with the store. Mail one copy, with a copy of the receipt attached, to the local DMS office.

**ALL PRICING ERRORS MUST BE CORRECTED BEFORE LEAVING THE STORE.  
SEE PAGE 16 OF THE CITATION PROCEDURE MANUAL FOR APPROPRIATE  
ENFORCEMENT ACTION**



STATE OF CALIFORNIA  
DEPARTMENT OF FOOD AND AGRICULTURE  
DIVISION OF MEASUREMENT STANDARDS

BUSINESS NAME: Super Duper Market #8  
ADDRESS: 1069 Green St.  
Middleborough, CA  
BUSINESS TYPE: Grocery Store

Date: June 12, 2008  
Time: 10:00 AM  
Sale Adv. Date: Weekly Ad 6/11-17/08  
Tax Rate: 7.50%

**SALES PRICE REPORT**

QC - 49 - 007C (Rev. 2/07)

COUNTY: Mission INSPECTION TYPE:  Routine Initial  Special  Complaint  Follow-up PRICE RECALL METHOD:  Scanner  PLU  SKU  Icons  Manual

Commodity	Sale Price		Shelf Price	Item Price	Regular Price	Tax		Price Charged	Correct Price	Error		% over chrg	Item Count	Other Information			
	Adv.	in store				Y	N			under charge	over charge						
Sparkle Brite Toothpaste (4oz); upc 234569875411	pg. 3, \$0.47	\$0.47 on sale	\$ 0.67	none	\$ 0.67	x		\$ 0.67	\$ 0.47		\$0.20	42.5	215	Special Display			
Fido's Friend Treats (8 oz); upc 159753654852			\$ 1.19	\$ 1.19	uk	x		\$ 1.13	\$ 1.19	\$0.06	-	-	5				
The Best Yogurt-plain (6 oz); upc 741852963321		Special \$0.59	\$ 0.69	\$ 0.69	\$ 0.69		x	\$ 0.69	\$ 0.59	-	\$0.10	16.9	3	In Store Clearance			
Ramirez 12 Ct. Tortillas (1 lb); upc 789654123357		1/2 off; good till 6/10/08	none	\$ 1.25	\$ 2.49		x	\$ 2.49	\$ 1.25	-	\$1.24	99.2	6	Hand marked 1/2 price, scanned regular price, expired sale sign.			
Spots Away Detergent (124 fl oz); upc 8529631475	pg. 4, \$3.69		\$ 3.99	Instant Savings \$0.30	\$ 3.99	x		\$ 3.99	\$ 3.69	-	\$0.30	8.1	10	Cashier did not take off Manufacturers discount. Manually corrected by cashier, originally rang up at \$2.59.			
Clean Baby Wipes (50 ct); upc258963123741	pg. 6, \$2.59	\$2.59	\$ 2.49	none	uk	x		\$ 2.49	\$ 2.49	-	-		12	Sticker prices left on from previous sale.			
Sun Canned Peaches (13 oz); upc 125896314752			\$ 0.79	\$ 0.59	\$ 0.79		x	\$ 0.79	\$ 0.59	-	\$0.20	33.8	28				
Remarks: Undercover inspection; Violations brought to Store's attention on same day and documented.																	
									Subtotal	\$ 72.80	\$ 70.82	\$ 0.06	\$2.04	No. Inspected 30			
									Tax	\$ 4.55		Total Error \$1.98	No. Overcharges 5				
									Total	\$ 77.35		% overchrg 2.7%	No. Undercharges 1				
Violations of California B&P Code: <input checked="" type="checkbox"/> 12024.2 <input type="checkbox"/> 12024.6 <input type="checkbox"/> 13300									Comodities: <input type="checkbox"/> Purchased <input type="checkbox"/> Returned <input checked="" type="checkbox"/> Held for evidence								
I have reviewed and received a copy of this report. (Owner/Agent) Milicent Marshall <i>Milicent Marshall</i>									Title: Manager			Sealer: J. Goodman			By: E. Peele <i>E. Peele</i>		

G. General Procedures (Counties with an Ordinance see B&P Code 13350-13357)

Inspections in ordinance counties require these additional considerations:

1. Initial Standard Inspections:

Areas to be inspected: 1. A single department of a retail store, 2. Multiple areas of a retail store, or 3. The entire store.

Sample sizes:

Number of Check Stands	Minimum Sample Size
1 to 3 POS checkout registers	10 items
4 to 9 POS checkout registers	25 items
10 or more POS checkout registers	50 items

NO MORE THAN HALF OF THE ITEMS CAN BE SALE ITEMS.

The minimum random sample size shall not apply to inspections of any establishment at which fewer items than the number specified as the minimum sample size are marked or displayed with a posted or advertised item price. If this happens document it in the remarks section.

The maximum percentage of sale item restriction does not apply in establishments where marketing or promotional practices do not allow the inspector to sample the minimum required percentage of nonsale items, such as "Everything in Store 50 percent off" or the like. If this happens document it in the remarks section.

Random Sample: means the selection process shall be modeled after National Institute of Standards and Technology Handbook 130, 2005 Edition (HB130) Examination Procedures for Price Verification, randomized sample collection; stratified sample collection. Note: If you see an item that is in violation, you can take action on it, just don't consider it as part of your random sample for determining compliance for your initial standard inspection. Document the violation as you would a complaint item (see section D.2.)

2. Special Inspections:

These may include follow-up re-inspections (for stores with compliance rates of less than 98 percent), surveillance inspections, complaint inspections, and special surveys. Special inspections do not require you to follow the same procedure as the Initial Standard Inspection and sample sizes and selection may be based on other criteria.

Note: you have up to six months to do a follow-up re-inspection.

Sections 13350-13357 are in effect until January 1, 2014.

2-11  
Rev. 11/09

STATE OF CALIFORNIA  
DEPARTMENT OF FOOD AND AGRICULTURE  
DIVISION OF MEASUREMENT STANDARDS

BUSINESS NAME: La Comida Rica  
ADDRESS: 673 Pleasant Rd.  
Mountain Top, CA 98991  
BUSINESS TYPE: Grocery Store

Date: December 12, 2007  
Time: 10:00 AM  
Sale Adv. Date: One day sale 12/12/08  
Tax Rate: 7.50%

SALES PRICE REPORT

QC - 49 - 007C (Rev. 2/07)

COUNTY: Hume INSPECTION TYPE:  Routine Initial  Special  Complaint  Follow-up PRICE RECALL METHOD:  Scanner  PLU  SKU  Icons  Manual

Commodity	Sale Price		Shelf Price	Item Price	Regular Price	Tax		Price Charged	Correct Price	- Error +		% over chrg	Item Count	Other Information		
	Adv.	in store				Y	N			under charge	over charge					
Castaneda's Peppers (4 oz); upc 789654123258			\$ 2.19	none	\$ 2.19		x	\$ 1.89	\$ 2.19	\$0.30			8	Old shelf tag		
Nelson's 100 % Apple Juice (64 fl oz); upc 2568941325			\$ 2.39	none	\$ 2.39		x	\$ 2.39	\$ 2.39				15			
Nelson's Juice CRV								\$ 0.10	\$ -		\$0.10	∞		not a CRV item.		
Lilly's Salad Mix (6 oz) upc 25698741365	Pg. 12; BOGO free	Buy one get one free	\$ 2.99	\$ 2.99	\$ 2.99		x	\$ 2.99	\$ 2.99				27			
Lily's Salad Mix- same as above								\$ 2.99	\$ -		\$2.99	∞		not ringing up at sale price.		
Marianne's Tamales; plu 1849		Managers Special: 6 for \$6	none	none	\$ 1.25		x	\$ 1.25	\$ 1.00		\$0.25	25.0	36	Manager's sign does not clearly state the requirements of the sale.		
Remarks: 4 cash registers; Readouts not visible to consumer																
Store is charging the incorrect tax rate of 8.0 percent instead of 7.5%; actual tax charged should be \$0.98 instead of \$1.04, a \$0.06 overcharge																
A copy of the report will be forwarded to BOE for overcharges on taxes																
A copy of the report will also be forwarded ot DOR for overcharge on CRV.																
								Subtotal	\$ 245.75	\$ 242.71	\$ 0.30	\$3.34	No. Inspected 50			
								Tax	\$ 1.04	0.98	Total Error	\$3.04	No. Overcharges 3			
								Total	\$ 246.79	\$ 243.69	% overchrg	1.2%	No. Undercharges 1			
Violations of California B&P Code: <input checked="" type="checkbox"/> 12024.2 <input type="checkbox"/> 12024.6 <input checked="" type="checkbox"/> 13300										Comodities: <input type="checkbox"/> Purchased <input checked="" type="checkbox"/> Returned <input type="checkbox"/> Held for evidence						
I have reviewed and received a copy of this report. (Owner/Agent) Magda Easton <i>Magda Easton</i>								Title: Manager		Sealer: R. Reddy			By: F. Tomasavich <i>F. Tomasavich</i>			

#### H. Additional Information, Overcharges due to Sales Tax, E-waste fee collection or CRV

1. Tax discrepancies and E-Waste fees: If you determine that an improper tax rate has been charged or that non-taxable items were taxed. Issue a Notice Violation for the overcharge and forward documentation to the Special Investigations Principal Auditor for the State Board of Equalization.

Board of Equalization Investigation Division  
450 N Street, MIC 42  
Sacramento, CA 94279

2. Core charges for refurbishing car batteries should be posted or quoted at the time of the transaction. If an incorrect fee is charged, issue a Notice Violation for the overcharge.
3. California Redemption Value (CRV) discrepancies: If you determine that an improper CRV, rate was charged or that non qualifying items were charged a CRV, issue a Notice of Violation for the overcharge and forward documentation to the Division of Recycling (DOR).

Division of Recycling-Dealer Services  
Complaint Coordinator  
801 K Street  
Sacramento, CA 95814

CRV rates are controlled by DOR in Section 14560 (3) of the Public Resources Code. The values are represented in statutes, public messages, and posted on the internet by the entity authorized by law to do so. Furthermore Section 14561 of the Public Resources Code states that containers be individually marked if the specified CRV applies. It is a violation of 12024.2 to charge CRV on items that are not part of the program or to charge a rate higher than allowed by statute for items marked as CRV.

#### I. Violation of B&P Code 13300 can be documented during Price Verification Inspections

13300. (a) The operator of a business establishment that uses a point-of-sale system to sell goods or services to consumers shall ensure that the price of each good or service to be paid by the consumer is conspicuously displayed to the consumer at the time that the price is interpreted by the system. In any instance in which the business advertises a price reduction or discount regarding an item offered for sale, the checkout system customer indicator shall display either the discounted price for that item, or alternatively, the regular price and a credit or reduction of the advertised savings. Any surcharges and the total value to be charged for the overall transaction also shall be displayed for the consumer at least once before the consumer is required to pay for the goods or services. The checkout system customer indicator shall be so positioned, and the prices and amounts displayed shall be of a size and form, as to be easily viewable from a typical and reasonable customer position at each checkout location.

(b) For the purposes of this section, "point-of-sale system" means any computer or electronic system used by a retail establishment such as, but not limited to, Universal

Product Code scanners, price lookup codes, or an electronic price lookup system as a means for determining the price of the item being purchased by a consumer.

(c) All point-of-sale systems used by a business establishment on and after January 1, 2007, shall comply with the requirement of subdivision (a).

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## **COMPLAINTS**

Consumer or other agency complaints are recorded on the Complaint Report, Form 41-016(Rev, 02/01). If the complaint is regulated by a different agency or concerns another jurisdiction, the form should be sent to the appropriate agency. A complaint covering more than one local jurisdiction should be referred to the area specialist or DMS in order to coordinate the investigation.

### **Complaints should have the highest priority.**

Each complaint should be thoroughly investigated. Many occurrences with the potential of becoming major problems have been found and corrected as the result of anonymous complaints.

Information concerning the source of the complaint or the identity of the complainant does not have to be disclosed to the subject (individual or business) of the complaint. This information may be kept confidential.

At the completion of the investigation, be sure to notify all parties, including complainant, referring agency and your Area Specialist, as to the action, correction, or disposition of the complaint.

STATE OF CALIFORNIA  
DEPARTMENT OF FOOD AND AGRICULTURE  
DIVISION OF MEASUREMENT STANDARDS

This form may be completed online and printed  
before mailing to DMS, 6790 Florin Perkins  
Road, Sacramento, CA 95828-1812.

## COMPLAINT REPORT

41-016 (REV. 2/01)

DATE SUBMITTED	TIME
----------------	------

<b>WHERE</b>	LOCATION WHERE THE PROBLEM/COMPLAINT OCCURRED	
ADDRESS	TELEPHONE NO.	
CITY	COUNTY	
<b>WHEN</b>	DATE	TIME
<b>WHAT</b>	DESCRIBE COMPLAINT IN DETAIL	

<b>WHO ASSISTED YOU AT THE LOCATION</b>	<b>DESCRIBE THE PERSON</b>						
	NAME						
	SEX	RACE	AGE	HEIGHT	WEIGHT	HAIR	EYE
	DISTINGUISHING CHARACTERISTICS						
<b>WHO DID YOU COMPLAIN TO AT THE LOCATION</b>	<b>DESCRIBE THE PERSON</b>						
	NAME						
	SEX	RACE	AGE	HEIGHT	WEIGHT	HAIR	EYE
	DISTINGUISHING CHARACTERISTICS						

HAVE YOU CONTACTED ANY OTHER AGENCY: CONSUMER OR LEGAL?  YES  NO

IF YES, WHO:

IF WE CONTACT THE BUSINESS, DO YOU WANT YOUR NAME KEPT CONFIDENTIAL?

YES  NO

WOULD YOU LIKE TO BE INFORMED WITH THE RESULT OF OUR INVESTIGATION/ACTIVITIES?

YES  NO

<b>IF YES, PLEASE FILL OUT</b>	NAME	
	ADDRESS	
	CITY	ZIP
	TELEPHONE NO.	E-MAIL
	FAX	



## **COMPLAINT**

### **DOOR-TO-DOOR MEAT SALES**

Door-to-door meat sales complaints are a recurring problem. The complaints generally concern false and misleading statements made during the sales presentation and the quality of the meat.

On investigation, usually it is found: (1) The meats have been sold by the box or case and not by weight; (2) If there were any weight representations, they were orally stated in a manner designed to mislead the buyer into believing there was more than is actually there; (3) The packages generally are mislabeled and do not comply with all regulations; (4) The Three-Day Notice of the right to rescind the purchase has not been given as required; (5) There is no business license, health permit, or local itinerant sales permit.

Investigations can be complex and time consuming, many times involving other agencies such as Police Departments, Sheriff's Offices, local Health Departments, or USDA. Frequently, the company is based out-of-state and sales have been made in more than one county. In some unethical companies, salespersons have extensive criminal histories, change identities, and claim to have been employed a short period of time and have no knowledge of the requirements. Principals claim to be employees and deny responsibility or knowledge. Generally, the correct corporate or business information is not on file and required permits have not been obtained.

It is recommended that all complaints be investigated and the strongest legal action be taken whenever these complaints have been sustained by investigation.

Notify DMS of any door-to-door sales activity as soon as possible. Your area specialist can assist in the investigation and can provide information as to prior violations or pending legal actions in other agencies.

#### **A. Equipment**

1. Door-To-Door Meat Sale Complaint Form.
2. Scale, calibrated test weights.
3. Calculator.

#### **B. Procedure**

1. Interview the complainant, face-to-face is preferable. Generally, let the complainant relate the details of the sale, then go back over the specific questions covered in the form. Be sure to record all details of the sale including any representations as to the reasons for the sale, quantity, origin and quality of the items, and any guarantees.
2. Inspect the cases, boxes, and packages of meats, poultry, or seafood. Check that each box and case (and individual cut if sold by the piece) is properly labeled with:

- a. Name and address of responsible party.
- b. Identity of each type and cut.
- c. Net weight of each type and cut and the total net weight.
- d. Price per pound for each type and cut and the price per pound for the total net weight.

If the sale consisted of boxes of cuts sold in a case, both the individual boxes and the case must be completely labeled with all information. A box labeled 12/6 meaning 12 - 6 ounce portions is not acceptable.

If the packages are labeled with a price per pound, verify that the values correspond with the actual purchase price. It is a violation to label the package with an inflated price per pound then discount the sales price. The price per pound must be the actual sales price.

Even if pieces have been used, the packaging is still evidence of the violation. If agreeable to the complainant, take the boxes and cases and keep as evidence.

3. If possible, check weigh the items.
4. Compute the true price per pound based on the actual net weight received and the price paid.
5. Keep or make copies of any documents left with the complainant, including advertising material, receipts, canceled checks, price lists, business cards, Three-Day Notice, etc.
6. If possible, make a controlled purchase.

Many times the salesperson will leave a contact number with the complainant. It is acceptable to phone and set up an appointment saying you are interested in the meats a friend or neighbor purchased.

Listen carefully to representations about the items, ask questions, be a hard sell. Use a credit card or check for the purchase and after it has been accepted, identify yourself, seize the check or credit card receipt, boxes or cases of meats purchased, ask for identification from the salesperson, and issue a citation.

If the salesperson has a receipt book, ask for it and copy the names, addresses, and phone numbers of previous buyers. These buyers should also be interviewed, and restitution requested for the purchasers in any subsequent civil action.

It is recommended that you have a Police Officer or Deputy Sheriff in a position to overhear the sales presentation and come out to assist you when you identify yourself. Ask the officer to check for warrants and warrants, and to issue a citation for any violations of local ordinances.

If you do not have citation authority, the officer may also cite for violations of the Business and Professions Code. Provide him or her with the code section numbers and description of the violations.

Each nonconforming box or case may be considered a separate count for each section violated.

If you wish to make an undercover purchase, contact your area specialist prior to making the purchase for assistance and about the availability of investigative funds.

### C. List of Possible Violations

#### Citation or Criminal Complaint

1. B&P 12024 Selling in less quantity than represented - misdemeanor
2. B&P 12024.2 Unlawful computation of value - misdemeanor or infraction in certain circumstances
3. B&P 12024.5 Sale of meat, poultry or seafood other than by weight - misdemeanor
4. B&P 12024.55 Door-to-door meat sales, price per pound - misdemeanor
5. B&P 12611 Unlawful Acts: Selling, etc., commodity in non-conforming container or with non-conforming label - misdemeanor

#### Criminal Complaint (Citation under certain circumstances)

1. PC 484 (a) Money obtained by fraudulent representation - petty theft
2. PC 487.1 Value exceeds \$400.00 - grand theft
3. B&P 17500 False and misleading advertising

#### Civil Action

1. B&P 17500 False and misleading advertising
2. CC 17200 Unlawful business practice
3. CC 1689.5 Three-Day Notice to cancel  
CC 1689.6  
CC 1689.7

Copies of code sections may be obtained on the website; [www.leginfo.ca.gov/calaw.html](http://www.leginfo.ca.gov/calaw.html)

A blank door-to-door sales complaint form follows on Pages 3-8 and 3-9.

**SEND A COPY OF ANY COMPLAINTS AND INVESTIGATOR'S REPORTS TO THE AREA PRICE AND QUANTITY VERIFICATION INVESTIGATOR.**

DOOR-TO-DOOR MEAT SALES COMPLAINT

COMPLAINANT: MARY JONES

Address: 2588 MISSION HILLS RD, GREENVALE

Phone: Home 686-5175 Work 254-3000

SUBJECT:

Company Name: KANSAS CITY STEAK & SEAFOOD

Salesman's Name: JEFF

Description: M/F, Age 35-38, Height 6'1", Weight 185-195, Race C

Hair Color BLOND, Length SHORT, STYLED Eye Color BLUE, Glasses NO

Mustache/Beard YES, Complexion/Scars/Tattoos FAIR

Other Characteristics DIAMOND STUD, LEFT EAR LOBE

Vehicle Description: IMPORT PICK-UP, SMALL, LIGHT

BROWN, CHEST FREEZER IN BACK Lic # \_\_\_\_\_ State CA

DETAILS OF SALE OR ATTEMPTED SALE

Date of first contact 10-5-96 Date of sale 10-5-96

How did the salesman contact you, did you call them? DROVE UP DRIVE-  
WAY TO WHERE WORKING IN GARDEN. DID NOT CALL.

What was his reason for selling this to you? LEFT OVER FROM RESTAURANT  
DELIVERY, GIVE A GOOD DEAL SO HE WOULD NOT HAVE TO TAKE  
IT BACK TO WAREHOUSE.

How did he describe the meat; grade, quality, trim, where the beef came from?

RESTAURANT TRIM, CHOICE, CORN FED KANSAS BEEF,  
ALL NATURAL, NO ADDITIVES

How did he describe the weight or amount of meat? 6 boxes of

STEAKS, ABOUT 72 PIECES.

How was the price quoted; per box, per piece, per pound? \$2.50 PER PORTION, \$50 PER BOX, OR \$250 FOR A CASE OF 6 BOXES

What price per pound did you think you were paying? \$3.00/LB Why did you believe this? SAID IT WAS NORMALLY \$9.00/LB, BUT HE WOULD SELL IT FOR 1/3 OF THAT.

Did he sell the box that he showed? No What was the reason for giving a different box? WOULD GET ME A FRESH ONE

Was there a label on the case? YES Was it visible before the sale? NO

Did he leave the boxes with you? No What reason was given for not leaving the boxes? GETS 25¢ PER BOX WHEN HE RETURNS THEM

What did you purchase? 1 CASE OF 6 BOXES OF STEAKS

How much were you charged? \$250

Were you informed of your right to cancel the purchase? NO

Were you given a receipt or invoice? YES

Did you pay by cash, credit card, food stamps, or check? CHECK

Who was the check made out to? JEFF DOWNNEY

Do you have the boxes, invoice or (receipt), business card, (brochure), or your canceled check? YES May we make copies? YES

Would you be willing to testify to the information you have given? YES

ANY OTHER INFORMATION YOU WOULD LIKE TO ADD:  
MEAT VERY TOUGH, HAS STRANGE SHELL, AND SOME IS FREEZER BURNT. DOES NOT LOOK LIKE THE SAME AS HE DISPLAYED BEFORE THE SALE. PHONED AND COMPLAINED. LADY ON PHONE SAID NO REFUNDS AND HUNG UP.

Mary Jones PAT McDERMOTT 10-10-96  
Complainant Investigator Date

STATE OF CALIFORNIA

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Division of Measurement Standards  
6790 Florin Perkins Road, Suite 100  
Sacramento, CA 95828-1812  
(916) 229-3000  
Fax (916) 229-3064

### **DOOR-TO-DOOR MEAT SALES COMPLAINT**

**Complainant:** \_\_\_\_\_

Address: \_\_\_\_\_

Phone: Home: \_\_\_\_\_ Work: \_\_\_\_\_

**Company Name:** \_\_\_\_\_

Salesman's Name: \_\_\_\_\_

Description: M \_\_\_\_ F \_\_\_\_ Age: \_\_\_\_ Height: \_\_\_\_ Weight: \_\_\_\_ Race: \_\_\_\_

Hair Color: \_\_\_\_ Length: \_\_\_\_ Eye Color: \_\_\_\_ Glasses: \_\_\_\_

Other Characteristics: \_\_\_\_\_

Vehicle Description: \_\_\_\_\_

#### **DETAILS OF SALE OR ATTEMPTED SALE:**

Date of first contact: \_\_\_\_\_ Date of Sale: \_\_\_\_\_

How did the salesman contact you? (Did you call them, did you have an appointment?)

\_\_\_\_\_

What was the salesman's reason for offering this to you?

\_\_\_\_\_

How did he describe the meats? (Grade, quality, trim, type, where it came from, special processing, etc.)

\_\_\_\_\_

How did he describe the weight or the amount of meat? \_\_\_\_\_

How was the price quoted? (Per box, per piece, per serving, per pound, per portion, etc.)

\_\_\_\_\_

What price per pound did you think you were paying? \_\_\_\_\_. Why did you believe this was the price? \_\_\_\_\_

Did the salesman sell the box he displayed? \_\_\_\_\_. What was his reason for giving a different box? \_\_\_\_\_

Was there a label or other printing on the box or case? \_\_\_\_\_. Was it visible before the sale? \_\_\_\_\_

Did he leave the boxes with you? \_\_\_\_\_. What was the reason he gave for not leaving the boxes? \_\_\_\_\_

What did you purchase? \_\_\_\_\_

How much were you charged? \_\_\_\_\_ Were you given a receipt or invoice? \_\_\_\_\_

Were you informed of your right to cancel the purchase? \_\_\_\_\_

Did you pay by cash, credit card, food stamps, or check? \_\_\_\_\_

Who was the check made out to? \_\_\_\_\_

Did you have the boxes, invoice or receipt, business card, brochure, your canceled check, or other materials from the company? \_\_\_\_\_ May we make copies? \_\_\_\_\_

Would you be willing to testify to the information you have given? \_\_\_\_\_

**IS THERE ANY OTHER INFORMATION YOU WOULD LIKE TO ADD?**

---

Complainant

Investigator

Date

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## **COORDINATED COMMODITY INSPECTION PROGRAM**

### **COMMODITY CATEGORY ASSIGNMENTS**

The coordinated commodity inspection program is done to evaluate marketplace conditions, identify potential problems, and to ensure that every type of commodity is periodically inspected. Category assignments are given to area Investigators quarterly. The assignments are selected: (1) according to the need to follow-up problem areas; (2) to inspect regional specialties and seasonal commodities; and (3) so that each category is periodically inspected by every region of the State.

Category assignment commodity items can be:

1. Audited at retail incidental to routine inspections.
2. Selected for purchase while conducting scanning or sales price inspections.
3. Inspected at the manufacturer, packer, or distributor.

Any shortages found should be followed up by testing according to Sampling Procedures outlined in chapter 8. Shortages verified by Sampling Procedures should be handled according to the procedure for "Surveillance Requests", page 12-3.

### **INSPECTION PROCEDURE**

Test according to the procedures in the most recent version of the National Institute of Standards and Technology Handbook 133 or this manual.

### **INSTRUCTIONS FOR COMMODITY TEST REPORT, FORM 49-005**

Fill in all information in the heading and complete all the information in each column for each item as follows. If the item has more than one content statement (e.g., tortillas, three dozen, 2 lb) use a separate line for each content statement.

**"CAT. NO.":** Category Number - The commodity classification number used by California to designate the specific category of the item. Use the specific number: e.g., 2.06 (Cottage Cheese), not the general classification (2.00) or Audits-Point of Pack (2.50). Commodity classification numbers are listed on page 17-3 to 17-6.

**"BRAND NAME":** The trademark or name the commodity is marketed under (e.g., for Green Meadows Low Fat Cottage Cheese, the brand would be Green Meadows).

**"COMMODITY":** The complete identity of the product under test. In the above example, this would be "Low Fat Cottage Cheese" not just Cottage Cheese.

**"RESPONSIBLE PARTY & ADDRESS":** The statement of responsibility on the package; it may be the packer, manufacturer, distributor, or retailer.

STATE OF CALIFORNIA  
DEPARTMENT OF FOOD AND AGRICULTURE  
DIVISION OF MEASUREMENT STANDARDS  
COMMODITY TEST REPORT  
49-005 (Rev. 1/90)  
COUNTY: MISSION

BUSINESS NAME: SUPER DUPE MKT #8  
ADDRESS: 1061 GREEN ST.  
MIDDLEBOROUGH, CA 94811  
 RETAIL  WHOLESALE  PACKER/MANUFACTURER

DATE PURCHASED: 11-07-96  
DATE INSPECTED: 11-09-96

NOTE IF SLACK FILL OR DECEPTIVE PACKAGE

CAT. NO.	BRAND NAME	COMMODITY	RESPONSIBLE PARTY & ADDRESS	CODE(S)	PRICE	LABELED NET CONTENTS	UNIT OF MEASURE	GROSS WEIGHT	Record in units of measure				TARE WEIGHT	OTHER INFORMATION
									Labeled Net Cont.	Measured Net Cont.	+	-		
10.00	SPARKLE-BRITE	TOOTH PASTE	NATIONAL WAX & BRUSH CO DETROIT, MICH 20110	H0665-9165	\$ 0.47	1.8oz	.05oz	3.05oz	36	35		1	1.3oz	
11.12	FIDO'S FRIEND	DOG TREATS	ALFIE'S SPECIALITIES LOS ANGELES, CA 94615	E8511Z	\$ 1.19	18oz	1/8oz	21 5/8oz	144	156	12		2 1/8oz	SLACK FILL - CONTENTS 40% OF BOX
2.07	THE BEST	YOGURT-BERRY	AUGIE'S DAIRY OAKLAND, CA 94365	12-01-00	\$ 0.59	12oz	.05oz	12.15oz	240	240	-	-	0.15oz	
3.11	RAMIREZ	CORN TORTILLAS	SINALOA INDUSTRIES NATIONAL CITY, CA 99385	A-15 11-19-96	\$ 0.49	24oz	0.1oz	22.75oz	240	225		15	0.25oz	
14.01	SPOTS AWAY	LAUNDRY DETERGENT	JUMBO, LTD. CHERWICK, CA 05866	8965H5- 114785C	\$ 3.69	4 POUND 10 OUNCES	0.01 LB	4.86 LB	462	468	6		0.18 LB	
10.40	BABY WIPE	CLEANING TISSUES	SOLIDON & SYDNEY, INC PALO ALTO, TX 55441	BA89-C 559951	\$ 2.49	36 TISSUES	COUNT	NA	36	36	-	-	NA	
						9 in x 11 in EACH	1/8 in	NA	72 x 88	73 x 88	-	-	NA	
7.02	SUN	PEACH HALVES	SUN & MOON CANNING CO FT. LAUDERDALE, FLA 0336	09-F FFA B422	\$ 0.59	18oz	1/4oz	19 1/4oz	72	71		1	1 1/2oz	
5.03	NIGHT FLOWER	PEANUT OIL	WING LEE, 1818 RAFFLES SINGAPORE 1189-001	6FC859 0688	\$ 12.99	1/2 GAL	0.01 LB	4.11 LB	371	367		4	0.44 LB	GROSS CONTROL WT. 4.15 LB
9.02	OAK CREEK	CABERNET SAUVIGNON	OAK CREEK VINEYARD 15 BERDEGALL LN. ROCKLEDGE	1979 SILVER MOTEL	\$ 13.99	750 ml	1 ml	NA	750	746		4		
14.12	BLUE RIDGE	NATURAL CHAMOIS	ROYAL SHOOPSKIN, INC FORESTVILLE, CA 95716	NONE	\$ 15.99	3 1/2 SQ. FT.	2 sq. IN.	NA	252	246		6		

REMARKS:

F. S. POOL / E. POOL  
WEIGHTS AND MEASURES OFFICIAL

“CODE(S)”: Any code or identifying marks on the package designating the part of the production this package is from. It may be a sell-by or pull-by date.

“PRICE”: The selling price when purchased at this location.

“LABELED NET CONTENTS”: The content statement exactly as written on the label (e.g., 8 oz not .5 lb or 1/2 lb).

“UNIT OF MEASURE”: The weight or measure value used to record errors and other information in whole numbers. The unit must be identified: .01 lb not just .01, 1 g, not just 1.

“RECORD IN UNITS OF MEASURE”: The values in the next four columns are to be recorded only in units of measure (UOM).

“LABELED NET CONT.”: The content statement converted to units of measure. If testing a liquid by weight, this will be the net control weight stated in units of measure: e.g., if using a unit of measure of 0.05 ounce for a package labeled 14 ounces, the total UOM would be 280.  
( $14 \div 0.05 = 280$ )

“MEASURED NET CONT.”: The actual weight or measure of the contents of the package as found by testing.

“ERROR” “+ or -”: The difference between the “LABELED NET CONTENT” and the “MEASURED NET CONTENT.” The “ERROR” is + if the “MEASURED NET CONTENT” is greater than the “LABELED NET CONTENT.” The “ERROR” is - if the “LABELED NET CONTENT” is greater.

“TARE WEIGHT”: The weight of the package or container not including the “MEASURED NET CONTENT.”

“OTHER INFORMATION”: Any other information pertinent to the commodity.

**DEPARTMENT OF FOOD AND AGRICULTURE**

Division of Measurement Standards  
2550 Mariposa St., Rm. 3044  
Fresno, CA 93721  
(209) 445-5403  
FAX (209) 445-5286



December 10, 1996

TO: WEIGHTS AND MEASURES OFFICIALS IN AREA 4

Listed below are the category assignments for the First Quarter of 1997.

- 3.00 Bakery Goods - Canned, Fresh or Frozen
- 9.00 Beverages
- 15.00 Paper and Plastic Products

Each county should test items of local seasonal importance such as seeds, fertilizers, and agricultural chemicals. Also listed below are holiday items for each quarter. Please allot enough time on your calendar for checking these items. This will give more emphasis to seasonal items while they are being sold. Additionally, all items such as vegetables, fruits, nuts, crustaceans, etc., packaged in your county on a seasonal basis should be placed on your scheduling calendar.

- 1<sup>st</sup> Quarter: Valentine's Day - Candy, Cards, Gifts  
St. Patrick's Day - Corned Beef  
Easter - Hams, Turkeys, Candy
- 2<sup>nd</sup> Quarter: Mother's Day - Candy, Gifts
- 4<sup>th</sup> Quarter: Halloween - Candy, Makeup Items  
Thanksgiving - Turkey, Hams, Candies  
Christmas & - Wrappings, Decorations,  
New Years - Nuts, Candies, Turkeys,  
- Hams, Gift Packages

Sincerely,

Steve Clay  
Quantity Control Specialist II

## **SURVEYS, STATEWIDE**

These types of surveys are made periodically and are used to establish statewide compliance levels for establishments and for various categories of commodities in commerce. Commodities are tested or sampled at retail as well as at the point-of-pack and distribution.

Priorities have been established according to the impact of overcharges or shortages on the overall economy of the state, the dollar value of the particular commodity or types of commodities, and the frequency of turnover or sale.

Types of surveys are:

- Meat Counter Survey - Packed on premises meat counters, including delicatessens.
- Price Verification Survey - Establishments using a mechanical device or entry of a code to determine the prices to be charged.
- Test Purchase Survey - Establishments selling commodities by weight or measure determined at the time of sale.

### Commodity Surveys

2.00	Dairy Type Products
3.00	Bakery Goods
7.00	Produce
4.00	Meat, Fish, Poultry
12.00	Hardware, Building Materials
6.00	Milling Products
11.00	Garden, Farm, Pet Supplies
9.00	Beverages
17.00	Miscellaneous
8.00	Other Foods
14.00	Maintenance Supplies
10.00	Pharmacy Products
13.00	Paint and Allied Products
5.00	Cooking Oils, Salad Dressings, Condiments
1.00	Confections, Flavorings, Seasonings
15.00	Paper, Plastic Products
16.00	Textile Products

Inspections are made by the area Price and Quantity Verification Investigator or County Inspectors.

The sample for Meat Counter Surveys and Price Verification Surveys consists of 5% ± 0.5% of the reported number of establishments in the State. The locations to be inspected are selected at random by area Price and Quantity Verification Investigators.

A baseline Test Purchase Survey is made periodically. Twelve hundred items weighed or measured and priced at the time of sale are purchased at 400 establishments selected randomly statewide. Purchases are categorized as: (1) Meat, Poultry, or Seafood; (2) Fresh Produce; (3) Specialty Foods (delicatessen, health foods, gourmet foods, candy, ice cream and yogurt, coffee, tea, spices, salad bars, and other specialties; and (4) Miscellaneous (crafts, hardware, pet supply, feed and grain, yardage and fabric, garden and landscape, bait and tackle, bath and beauty, tobacco, etc.

For Commodity Surveys, the sample consists of at least 300 items overall including a minimum of 30 items from each subcategory.

To obtain an equal distribution of samples from all areas of the State, the counties are divided in four groups roughly equal in population. One-fourth of the total sample is selected from each group of counties.

To ensure statistical validity, the selection of the number of and the type of samples to be selected from each county is determined randomly in advance of the survey. The determination of the number and location of the establishments to be visited to purchase the samples is made by the individual county using the criteria that no more than 3 items from the same subcategory and not more than 15 items overall selected from the same establishment.

## **COUNTY SURVEYS, GENERAL**

The policies and procedures listed below are those guiding Price and Quantity Verification Program surveys by State personnel.

### A. Goals

The goals of county surveys are to identify training needs, to establish compliance levels for the sampled commodities, and to make recommendations to the county sealer/director for improving program effectiveness.

### B. Samples

Prior to the start of the survey, sample locations will be randomly drawn from county files. Whenever possible the area Price and Quantity Verification Investigator will draw the sample.

### C. Initial Coordination

Before starting the survey, the area Investigator will discuss its operation with the county sealer/director or other designated representative. At this time, the following points should be covered:

1. Commodities to be inspected.
2. Manner of performing the inspection: The DMS Price and Quantity Verification Program Manual or the National Institute of Standards and Technology Handbook 133 will be used as applicable.
3. County involvement: Normally, county officials are encouraged to perform the inspection since an effective survey considers both commodity condition as well as procedures. All county officials who may work in the Price and Quantity Verification Program should participate in the survey, one at a time, if scheduling permits. For a more complete evaluation, county equipment should be utilized whenever possible.
4. Time schedule.
5. Sample composition will not be disclosed prior to actual inspection except when necessary to set up appointments.
6. Appropriate enforcement action will be taken. If a State Investigator is working alone, off sale tags and Notices of Violation (NOVs) will be used as appropriate. If the county official is performing the test, an agreement to policy concerning enforcement action will govern.

A Notice of Violation will be issued for short-weight, measure or count items; overcharges, customer indications not visible, labeling or other Price and Quantity Verification program violations.

D. Follow-up on Discrepancies

Normally, the county will follow-up on off-sale items or overcharges found during the survey. If the necessary equipment is not available, the county may contact DMS for assistance.

E. Training

Whenever appropriate, the survey will be utilized for training as well as evaluation. At the conclusion of the survey, participating and other interested county officials will continue to receive training by the DMS Price and Quantity Verification Investigator in correct and efficient performance of the inspection procedures for the commodities surveyed. This training will emphasize those points necessary to strengthen the county program.

F. Reports

The area Investigator will give the county sealer/director an oral report of the inspections performed before leaving the county at the conclusion of the survey. Copies of Inspection Reports will also be provided at the same time. Any serious conditions requiring attention will be reported to the sealer/director immediately.

A draft survey summary and recommendations will be prepared by the area Price and Quantity Verification Investigator and will be discussed with the county sealer/director as soon as possible. The final survey summary and recommendations will be issued only to the sealer/director or other designated representative.

G. Follow-up

Surveys may be supplemented by additional mini-surveys as necessary. Such mini-surveys will be considered a natural follow-up in problem areas found in the scheduled survey procedure.



DEPARTMENT OF FOOD & AGRICULTURE  
DIVISION OF MEASUREMENT STANDARDS  
MEAT COUNTER SURVEY REPORT  
49-010 2/89

Business Name: SUPER DUPER MKT #4 County: MISSION  
Address: 3111 RIDGEWAY Date: 10-18-96  
EASTWOOD, CA 90949  
This report is to be used only for items weighed, labeled, and sold at this location.

KEY #	LABELED NAME	CODE	DAYS LEFT ON CODE	PRICE PER POUND	PRICE PER ITEM	All recordings stated in 0.01 pound unit of measure					
						GROSS WEIGHT	LABELED WEIGHT	MEASURED NET WEIGHT	ERROR		TARE WEIGHT
									+	-	
1	BEEF CROSS RIB ROAST	09		2.19	5.52	263	252	252	-	-	11
1	LAMB SMALL LOIN CHOPS	OCT 24	4	4.99	6.69	134	134	132		2	2
2	BUTT ROAST	OCT 20	2	1.78	6.51	370	366	361		5	9
3	WHOLE CHICKEN - CUT UP	OCT 28	10	1.19	5.03	440	423	412		11	28
3	BBQ TURKEY BREAST	728		3.98	5.69	146	148	142		6	4
4	KING CRAB SECTIONS	OCT 19	1	14.99	8.39	75	56	60	4		15
5	BEEF KIDNEY	OCT 20	2	0.58	0.86	154	149	151	2		3
5	OLD FASHIONED FRANKS	433		2.58	3.43	137	133	135	2		2
6	MONTEREY JACK CHEESE	OCT 15	-3	2.59	2.43	96	94	96	2		0
7	POTATO SALAD	1096		1.59	1.46	99	92	94	2		5

KEY NUMBERS  
1. BEEF/VEAL/LAMB  
2. PORK  
3. POULTRY

4. SEAFOOD  
5. VARIETY/SPECIALTY  
6. NON MEATS (SALADS, CHEESE, ETC.)

ORIGINAL: STATE  
COPY 1: BUSINESS  
COPY 2: COUNTY

J. STEED / E. PEEL  
WEIGHTS AND MEASURES OFFICIAL

## **COUNTY PREPACKAGED MEAT SURVEYS**

- A. Prior to the Meat Counter Survey, the area Price and Quantity Verification Investigators will meet with the county sealer/director or their designated representative to discuss survey policies and to randomly select the survey sample.
- B. The sample will consist of at least 225 packages from at least 15 different locations.
- C. The percent error for each package will be determined by opening the packages and dividing the difference between the labeled weight and the true net weight by the labeled weight. The calculations will be performed by the computer.
- D. The mean percent error for the surveyed county will be compared to the statewide value.
- E. At the completion of the survey analysis, the area Price and Quantity Verification Investigators will review the data with the county sealer/director or designated representative to determine program needs and follow-up plans.
- F. A written report will be drafted and discussed with the county sealer/director prior to issuing a final report of survey conditions.

STATE OF CALIFORNIA  
DEPARTMENT OF FOOD AND AGRICULTURE  
DIVISION OF MEASUREMENT STANDARDS  
TEST PURCHASE/SALE REPORT  
49-030 (Rev. 6/01)

BUSINESS NAME: SUPER DUPER #8 DATE: 6-28-01  
ADDRESS: 1061 GREEN ST TIME IN: 9:35 AM  
MIDDLEBOROUGH, CA 90811 TIME OUT: 9:50 AM  
COUNTY: MISSION PRICES:  POSTED/ADVERTISED  QUOTED #3 TIME WEIGHED: 10:00 AM

COMMODITY (PURCHASED/SALE)	A SALES/ UNIT PRICE	B GROSS WEIGHT	C NET WEIGHT RECEIVED/ SOLD	D CORRECT PRICE EXTENSION (A X C)	E PRICE CHARGED/ PAYMENT RECEIVED	F ERROR PRICE (E - D)		G % OVER CHARGE/ UNDER PAYMENT (F/D) X 100	H COMPUTED WEIGHT EXTENSION (E/A)	I WEIGHT ERROR	
						OVER CHARGE/ PAYMENT (+)	UNDER CHARGE/ PAYMENT (-)			TEST PURCHASE (C-H)	TEST SALE (H-C)
1. <u>BASIL FETTUCCINI</u>	<u>3.50/LB</u>	<u>0.94</u>	<u>0.88</u>	<u>3.08</u>	<u>3.29</u>	<u>0.21</u>		<u>6.8</u>	<u>0.94</u>	<u>-0.06</u>	
2. <u>PINE NUTS</u>	<u>16.00/LB</u>	<u>0.09</u>	<u>0.08</u>	<u>1.28</u>	<u>1.28</u>	<u>-</u>	<u>-</u>				
3. <u>TURKISH COUS</u>	<u>3.69/LB</u>	<u>0.57</u>	<u>0.55</u>	<u>2.03</u>	<u>2.10</u>	<u>0.07</u>		<u>3.4</u>	<u>0.57</u>	<u>-0.02</u>	
4.											
5.											
6.											
7.											
8.											
9.											
10.											

TOTALS 6.39 6.67 0.28 3.9 % OVERCHARGE/UNDERPAYMENT

SCALE USED FOR TEST WEIGHING:  
SERIAL #: 21063  
OWNED BY: COUNTY  
SCALE USED BY SELLER/PURCHASER:  
TYPE: Elect SEALED? ?  
OTHER INFO: OFF ZERO +0.03

DESCRIPTION OF SELLER/PURCHASER:  MALE  FEMALE  
RACE: C AGE: 30-35 HEIGHT: 5'10"  
WEIGHT: 150 HAIR: BRN EYES: BRN  
OTHER CHARACTERISTICS: SHOULDER LENGTH HAIR  
GOLD EAR RING - LEFT EAR

COMMODITY DISPOSITION:  RETURNED  DESTROYED  
 HELD AS EVIDENCE: I.D. # 04-8178-96  
\*1#2  
WHERE HELD: MISSION CO WM  
100 SUNSET, METRO  
 SHIPPED/DONATED TO: \_\_\_\_\_  
RECEIVED BY: \_\_\_\_\_

SECTIONS VIOLATED:  12023<sup>\*1/3</sup>  12024.2a  12024.2b  
 12512  OTHER BAP 12107,  
CCR 2.20 WR 4.1

LEGAL ACTION:  HEARING  CRIMINAL CITATION/COMPLAINT  CIVIL COMPLAINT  
 NOTICE OF VIOLATION (NOV)  CIVIL PENALTY (NOTICE OF PROPOSED ACTION, NOPA)

REMARKS:

INVESTIGATOR: [Signature]  
BUYER/SELLER: [Signature]

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## COUNTY TEST PURCHASE SURVEYS

- A. Prior to a Test Purchase Survey, the area Price and Quantity Verification Investigators will meet with the county sealer/director or their designated representative to discuss survey policies and to randomly select the survey sample.
- B. The sample will be based upon the following tables. (The number of individual items purchased at each location may vary. More than one type of item may be selected at the same establishment. Not more than three items from the same category are selected from the same establishment.)

1. For counties with population up to 100,000, the minimum sample shall be:

	<u>Locations</u>	<u>Purchases</u>
Meat, Poultry and Fish	10	30
Specialty Foods	15	45
Produce	15	45
Miscellaneous	10	30

2. For counties with population greater than 100,000 but less than 400,000, the minimum sample shall be:

	<u>Locations</u>	<u>Purchases</u>
Meat, Poultry and Fish	15	45
Specialty Foods	20	60
Produce	20	60
Miscellaneous	15	45

3. For counties with population of more than 400,000, the size of the sample shall be at least:

	<u>Locations</u>	<u>Purchases</u>
Meat, Poultry and Fish	20	60
Specialty Foods	30	90
Produce	30	90
Miscellaneous	20	60

- C. Use of Form 49-030

Form 49-030 will be used to record data during the survey. The four areas to be tested; meat, specialty foods, produce, and miscellaneous will be entered separately into a computer program.

D. Reference Factors

1. Counties are grouped for comparison by population and by regional associations.
2. Results averaged for the three counties with the worst compliance are used to estimate program benefit.
3. A measure of the variance is supplied to help judge the reliability of estimates.

E. Calculation of Errors

The amount of overcharge or undercharge is divided by the correct price extension to determine the percent error for each transaction. From these values, a mean percent error for each category surveyed is calculated.

F. Calculation of Benefits

1. Total annual sales are estimated by multiplying statewide sales estimates by the county portion of statewide population.
2. County sales estimates are multiplied by the difference between the county mean percent error and the mean percent error for the three worst counties combined.

G. Completing Test Purchase Survey

At the completion of the Test Purchase Survey analysis, the area Price and Quantity Verification Investigator will review the data with the county sealer/director or designated representative to determine program needs and follow-up plans.

## **TEST PURCHASE**

### A. Equipment

1. Test Purchase/Sale Report, Form 49-030. (If a test sale, page 5-6, is being made at the same location, use a separate form to record the test sale information. Do not combine test purchases and test sales on the same report form.)
2. Scale, calibrated linear measure, or other calibrated measures
3. Calibrated weights as necessary (any scale used to weigh purchases must be verified with known test weights)
4. Small notebook (optional)
5. Ice and ice chest if perishable items are to be tested
6. Calculator
7. Camera to document gross weight of product, tare weight, and a picture of the store's label generated when product was initially weighed prior to sale

### B. Special Notes

1. This procedure may be used for all commodities weighed, measured, or counted at the time of sale. Example: Coffee, candy, health foods, nails, produce, seed, meat, cheese, deli salads, ice cream, feed, yardage goods, rope, wire, tobacco, etc.
2. At least 25% of the available outlets should be sampled each year. All outlets should be sampled within a four-year period. New outlets should be sampled soon after starting business.
3. All net weights are the actual net weights received excluding all wrappings: ice, water, and free-flowing liquids considered to be tare.

There is no moisture allowance for commodities weighed or measured at the time of sale.

### C. Procedure

1. The buyer must not be known to the establishment as a weights and measures official. He or she should approach the counter or displays in a casual and natural manner. (A notebook may be used as it is not uncommon for customers to use a shopping list.)
2. Examine the products on display and select items to be purchased. The value of any item purchased should not be less than \$1.00. Try to order irregular amounts: for example, four pork chops rather than 2 lbs.; a pound of ground beef, plus a little more after it is placed on the scale.
3. When shopping to investigate a complaint or to follow-up on a prior violation, be sure to purchase the items in question. These items should be evaluated separately from the rest of the sample.

4. Casually look at the weighing or measuring device to see if there are any obvious violations present (e.g., scale off zero, scale located on the back counter so that the readout is not readily visible, no seal, etc.). Try not to be obvious in looking at the scale and do not show a lot of interest in the weighing procedure.
5. It is important to note the posted price per unit and the sales price of each item. If it is not clear, ask the clerk after the sale is complete. After leaving the store, immediately record all information. In stores where an item has a club price and regular price, note both if you are buying it at the sale price.
6. If using the disclosure method, there should be a buyer and investigator. After taking possession of the items, the buyer should signal the investigator. The investigator will identify himself/herself and check weigh the items in the presence of the clerk. If the store scale is used, it must be tested for accuracy first. The correct price for the amount delivered is determined for each item. It is not necessary to pay for the items as they can be returned to the display after weighing.
7. If using the delayed weighing procedure, purchase the items and take them to the investigator. Weigh each item and compute the correct price for the weight received. Check weighing should be done as soon as possible following the purchase.
8. Fill out the forms completely, including the seller's description, type of device, etc. Send a copy to your area DMS office.

#### D. General Information for the Shopper

1. The most important factor in being a successful shopper is naturalness - even if you are "acting." Try to conform with the type of store or neighborhood. In general, if you are in an apartment area, make smaller purchases than if in suburban areas where quantities may be larger. Do not develop a buying pattern. Do not get carried away and buy too much: for example, a dozen steaks or five rib roasts.
2. Try to select meat that normally is not cut up or trimmed. If asked about cutting, trimming or tenderizing, say "No thank you, I prefer it this way," or whatever would be natural for you.
3. If meats, poultry, or fish are displayed in boats, cartons, or paper wrappings, try to select at least one of these items. Avoid buying ground meat, but if necessary ask for about a pound or two pounds and then have them add a "little more." You may also buy a dollar amount such as \$3.00 worth of ground beef.
4. Never stand in front of the scale or appear to be too concerned about the weighing process.
5. When shopping with another person (inspector or shopper), determine your roles before entering the market - who will make the buy, etc.
6. Provide all information needed to complete the form.
7. Remember that anything you say or do could be repeated in court or an administrative hearing.



E. Notes for the Completion of Test Purchase Form and Verification of Weight Received and Correct Price (See examples on pages 5-4 and 5-5).

1. Fill in the general information: County, Business Name and Address, Date, Time in, Time out, Time weighed.
2. The prices may be Posted/Advertised or Quoted by the clerk. Check the box to indicate the source of prices and circle that the items were purchased.
3. Write a description of the Item Purchased, "Sliced Roasted Vegetables" for example.
4. The Sales/Unit Price (A) is usually the price per pound or fraction of the pound. If the price is computed from a price per fraction of a pound, the price per pound must be calculated and used in formulas. If not testing by weight, the price per unit must be stated in the same unit as amount received in order for the formulas to compute correctly.

**Use the price the location actually charged in "Column A" of the Test Purchase/Sale form as you are trying to determine if correct tares are being taken. If the store charged the wrong price, note that in the remarks along with the subsequent value of the overcharge or undercharge.**

5. Record the Gross Weight (B) and the Net Weight (C) as they appear on your scales read-out. The net weight may be determined by direct weighing or by determining the weight of the tare. The actual weight of the tare can be recorded in Column I, under the heading Test Sale after re-labeling the sub column, beside the weight error (see example on page 5-4).
6. When calculating the Correct Price Extension (AxC), Column D, round like the cash register would. Dollar values should only be two digits after the decimal.
7. Record the Price Charged (E).
8. Determine the Error of the Price (F), (Price Charged –Correct Price) and record it in the appropriate sub column.
9. Only calculate out the % overcharge, Column G, if the items overcharged. Truncate the value to one digit after the decimal.
10. Compute the weight extension (E/A), Column H, as the store's scale would, (i.e. rounding to two places after the decimal for a scale with .01 lb divisions).
11. In Column I, determine the actual weight error (C-H) and record it in the Test Purchase sub-column.
12. Fill in remaining boxes in the worksheet regarding equipment used by the Store or the official, description of seller, commodity disposition, code sections violated, legal action, remarks and signatures or names of the Investigator and the buyer.

Issue a Notice of Violation to the location for any overcharges, tare violations, and/or device violations. Forward copies of your report form, photographs, and NOV to your DMS Price and Quantity Verification Investigator.

STATE OF CALIFORNIA  
DEPARTMENT OF FOOD AND AGRICULTURE  
DIVISION OF MEASUREMENT STANDARDS  
TEST PURCHASE/SALE REPORT  
49-030 (Rev. 10/01)

BUSINESS NAME: SUPER DUPE MARKET DATE: 4-18-07  
ADDRESS: 106 WEST ST. TIME IN: 10:20 AM  
METRO, CA TIME OUT: 10:55 AM  
COUNTY: MISSION PRICES:  POSTED/ADVERTISED  QUOTED TIME WEIGHED: 11:15 AM

COMMODITY (PURCHASED/SALE)	A SALES/ UNIT PRICE	B GROSS WEIGHT	C NET WEIGHT <u>RECEIVED</u> SOLD	D CORRECT PRICE EXTENSION (A X C)	E PRICE CHARGED/ PAYMENT RECEIVED	F ERROR PRICE (E - D)		G % OVER CHARGE/ UNDER PAYMENT (F/D) X 100	H COMPUTED WEIGHT EXTENSION (E/A)	I WEIGHT ERROR	
						OVER CHARGE/ PAYMENT (+)	UNDER CHARGE/ PAYMENT (-)			TEST PURCHASE (C-H)	TEST Commodity SALE (A-D) TARE
1. SLICED ROAST BEEF	\$5.99/lb	0.770	0.760	4.55	4.67	0.12	-	2.4	0.78	-0.020	0.0186
2. Cheddar Cheese	*\$2.99/lb	0.662	0.650	1.94	2.57	0.63	-	32.4	0.86	-0.210	0.01286
3. COFFEE BEANS (3 BAGS)	\$5.98/lb	1.258	1.168	6.98	7.36	0.38	-	5.4	1.23	-0.062	0.09016
4. BULK FEOLIN BEANS	*\$7.99/lb	1.014	0.912	7.29	7.11	-	0.18	-	0.89	+0.022	0.10216
5. BULK SALTWATER TADY	*\$1.99/lb	1.056	0.992	1.97	2.11	0.14	-	7.1	1.06	-0.068	0.06486
6. ASPARAGUS	0.99/lb	2.090	2.080	2.06	2.06	-	-	-	2.08	0	0.01086
7.											
8.											
9.											
10.											
TOTALS								% OVERCHARGE/UNDERPAYMENT			

SCALE USED FOR TEST WEIGHING: SERIAL #: <u>199655</u> OWNED BY: <u>MISSION COUNTY</u>	DESCRIPTION OF SELLER/PURCHASER: <input checked="" type="checkbox"/> MALE <input type="checkbox"/> FEMALE <input checked="" type="checkbox"/> DELI RACE: <u>C</u> AGE: <u>20-</u> HEIGHT: <u>5'11"</u> WEIGHT: <u>185 lb</u> HAIR: <u>Brown</u> EYES: <u>Blue</u> Name tag: "Joel"	COMMODITY DISPOSITION: <input type="checkbox"/> RETURNED <input checked="" type="checkbox"/> DESTROYED #4 <input checked="" type="checkbox"/> HELD AS EVIDENCE: I.D. # <u>07-124009</u> #1, 2, 3, 5-6 WHERE HELD: <u>MISSION COUNTY WEIGHTS &amp; MEASURES</u> <u>100 SUNSET DR; METRO, CA</u>
SCALE USED BY SELLER/PURCHASER: TYPE: <u>ELECT</u> SEALED? <u>NO</u> OTHER INFO: <u>DELI SCALE ON</u> <u>BACK COUNTER</u>	OTHER CHARACTERISTICS: <input checked="" type="checkbox"/> CASHIER, check stand, female, C, 40-45 yrs, 5'2", <u>150 lb, blonde hair, brown eyes (no name tag)</u>	<input type="checkbox"/> SHIPPED/DONATED TO: _____ RECEIVED BY: _____

SECTIONS VIOLATED:  12023  12024.2a  12024.2b <sup>4, 5</sup>  12512  OTHER B+P 12107, CCR 110 <sub>12 3, 3</sub> LEGAL ACTION:  HEARING  CRIMINAL CITATION/COMPLAINT  CIVIL COMPLAINT  NOTICE OF VIOLATION (NOV)  CIVIL PENALTY (NOTICE OF PROPOSED ACTION, NOPA)

REMARKS: #2 \*Cheddar Cheese price sign \$4.99/lb, deli clerk only charged \$2.99/lb (plus 15% tax) (plus 3% tax)  
#3 Cashier weighed all three bags of coffee together (cluster weigh). Tare taken for 1 bag only  
#4 observed cashier scale take a system tare of 0.1216 for beans  
INVESTIGATOR: Emma Peels  
BUYER/SELLER: [Signature]

5-5  
Rev. 11/09

STATE OF CALIFORNIA  
DEPARTMENT OF FOOD AND AGRICULTURE  
DIVISION OF MEASUREMENT STANDARDS  
**TEST PURCHASE/SALE REPORT**  
49-030 (Rev. 10/01)

BUSINESS NAME: CORNER STORE CRAFTS DATE: 3-4-07  
ADDRESS: 591 N. FAIRWAY DR. #105 TIME IN: 10:45 Am  
Valona, CA 94412 TIME OUT: 11:20 AM  
PRICES:  POSTED/ADVERTISED  QUOTED TIME WEIGHED: 11:25 AM

COUNTY: MISSION

COMMODITY (PURCHASED/SOLD)	A SALES/ UNIT PRICE	B GROSS WEIGHT	C NET WEIGHT <del>RECEIVED</del> SOLD	D CORRECT PRICE EXTENSION (A X C)	E PRICE CHARGED/ PAYMENT RECEIVED	F ERROR PRICE (E - D)		G % OVER CHARGE/ UNDER PAYMENT (F/D) X 100	H COMPUTED WEIGHT EXTENSION (E/A)	I WEIGHT ERROR	
						OVER CHARGE/ PAYMENT (+)	UNDER CHARGE/ PAYMENT (-)			TEST PURCHASE (C-H)	TEST Commodity SALE TARE (H-D)
1. <u>WOODLAND POTPOUR</u>	<u>#3.98/1/2 qt</u>										
2.	<u>= #0.237/in<sup>3</sup></u>		<u>29.75 in<sup>3</sup></u>	<u>#7.05</u>	<u>7.96</u>	<u>0.91</u>	<u>-</u>	<u>12.9%</u>	<u>33.6 in<sup>3</sup></u>	<u>-3.85 in<sup>3</sup></u>	<u>-</u>
3.											
4. <u>LAMP CHAIN</u>	<u>#4.29/yd</u>										
5. <u>(Gold)</u>	<u>= #0.119/in</u>		<u>104.25 in</u>	<u>#12.41</u>	<u>#12.14</u>	<u>-</u>	<u>0.27</u>	<u>-</u>	<u>102 in</u>	<u>+ 2.25 in</u>	<u>-</u>
6.											
7. <u>DECORATOR MARBLES</u>	<u>#1.89/1/4 lb</u>										
8. <u>(BLUE)</u>	<u>= #7.56/lb</u>	<u>0.342</u>	<u>0.312</u>	<u>#2.36</u>	<u>#2.57</u>	<u>0.21</u>	<u>-</u>	<u>9.8%</u>	<u>0.34 lb</u>	<u>-0.028</u>	<u>0.03 lb</u>
9.											
10.											

TOTALS \$21.82 22.67 1.12 0.27 3.89 % OVERCHARGE/UNDERPAYMENT

SCALE USED FOR TEST WEIGHING: SERIAL #: <u>21603</u> OWNED BY: <u>STATE</u>	DESCRIPTION OF SELLER/PURCHASER: <input type="checkbox"/> MALE <input checked="" type="checkbox"/> FEMALE RACE: <u>C</u> AGE: <u>60-65</u> HEIGHT: <u>5'3"</u> WEIGHT: <u>145 lb</u> HAIR: <u>Gray</u> EYES: <u>Brown</u>	COMMODITY DISPOSITION: <input type="checkbox"/> RETURNED <input type="checkbox"/> DESTROYED <input checked="" type="checkbox"/> HELD AS EVIDENCE: I.D. # <u>07-124003</u> WHERE HELD: <u>MISSION COUNTY WEIGHTS &amp; MEASURES</u> <u>100 SUNSET DR, METRO, CA</u> <input type="checkbox"/> SHIPPED/DONATED TO: _____ RECEIVED BY: _____
SCALE USED BY SELLER/PURCHASER: TYPE: <u>ELECT</u> SEALED? <u>Yes</u> OTHER INFO: <u>Customer Display</u> <u>COVERED BY MERCHANDISE</u>	OTHER CHARACTERISTICS: <u>Glasses, Name tag</u> <u>"Mabelle"</u>	

SECTIONS VIOLATED:  12023  12024.2a  12024.2b  12512  OTHER  
APR 12 107, CLR 110 WR 33

LEGAL ACTION:  HEARING  CRIMINAL CITATION/COMPLAINT  CIVIL COMPLAINT  
 NOTICE OF VIOLATION (NOV)  CIVIL PENALTY (NOTICE OF PROPOSED ACTION, NOPA)

REMARKS: 1 OZ Y PINT = 33.6 in<sup>3</sup> INVESTIGATOR: J. Sted  
BUYER/SELLER: Emma Peelle

## TEST SALE

### A. Equipment

1. Test Purchase/Sale Report, Form 49-030. (If a test purchase, page 5-1, is being made at the same location, use a separate form to record the test purchase information. Do not combine test sales and test purchases on the same report form.)
2. Scale, if the sale is to be by weight.
3. Calibrated weights as necessary (any scale used to weigh sale items must be verified with known test weights).
4. Small notebook (optional).

### B. Special Notes

1. This procedure may be used for commodities having a California Redemption Value (CRV) which are weighed or counted at the time of purchase by a recycle outlet. For example aluminum cans, glass or plastic bottles, etc.
2. At least 25% of the available outlets should be sampled each year. All outlets should be sampled within a four-year period. New outlets should be sampled soon after starting business.
3. A checklist can be used to help make sure that nothing is overlooked. An example is provided on page 5-9. An example of how to fill out form 49-030 for a test sale is on page 5-10.

### C. Procedure

1. Before going to the purchase location:
  - a. If the cans or bottles are to be sold by weight, determine and record the gross and net weight of the cans or bottles.
  - b. If the sale is not to be by weight, count and record the number of containers and the dollar value for the size (e.g. 50 x \$0.05 or 40 x \$0.05, 10 x \$0.10). Remember that you are allowed by law to have them do recyclables by count of up to 50 items for each material- plastic, aluminum, or glass.
2. The seller must not be known to the establishment as a weights and measures official. He or she should approach the purchase location in a casual and natural manner.

3. Casually look at the weighing or measuring device to see if there are any obvious violations present (e.g., scale off zero, scale located on the back counter so that the readout is not readily visible, no seal, etc.). Try not to be obvious in looking at the scale.
4. It is important to note the posted price per unit and the sales price of each type of container sold. If it is not clear, ask the attendant after the sale is complete. After leaving the location, immediately record all information.
5. If using the disclosure method, there should be a seller and investigator. After the purchaser has weighed or counted the containers, the seller should signal the investigator. The investigator will identify himself/herself and check weigh or count the containers in the presence of the attendant. If the location's scale is used, it must be tested for accuracy first. The correct price for the amount purchased is determined for each type of container.
6. If using the non-disclosure procedure, get a receipt for the containers and leave the purchase location. Compute and record the value of any over or underpayment.
7. Fill out the form completely, including the seller's description, type of device, etc. Send a copy to your area DMS office.

D. General Information for the Seller

1. The most important factor in being a successful seller is naturalness - even if you are "acting." Try to conform to the type of location or neighborhood.
2. Never stand in front of the scale or appear to be too concerned about the weighing or counting process.
3. When selling containers with another person (inspector or seller), determine your roles before entering the location - who will make the sale, etc.
4. Provide all information needed to complete the form.
5. Remember that anything you say or do could be repeated in court or during a hearing.

E. Notes for the Completion of Test Purchase/Sale Form and Verification of Product Sold and Correct Price (see example on page 5-9).

1. Fill in the general information: County, Business Name and Address, Date, Time in, Time out, Time weighed.
2. The prices paid by the location may be Posted/Advertised or Quoted by the attendant. Check the box to indicate the source of prices and note in the remarks if a higher price is posted than what is paid. Circle that product was sold.

3. Write a description of the Item Sold, "Aluminum Cans" for example.
  4. The Sales/Unit Price (A) is usually the price per pound or fraction of the pound. If the price is computed from a price per fraction of a pound, the price per pound must be calculated and used in formulas. If not testing by weight, the price per unit must be stated in the same unit as amount received in order for the formulas to compute correctly.  
  
**Use the price the location actually paid in "Column A" of the Test Purchase/Sales form as you are trying to determine if correct tares are being taken. If the location paid the wrong price, note that in the remarks along with the subsequent value of the overpayment or underpayment.**
  5. Record the Gross Weight (B) and the Net Weight Sold,(C) as they appear on your scales read-out. The net weight may be determined by direct weighing.
  6. When calculating the Correct Price Extension (AxC), Column D, round like the cash register would. Dollar values should only be two digits after the decimal.
  7. Record the Payment Received (E).
  8. Determine the Error of the Price (F), (Payment received–Correct Price Extension) and record it in the appropriate sub column.
  9. Only calculate out the % Under Payment, Column G, if the seller paid too little. Truncate the value to one digit after the decimal.
  10. Compute the weight extension (E/A), Column H, as the recycler's scale would, (i.e. rounding to the tenth of a pound for a scale with 0.1 lb divisions).
  11. In Column I, determine the actual weight error (H-C) and record it in the Test Sale sub-column.
  12. Fill in remaining boxes in the worksheet regarding equipment used by the location or the official, description of buyer, code sections violated, legal action, remarks and signatures or names of the Investigator and the buyer.
- F. Issue a Notice of Violation to the location for the underpayment and any device or weighmaster violations and forward documentation for CRV issues to the Division of Recycling at:

Division of Recycling-Certification Services Branch  
Recycler Inspections  
801 K Street  
Sacramento, CA 95814

Also forward copies of your report form, photographs, and NOV to your DMS Price and Quantity Verification Investigator.

### Checklist for Recycling Investigation

**Company Name:** \_\_\_\_\_

**Address:** \_\_\_\_\_

**Inspection Date:** \_\_\_\_\_

**Check the following before going to the inspection location:**

1. Is your recycling material clean and dry? \_\_\_\_\_
2. Pictures taken that document material is clean and dry? \_\_\_\_\_
3. Identified and verified scale for accuracy before weighing? \_\_\_\_\_

**Make note of the following while at the inspection location:**

1. What price is posted for your material(s)? \_\_\_\_\_
2. Are they using just one container during the weighing process? \_\_\_\_\_
3. Are their containers marked/numbered? (note marking if used) \_\_\_\_\_
4. Can you see the weighing platform?  
(BPC 12027, 12107; CCR 4002.1 G 1.10 G-UR.1.1) \_\_\_\_\_
5. Can you see the weighing indicator?  
(BPC 12027, 12107; CCR 4002.1 G 1.10, G-UR.1.1) \_\_\_\_\_
6. Is the scale sealed?  
(BPC 12018, 12501.1) \_\_\_\_\_
7. Does the scale look level, suitable, and stable?  
(BPC 12027, 12107; CCR 4002.2 UR.4.2) \_\_\_\_\_
8. Indicator reading prior to weighing.  
(BPC 12027, 12107; CCR 4002.2 UR.4.1) \_\_\_\_\_
9. Indicator reading during weighing.  
(BPC 12027, 12107; CCR 4002.1 G 1.10, G-UR.1.1;  
CCR 4002.2.c) \_\_\_\_\_
10. Under-compensated for sale?  
(BPC 12512) \_\_\_\_\_
11. Are other types of scrap metal purchased, i.e. copper, brass,  
aluminum, that require a weighmaster license? \_\_\_\_\_

**Please perform the following after the inspection:**

1. Fill out Test Purchase/Sale Report
2. If violations occur, write a brief investigative report that clearly documents the above points and everything else witnessed during the inspection. Include all pictures taken and also a copy of the receipt.

**Inspector Name:** \_\_\_\_\_

STATE OF CALIFORNIA  
DEPARTMENT OF FOOD AND AGRICULTURE  
DIVISION OF MEASUREMENT STANDARDS  
TEST PURCHASE/SALE REPORT  
49-030 (Rev. 10/01)

BUSINESS NAME: GOOD NEIGHBOR RECICE CENTER DATE: 08/27/07  
ADDRESS: 451 PIONEER AVE TIME IN: 1:07 PM  
MOSHER, CA TIME OUT: 1:15 PM  
PRICES:  POSTED/ADVERTISED  QUOTED TIME WEIGHED: 12:30 PM

COUNTY: GOLDEN

COMMODITY (PURCHASED/SOLD)	A SALES/ UNIT PRICE	B GROSS WEIGHT	C NET WEIGHT RECEIVED/ SOLD	D CORRECT PRICE EXTENSION (A X C)	E PRICE CHARGED/ PAYMENT RECEIVED	F ERROR PRICE (E - D)		G % OVER CHARGE/ UNDER PAYMENT (F/D) X 100	H COMPUTED WEIGHT EXTENSION (E/A) <small>Scale reads to 0.1 lb.</small>	I WEIGHT ERROR	
						OVER CHARGE/ PAYMENT (+)	UNDER CHARGE/ PAYMENT (-)			TEST PURCHASE (G-M)	TEST SALE (H-C)
1. ALUMINUM CANS <sup>(REV)</sup>	1.55/lb	6.628	6.518	\$10.10	\$9.92		.18	1.78	6.4		-.118
2. PLASTIC BOTTLES <sup>(REV)</sup>	0.89/lb	5.525	5.452	4.85	3.91		.94	19.38	4.4		-1.052
3.											
4.											
5.											
6.											
7.											
8.											
9.											
10.											
TOTALS									% OVERCHARGE/UNDERPAYMENT		

SCALE USED FOR TEST WEIGHING:  
SERIAL #: AD 43-21  
OWNED BY: Golden Co.  
SCALE USED BY SELLER/PURCHASER:  
TYPE: ELECT SEALED? Yes  
OTHER INFO: Readings in 0.1 lb  
division

DESCRIPTION OF SELLER/PURCHASER:  MALE  FEMALE  
RACE: C AGE: 45-50 HEIGHT: 5'6"  
WEIGHT: 140 lb HAIR: Black EYES: Brown  
OTHER CHARACTERISTICS: Glasses, beard & mustache  
Name tag "A1"

COMMODITY DISPOSITION:  RETURNED  DESTROYED  
 HELD AS EVIDENCE: I.D. # \_\_\_\_\_  
WHERE HELD: \_\_\_\_\_  
 SHIPPED/DONATED TO: \_\_\_\_\_  
RECEIVED BY: Purchaser

SECTIONS VIOLATED:  12023  12024.2a  12024.2b  
 12512  OTHER

LEGAL ACTION:  HEARING  CRIMINAL CITATION/COMPLAINT  CIVIL COMPLAINT  
 NOTICE OF VIOLATION (NOV)  CIVIL PENALTY (NOTICE OF PROPOSED ACTION, NOPA)

REMARKS: SEVERAL DIFFERENT TYPES OF CONTAINERS USED  
HOLD MATERIAL WHEN BEING WEIGHED SAME TARE TAKEN  
FOR BOTH CANS and Bottles, but containers differed in size.

INVESTIGATOR: Ed Castillo  
BUYER/SELLER: Ed Castillo

Rev 11/09



## **MOISTURE LOSS ALLOWANCE, DETERMINING WHEN TO APPLY**

Most federal agencies require commodities under their jurisdiction be given consideration for reasonable moisture loss in good distribution.\*

The Federal Food and Drug Administration (FDA); United States Department of Agriculture (USDA); United States Department of Treasury, Bureau of Alcohol, Tobacco and Firearms (UST); and Federal Trade Commission (FTC) allow for reasonable moisture loss occurring in the course of good distribution practices. The United States Supreme Court Rath decision requires local officials to recognize reasonable moisture loss during distribution for items regulated by these federal agencies.

When no other agency has concurrent jurisdiction, there is no moisture loss allowance for commodities regulated by California (CA), the Environmental Protection Agency (EPA), or USDA Seed Laws.

The list, beginning on page 6-2, indicates commodities controlled by each agency. Any commodity class with (CA) or (EPA) after it does **not** require moisture loss allowance consideration. Any commodity class with (FDA), (UST), (FTC), or (USDA), with the exception of agricultural seed, require that a moisture loss allowance be considered.

There are a variety of products where moisture loss normally will not occur. Some examples are dehydrated seasoning mixes, vacuum-packed coffee, or canned fruit. (FDA tests on cake mixes, flour mixes, and breakfast cereals concluded that they gain moisture in distribution.) Even though moisture loss is recognized by FDA, and page 6-3 indicates that foods are regulated by FDA, these types of products and their packaging make moisture loss in good distribution unlikely. In these cases, moisture loss would be a consideration and would be determined to be 0%.

Moisture loss occurs both through evaporation to the atmosphere as with laundry detergent, flour, noodles or beans, and through transfer from the product to or through the packaging material, either absorbed or free flowing, as with corned beef, hot dogs, poultry, fish, tofu, or bacon.

\* If a commodity has been improperly handled (e.g., held at an incorrect temperature, offered for sale after the sell by date, etc.) "good distribution" does not exist and moisture loss allowance is not considered. Investigation is necessary to determine the responsible party; usually it will be the one who did not maintain the "good distribution practices."

### **Examples: Whether to consider moisture loss and how to determine the value to be given.**

- A. Bottled Glue: An official is testing bottled glue at a stationery supply store. Checking the list on page 6-2, he finds glue is subject to moisture loss allowance consideration because it is regulated by the Federal Trade Commission (FTC). The bottle appears to be sealed; moisture loss is not likely. A reasonable moisture loss allowance (MLA) would be 0%.
- B. Snail and Earwig Bait: An official is testing the net contents of snail and earwig bait. According to the list of FIFRA (Federal Insecticide, Fungicide, and Rodenticide Act) covered products (page 6-4) EPA has concurrent jurisdiction. EPA regulations specifically require an accurate net content declaration with no allowances for moisture loss, so there is no MLA for this product.

- C. Water-Added Hams: An official is testing water-added hams from the packaging line at the point of pack. Even though hams are under USDA jurisdiction, moisture loss allowance consideration does **not** apply since the packages have not yet entered into distribution. The official would use dry tare for the inspection.
- D. Dried Fruit: An official receives a complaint concerning dried apricots, and finds this brand is being distributed by a local produce mart. Since food or drink for man or animal is regulated by FDA and the dried apricots have entered into distribution, moisture loss must be considered. The official refers to the FDA recommended moisture allowances (page 6-6) and finds 3% is recommended for dried fruits and vegetables.
- E. Bars of Soap: Soap is under FTC regulation (page 6-4) and is subject to moisture loss allowance. However, FTC has not recommended any allowances nor is there an established gray area for soap. The official has not tested this product in the lab for moisture loss, nor is there any evidence of testing or studies done by other officials.

Where comprehensive test data is not available for reference, experience with similar commodities or inferences drawn from testing other brands or package sizes can still form the basis for establishing a "reasonable" allowance to permit testing of a commodity that has entered distribution.

The official should be prepared to discuss his or her reasoning with other officials and with the manufacturer in order to develop further information about the product's moisture loss characteristics. It should be noted that the date of pack and the date distribution begins may be quite different.

- F. Freshly Baked Bread at the Bakery: The Food and Drug Administration (FDA) recommends percentages for moisture loss allowances for certain foods in distribution (page 6-6). It also provides for moisture loss allowances prior to distribution under specific conditions when the packer provides "Acceptable Data." The criteria for determining "Acceptable Data" is on page 6-6. If "Acceptable Data" is not presented, moisture loss allowance is not given prior to distribution.

**Note:** When questions or doubts arise, and it is expedient to continue inspection, try to contact your area Price and Quantity Verification Investigator. If this is not possible, it is probably best to select a "reasonable" allowance for moisture loss using your best judgment, resume the inspection and take appropriate action. It is advisable to do follow-up tests of the product to verify that the allowance given is reasonable (See Page 6-9).

## **COMMODITIES WITH MOISTURE LOSS ALLOWANCE CONSIDERATION**

### **Adhesives and Sealants (FTC)**

1. Pastes
2. Glue
3. Specialty adhesives and sealants, including solder

### **Air Fresheners and Deodorizers (FTC)**

### **Alcoholic Beverages (UST)**

## **Bath Oil and Bubble Bath (FDA)**

### **Cosmetics (FDA)**

Cosmetics. Defined by Section 501(l) of the Food, Drug, and Cosmetic Act as “(1) articles intended to be rubbed, poured, sprinkled, or sprayed on, introduced into, or otherwise applied to the human body or any part thereof for cleansing, beautifying, promoting attractiveness, or altering the appearance; and (2) articles intended for use as a component of any such articles; except that such term shall not include soap.”

### **Cleaning Compounds (FTC)**

1. Liquid
2. Powder
3. Paste or cake
4. Other

### **Devices (FDA)**

Devices. Defined by Section 201(h) of the Food, Drug, and Cosmetic Act as “instruments, apparatus, and contrivances, including their components, parts and accessories, intended (1) for use in the diagnosis, cure, mitigation, treatment, or prevention of disease in man or other animals; or (2) to affect the structure or any function of the body of man or other animals.”

### **Drugs (FDA)**

Drugs. Defined by Section 201(g)(l) of the Food, Drug, and Cosmetic Act as “(a) articles recognized in the official United States Pharmacopoeia, official Homeopathic Pharmacopoeia, or official National Formulary, or any supplement to any of them; and (b) articles intended for use in the diagnosis, cure, mitigation, treatment, or prevention of disease in man or other animals; and (c) articles (other than food) intended to affect the structure or any function of the body of man or other animals, and (d) articles intended for use as a component of any articles specified in a clause (a), (b) or (c); but does not include devices or their components, parts, or accessories.”

### **Food (FDA)**

Food. Defined by Section 201(f) of the Food, Drug, and Cosmetic Act as “(1) articles used for food and drink for man or other animals; (2) chewing gum; and (3) articles used for components of any such article.”

### **Household Supplies (FTC)**

1. Lighter fuel, flints, pipe cleaners, etc.
2. Household lubricants
3. Picnic supplies
4. Charcoal briquettes, chips, logs, etc.
5. Dyes and tints
6. Protective fabric sprays
7. Other (e.g., plastic or paper drop cloths)

### **Laundry Supplies (FTC)**

1. Conditioners and softeners, ironing aids, distilled water
2. Sizing and starches
3. Bluing and bleaches
4. Presoaks, enzymes, etc.
5. Other

**Meat and Meat Products (USDA)**

**Mouthwash (FDA)**

**Poultry and Poultry Products (USDA)**

**Rubbing Alcohol (FDA)**

**Shampoo (FDA)**

**Soaps and Detergents (FTC)**

If there is a drug or cosmetic claim such as “removes blemishes,” it is regulated by (FDA).

1. Powder, flakes, chips, etc.
2. Liquid
3. Paste, cake, or tablet
4. Other

**Tobacco and Tobacco Products (UST)**

**Toothpaste (FDA)**

**Waxes and Polishes (FTC)**

1. Powder
2. Liquid
3. Paste and cake
4. Other (e.g., polish impregnated cloths, scratch removers, etc.)

**COMMODITIES WITH NO MOISTURE LOSS ALLOWANCE CONSIDERATION**

**Antifreeze (CA)**

**Automotive Chemical Products (CA)**

Including auto polish, wax and finish conditioner, rubbing compound, tire paint, chrome polish, gasoline additives, etc.

**Bottled Gas for Cooking or Heating (CA)**

**Disinfectants (EPA)**

**FIFRA Covered Products (EPA)**

Products subject to regulation under the Federal Insecticide, Fungicide, and Rodenticide Act, which is now administered by the Environmental Protection Agency. Normally, the label will bear an EPA or USDA number if subject to FIFRA.

**Flowers, Flower Seeds, Fertilizer, and Fertilizer Materials, Plants or Shrubs, Garden and Lawn Supplies (CA)**

**Germ-Killing or Germ-Proofing Products (EPA)**

**Ink (CA)**

**Insecticides (EPA)**

Including insect repellents in any form, mothballs, etc.

**Motor Oil (CA)**

Including additives.

**Paints and Kindred Products (CA)**

Including wallpaper, turpentine, putty, paint removers, glazing compounds, wood fillers, etc.

**Pet Care Supplies (CA)**

**Seeds, Agricultural (USDA)**

**Sporting Goods (CA)**

Including fish baits, gun powder, gun oil, etc.

**Toys (CA)**

Including play dough, finger paints, etc.

**Reference:** FTC Correspondence

**Food and Drug Administration (FDA) Recommends the Following  
Moisture Loss Allowances for These Foods**

**1%** Fresh baked breads, buns, rolls, and muffins when tested after the end of the packing day.

Frozen fruits and vegetables when tested seven or more days after the end of the packing day.

**3%** Bakery products other than fresh breads, buns, rolls, and muffins when tested after the end of the packing day.

Fresh or dried fruits and vegetables, cheese and cheese products, pasta, rice, and coffee beans when tested seven or more days after the end of the packing day.

A moisture loss allowance (MLA) is given to the foods listed above when they are in distribution and is given at the packing location when acceptable data has been provided by the packer. Additionally, if the commodity is in distribution but is inspected prior to the time specified, the packer must present acceptable data documenting moisture loss before any MLA is permitted.

The criteria for determining "Acceptable Data" follows. If "Acceptable Data" is not presented, moisture loss allowance is not given before the specified time or prior to distribution.

**Acceptable Data for Moisture Loss Allowance at the Packing Location (FDA)**

The data must be computed using the average moisture loss determined on a daily basis in environmental conditions similar to those that exist when the product is being inspected.

At least three sample control lots consisting of at least 48 randomly selected packages must be used to develop the moisture loss data. The three sample control lots must be placed at various locations in the storage site. Each sample must be stored under the same conditions as are typical for the product. Moisture loss data obtained by removing the individual packages from shipping cases and storing them in a laboratory would not be acceptable.

The weight of each package in each of the sample control lots is determined every day for seven days, except that fresh bakery products are weighed hourly. The average moisture loss value must be computed from the three sample control lots with a 95% prediction interval.

Example: An official visits a pet food plant in Los Angeles in the middle of July to conduct a point-of-pack inspection. If the product tested had been packaged five days before the inspection and is found underweight, the moisture loss data must reflect the loss that would occur in July, not January. If the product is typically placed in a sealed case on a pallet and shrink wrapped, the sample lots must be stored under the same conditions.

## **Food and Drug Administration (FDA) Moisture Loss Allowances (MLA) for Flour and Dry Pet Food**

**Moisture Loss Allowances (MLA):** The National Institute of Standards and Technology in conjunction with members of the National Conference on Weights and Measures and industry have established moisture loss allowances for certain commodities. These moisture loss allowances are given percentages where shortages within these percentages may have been caused by unavoidable moisture lost in good distribution.

As of April 2000, FDA regulated commodities having a moisture loss allowance greater than 0% are:

**Flour 3% and Dry Pet Food 3%** (pet food packaged in paperboard boxes or kraft paper bags and has a moisture content of 13% or less at the time of pack is granted this allowance. Moisture content information is on the ingredient label.)

Moisture content testing may be used to determine if a shortage found to be within the MLA is due to moisture loss and not taking insufficient tare for the packaging.

**Inspections in the Packing Plant:** There is no MLA when the commodity is tested at the packing plant; however, there may be consideration for moisture loss. See the previous page for parameters for acceptable data moisture loss consideration in the packing plant.

## United States Department of Food and Agriculture (USDA) Moisture Loss Allowance (MLA) Consideration

**Moisture Loss Allowances (MLA):** The National Institute of Standards and Technology in conjunction with members of the National Conference on Weights and Measures and industry had established moisture loss allowances for certain commodities. A moisture loss allowance is a given percentage where shortages within that percentage may have been caused by unavoidable moisture lost in good distribution. Wet tare is used for testing commodities with a MLA greater than 0%.

As of October 2008, USDA regulated commodities such as fresh meat or poultry are required to be tested using dry tare (either unused dry tare or used dry tare). When a dry tare is used the Moisture loss allowance is considered zero. Ice glaze is still considered tare and not part of the product and should be rinsed off the meat to determine net weight.

### **FRESH POULTRY:**

(whole or cut-up with no further processing or additives and having a temperature above 26°F, this is product that yields or gives when pushed with a person's thumb)

**Moisture Loss Allowance (MLA):** Unless there is an established moisture loss allowance, the moisture loss allowance is 0% for meat and poultry hermetically packaged in a USDA plant, and inspected after entering into distribution. Dry or dried used tare is used for inspection.

If the meat or poultry package allows moisture to evaporate into the atmosphere, a reasonable moisture allowance must be given. USDA has not given any guidance for the value of "reasonable moisture loss."

**Inspections in the Packing Plant:** There is no MLA for meat or poultry inspected at the packing plant. Category B sampling plans are used for inspection. Dry tare is used for all USDA in-plant inspections.



## MOISTURE LOSS

### LABORATORY VERIFICATION OF MOISTURE LOSS

**Purpose:** In instances when little data is available or when legal actions may result or where a weights and measures official does not have high confidence in the amount of moisture allowance to give a product, laboratory verification of the moisture loss should be done. Packages of product should be obtained for further evaluation and if possible the test should be run on more than one lot code. Verification of moisture loss should be done even when the processor/packer provides information.

**Methodology:** There are two ways products lose moisture, those that lose moisture primarily through evaporation and those that lose moisture through absorption into packaging materials and/or purge. The nature of the moisture loss dictates the number of initial samples needed. You may also need to follow products under more than one set of conditions- "Room Conditions" or "Under Refrigeration" depending on how the product is handled during distribution or retail conditions. Initial data received will determine if more samples are needed. Shortages of storage space and financial restrictions may also limit the number of samples you use to initially determine moisture loss.

- A. For products which lose moisture primarily through evaporation, gross weights can usually be recorded at regular intervals on a laboratory worksheet until the expiration date or typical distribution period has occurred. At the end of the test period, the tare weight can be determined and deducted from each recorded gross weight. Start with at least five samples per each set of laboratory conditions and increase them if data is variable. Use the formula below to determine percent moisture loss for the product.
- B. For packages/products where moisture is lost into the package or packaging material, some packages may be opened, taking care not to lose any of the packaging materials or fluid. The packaging materials, fluid, and the product can be placed in zip-lock storage bag or other re-sealable container. At appropriate time intervals, remove the product from the container, and record the net weight, temperature and date. Carefully return the product to the re-sealable container wherein the packaging materials and fluids have remained. Packages should be kept within the ranges of normal storage conditions during the period of the tests. Start with about 10 samples per each set of laboratory conditions.

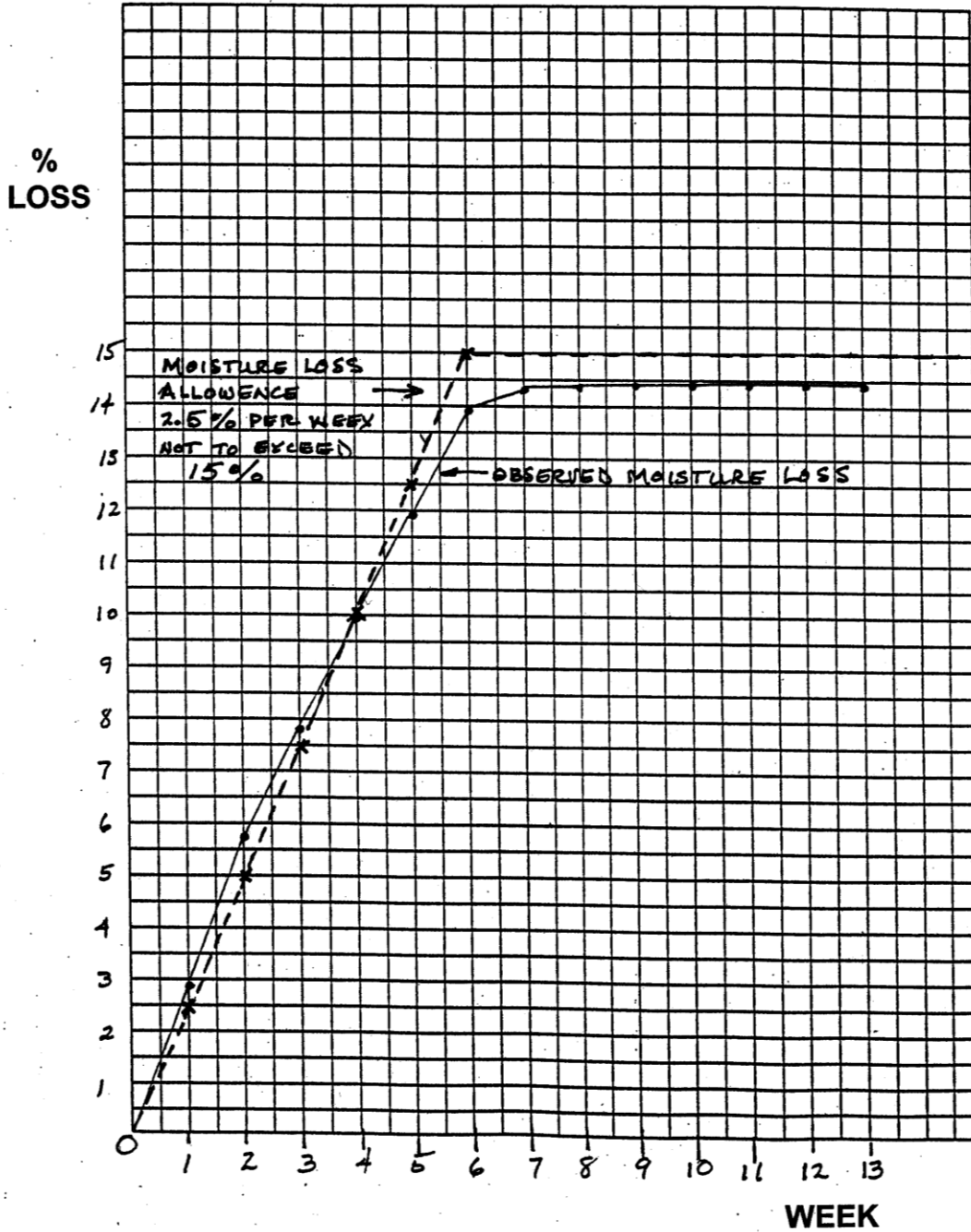
Variations can be plotted or changed into a percent loss by the following formula:

$$\frac{\text{Original Net Weight} - \text{Net Weight}}{\text{Original Net Weight}} \times 100 = \text{Percent Moisture loss}$$

It is recommended that moisture loss worksheets be submitted to your area Quantity Control Specialist so that the information is available to others to assist them in selecting reasonable moisture loss values in future testing. A file will be kept in the Sacramento DMS office.

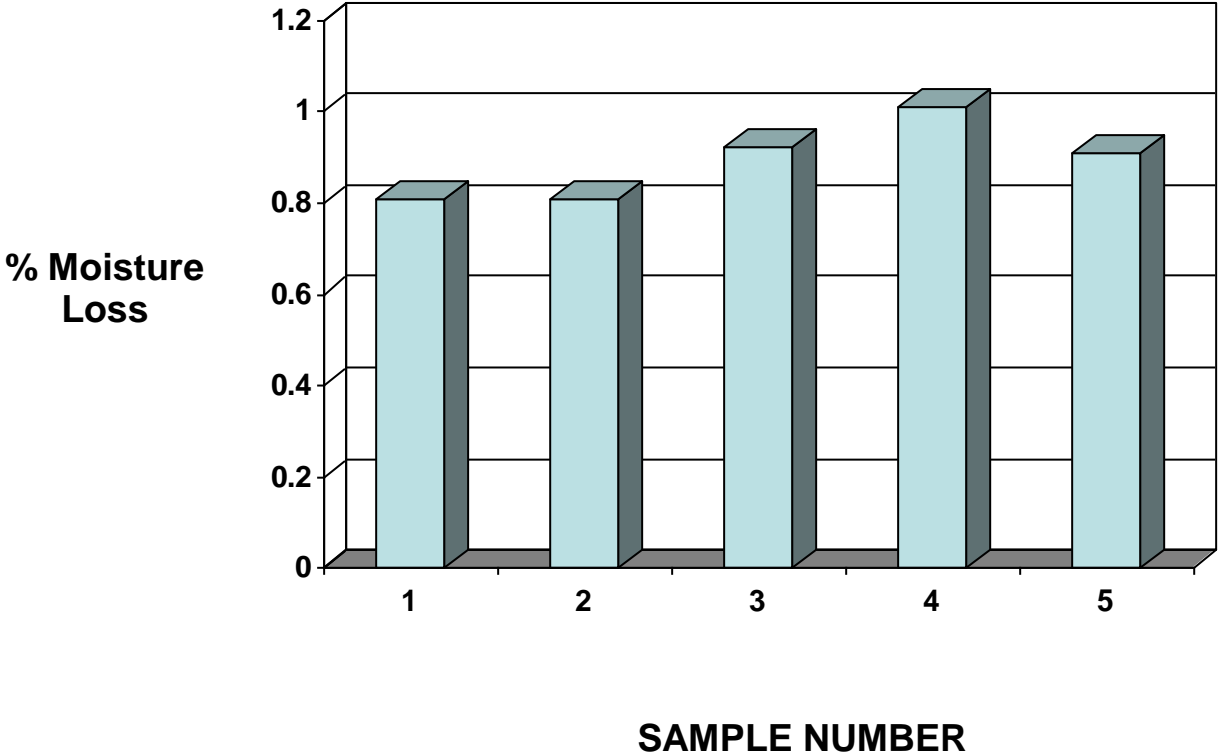


SPOTS AWAY DETERGENT SAMPLE PACKAGE 17





### MOISTURE LOSS TEST TOFU



Recommended Moisture Loss Allowance 1%

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## **AUDIT**

### **GENERAL**

Informal audits may be done at wholesale, retail, or distribution locations. The purpose is to quickly identify lots with questionable contents.

One to ten packages from each lot should be selected without preliminary screening. More packages may be selected when sampling a large lot, conducting surveillance, or sampling from a production line. A package may be opened to determine a surveillance tare, or the tare may be estimated from similar packaging. (An estimate cannot be used for a Package Inspection Report. The actual tare must be determined according to the sampling plan being used.)

A lot is suspect if one or more of the packages are labeled with the gross weight or less, or if the labeled weight is below the surveillance weight.

#### **NOTE:**

**AN AUDIT IS ONLY A FAST PRELIMINARY PROCEDURE INDICATING THE POSSIBILITY OF A SHORT WEIGHT OR SHORT MEASURE LOT.**

**A TEST MUST BE CONDUCTED ACCORDING TO THE CURRENT SAMPLING REGULATION AND A PACKAGE INSPECTION REPORT (PIR) MUST BE COMPLETED TO MAKE A LEGAL DETERMINATION AS TO THE STATUS OF THE LOT.**

STATE OF CALIFORNIA  
DEPARTMENT OF FOOD AND AGRICULTURE  
DIVISION OF MEASUREMENT STANDARDS  
AUDIT INSPECTION REPORT  
40-901 (REV. 7/94)

COPY TO STATE

PACKER  DISTRIBUTOR  DEALER

COUNTY		INSPECTOR	DATE	TIME	AM	PM																										
MISSION		J. STEED	8-14-96	8:10																												
LOCATION		ADDRESS																														
SUPER DUPER DISCOUNT CENTER		109 S. MAIN, ROCKRIDGE																														
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30		
-				1	1	1	1			1	1										4	6	3	1	6	4	4				1	
+	2	3	0						0			0	0	1	1	2	1	2	1								0	0		0	1	
	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60		
-																																
+	1	0	1	0	0	0	3	8	0	1	2	1	1	1																		
	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90		
-																																
+																																
LOT NO.	CATEGORY NO.	COMMODITY		PACKAGES ACCEPTED	PACKAGES SAMPLED	TARE																										
1	1.02	CHOCOLATE BLAST CANDY BARS				.014 oz																										
2		PENNY # MARCHMALLOW, 0.4oz		76	2																											
3		ALMOND CRUNCH, 0.6 oz		PIR	7																											
10	1.03	SMEDLEY'S MILK CHOC. ASST. 1 1/2 LB		47	7	0.06 lb																										
17	1.04	CLOWN AWEY ICE CREAM DIP, 12oz		23	2	0.2oz																										
19	12.01	EVERGRD NAILS 8d, 2 LB		PIR	7	0.12 lb																										
26	12.06	VOLT IN LINE SPICES, 24 COUNT		96	2																											
	11.03	BRIGHTLIGHT FIREPLACE MATCHES		48																												
34		100 COUNT			7																											
35		11 INCH			2																											
37	11.12	GROW UP DOG FOOD 2 KG		24	2	NEEDS 1A-LB LABEL																										
	11.02	KITTY DELIGHT CAT FOOD																														
39		TURKEY DINNER 6oz		18	2	0.5oz																										
41		SEAFOOD SURPRISE 6oz		26	2																											
43		CHICKEN LIVER 6oz		31	2																											
TOTALS				342	44																											

NO LEGAL ACTION CAN BE TAKEN AGAINST SHORTWEIGHT PACKAGES UNTIL THE SHORTAGE IS CONFIRMED BY A LEGAL INSPECTION PROCEDURE.



## **INSTRUCTIONS FOR USE OF AUDIT INSPECTION REPORT, FORM 49-001**

1. Check the appropriate box to identify the inspection location: Packer, Distributor or Dealer. When conducting an inspection at a combination location (e.g., a market which is both the packer and dealer, or at a packing location which also handles the distribution) check the box most applicable.
2. Fill in your county, your name, the date, and the time.
3. Fill in the name and address of the establishment inspected. One audit form may be used for all lots inspected at a single location.
4. The grid is designed for recording package errors. It is used according to county policy.

If more than 90 different packages are sampled and recorded on the grid, you may record the additional errors on a second form or in the same manner on notepaper.

5. When the grid is used, lot numbers should be included to indicate which plus and minus recordings go with which lots.
6. If there is an indication of a shortage, more packages from that lot should be audited.

In the example, the first two packages audited from each of lots 3, 10, 19, and 28 indicate shortages. Five more packages from each lot were audited and the errors recorded in the grid following the original two packages. Lots 10 and 28 have predominantly plus errors; further inspection may be discontinued. An official inspection (see Section 8 for instructions on Sampling and Testing) with a Package Inspection Report (PIR) should be completed for lots 3 and 19. "PIR" should be noted in the column headed "PACKAGES ACCEPTED", and a copy of the PIR attached to the Audit.

7. Fill in the exact category number for the commodity checked. Do not use general category numbers such as 7.00, 8.00, etc. If the inspection is at the packing location, use the category number followed by .50 (e.g., Bakery Audit, 3.50).
8. Fill in the type of commodity being checked. The unit of measure may also be entered.
9. Fill in the number of packages accepted for each category number and commodity.
10. Blank columns are for recording other information as required: packages sampled, packages rejected, etc.
11. Compute the total number of packages accepted.

12. THIS IS ONLY A WORK SHEET!! It is to be used as the first step in locating lots with possible shortages, and as a convenient way of gathering package information and statistical data. **NO LEGAL OR OFF SALE ACTION MAY BE TAKEN BY AUDIT. A TEST MUST BE CONDUCTED ACCORDING TO THE CURRENT SAMPLING REGULATION AND A PACKAGE INSPECTION REPORT (PIR) MUST BE COMPLETED TO MAKE A LEGAL DETERMINATION AS TO THE STATUS OF THE LOT.** (See Section 8 for instructions on Sampling and Testing in order to make a legal determination and for completing a PIR.)

STATE OF CALIFORNIA DEPARTMENT OF FOOD AND AGRICULTURE DIVISION OF MEASUREMENT STANDARDS AUDIT INSPECTION REPORT 48-001 (REV. 7/96)						COPY TO STATE					
<input type="checkbox"/> PACKER				<input type="checkbox"/> DISTRIBUTOR				<input type="checkbox"/> DEALER			
COUNTY		INSPECTOR			DATE		TIME				
MISSION		G. PERE			8-10-96		11:40 AM				
LOCATION											
SUPER DUPER MKT #4 BILL RIDGEWAY, EASTWOOD, CA 90949											
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30											
-				3							
+	00	11	0	20	0	14	30	00	11	00	
31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60											
-		4							3		
+	11	00	20	01	12	68	6145	98862			
61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90											
-											
+											

LOT NO.	CATEGORY NO.	COMMODITY	PACKAGES ACCEPTED	PACKAGES SAMPLED
1-	4.50	MEAT AUDIT	1260	40
3		FULL CUT ROUND STEAK	PIR	
33		SHRIMP MEAT	PIR	
41-	3.50	BAKERY AUDIT	850	12
		ANGEL FOOD CAKE 18oz	PIR	
<b>TOTALS</b>			2110	52

**NO LEGAL ACTION CAN BE TAKEN AGAINST SHORTWEIGHT PACKAGES UNTIL THE SHORTAGE IS CONFIRMED BY A LEGAL INSPECTION PROCEDURE.**

## AUDIT, PACKED ON PREMISES

### MEAT COUNTER, BAKERY, DELI, OTHER

#### A. Equipment

1. Audit Form, 49-001.
2. Scale.
3. Calibrated test weights.
4. Calculator (optional).

#### B. Special Notes

1. This procedure may be used for all commodities weighed, labeled, and sold on the same premises.
2. Periodic inspections of packed-on-premises meat, poultry, seafood, bakery, and deli items should be conducted on a routine basis.
3. It is recommended that inspections be made at unannounced random intervals of not less than twice a year.
4. Use of a variable frequency of inspection plan is suggested to make the best use of available resources.

#### C Procedure

1. Identify yourself to the store management, explain the purpose of the visit, and "set up" in a location that will not interfere with store operations.
2. Whenever possible, the inspector should use his or her own scale to minimize inconvenience to the establishment.
3. Forty to sixty packages should be selected, each from a different lot. (As an alternative, one package from each available lot may be selected.) For this audit, a lot usually includes all items of the same product and code at the same location.

The package selected should be representative of the average condition of the lot, neither the wettest nor driest.

- 4 Each package may be weighed gross and the tare estimated to determine the probable net contents, or the package may be taken to the cutting or wrapping area, opened and the commodity weighed net. If the package is opened, care must be taken to prevent contamination and maintain sanitation. **Packages should never be opened in front of the counter.**

5. If the package's labeled weight is greater than the observed or estimated weight, or if the package's labeled weight is found to be the gross weight or less, the lot is questionable.
6. An official inspection using the appropriate sampling plan must be conducted and a PIR completed in order to make a legal determination as to the status of the lot. (See Section 8 for instructions on Sampling and Testing in order to make a legal determination and for completing a PIR.)

**The actual tare must be determined from the random sample packages selected for each lot inspected. An estimate cannot be used for a Package Inspection Report.**

7. **In no case is the inspector to give, recommend, or approve a tare used or to be used by the establishment for any lot or package.**
8. Packages weighed and labeled at a different location should be recorded separately, not treated as part of the packed on premises audit.
9. A copy of all reports, both audits and PIR's, should be left with the establishment.
10. Before leaving, discuss the inspection with store management and leave copies of all inspection documents as required by your County's policy.

**INSTRUCTIONS FOR SAMPLING AND TESTING  
PROCEDURES USED TO DETERMINE  
THE NET CONTENTS OF PACKAGED COMMODITIES**

## HANDBOOK 133

The State of California has adopted, as regulation\*, the most current edition of the National Institute of Standards and Technology (NIST) HANDBOOK 133 (HB 133), CHECKING THE NET CONTENTS OF PACKAGED GOODS. As of January 2005, this is the edited Fourth Edition.

- \* California Business and Professions Code Section 12211.  
California Code of Regulations, Title 4, Division 9, Chapter 11, Section 4600.

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HB 133 provides procedures for sampling a “lot” to determine compliance with net weight laws and regulations, and specifies test procedures for certain commodities and types of commodities.

The following step-by-step instructions provide for the completion of Package Inspection Report (PIR) forms when conducting an inspection according to the requirements of Handbook 133.

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The most recent Draft of Handbook 133 is available from the web site for the National Institute of Standards and Technology.

<http://ts.nist.gov/WeightsAndMeasures/pubs.cfm>

4<sup>th</sup> Edition of NIST Handbook 133 (Microsoft Word and Adobe Acrobat PDF Formats)

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## **SAMPLING AND TESTING PROCEDURE**

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## **SAMPLING AND TESTING PROCEDURES SUMMARY**

The step numbers in this summary are the same as the step numbers in the complete text of the Sampling and Testing Instructions.

1. Determine which sampling plan to use, Category A, B, or C. A summary of the three sampling plans and general information entry is explained on page 8-51.
2. Complete the heading on the correct Package Inspection Report (PIR) form.

### **Category A, Inspections**

3. COMMODITY GROUPS: Determine the Commodity Group MLA (Moisture Loss Allowance) or Other. Determine the type of tare to use: Unused or Dried Used Tare (Dry Tare), or Used Tare (Wet Tare).

### **Category A, Standard Pack**

4. BASIC INFORMATION: Use Table 2-1 (page 8-38) to look up Sample Size, Initial Tare Sample Size, Number Minus Errors Allowed to Exceed the Maximum Allowable Variation (MAV), and Sample Correction Factor
5. MAXIMUM ALLOWABLE VARIATION (MAV): Determine MAV using Table 2-5, 2-6, 2-7, 2-8, 2-9 or 2-10 (pages 8-42 to 8-49), or the specific commodity (page 8-15, 8-49). If commodity is in Group MLA, calculate adjusted MAV
6. SAMPLE AND INITIAL TARE SAMPLE SELECTION
7. TARE DETERMINATION: Include more Tare Sample Packages if needed
8. PACKAGE ERROR DETERMINATION
9. TOTAL ERROR CALCULATION
10. UNREASONABLE MINUS ERRORS (UME): Identify by circling
11. DETERMINE LOT COMPLIANCE WITH THE MAV CRITERIA: Does the Number of Unreasonable Minus Errors (UME) exceed the Number Allowed?
  - ▶ If yes, REJECT, and order Off Sale (lot fails). Compute Average Error (AE) and skip to Step 15 if AE is minus
  - ▶ If no, continue inspection
12. AVERAGE ERROR (AE) COMPUTATION: Computation and compliance.
  - ▶ If AE is zero or plus, ACCEPT (lot passes)
  - ▶ If minus, continue inspection

**Summary, Category A**

13. CALCULATE SAMPLE ERROR LIMIT (SEL)
14. DETERMINE LOT COMPLIANCE, AVERAGE ERROR (AE) IS MINUS

**Group MLA**

- ▶ If AE is equal to or less than SEL, ACCEPT (lot passes).  $AE \leq SEL$
- ▶ If AE is greater than the SEL + MLA, REJECT and order Off Sale (lot fails).  
 $AE > (SEL + MLA)$
- ▶ If AE is greater than SEL, but equal to or less than the SEL + MLA, lot is in the Gray Area, and the status is not determined.  $(SEL + MLA) \geq AE > SEL$

**Group Other**

- ▶ If AE is minus and less than or equal to the SEL, ACCEPT (lot passes).  $AE \leq SEL$
- ▶ If AE is greater than the SEL, REJECT and order Off Sale (lot fails).  $AE > SEL$

15. PERCENT ERROR AND THE TOTAL DOLLAR VALUE OF THE ERROR

**Category A, Random Pack**

4. BASIC INFORMATION: Use Table 2-1 (page 8-38) to look up Sample Size, Initial Tare Sample Size, Number Minus Errors Allowed to Exceed the Maximum Allowable Variation (MAV), and Sample Correction Factor.
5. SAMPLE AND INITIAL TARE SAMPLE SELECTION
6. TARE DETERMINATION: Include more Tare Sample Packages if needed
7. PACKAGE ERRORS: Determine and record package errors for the sample
8. MAXIMUM ALLOWABLE VARIATION (MAV): Determine MAV for lightest package using Table 2-5, 2-6, 2-7, 2-8, or 2-9 (pages 8-42 to 8-49), or the specific commodity (page 8-21, 8-49). If Group MLA, calculate adjusted MAV.
9. TOTAL ERROR CALCULATION

UNREASONABLE MINUS ERRORS (UME): Identify by circling

**Summary, Category A**

11. DETERMINE LOT COMPLIANCE WITH THE MAV CRITERIA: Does the Number of Unreasonable Minus Errors (UME) exceed the Number Allowed?

- ▶ If yes, REJECT and order Off Sale (lot fails). Compute Average Error (AE) and skip to Step 15 if AE is minus.
- ▶ If no, continue inspection

12. AVERAGE ERROR (AE) COMPUTATION: Computation and compliance

- ▶ If AE is zero or plus, ACCEPT (lot passes)
- ▶ If minus, continue inspection

13. CALCULATE SAMPLE ERROR LIMIT (SEL)

14. DETERMINE LOT COMPLIANCE, AVERAGE ERROR IS MINUS

**Group MLA**

- ▶ If AE is equal to or less than SEL, ACCEPT (lot passes).  $AE \leq SEL$
- ▶ If AE is greater than the SEL + MLA, REJECT and order Off Sale (lot fails)  
 $AE > (SEL + MLA)$
- ▶ If AE is greater than SEL, but equal to or less than the SEL + MLA, lot is in the Gray Area and the status is not determined.  $(SEL + MLA) \geq AE > SEL$

**Group Other**

- ▶ If AE is less than or equal to the SEL, ACCEPT (lot passes).  $AE \leq SEL$
- ▶ If AE is greater than the SEL, REJECT and order Off Sale (lot fails).  $AE > SEL$

15. PERCENT ERROR AND THE TOTAL DOLLAR VALUE OF THE ERROR

## Category B Inspections: USDA Packing Plant Inspections Only

### Category B, Standard Pack

3. BASIC INFORMATION: Use Table 2-2 (page 8-38) to look up Sample Size, Initial Tare Sample Size, and Number Minus Errors Allowed to Exceed the MAV.
4. MAXIMUM ALLOWABLE VARIATION (MAV): Look up MAV using Table 2-9 (page 8-48).
5. SAMPLE AND INITIAL TARE SAMPLE SELECTION
6. TARE DETERMINATION: Include more Tare Sample Packages if needed.
7. PACKAGE ERRORS: Determine and record package errors for the sample.
8. TOTAL ERROR CALCULATION
9. UNREASONABLE MINUS ERRORS (UME): Identify by circling
10. DETERMINE LOT COMPLIANCE WITH THE MAV CRITERIA: Does the Number of Unreasonable Minus Errors (UME) exceed the Number Allowed?
  - ▶ If yes, REJECT and order Off Sale (lot fails). Compute Average Error (AE) and skip to Step 13 if AE is minus.
  - ▶ If no, continue inspection
11. AVERAGE ERROR (AE) CALCULATION
12. DETERMINE LOT COMPLIANCE
  - ▶ If AE is zero or plus, ACCEPT (lot passes)
  - ▶ If AE is minus, REJECT and order Off Sale (lot fails)
13. CALCULATE THE PERCENT ERROR AND THE TOTAL DOLLAR VALUE

### Category B, Random Pack

3. BASIC INFORMATION: Use Table 2-2 (page 8-38) to look up Sample Size, Initial Tare Sample Size, and Number Minus Errors Allowed to Exceed the MAV.
4. SAMPLE AND INITIAL TARE SAMPLE SELECTION: Table 2-2 (page 8-38)
5. TARE DETERMINATION: Include more Tare Sample Packages if needed
6. PACKAGE ERRORS: Determine and record package errors for the sample

**Summary, Category B**

7. MAXIMUM ALLOWABLE VARIATION: Look up MAV for lightest package by using Table 2-9 (page 8-48).
8. TOTAL ERROR CALCULATION
9. UNREASONABLE MINUS ERRORS (UME): Identify by circling
10. DETERMINE LOT COMPLIANCE WITH THE MAV CRITERIA: Does the Number of Unreasonable Minus Errors (UME) exceed the Number Allowed?
  - ▶ If yes, REJECT and order Off Sale (lot fails). Compute Average Error (AE) and skip to Step 13 if AE is minus.
  - ▶ If no, continue inspection
11. AVERAGE ERROR (AE) CALCULATION
12. DETERMINE LOT COMPLIANCE
  - ▶ If AE is zero or plus, ACCEPT (lot passes)
  - ▶ If AE is minus, REJECT and order Off Sale (lot fails)
13. CALCULATE THE PERCENT ERROR AND THE TOTAL DOLLAR VALUE OF THE ERROR

### **Category C Inspections: Commodities Labeled With a Count of 50 or Less**

3. BASIC INFORMATION: Use Table 2-11 (page 8-50) to look up Sample Size, Number of Packages Allowed to Contain Fewer Than the Labeled Count.
4. MAXIMUM ALLOWABLE VARIATION (MAV): Use Table 2-7 (page 8-46) to look up the Maximum Allowable Variation (MAV).
5. SAMPLE SELECTION: Take a random sample from the lot
6. PACKAGE ERROR DETERMINATION: Count items and determine amount in container
7. TOTAL ERROR CALCULATION
8. MINUS ERRORS: Count the number of packages having minus errors
  - ▶ If the number of packages with minus errors exceeds the number allowed, REJECT and order Off Sale (lot fails). Go to Step 10.
  - ▶ If the number of packages with minus errors is less than or equal to the number allowed, ACCEPT the lot and continue to Step 9.
9. UNREASONABLE MINUS ERRORS (UME): REJECT and order Off Sale any packages with minus errors larger than the MAV.
10. AVERAGE ERROR CALCULATION
11. IF AVERAGE ERROR IS MINUS, CALCULATE THE PERCENT ERROR AND THE TOTAL DOLLAR VALUE OF THE ERROR

## **INSTRUCTIONS, SAMPLING AND TESTING PROCEDURES**

### **STEP 1. CATEGORY AND SAMPLING PLAN DETERMINATION**

- ✓ Does this lot consist of packages LABELED with a count of 50 or less? If YES, this is **CATEGORY C**. The sampling plan outlined in Table 2-11 (page 8-50) is to be used. Category C is only used for this type of lot!
- ✓ Are you in an USDA (United States Department of Agriculture) plant testing meat or poultry? If YES, this is **CATEGORY B** and the plan from Table 2-2 (page 8-38) is to be used. This category is only for USDA plant inspections!
- ✓ If you are in any other testing location, or if the commodity is labeled with a count greater than 50, it is a **CATEGORY A** inspection. The sampling plan in Table 2-1 (page 8-38) is used to conduct the inspection.

### **STEP 2. PACKAGE INSPECTION REPORT (PIR) SELECTION**

Select the PIR for the category of inspection. Complete the heading. Fill in the Labeled Content\*, Box [1]. (If the package is labeled with both US and SI units, record both values, determine the larger, circle it and use that value in computing the error.) Record the Device Division [2], and Inspection Lot Size [5]. (See Explanation of Terms, Inspection Lot, page 8-33).

- \* The labeled content for a random lot (Random Average) is determined after the sample has been selected.
- ✓ The Device Division is the division or graduation of the scale or other measuring device used for the commodity test.

**CONTINUE TO THE INSTRUCTIONS FOR THE SPECIFIC INSPECTION CATEGORY:  
A, PAGE 8-12; B, PAGE 8-25; OR C, PAGE 8-31.**

## **CATEGORY A**

### **STEP 3. COMMODITY GROUPS**

Decide the commodity group, **MLA** or **OTHER**, and which type of tare to use for the inspection.

**GROUP MLA (Moisture Loss Allowance)** - If you are NOT testing in the packing plant AND the commodity IS:

Flour

Dry Pet Food (Packaged in fiberboard boxes or kraft paper bags and labeled with a moisture content of 13% or less.)

The lot is classed as **MLA**, meaning it does have a Moisture Loss Allowance greater than 0%. For inspection, the tare method is **USED TARE (WET TARE)**.

The MLA for flour and dry pet food is **3%**.

Check the box for MLA and record the % (percentage) in the box following the \$ (price) per package or pound of the commodity.

#### **Questions to determine if commodities other than the above are in Group MLA**

1. Is the commodity subject to Federal Agency regulations except for USDA Seed Laws or Environmental Protection Agency (EPA) regulations? If no, skip to **GROUP OTHER** (page 8-13). If yes, continue to the next question.
2. Is the commodity in distribution or are you testing in a packing plant regulated by the FDA? If no to both parts, skip to **GROUP OTHER** (page 8-13). If yes to either part of the question, continue to the next question.
3. Is the commodity packaged in a way that allows moisture to evaporate into the atmosphere? If no, skip to **GROUP OTHER** (page 8-13). If yes, the commodity is classified **GROUP MLA**, has a MLA greater than 0%, and the tare method is **UNUSED OR DRIED USED TARE (DRY TARE)**.
4. Is the commodity packaged in a USDA meat or poultry plant? If yes, test using the tare method of **UNUSED OR DRIED USED TARE (DRY TARE)**.



### **GROUP MLA (Moisture Loss Allowance) - Continued**

- ▶ The Food and Drug Administration (FDA) has recommended the following Moisture Loss Allowances (MLA) for these foods under their jurisdiction.

**1%** Fresh baked breads, buns, rolls, and muffins when tested after the end of the packing day.

Frozen fruits and vegetables when tested seven or more days after the end of the packing day.

**3%** Bakery products other than fresh breads, buns, rolls, and muffins when tested after the end of the packing day.

Fresh or dried fruits and vegetables, cheese and cheese products, pasta, rice, and coffee beans when tested seven or more days after the end of the packing day.

A Moisture Loss Allowance (MLA) is given to the foods listed above when they are in distribution and, under certain circumstances, when they are being tested at the packing location. If the commodity is inspected prior to the time specified or at the packing location, the packer must present acceptable data documenting moisture loss before any MLA is permitted.

The criteria used to determine acceptable moisture loss documentation are outlined on page 6-6 and again on page 8-33.

- ▶ For all other MLA commodities, use a reasonable moisture loss allowance. Contact the Regional Price and Quantity Verification Special Investigator for assistance in determining a “reasonable” moisture loss allowance. Some, but not all, laboratory moisture loss verification procedures are outlined on pages 6-9 through 6-13.

Check the box for MLA commodities and record the % (percent) moisture allowance given in the box following the \$ (price) per package or pound.

**GROUP OTHER** - Any commodity that is not contained in MLA. This includes those items with a Moisture Loss Allowance of 0%.

### **THERE ARE TWO TYPES OF TARE USED FOR GROUP OTHER**

#### **1. USED TARE (WET TARE)**

- a. Commodities inspected at a packing location, other than a USDA plant.
- b. Commodities under State regulation only. (Not federally regulated.)

**2. UNUSED OR DRIED USED TARE (DRY TARE)**

- a. Commodities with an established Moisture Loss Allowance of 0%, and meat or poultry packaged in a USDA regulated facility.
- b. Commodities regulated by the Environmental Protection Agency (EPA).
- c. Commodities under the jurisdiction of the USDA Seed Laws.
- d. Commodities packaged in sealed containers where moisture cannot evaporate into the atmosphere, and commodities in containers where if there were to be any moisture purged from, or separated from the commodity, it would still be in the container (plastic vacuum packs, cans, bottles, jars, etc.). If this type of container holds a commodity regulated by the FDA, USDA or BATF/TTB, moisture loss is considered and determined to be 0% as any lost or purged moisture is still contained in the package.
- e. Commodities which by their nature do not lose moisture: for example, metal pipe, plastic cups, paper towels, etc.

## **CATEGORY A, STANDARD PACK COMMODITIES**

(For Category A, Random Pack Commodities, see Page 8-20)

### **STEP 4. BASIC INFORMATION**

Using the Sampling Plan from Table 2-1 (page 8-38) record on the PIR: the Sample Size [6] Initial Tare Sample Size [7], Number of Minus Errors Allowed to Exceed the MAV (Unreasonable Minus Errors Allowed) [8], and Sample Correction Factor [22].

### **STEP 5. MAXIMUM ALLOWABLE VARIATION (MAV)**

- a. **Except for the items listed below**, use the appropriate Table 2-5, 2-6, 2-7, 2-8 or 2-9 (pages 8-42 to 8-48) to determine the MAV. Table 2-9 is used only for Meat and Poultry Products **packaged in** USDA plants. (USDA packages will be labeled with a USDA Establishment Number.)

#### **Polyethylene Sheeting and Film** (Table 2-10, page 8-49)

- Thickness: 4% of the labeled thickness, based on the average of the thickness measurements of a single package.
- Weight: 4% of the labeled weight.

#### **Textiles** (Table 2-10, page 8-49)

- Packages with any labeled dimensions less than 24 inches: 6% of the labeled dimension.
- Packages with all labeled dimensions 24 inches or more: 3%.

**Mulch and Soil:** (Table 2-10, page 8-49) 5% of the labeled volume. If the Sample Size is 12 or less, one package may exceed the MAV. For a sample size of 24, two packages may exceed the MAV. For a sample size of 48, four packages may exceed.

**Firewood:** Not a consideration for determining firewood compliance, MAVs do not apply.

- b. Record the value of the MAV in decimal form in [3].
- c. If the lot is in Group MLA, the MAV must be adjusted for the Moisture Loss Allowance (MLA).

Calculate the value of the MLA by multiplying the MLA in **decimal form** by the Labeled Contents [1]. Record this value in [4A].

Add the MAV [3] to the MLA [4A]. Record in [4B], "ADJ MAV."

**Note:** Box [4A] is the same as box [13A] in NIST Handbook 133

**STEP 6. SAMPLE AND INITIAL TARE SAMPLE**

Randomly select the sample packages from the inspection lot. Mark or keep the packages in the same order as randomly selected. The first package randomly selected is the first Tare Sample package. The second random sample is the second, etc.

**STEP 7. TARE DETERMINATION**

**If the errors are not determined by weight, go to STEP 8.**

- a. For each package in the Initial Tare Sample, weigh and record the value of the gross weight in the column under **[A]** and the tare weight in the column under **[B]**.

**If the number of packages in the inspection lot is eleven or less, skip to Step 7g. (Both the initial tare sample size and the total tare sample size will be two.)**

- b. Calculate the net weight for each package by subtracting from the gross **[A]**, the tare **[B]**. Record the net weight in the column under **[C]**. Except for WET TARE commodities containing ice, free-flowing liquids considered tare, or absorbent material; the net weight is not determined by direct weighing.
- c. Determine the error for each package in the initial tare sample by subtracting the labeled content **[1]** from the net weight **[C]**. Record the error in the column under **[D]**.
- d. Record the Range of Errors ( $R_C$ ) in box **[9]** (the difference between the largest and smallest). Record the Range of Tare Weights ( $R_T$ ) in **[10]**.
- e. Calculate and record in **[11]**, the ratio of the range of errors, and range of tare weights,  $R_C/R_T$ . If the range of tare weights is zero, the ratio will be infinity.
- f. Use Ratio ( $R_C/R_T$ ) column from Table 2-3 (page 8-39) to determine the total number of tare samples to be opened, record in **[12]**. If the ratio is infinity, the total number tare sample packages will remain the same as the initial tare sample.

For each additional tare sample, weigh and record the gross weight and tare weight.

- g. Calculate the average tare weight by adding all the tare weights recorded under **[B]**, and dividing the total by the number of tares weighed.

Record the average tare in **[13]**

**STEP 8. PACKAGE ERRORS**

Determine and record the error for each package in the sample.

- a. If errors are not determined by weight.

For each package in the sample, subtract from the measured net contents, the labeled contents. Record this value in the appropriate minus or plus column under **[E]**.

Go to Step 9.

- b. If errors are determined by weight.

Weigh and record the value of the gross weight for each remaining sample package in the column under **[A]**.

Calculate the Nominal Gross Weight **[14]**, which is used to determine package errors, by adding the Average Tare Weight **[13]**, to the Labeled Contents **[1]**.

Determine the error for each sample package, **including the tare sample packages**, by subtracting from the Gross Weight **[A]**, the Nominal Gross Weight **[14]** of each package. Record in the appropriate minus or plus column under **[E]**.

**STEP 9. TOTAL ERROR**

Calculate and record the Total Error (TE) **[15]**, by algebraically totaling the sample package plus and minus errors.

**STEP 10. UNREASONABLE MINUS ERRORS**

Identify any Unreasonable Minus Errors (UME); i.e., minus errors that exceed the Maximum Allowable Variation (MAV) or the Adjusted MAV, when applicable.

Circle all minus errors greater than the MAV **[3]**, or the Adjusted MAV **[4B]**, when applicable.

**STEP 11. DETERMINE LOT COMPLIANCE WITH THE MAV CRITERIA**

Count the number of UMES circled in Step 10, record in **[16]** and check the appropriate section in **[17]**.

- If the number of UMES **[16]** is greater than the number allowed **[8]**, the inspection lot is REJECTED and ordered OFF SALE.

Finish the inspection by determining the Average Error as computed in Step 12. If the average error is minus, calculate the percent error and total dollar value, Step 15 (page 8-19).

**Do not complete Steps 13 and 14.**

- If the number of UMES is equal to or less than the number allowed, continue to Step 12.

**STEP 12. AVERAGE ERROR**

Divide the Total Error [15], by the Sample Size [6].

Record the Average Error in [18].

- ▶ If the Average Error is zero or a plus value, ACCEPT the inspection lot.

Check the appropriate section in [20]. (Note: Box [19] has been omitted.)

**Do not complete Steps 13, 14 or 15.** The inspection is complete

- ▶ If the Average Error is a minus value, continue to Step 13.

**STEP 13. CALCULATE THE SAMPLE ERROR LIMIT (SEL)**

a. Compute the Sample Standard Deviation, and record in [21].

b. Multiply the Sample Standard Deviation by the Sample Correction Factor [22]. Record this value in [23].

**STEP 14. DETERMINE LOT COMPLIANCE WHEN THE AVERAGE ERROR [18] IS MINUS.** (If the average error is zero or plus, the lot status has already been determined.)

**GROUP MLA**

- ▶ If the Average Error [18] (omitting the minus sign) is less than or equal to the SEL [23], the lot is ACCEPTED.
- ▶ If the Average Error [18] (omitting the minus sign) is greater than the SEL + MLA ([23] + [4A]), the lot is REJECTED and ordered OFF SALE.
- ▶ If the Average Error [18] (omitting the minus sign) is greater than the SEL [23], AND less than or equal to the SEL + MLA ([23] + [4A]), the lot is in the **Gray Area**. This is a no decision area, the lot is neither accepted nor rejected, the status is not determined. Further investigation is necessary to rule out moisture loss as the reason for the shortage.

**GROUP OTHER**

- ▶ If the Average Error [18] (omitting the minus sign) is less than or equal to the SEL [23], the lot is ACCEPTED.
- ▶ If the Average Error [18] (omitting the minus sign) is greater than the SEL [23], the inspection lot is REJECTED and ordered OFF SALE.

**STEP 15. PERCENT ERROR AND TOTAL DOLLAR VALUE OF THE ERROR**

Complete this step only if the average error is a minus value.

- a. Divide the Average Error [**18**] by the Labeled Contents [**1**].

Multiply this value (☆) by 100 to determine the Percent Error.

- b. Multiply the value (☆) by the Inspection Lot Size [**5**] and the Price Per Package to determine the Total Dollar Value. Do not round up the final value (i.e., \$0.478 is written as \$0.47).

### **CATEGORY A, RANDOM PACK COMMODITIES**

(For Category A, Standard Pack Commodities see Page 8-15)

#### **STEP 4. BASIC INFORMATION**

Using the Sampling Plan from Table 2-1 (page 8-38) record on the PIR the Sample Size [6], Initial Tare Sample Size [7], Number of Minus Errors Allowed to Exceed the MAV (Unreasonable Minus Errors Allowed) [8], and Sample Correction Factor [22].

#### **STEP 5. SAMPLE AND INITIAL TARE SAMPLE**

- a. Randomly select the sample packages from the inspection lot. Mark or keep the packages in the same order as randomly selected. The first package randomly selected is the first Tare Sample package; the second random sample is the second, etc.
- b. Record the labeled contents of each sample package in the column under [1]. Total the labeled net contents and determine the average, record this value in box [1]. Use the letters "RA" to indicate this is the Random Average.

#### **STEP 6. TARE DETERMINATION**

**If errors are not determined by weight, go to Step 7, page 8-21.**

- a. For each package in the Initial Tare Sample, weigh and record the value of the gross weight in the column under [A] and the tare weight in the column under [B].

**If the number of packages in the inspection lot is eleven or less, skip to Step 6g. (Both the initial tare sample size and the total tare sample size will be two.)**

- b. Calculate the net weight for each package by subtracting from the gross [A], the tare [B]. Record the value in the column under [C]. Except for WET TARE commodities containing ice, free flowing liquids considered tare, or absorbent material, the net weight is not determined by direct weighing.
- c. Determine the error for each package in the initial tare sample by subtracting the labeled content [1] from the net weight [C]. Record the error in the column under [D].
- d. Record the Range of Errors ( $R_C$ ) [9] (the difference between the largest and smallest), and the Range of Tare Weights ( $R_T$ ) [10].
- e. Calculate, and record in [11], the ratio range of the errors and range of tare weights ( $R_C/R_T$ ) if the range of tare weights is zero, the ratio will be infinity.
- f. Use Ratio ( $R_C/R_T$ ) column from Table 2-3 (page 8-39) to determine the total number of tare samples to be opened and record in [12]. If the ratio is infinity, the number of tare sample packages will remain the same as the initial tare sample.

For each additional tare sample, weigh and record the gross weight and tare weight.



- g. Calculate the average tare weight by adding all the tare weights recorded under **[B]**, and dividing the total by the number of tares weighed.

Record the average tare in **[13]**.

#### **STEP 7. PACKAGE ERRORS**

Determine and record the error for each package in the sample.

- a. If errors are not determined by weight.

For each package in the sample, subtract from the measured net contents, the labeled contents. Record in the appropriate minus or plus column under **[E]**. Go to Step 8.

- . If errors are determined by weight.

Do not use box **[14]**.

Determine the error for each sample package, **including the tare sample packages**, by subtracting from the Gross Weight **[A]**, the Average Tare Weight **[13]**, and the Labeled Contents **[1]** of each package. Record in the appropriate minus or plus column under **[E]**.

#### **STEP 8. MAXIMUM ALLOWABLE VARIATION (MAV)**

- a. The MAV must be determined individually for each package in the sample. **Except for the items listed below**, use the appropriate Table, 2-5, 2-6, 2-7, 2-8 or 2-9 (pages 8-42 to 8-48) to determine the MAV. Table 2-9 is used for Meat and Poultry Products **packaged** in USDA plants. (USDA packages will be labeled with a USDA Establishment Number.)

##### **Polyethylene Sheeting and Film** (Table 2-10 on page 8-49)

- Thickness: 4% of the labeled thickness, based on the average of the thickness measurements of a single package.
- Weight: 4% of the labeled weight.

##### **Textiles** (Table 2-10 on page 8-49)

- Packages with any labeled dimensions less than 24 inches: 6% of the labeled dimension.
- Packages with all labeled dimensions 24 inches or more: 3%.

**Mulch and Soil:** (Table 2-10 on page 8-49) 5% of the labeled volume. If the Sample Size is 12 or less, one package may exceed the MAV. For a Sample Size of 24, two packages may exceed the MAV. For a Sample Size of 48, four packages may exceed.

**Firewood:** Not a consideration for determining firewood compliance, MAVs do not apply.

- b. Look up the MAV for the package with the smallest labeled contents and record it in the column under [3] "MAV from table."
- c. If the lot is in Group MLA, the MAV must be adjusted for the Moisture Loss Allowance (MLA).

For the package with the smallest labeled content, calculate the value of the MLA by multiplying the MLA in decimal form by the package's Labeled Content (from the column under [1]). Record in the column under box [4A].

**Note:** Box [4A] is the same as box [13A] in NIST Handbook 133.

Add the MAV [3] to the MLA [4A]. Record this value in the column under [4B] "ADJ MAV."

- d. If all minus package errors are less than the value of this MAV (or adjusted MAV), it is not necessary to continue as there will be no unreasonable minus errors. If any error is greater than the MAV (or adjusted MAV), repeat Steps 8b and 8c for each sample package having a minus error.

#### **STEP 9. TOTAL ERROR**

Calculate and record the Total Error (TE) [15] by algebraically totaling the sample package plus and minus errors.

#### **STEP 10. UNREASONABLE MINUS ERRORS**

Identify any Unreasonable Minus Errors (UME); i.e., minus errors that exceed the Maximum Allowable Variation (MAV) or the Adjusted Maximum Allowable Variation when applicable.

Circle all minus errors greater than the MAV, or Adjusted MAV, recorded for each sample package in the applicable column under [3] or [4B].

#### **STEP 11. DETERMINE LOT COMPLIANCE WITH THE MAV CRITERIA**

Count the number of UMES circled in Step 10. Record this number in [16] and check the appropriate section of [17].

- ▶ If the number of UMES [16] is greater than the number allowed [8], the inspection lot is REJECTED and ordered OFF SALE.

Finish the inspection by determining the Average Error as computed in Step 12. If the average error is minus, calculate the percent error and total dollar value, Step 15, page 8-24.

**Do not complete Steps 13 and 14.**

- ▶ If number of UMES is equal to or less than the number allowed, continue to Step 12.

**STEP 12. AVERAGE ERROR**

Divide the Total Error [15] by the Sample Size [6]. Record this value in [18].

- ▶ If the Average Error is zero or a plus value, ACCEPT the inspection lot. Check the appropriate section in [20]. (Note: Box [19] has been omitted.)

**Do not complete Steps 13, 14 or 15.** The inspection is complete.

- ▶ If the Average Error is a minus value, continue.

**STEP 13. CALCULATE THE SAMPLE ERROR LIMIT (SEL)**

- Compute the Sample Standard Deviation and record in [21].
- Multiply the Sample Standard Deviation by the Sample Correction Factor [22]. Record this value (SEL) in [23].

**STEP 14. DETERMINE LOT COMPLIANCE - AVERAGE ERROR [18] IS MINUS**

(If the average error is zero or plus, the lot status has already been determined.)

**If the commodity is in Group MLA:** Calculate and record the value of the MLA for the lot [4A], by multiplying the decimal percentage value of the MLA by the Random Average (Labeled Contents) [1].

**GROUP MLA**

- ▶ If the Average Error [18] (omitting the minus sign) is less than or equal to the SEL [23], the lot is ACCEPTED.
- ▶ If the Average Error [18] (omitting the minus sign) is greater than the SEL + MLA ([23] + [4A]), the lot is REJECTED and ordered OFF SALE.
- ▶ If the Average Error [18] (omitting the minus sign) is greater than the SEL [23], AND less than or equal to the SEL + MLA ([23] + [4A]), the lot is in the **Gray Area**. This is a no decision area, the lot is neither accepted nor rejected, and the status is not determined. Further investigation is necessary to rule out moisture loss as the reason for the shortage.

**GROUP OTHER**

- ▶ If the Average Error [18] (omitting the minus sign) is less than or equal to the SEL [23], the lot is ACCEPTED.
- ▶ If the Average Error [18] (omitting the minus sign) is greater than the SEL [23], the inspection lot is REJECTED and ordered OFF SALE.

**STEP 15. PERCENT ERROR AND TOTAL DOLLAR VALUE OF THE ERROR**

Complete this step only if the average error is a minus value.

- a. Divide the Average Error **[18]** by the Random Average (Labeled Contents) **[1]**.

Multiply this value (☆) by 100 to determine the Percent Error.

- b. Multiply the value (☆) by the Inspection Lot Size **[5]** the Price per Pound, and the Random Average (Labeled Contents) **[1]** to determine the Total Dollar Value. (If not testing by weight, use the price per unit instead of the price per pound.) Do not round up the final value (i.e., \$0.478 is written as \$0.47).

**CATEGORY B, STANDARD PACK COMMODITIES**

**USED ONLY WHEN TESTING IN A USDA INSPECTED PACKING PLANT**

(For Category B, Random Pack Commodities, see Page 8-28)

**STEP 3. BASIC INFORMATION**

Using the Sampling Plan from Table 2-2 (page 8-38) look up and record on the (PIR): the Sample Size [6], Initial Tare Sample Size [7], and the Number of Minus Errors Allowed to Exceed the MAV (Unreasonable Errors Allowed) [8].

**STEP 4. MAXIMUM ALLOWABLE VARIATION (MAV)**

- a. **Use Table 2-9** (page 8-48) to look up the MAV.
- b. Record the MAV in decimal form in [3] "MAV from table."

**STEP 5. SAMPLE AND INITIAL TARE SAMPLE SELECTION**

Randomly select the sample packages from the inspection lot. Mark or keep the packages in the same order as randomly selected. The first package randomly selected is the first Tare Sample package. The second random sample is the second, etc.

**STEP 6. TARE DETERMINATION Only Unused or Dried Used Tare (Dry Tare) is to be used when conducting tests in USDA plants.**

- a. For each package in the Initial Tare Sample, weigh and record the value of the gross weight [A] and the tare weight [B].

**If the number of packages in the inspection lot is eleven or less, skip to Step 6g. (Both the initial tare sample size and the total tare sample size will be two.)**

- b. Calculate the net weight by subtracting from the gross [A], the tare [B]. Record in [C]. The net weight is always determined by subtracting the tare from the gross. It is not weighed directly.
- c. Determine the error for each package in the initial tare sample by subtracting the labeled content [1] from the net weight [C]. Record in [D].
- d. Record the Range of Errors ( $R_C$ ) [9] (the difference between the largest and smallest), and the Range of Tare Weights ( $R_T$ ) [10].
- e. Calculate and record in [11] the ratio of the range of errors and the range of tare weights ( $R_C/R_T$ ). If the range of tare weights is zero, the ratio will be infinity.

- f. Use Ratio,  $R_C/R_T$ , column from Table 2-4 (page 8-41) to determine the total number of tare samples to be opened, record in [12]. If the ratio is infinity, the number of tare sample packages will remain the same as an initial tare sample.

For each additional tare sample, weigh and record the gross weight and tare weight.

- g. Calculate the average tare weight by adding all of the tare weights recorded under [B] and dividing the total by the number of tares weighed.

Record the average tare in [13].

#### **STEP 7. PACKAGE ERRORS**

Weigh and record the value of the gross weight for each remaining sample package in the column under [A].

Calculate the Nominal Gross Weight [14] (which is used to determine package errors), by adding the Average Tare Weight [13] to the Labeled Contents [1].

Determine the error for each sample package, **including the tare sample packages**, by subtracting from the Gross Weight [A], the Nominal Gross Weight [14] of each package. Record in the appropriate minus or plus column of Section [E].

#### **STEP 8. TOTAL ERROR**

Calculate and record the Total Error (TE) [15] by algebraically totaling the sample package plus and minus errors.

#### **STEP 9. UNREASONABLE MINUS ERRORS**

Identify any Unreasonable Minus Errors (UME); i.e., minus errors that exceed the Maximum Allowable Variation (MAV).

Circle all minus errors greater than the MAV [3]. Note box [4] has been omitted.

#### **STEP 10. DETERMINE LOT COMPLIANCE WITH THE MAV CRITERIA**

Count the number of UME's circled in Step 9, record in [16] and check the appropriate section of [17].

- If the number of UME's [16] is greater than the number allowed [8], the inspection lot is REJECTED and ordered OFF SALE.

Finish the inspection by determining the Average Error as computed in Step 11. If the average error is minus, calculate the Percent Error and Total Dollar Value, Step 13, page 8-27.

**Do not complete Step 12**

**STEP 11. AVERAGE ERROR**

Divide the Total Error [15] by the Sample Size [6].

Record the average Error in [18].

**STEP 12. DETERMINE LOT COMPLIANCE**

- ▶ If the Average Error [18] is zero or plus value, ACCEPT the inspection lot. Check the appropriate section of [19].

**Do not complete Step 13.** The inspection is complete.

- ▶ If the Average Error [18] is minus, the inspection lot is REJECTED and ordered OFF SALE. Continue to Step 13.

**STEP 13. PERCENT ERROR AND TOTAL DOLLAR VALUE OF THE ERROR**

Complete this step only if the average error is a minus value.

- Divide the Average Error [18] by the Labeled Contents [1]. Multiply this value (☆) by 100 to determine the Percent Error.
- Multiply the value (☆) by the Inspection Lot Size [5] and the Price per Package to determine the Total Dollar Value. Do not round up the final value (i.e., \$0.478 is written as \$0.47).

### **CATEGORY B, RANDOM PACK COMMODITIES**

(For Category B, Standard Pack Commodities, see Page 8-25)

#### **STEP 3. BASIC INFORMATION**

Using the Sampling Plan from Table 2-2, page 8-38, look up and record on the PIR: the Sample Size [6], Initial Tare Sample Size [7], and the Number of Minus Errors Allowed to Exceed the MAV (Unreasonable Errors Allowed) [8].

#### **STEP 4. SAMPLE AND INITIAL TARE SAMPLE**

- a. Randomly select the sample packages from the inspection lot. Mark or keep the packages in the same order as randomly selected. The first package randomly selected is the first Tare Sample package. The second random sample is the second Tare Sample package, etc.
- b. Record the labeled contents of each sample package in the column under [1]. Total and determine the random average, record in [1]. Use the letters "RA" to indicate this is the random average.

#### **STEP 5. TARE DETERMINATION Only Unused or Dried Used Tare (Dry Tare) is to be used.**

- a. For each package in the Initial Tare Sample, weigh and record the value of the gross weight [A] and the tare weight [B].

**If the number of packages in the inspection lot is eleven or less, skip to Step 5g. (Both the initial tare sample size and the total tare sample size will be two.)**

- b. Calculate the net weight for each package by subtracting from the gross [A], the tare [B]. Record in [C]. The net weight is always determined by subtracting the tare from the gross. It is not weighed directly.
- c. Determine the error for each package in the initial tare sample by subtracting the labeled content [1] from the net weight [C]. Record in [D].
- d. Record the Range of Errors ( $R_C$ ) [9] (the difference between the largest and smallest), and the Range of Tare Weights ( $R_T$ ) [10].
- e. Calculate and record in [11] the ratio of the range of errors and range of tare weights,  $R_C/R_T$ . If the range of tare weights is zero, the ratio will be infinity.
- f. Use Ratio ( $R_C/R_T$ ) column from Table 2-4, page 8-41, to determine the total number of tare samples to be opened. Record in [12]. If the ratio is infinity, the number of tare sample packages will remain the same as the Initial Tare Sample. For each additional tare sample, weigh and record the gross weight and tare weight.
- g. Calculate the average tare weight by adding all of the tare weights recorded under [B] and dividing the total by the number of tares weighed.

Record the average tare in [13].



**STEP 6. PACKAGE ERRORS** Determine and record the error for each package in the sample.

Do not use box [14].

Weigh and record the value of the gross weight for each remaining sample package in the column under [A].

Determine the error for each sample package, **including the tare sample packages**, by subtracting from the Gross Weight [A], the Average Tare Weight [13], and the Labeled Contents [1], of each package. Record in the appropriate minus or plus column of Section [E].

**STEP 7. MAXIMUM ALLOWABLE VARIATION (MAV)** The MAV must be determined individually for each package in the sample.

- a. Using Table 2-9 (page 8-48) look up the MAV for the package with the smallest labeled contents and record it in the column under [3], "MAV from table."
- b. If all minus package errors are less than the value of this MAV, it is not necessary to continue as there will be no unreasonable minus errors. If any error is greater than the MAV, repeat Step 7a for each sample package having a minus error.

**STEP 8. TOTAL ERROR**

Calculate and record the Total Error (TE) [15], by algebraically totaling the sample package plus and minus errors.

**STEP 9. UNREASONABLE MINUS ERRORS**

Identify any Unreasonable Minus Errors (UME); i.e., minus errors that exceed the Maximum Allowable Variation (MAV).

Circle all minus errors greater than the MAV recorded for each sample package in the column under [3]. Note Box [4] has been omitted.

**STEP 10. DETERMINE LOT COMPLIANCE WITH THE MAV CRITERIA**

Count the number of UME's circled according to Step 9, record in [16] and check the appropriate section of [17].

- ▶ If the number of UME's [16] is greater than the number allowed [8], the inspection lot is REJECTED and ordered OFF SALE.

Finish the inspection by determining the "Average Error" as computed in Step 11. If the average error is minus, calculate the percent error and total dollar value, Step 13.

**STEP 11. AVERAGE ERROR**

Divide the Total Error [15] by the Sample Size [6].

Record the average error in [18].

**STEP 12. DETERMINE LOT COMPLIANCE**

▶ If the Average Error [18] is zero or plus, the lot is ACCEPTED.

**Do not complete Step 14.** The inspection is complete.

▶ If the Average Error [18] is minus, the inspection lot is REJECTED and ordered OFF SALE. Check the appropriate box in [19] and continue to Step 13.

**STEP 13. PERCENT ERROR AND TOTAL DOLLAR VALUE OF THE ERROR**

Complete this step only if the average error is a minus value.

- a. Divide the Average Error [18] by the Random Average (Labeled Contents) [1]. Multiply this value (☆) by 100 to determine the Percent Error.
- b. Multiply the value (☆) by the Inspection Lot Size [5], the Price per Pound, and the Random Average Weight [1] to determine the Total Dollar Value. Do not round up the final value (i.e., \$0.478 is written as \$0.47).

**CATEGORY C: USED ONLY FOR PACKAGES LABELED  
WITH A COUNT OF 50 OR LESS**

**STEP 3. BASIC INFORMATION**

Using the Sampling Plan from Table 2-11 (page 8-50) look up and record on the Package Inspection Report (PIR), the Sample Size [6] and Number of Packages Allowed to Contain Fewer Than the Labeled Count [8]. **Note: Box [3] has been removed from this Category's form.**

**STEP 4. MAXIMUM ALLOWABLE VARIATION (MAV)**

Use Table 2-7 (page 8-46) to look up the MAV. Record in [8A].

**STEP 5. SAMPLE SELECTION**

Randomly select the Sample Packages from the inspection lot.

**STEP 6. PACKAGE ERRORS**

Determine and record the error for each package in the sample in the appropriate minus or plus column under [E].

**STEP 7. TOTAL ERROR**

Calculate and record the Total Error (TE) [15] by totaling the sample package plus and minus errors.

**STEP 8. MINUS ERRORS** Count the number of packages having minus errors of 1 or more. (Ignore any decimal values, do not round.) Record the number counted in [16].

- ▶ If the total number of packages with minus errors [16] exceeds the Number Allowed [8], the inspection lot is REJECTED and OFF SALE. Go to **STEP 10**.
- ▶ If the total number of packages with minus errors [16] is less than or equal to the number allowed [8], ACCEPT the lot, and continue to **STEP 9**.

**STEP 9. UNREASONABLE MINUS ERRORS**

Identify and order OFF SALE any packages with minus errors larger than the MAV [8A].

**STEP 10. AVERAGE ERROR**

Calculate the Average Error [18], by dividing the Total Error [15] by the Sample Size [6].

**STEP 11. PERCENT ERROR AND TOTAL DOLLAR VALUE OF THE ERROR**

Complete this step only if the average error is a minus value.

- a. Divide the Average Error **[18]** by the number of units in the Labeled Contents **[1]**. Multiply this value ( $\star$ ) by 100 to determine the Percent Error.
- b. To determine the Total Dollar Value, multiply the value ( $\star$ ) by the Inspection Lot Size **[5]**, and the Price Per Package. Do not round up the final value (i.e., \$0.478 is written as \$0.47).

## **EXPLANATION OF TERMS**

### **Acceptable Data for Moisture Loss Allowance at the Packing Location (FDA):**

The data must be computed on a daily basis using the average moisture loss determined in environmental conditions similar to those that exist when the product is being inspected.

At least three sample control lots, consisting of at least 48 randomly selected packages, must be used to develop the moisture loss data. The three sample control lots must be placed at various locations in the storage site. Each sample must be stored under the same conditions as are typical for the product. Moisture loss data obtained by removing the individual packages from shipping cases and storing them in a laboratory would not be acceptable.

The weight of each package in each of the sample control lots is determined every day for seven days, except that fresh bakery products are weighed hourly. The average moisture loss value must be computed from the three sample control lots with a 95% prediction interval.

Example: An official visits a pet food plant in Los Angeles in the middle of July to conduct a point-of-pack inspection. If the product tested had been packaged five days before the inspection and is found underweight, the moisture loss data must reflect the loss that would occur in July, not January. If the product is typically placed in a sealed case on a pallet and shrink wrapped, the sample lots must be stored under the same conditions.

**Device Division:** The division/graduation of the scale, or other device, used to conduct the test for compliance with net content requirements.

**MLA Computations:** If the MLA (Moisture Loss Allowance) is stated as a percentage, it must be converted to decimal form to be used in computations.

Example: Calculate the MLA and adjusted MAV (Maximum Allowable Variation). For a lot of Dry Pet Food in fiberboard box.

Labeled Net Weight: 12 ounces (340 grams)

Moisture Loss Allowance = 3% (from page 8-12, Step 3)

MAV: 9/16 ounce, 0.036 pound, or 16.3 grams (Table 2-5, page 8-42)

MLA Computations (Continued):

MLA: 12 oz labeled weight

$$3\% \text{ MLA} \div 100 = 0.03$$

$$12 \text{ oz} \times 0.03 = 0.36 \text{ oz}$$

MAV from Table

$$9/16 \text{ oz} = 0.5625 \text{ oz}$$

$$\text{Adjusted MAV: (MLA + MAV)} \quad 0.36 \text{ oz} + 0.5625 \text{ oz} = 0.9225$$

Inspection Lot: A collection of identically labeled packages (except for quantity for random packages) available for inspection at one time. The packages in the Inspection Lot will pass or fail as a whole based on the results of the tests of a sample of packages drawn from the Inspection Lot. At retail it is not necessary to sort by lot codes, but to enable follow-up, all codes included in the sample are to be recorded on the report.

Nominal Gross Weight: The sum of the labeled weight and the average tare. It is the value that will be compared with the gross weight of a package to determine the package error. For example, when testing a lot of cereal packages with a labeled weight of 15 oz, the average tare is found to be 1.4 oz. Adding these two values results in a nominal gross weight of 16.4 oz. The first sample package of cereal is placed on the scale, and weighs 15.8 oz, gross (including tare). To determine the package error, the nominal gross weight is subtracted from the measured gross weight;  $15.8 - 16.4 = -0.6$  oz error.

Random Pack Lot: A collection of packages of a commodity with identical labels, **except** for the net weight. For example, bricks of cheese labeled: Extra Sharp Cheddar, Audrey Cheese Company, Sell by April 1' 96, each having a different labeled net weight ranging from 0.94 lb to 1.64 lb.

Sample Error Limit: A statistical value that allows for the uncertainty between the sample average error and the inspection lot average error. The Sample Error Limit or SEL is determined by multiplying the lot's sample standard deviation by a correction factor that takes into consideration the lot size (see Table 2-1 Sampling Plans for Category A).

Standard Pack Lot: A collection of packages of a commodity with identical labels, all with the same net weight. For example, bricks of cheese labeled: Extra Sharp Cheddar, Audrey Cheese Company, Sell by April 1'96, Net Weight 1 lb, 454 grams.

Standard Deviation of a Sample: The direct measure of variation of the individual package errors from the average of the package errors in the sample. To calculate manually, the following formula is the simplest to use.

$$\sqrt{\frac{\sum x_i^2 - (\sum x_i)^2 / n}{(n-1)}}$$

$\Sigma$  means the sum of  
 $x_i$  means the individual package errors  
 $n$  means the sample size  
 (number of items in the sample)

Written out, this is the square root of: the sum of the squares of the individual package errors minus, the square of the sum of the individual package errors divided by the number of the items in the sample, divided by the number of items in the sample minus one.

Example: The recorded errors for a 12-item sample are:

$x_i$	$x_i^2$
+ 1	1
- 3	9
- 4	16
- 2	4
- 3	9
- 1	1
0	0
+ 2	4
- 2	4
- 3	9
- 1	1
<u>0</u>	<u>0</u>

$$\sqrt{\frac{\sum x_i^2 - (\sum x_i)^2 / n}{(n - 1)}}$$

$$\sum x_i - 16 \sum x_i^2 \quad 58$$

Calculate the square root of:  $\frac{58 - [(-16)^2 / 12]}{(12-1)}$

$$\frac{58 - (256 / 12)}{11}$$

$$\frac{58 - 21.33}{11}$$

$$\frac{36.67}{11}$$

$$3.33$$

Both the square root and the Standard Deviation are 1.82.

Tare: Unless otherwise provided, tare includes all material, substances, or items not included in the required declaration of identity. Any substances that are absorbed by the packaging material and any ice or ice glaze in the package of a product, except when the product is ice shall be considered tare. Tare also includes glue, labels, ties, prizes, coupons, decorations, etc., which are not an essential part of the product.

Dried Used Tare: Used tare material dried in order to approximate Unused Tare. Nonabsorbent materials are cleaned and wiped dry. Absorbent materials are cleaned and dried of absorbed fats and fluids. Soakers are pressed as dry as possible between toweling, using a rolling pin or some method to dry toweling appropriately. For purposes of these sampling and testing procedures, DRIED USED TARE is also known as DRY TARE.

Dry Tare: See UNUSED TARE and DRIED USED TARE.

Unused Tare: New tare material that has never been used in the packaging of a commodity. Also known as DRY TARE.

Used Tare: Used tare material which has not been dried or cleaned. Used tare includes any substances absorbed by the packaging material, free-flowing liquids, and any ice or ice glaze except when the product is ice. Also known as WET TARE.

Wet Tare: See USED TARE



## **FEDERAL AGENCIES AND REGULATED COMMODITIES**

### **THESE AGENCIES ALLOW FOR MOISTURE LOSS:**

#### FEDERAL FOOD AND DRUG ADMINISTRATION (FDA)

Food and drink for man or animal, chewing gum, and components of same.

Devices intended for use in the diagnosis, cure, mitigation, treatment or prevention of disease in man or animal, or to affect the structure or function.

Drugs intended for the treatment or prevention of disease, or articles intended to affect the structure or function of the body of man or animal.

Cosmetics, fragrances, and cleansing agents (except for medicated soap).

#### UNITED STATES DEPARTMENT OF FOOD AND AGRICULTURE (USDA)

Meat and poultry, and meat and poultry products

#### BUREAU OF ALCOHOL, TOBACCO, AND FIREARMS, TREASURY DEPARTMENT (BATF)

#### FEDERAL TRADE COMMISSION (FTC)

Consumer commodities consumed when used about the person or home.

Adhesives and sealants

Air fresheners

Cleaning and laundry compounds, household supplies

Waxes and polishes

### **THESE AGENCIES DO NOT ALLOW FOR MOISTURE LOSS:**

#### ENVIRONMENTAL PROTECTION AGENCY (EPA)

Disinfectants, germ-killing, or germ-proofing products

Insecticides, fungicides, and herbicides

#### UNITED STATES DEPARTMENT OF FOOD AND AGRICULTURE (USDA)

Agricultural Seeds

**Table 2-1. Sampling Plans for Category A**

1	2	3	4	5		
Inspection Lot Size (N)	Sample Size (n)	Sample Correction Factor	Number of Minus Package Errors Allowed to Exceed the MAV (Also known as Unreasonable Minus Errors - UME's)	Initial Tare Sample Size <sup>a</sup> (n <sub>t</sub> )		
1	1	Apply MAV	0	Glass and Aerosol Packages	All Other Packages	
2	2	8.984		2	2	
3	3	2.484				
4	4	1.591				
5	5	1.241				
6	6	1.050				
7	7	0.925				
8	8	0.836				
9	9	0.769				
10	10	0.715				
11	11	0.672				
12 to 250	12	0.635				
251 to 3,200	24	0.422				3
More than 3,200	48	0.291	1			
Sample Error Limit (SEL) = sample standard deviation x sample correction factor (column 3)						

<sup>a</sup> Tare Procedures - Obtain the "initial tare sample" from the sample selected from the inspection lot. Keep the packages in the order in which their corresponding random numbers were obtained. The "initial tare sample" packages are the first 2, 3, or 5 packages (as appropriate for the sample size) of the sample. Used dried tare weights are determined by emptying, cleaning, drying (if necessary), and weighing all packaging materials. For Standard Lots, determine the range of tare weights (R<sub>t</sub>) and range of net weights (R<sub>c</sub>). For Random Lots determine the range of tare weights (R<sub>t</sub>) and range of errors (R<sub>c</sub>). Compute R<sub>c</sub>/R<sub>t</sub> and look up this value in Table 2.3 (or 2.4 if Category B). Determine if additional packages must be opened and measured to determine an average tare.

**Note:** If the Sample Size is 11 or less, both the initial tare sample size and the total tare sample size is 2. There is no need to compute R<sub>c</sub>/R<sub>t</sub> or to take additional tare samples.

**Table 2-2. Sampling Plans for Category B  
Use Only for Testing Meat and Poultry Products in Federally Inspected Plants**

1	2	3	4
Inspection Lot Size (N)	Sample Size (n)	Initial Tare Sample Size <sup>a</sup> (n <sub>t</sub> )	Number of minus package errors allowed to exceed the MAVs in Table 2-9. U.S. Department of Agriculture, Meat and Poultry, Groups and Lower Limits for Individual Packages (Also known as Unreasonable Minus Errors-UME's)
250 or less	10	2	0
251 or more	30	5	0

<sup>a</sup> See note "a" to Table 2-1 above.

Table 2-3. Category A – Total Number of Packages to be Opened for Tare Determination Numbers Include those Packages Opened for Initial Tare Sample					
Ratio of $R_c/R_t$	Total Number of Packages in Tare Sample				
Sample Size	12	24		48	
Initial Tare Sample Size	2	2	3	2	3
If $R_t$ equals "zero," use Initial Tare Sample Size. If the ratio is "zero" based on a "zero" $R_c$ open all of the packages in the sample.	2	2	3	2	3
If the ratio is greater than 0 but less than or equal to 0.2	12	24	24	48	48
0.21 to 0.60	12	24	24	48	48
0.61 to 0.70	12	24	24	47	47
0.71 to 0.80	12	23	23	47	47
0.81 to 1.00	12	23	23	46	46
1.01 to 1.10	11	23	23	46	46
1.11 to 1.20	11	23	23	45	45
1.21 to 1.30	11	22	22	45	45
1.31 to 1.50	11	22	22	44	44
1.51 to 1.60	11	22	22	43	43
1.61 to 1.70	11	21	21	42	42
1.71 to 1.80	10	21	21	42	42
1.81 to 1.90	10	21	21	41	41
1.91 to 2.00	10	20	20	41	41
2.01 to 2.10	10	20	20	40	40
2.11 to 2.20	10	20	20	39	39
2.21 to 2.30	10	19	19	39	39
2.31 to 2.40	9	19	19	38	38
2.41 to 2.50	9	19	19	37	37
2.51 to 2.60	9	18	18	37	37
2.61 to 2.70	9	18	18	36	36
2.71 to 2.80	9	18	18	35	35
2.81 to 2.90	9	17	17	34	34
2.91 to 3.00	8	17	17	34	34
3.01 to 3.10	8	17	17	33	33
3.11 to 3.30	8	16	16	32	32
3.31 to 3.40	8	16	16	31	31
3.41 to 3.50	8	15	15	30	30
3.51 to 3.60	7	15	15	30	30
3.61 to 3.70	7	15	15	29	29
3.71 to 3.90	7	14	14	28	28
3.91 to 4.00	7	14	14	27	27
4.01 to 4.10	7	13	13	27	27
4.11 to 4.20	7	13	13	26	26
4.21 to 4.30	6	13	13	25	25
4.31 to 4.40	6	12	12	25	25
4.41 to 4.60	6	12	12	24	24
4.61 to 4.70	6	12	12	23	23
4.71 to 4.80	6	11	11	23	23
4.81 to 4.90	6	11	11	22	22
4.91 to 5.00	5	11	11	22	22

Go to Next Page for Additional Values.

Table 2-3. (Continued)					
Category A – Total Number of Packages to be Opened for Tare Determination Numbers Include those Packages Opened for Initial Tare Sample					
Ratio of $R_o/R_t$ Sample Size	Total Number of Packages in Tare Sample				
	12	24		48	
Initial Tare Sample Size	2	2	3	2	3
5.01 to 5.10	5	11	11	21	21
5.11 to 5.20	5	10	10	21	21
5.21 to 5.40	5	10	10	20	20
5.41 to 5.60	5	10	10	19	19
5.61 to 5.70	5	9	9	19	19
5.71 to 5.80	5	9	9	18	18
5.81 to 5.90	4	9	9	18	18
5.91 to 6.10	4	9	9	17	17
6.11 to 6.20	4	8	8	17	17
6.21 to 6.50	4	8	8	16	16
6.51 to 6.70	4	8	8	15	15
6.71 to 6.80	4	7	7	15	15
6.81 to 7.00	4	7	7	14	14
7.01 to 7.20	3	7	7	14	14
7.21 to 7.40	3	7	7	13	13
7.41 to 7.60	3	6	6	13	13
7.61 to 8.00	3	6	6	12	12
8.01 to 8.20	3	6	6	11	11
8.21 to 8.50	3	5	5	11	11
8.51 to 8.80	3	5	5	10	10
8.81 to 9.00	2	5	5	10	10
9.01 to 9.30	2	5	5	9	9
9.31 to 9.70	2	4	4	9	9
9.71 to 10.40	2	4	4	8	8
10.41 to 10.90	2	4	4	7	7
10.91 to 11.30	2	3	3	7	7
11.31 to 12.50	2	3	3	6	6
12.51 to 13.20	2	3	3	5	5
13.21 to 13.90	2	2	3	5	5
13.91 to 16.00	2	2	3	4	4
16.01 to 19.10	2	2	3	3	3
19.11 to 19.20	2	2	3	2	3
Initial Tare Sample Size	2	2	3	2	3

<b>Table 2-4. Category B – Total Number of Packages to be Opened for Tare Determination Numbers Include those Packages Opened for Initial Tare Sample</b>		
<b>Ratio of <math>R_c/R_t</math></b>	<b>Total Number of Packages in Tare Sample</b>	
<b>Sample Size</b>	<b>10</b>	<b>30</b>
<b>Initial Tare Sample Size</b>	<b>2</b>	<b>5</b>
If $R_t$ equals “zero” range, use Initial Tare Sample Size. If the ratio is “zero” based on a “zero” $R_c$ open all the packages in the sample.	2	5
If the ratio is greater than 0 but less than or equal to 0.2	10	30
0.21 to 0.40	10	29
0.41 to 0.60	10	28
0.61 to 0.80	9	26
0.81 to 1.00	8	24
1.01 to 1.20	8	23
1.21 to 1.40	7	21
1.41 to 1.60	7	19
1.61 to 1.80	6	17
1.81 to 2.00	5	15
2.01 to 2.20	5	14
2.21 to 2.40	5	13
2.41 to 2.60	4	12
2.61 to 2.80	4	11
2.81 to 3.00	4	10
3.01 to 3.20	3	9
3.21 to 3.60	3	8
3.61 to 3.80	3	7
3.81 to 4.40	2	6
If the ratio is greater than 4.40, use the Initial Tare Sample Size	2	5

**Table 2-5. Maximum Allowable Variations (MAVs) for Packages Labeled by Weight<sup>a</sup>  
(Use Table 2-9 for meat and poultry products subject to USDA requirements)**

SI Units			Inch-Pound Units		
Labeled Weight <sup>b</sup>		MAV	Labeled Weight <sup>b</sup>		MAV
grams (g)		Grams (g)	Pound (lb) or Ounce (oz)	Decimal Pound (lb)	Fractional Ounce (oz)
≤ 36		10% of labeled quantity	≤ 0.08 lb ≤ 1.28 oz		10% of labeled quantity
> 36	54	3.6	> 0.08 lb ≤ 0.12 lb > 1.28 oz ≤ 1.92 oz	0.008	1/8
> 54	81	5.4	> 0.12 lb ≤ 0.18 lb > 1.92 oz ≤ 2.88 oz	0.012	3/16
> 81	117	7.2	> 0.18 lb ≤ 0.26 lb > 2.88 oz ≤ 4.16 oz	0.016	¼
> 117	≤ 154	9.0	> 0.26 lb ≤ 0.34 lb > 4.16 oz ≤ 5.44 oz	0.020	5/16
> 154	≤ 208	10.8	> 0.34 lb ≤ 0.46 lb > 5.44 oz ≤ 7.36 oz	0.024	3/8
> 208	≤ 263	12.7	> 0.46 lb ≤ 0.58 lb > 7.36 oz ≤ 9.28 oz	0.028	7/16
> 263	≤ 317	14.5	> 0.58 lb ≤ 0.70 lb > 9.28 oz ≤ 11.20 oz	0.032	½
> 317	≤ 381	16.3	> 0.70 lb ≤ 0.84 lb > 11.20 oz ≤ 13.44 oz	0.036	9/16
> 381	≤ 426	18.1	> 0.84 lb ≤ 0.94 lb > 13.44 oz ≤ 15.04 oz	0.040	5/8
> 426	≤ 489	19.9	> 0.94 lb ≤ 1.08 lb > 15.04 oz ≤ 17.28 oz	0.044	11/16
> 489	≤ 571	21.7	> 1.08 lb ≤ 1.26 lb	0.048	¾
> 571	≤ 635	23.5	> 1.26 lb ≤ 1.40 lb	0.052	13/16
> 635	≤ 698	25.4	> 1.40 lb ≤ 1.54 lb	0.056	7/8
> 698	≤ 771	27.2	> 1.54 lb ≤ 1.70 lb	0.060	15/16

<sup>a</sup> Applies only to shortages in package weight (that is, the MAV is compared with minus package errors only)

<sup>b</sup> > means "greater than"

≤ means "less than or equal to"

See Category A, Step 5a for polyethylene and Table 2-10

**Table 2-5. (continued) Maximum Allowable Variations (MAVs) for Packages Labeled by Weight<sup>a</sup>  
(Use Table 2-9 for meat and poultry products subject to USDA requirements)**

SI Units		
Labeled Weight		MAV
Gram (g) or Kilogram (kg)		gram (g)
> 771 ≤ 852		29.0
> 852 ≤ 970		31.7
> 970 ≤ 1.12		35.3
> 1.12 ≤ 1.25		39.0
> 1.25 ≤ 1.45		42.6
> 1.45 ≤ 1.76		49.0
> 1.76 ≤ 2.13		54.0
> 2.13 ≤ 2.63		63.0
> 2.63 ≤ 3.08		68.0
> 3.08 ≤ 3.58		77.0
> 3.58 ≤ 4.26		86.0
> 4.26 ≤ 5.30		99.0
> 5.30 ≤ 6.48		113
> 6.48 ≤ 8.02		127
> 8.02 ≤ 10.52		140
> 10.52 ≤ 14.33		167
> 14.33 ≤ 19.23		199
> 19.23 ≤ 24.67		226
> 24.67		2% of labeled quantity

Inch-Pound Units		
Labeled Weight	MAV	
Pound (lb)	Decimal Pound (lb)	Ounce (oz)
> 1.70 lb ≤ 1.88 lb	0.064	1
> 1.88 lb ≤ 2.14 lb	0.070	1 1/8
> 2.14 lb ≤ 2.48 lb	0.078	1 ¼
> 2.48 lb ≤ 2.76 lb	0.086	1 3/8
> 2.76 lb ≤ 3.20 lb	0.094	1 ½
> 3.20 lb ≤ 3.90 lb	0.11	1 ¾
> 3.90 lb ≤ 4.70 lb	0.12	2
> 4.70 lb ≤ 5.80 lb	0.14	2 ¼
> 5.80 lb ≤ 6.80 lb	0.15	2 ½
> 6.80 lb ≤ 7.90 lb	0.17	2 ¾
> 7.90 lb ≤ 9.40 lb	0.19	3
> 9.40 lb ≤ 11.70 lb	0.22	3 ½
> 11.70 lb ≤ 14.30 lb	0.25	4
> 14.30 lb ≤ 17.70 lb	0.28	4 ½
> 17.70 lb ≤ 23.20 lb	0.31	5
> 23.20 lb ≤ 31.60 lb	0.37	6
> 31.60 lb ≤ 42.40 lb	0.44	7
> 42.40 lb ≤ 54.40 lb	0.50	8
> 54.40 lb	2% of labeled quantity	

**Table 2-6. Maximum Allowable Variations (MAVs)  
for Packages Labeled by Liquid or Dry Volume<sup>a</sup>**

(Use Table 2-9 for meat and poultry products subject to USDA requirements)

SI Units		Inch-Pound Units			
Labeled Quantity (mL) <sup>d</sup>	Liquid and Dry MAV (mL)	Labeled Quantity <sup>d</sup> (fl oz)	Liquid MAV (fl oz)	Labeled Quantity <sup>d</sup> (cu in)	Dry MAV (cu in)
≤ 3	0.5 <sup>c</sup>	≤ 0.50	0.2 <sup>b</sup>	≤ 0.18	0.03
> 3 ≤ 8	1.0 <sup>c</sup>	> 0.50 ≤ 0.75	0.06	> 0.18 ≤ 0.49	0.06
> 8 ≤ 14	1.5 <sup>c</sup>	> 0.75 ≤ 2.25	0.13	> 0.49 ≤ 0.92	0.09
> 14 ≤ 22	1.7	> 2.25 ≤ 4.25	0.19	> 0.92 ≤ 1.35	0.10
> 22 ≤ 66	3.8	> 4.25 ≤ 5.75	0.25	> 1.35 ≤ 4.06	0.23
> 66 ≤ 125	5.6	> 5.75 ≤ 7.50	0.31	> 4.06 ≤ 7.66	0.34
> 125 ≤ 170	7.3	> 7.50 ≤ 11.75	0.38	> 7.66 ≤ 10.37	0.45
> 170 ≤ 221	9.1	> 11.75 ≤ 17.00	0.50	> 10.37 ≤ 13.53	0.55
> 221 ≤ 347	11.2	> 17.00 ≤ 21.00	0.63	> 13.53 ≤ 21.20	0.68
> 347 ≤ 502	14.7	> 21.00 ≤ 27.00	0.75	> 21.20 ≤ 30.67	0.90
> 502 ≤ 621	18.6	> 27.00 ≤ 31.00	0.88	> 30.67 ≤ 37.89	1.13
> 621 ≤ 798	22.1	> 31.00 ≤ 39.00	1.00	> 37.89 ≤ 48.72	1.35
		> 39.00 ≤ 55.00	1.25	> 48.72 ≤ 55.94	1.58
		> 55.00 ≤ 69.00	1.50	> 55.94 ≤ 70.38	1.80

Liquid Measure Equivalents: 1 pint = 16 fl oz 1 quart = 32 fl oz 1 gallon = 128 fl oz	
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<sup>a</sup> Applies to shortages in package volume (that is, minus package errors).

<sup>b</sup> It is preferable to convert to SI units and use laboratory glassware.

<sup>c</sup> Use laboratory glassware.

<sup>d</sup> > means "greater than".

≤ means "less than or equal to".



**Table 2-6. (continued) Maximum Allowable Variations (MAVs)  
for Packages Labeled by Liquid or Dry Volume**

SI Units		Inch-Pound			
Labeled Quantity (mL) (L)	Liquid and Dry MAV (mL)	Labeled Quantity (fl oz)	Liquid MAV (fl oz)	Labeled Quantity (cu in)	Dry MAV (cu in)
> 798 ≤ 916 mL	26.0	> 69.00 ≤ 85.00	1.75	> 70.38 ≤ 99.25	2.25
> 916 mL ≤ 1.15 L	29	> 85.00 ≤ 103.00	2.0	> 99.25 ≤ 124.5	2.70
> 1.15 L ≤ 1.62	36	> 103 ≤ 160 (1.25 gal)	2.5	> 124.5 ≤ 153.3	3.1
> 1.62 ≤ 2.04	44	> 160 ≤ 185.6	3.0	> 153.3 ≤ 185.8	3.6
> 2.04 ≤ 2.51	51	> 185.6 ≤ 240	3.5	> 185.8 ≤ 288.7	4.5
> 2.51 ≤ 3.04	59	> 240 ≤ 272	4.0	> 288.7 ≤ 334.9	5.4
> 3.04 ≤ 4.73	73	> 272 ≤ 344	4.5	> 334.9 ≤ 443.1	6.3
> 4.73 ≤ 5.48	88	> 344 ≤ 392	5.0	> 443.1 ≤ 490.8	7.2
> 5.48 ≤ 7.09	103	> 392 ≤ 560	6.0	> 490.8 ≤ 620.8	8.1
> 7.09 ≤ 8.04	118	> 560 ≤ 640 (5 gal)	7.0	> 620.8 ≤ 707.4	9.0
> 8.04 ≤ 10.17	133	> 640 ≤ 800	8.0	> 707.4 ≤ 1010	10.8
> 10.17 ≤ 11.59	147	> 800 ≤ 904	9.0	> 1010 ≤ 1155	12.6
> 11.59 ≤ 16.56	177	> 904	1% of Labeled Quantity	> 1155 ≤ 1443	14.4
> 16.56 ≤ 18.92	207			> 1443 ≤ 1631	16.2
> 18.92 ≤ 23.65	236			> 1631	1% of Labeled Volume
> 23.65 ≤ 26.73	266				
> 26.73	1% of Labeled Quantity				
See Category A, Step 5a. for Exception: Bark Mulch		Dry Measure Equivalent: 1 Dry Pint = 33.6003125 cu in      1 Bushel = 2150.42 cu in 1 Dry Quart = 67.200625 cu in      1 cu ft = 1728 cu in			

**Table 2-7. Maximum Allowable Variations (MAVs) for Packages  
Labeled by Count<sup>a</sup>**

Labeled Count	MAV
≤ 17 <sup>b</sup>	0
18 – 50 <sup>b</sup>	1
51 – 83	2
84 – 116	3
117 – 150	4
151 – 200	5
201 – 240	6
241 - 290	7
291 - 345	8
346 - 400	9
401 - 465	10
466 - 540	11
541 - 625	12
626 - 725	13
726 - 815	14
816 - 900	15
901 - 990	16
991 - 1075	17
1076 - 1165	18
1166 - 1250	19
1251 - 1333	20
≥ 1334	1.5% of labeled count rounded off to the nearest whole number

<sup>a</sup>Applies only to shortages in package count (that is, minus package errors).

<sup>b</sup>See Category C Sampling Plans for use with these package sizes.

**Table 2-8. Maximum Allowable Variations (MAVs)  
for Packages Labeled by Length (Width) or Area<sup>a</sup>**

<b>SI Units</b>		
<b>Length</b>		<b>Area</b>
<b>Labeled In Meters</b>	<b>MAV in Percent (%) of the Labeled Length</b>	The MAV for packages labeled by area is 3% of the labeled quantity
≤ <sup>b</sup> 1	3	
over 1 to 43	1.5	
over 43 to 87	2	
over 87 to 140	2.5	
over 140 to 301	3	
over 301 to 1005	4	
over 1005	5	

<b>Inch-Pound Units of Measure</b>		
<b>Length</b>		<b>Area</b>
<b>Labeled in Yards</b>	<b>MAV in Percent (%) of the Labeled Length</b>	The MAV for packages labeled by area is 3% of the labeled quantity
≤ <sup>b</sup> 1	3	
over 1 to 48	1.5	
over 48 to 96	2	
over 96 to 154	2.5	
over 154 to 330	3	
over 330 to 1100	4	
over 1100	5	

<sup>a</sup> Applies only to shortages in package measure (that is, minus package errors).

<sup>b</sup> ≤ means "less than or equal to."

See Category A, Step 5a, or Table 2-10 for exceptions: Textiles, Polyethylene Sheeting.

**Table 2-9. U.S. Department of Agriculture, Meat and Poultry,  
Groups and Lower Limits (MAV's) for Individual Packages  
Also known as Unreasonable Minus Errors - UME's**

Definition of Group and Labeled Quantity		Lower Limit (MAV) for Individual Weights - Also known as Unreasonable Minus Errors – UME's  (Use the limits according to the scale division being used)		
Homogeneous, Fluid when Filled (e.g., baby food or containers of lard)	All Other Products			
Less than 85 g (3 oz)	Less than 85 g (3 oz)	10% of labeled quantity		
85 g to 453 g 3 oz to 16 oz (1 lb)		g	oz	Lb
		7.1	0.25 8/32 4/16 2/10 2/8 1/4	0.016
over 453 g over 16 oz (1 lb)	85 g to 198 g 3 oz to 7 oz	14.2	0.50 16/32 8/16 5/10 4/8 2/4	0.031
	over 198 g to 1.36 kg over 7 oz to 48 oz (3 lb)	28.3	1	0.062
	over 1.36 kg to 4.53 kg over 48 oz to 160 oz over 3 lb to 10 lb	42.5	1.50 1-16/32 1-8/16 1-5/10 1-4/8 1-2/4	0.094
	over 4.53 kg over 160 oz (10 lb)	1% of labeled quantity		

**Table 2-10. Exceptions to the Maximum Allowable Variations for Textiles, Polyethylene Sheeting and Film, Mulch and Soil Labeled by Volume, Packaged Firewood, and Packages Labeled by Count with Less than 50 Items**

	<b>Maximum Allowable Variations (MAVs)</b>
<b>Polyethylene Sheeting And Film</b>	<p><b><u>Thickness</u></b></p> <p>When the labeled thickness is 25 <math>\mu\text{m}</math> (1 mil or 0.001 in) or less, any individual thickness measurement of polyethylene film may be up to 35 % below the labeled thickness.</p> <p>When the labeled thickness is greater than 25 <math>\mu\text{m}</math> (1 mil or 0.001 in), individual thickness measurements of polyethylene sheeting may be up to 20 % less than the labeled thickness.</p> <p>The average thickness of a single package of polyethylene sheeting may be up to 4 % less than the labeled thickness.</p> <p><b><u>Weight</u></b></p> <p>The MAV for individual packages of polyethylene sheeting and film shall be 4 % of the labeled quantity.</p>
<b>Textiles</b>	<p>The MAVs are:</p> <p>For packages labeled with dimensions of 60 cm (24 in) or more:</p> <p>3 % of the labeled quantity for negative errors and 6 % of the labeled quantity for plus errors.</p> <p>For packages labeled with dimensions less than 60 cm (24 in):</p> <p>6 % of the labeled quantity for negative errors and 12 % for plus errors.</p>
<b>Mulch and Soil Labeled by Volume</b>	<p>The MAVs are:</p> <p>For individual packages: 5 % of the labeled volume.</p> <p>For example: One package may exceed the MAV for every 12 packages in the sample (e.g., when the sample size is 12 or less, 1 package may exceed the MAV and when the sample size is 48 packages, 4 packages may exceed the MAV).</p>
<b>Packaged Firewood and Packages Labeled By Count with Less Than 50 Items</b>	<p>MAVs are not applied to these packages.</p>

<b>Table 2-11. Accuracy Requirements for Packages Labeled by Low Count (50 or Less) and Packages Given Tolerances (Glass and Stemware)</b>			
	<b>1</b>	<b>2</b>	<b>3</b>
Inspection Lot Size	Sample Size	For Packages Labeled by Low Count (50 or Less)	For Packages Given Tolerances (Glasses and Stemware)
		Number of Packages Allowed to Contain Less than the Labeled Count	Number of Package Errors that May Exceed the Allowable Difference
1 – 11	1 – 11	1	0
12 – 250	12	1	0
251 – 3 200	24	2	1
More than 3 200	48	3	2

<b>Table 3-2. Allowable Differences for Pressed and Blown Glass Tumblers and Stemware</b>	
Unit of Measure	
<b>If the capacity in metric units is:</b>	<b>Then the allowable difference is:</b>
200 mL or less	± 10 mL
More than 200 mL	± 5 % of the labeled capacity
<b>If the capacity in inch-pound units is:</b>	<b>Then the allowable difference is:</b>
5 fluid ounces or less	± 1/4 fluid ounce
More than 5 fluid ounces	± 5 % of the labeled capacity

## **PACKAGE INSPECTION REPORTS, INFORMATION ENTRY**

There are three Package Inspection Reports (PIR's), one for each category of sampling plans: A, B, or C. Each is identified with the letter designating the Category in the upper left square and on the lower right corner.

- Category A is used for products labeled by weight, measure or a count greater than 50. Most products are in Category A.
- Category B is used for package inspections done at the USDA plant.
- Category C is used for products labeled by a count of 50 or fewer.

The requirements for completing the basic information (heading, responsible party, inspection location, commodity, lot identification, disposition, and off sale information) are the same for categories A and C. Category B only requires the Packer's information since all "B" inspections are done at the packing plant.

1. The top line contains:
  - a. The Date and Time the inspection begins.
  - b. The complete name of the County conducting the inspection. S.B. could be Santa Barbara, San Benito, or San Bernardino
  - c. Report or Off Sale Number (optional): Used according to county policy. It is the number used by some jurisdictions to identify the inspection or for tracking off sale commodities.
  - d. Commodity Number: The number used by the State of California to designate the specific classification of the commodity under inspection. The Commodity Classifications List begins on page 17-3. If the commodity is being inspected at the packing location, it is considered to be an audit and the number used is the general classification followed by .50 (e.g., 2.00 is the general classification for Dairy Type Products). The commodity number for an inspection of packages of cottage cheese at the packing plant would be "2.50-Prepackaged Dairy Type Products (Audits)." If this same cottage cheese were to be inspected at the retail market, the classification would be "2.06-Cottage Cheese."
2. The next section contains information about the inspection and commodity. The information is used to identify and locate all parties having some control over the commodity. Always enter the complete name and address of all the parties. If at a retail location, it may be necessary to ask for, or to check, invoices to determine the distributor. Note. Category B forms have only a single line and no check boxes as all "B" inspections are done only at the packing plant.
  - a. Packer is the name and address of the party actually placing the commodity into the package. Usually this is the Statement of Responsibility (i.e., the company name and address printed on the label).

- b. Distributor is the party transferring the commodity from the packer to the sales location. It may be the packer if the lot was a direct shipment to the sales location. The dealer's distribution center or warehouse is considered to be the distributor when the packer ships to that location.
  - c. Dealer is the party selling the commodity. It may be a wholesale or a retail location.
  - d. The check boxes in front of Packer, Distributor, and Dealer are for indicating which one of these parties is responsible for the accuracy of the net contents. Check the box in front of the one that placed the net content statement on the package label.
  - e. The boxes following Packer, Distributor, and Dealer indicate at which location the inspection is taking place. Check the appropriate box.
3. Commodity information:
- a. Brand Name: Trademark or the name the commodity is marketed under. For "Blue Seas Chunk Light Tuna," Blue Seas is the brand name.
  - b. Commodity: Identity of the commodity. In the above example, the commodity is "Chunk Light Tuna."
  - c. Other Identification - Code Symbols:
    - (1) Date: Any and all dates printed on the label. If there is more than one, record all and identify the type. Types may include pack dates, best used by dates, or sell by dates.
    - (2) Other: Any code or identifying marks on the package designating the part of the production or the location that this commodity is from.
  - d. Container Description: A complete explanation of everything considered to be tare for this commodity (i.e., any part of the whole package and commodity not considered to be the net contents). The description should give enough detail so that someone not familiar with the package could recognize the package and determine what was not included.
  - e. \$ (price per) Package (or) Pound: The price for which this commodity is being sold at this location. Check the box to indicate if this is the package price, or the price per pound for random lots.
4. The lower part of the form, following the calculations, contains information about the results of the inspection and the disposition of the commodity.
- a. Remarks: Any other information, not included elsewhere, concerning the commodity or inspection.
  - b. Off Sale Order: If the lot has been rejected as a result of this inspection, it is ordered "Off Sale" by checking this box.



- c. Disposition: Check the box corresponding to the method of disposal or correction for this lot. This date may be different from the inspection date. If the disposition is not determined, a follow-up visit will be necessary.
- d. Packages . . . .:
- (1) Off Sale: The number of packages rejected as a result of this inspection.
  - (2) Accepted: The number of packages accepted by this inspection.
  - (3) Status not determined: The number of packages whose average error is greater than the SEL, but less than the SEL+MLA. A determination on the lot can not be made without doing further investigation that answers the question "Is the lot shortage due to unavoidable, normal moisture loss in distribution or did the product leave the packer short weight?"
  - (4) Weighed/Measured: The number of packages physically weighed or measured for this inspection. This is the sample size, box [6].
5. The last line contains the signature and title of the owner, or agent for the owner, of the lot inspected, and the names of the county sealer and the inspector conducting the inspection.

The signature of the owner/agent certifies that he or she has received a copy of the package inspection report and that the inspector has offered to review the data with him or her. It also signifies his or her understanding of the conditions of the Off Sale order. *Since some signatures are hard to read, have the owner/agent print their name below also.*

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PACKAGE INSPECTION REPORT

CATEGORY <b>A</b>	Date <b>6/10/03</b>	Time <b>3:05</b> <small>a.m. p.m.</small>	COUNTY <b>GOLDEN</b>	Report # or Off Sale Order #	Commodity Number <b>3.01</b>
CHECK PARTY RESPONSIBLE FOR NET CONTENTS					INSPECTED AT
✓ Packer <b>PERRIN BAKERY</b>		Address <b>1608 S. INDUSTRIAL PARKWAY, ROCKWOOD, OR 86095</b>			
Distributor <b>VALENTINO WHOLESALE GROCERY</b>		Address <b>BUTES, CA 95994</b>			
Dealer <b>BIG TOP MARKET</b>		Address <b>141 FIFTH AVE., ELMIRA, CA 93069</b>			✓
Brand Name <b>OLD ERIN</b>		Other Identification / Code Symbols <b>BLUE CLIP</b>		Date / Other Code <b>2501-6A</b>	
Commodity <b>IRISH SODA BREAD</b>		Container Description <b>CELLO WRAP, OUTER PLASTIC BAG, PLASTIC CLIP</b>			
\$ <b>2.29</b>	<input checked="" type="checkbox"/> Package Pound	Group MLA <input checked="" type="checkbox"/> 1 % Other <input type="checkbox"/>	[2] Device Division <b>1g</b>	[5] Inspection Lot Size <b>8</b>	[6] Sample Size <b>8</b>
[7] Tare Sample Size (Initial) <b>2</b>	[8] Unreasonable Minus Errors (UME) Allowed <b>0</b>				
[1] Labeled Content or Random Average Weight (RA) <b>300g</b> <b>10.4 oz</b>	[A] Gross Weight	[B] Tare Weight	[C] Net Weight [A] - [B]	[D] Error (Initial tare sample) [C] - [1]	[14] Nominal Gross Weight [1] + [13] <b>308.5</b>
					[5] Package Error Standard [A] - [14] Random [A] - [13] - [1] Minus (-)      Plus (+)
1.	<b>307</b>	<b>8</b>			<b>1.5</b>
2.	<b>304</b>	<b>9</b>			<b>4.5</b>
3.	<b>315</b>				<b>6.5</b>
4.	<b>296</b>				<b>12.5</b>
5.	<b>298</b>				<b>10.5</b>
6.	<b>300</b>				<b>8.5</b>
7.	<b>314</b>				<b>5.5</b>
8.	<b>306</b>				<b>2.5</b>
9.					
10.					
11.					
12.					
Total	Total of Tare Weights		Error: Total for Each Column		<b>40    12</b>
[9] Rc - Range of Errors [D] <b>NA</b>	[10] Rt Range of Tare Weights [B] <b>NA</b>	[11] Ratio of Rc / Rt [9] / [10] <b>NA</b>	[12] Total Number Tare [Table 2-3] <b>2</b>	[13] Average Tare Weight <b>8.5</b>	[15] Total Error <b>-28</b>
[16] Number of UME's <b>0</b>	[17] Is [16] greater than [8]? YES: REJECT <input type="checkbox"/> NO: Continue <input checked="" type="checkbox"/>	[18] Average Error ([15] / [9]) <b>-3.5</b>	[20] Is [18] Zero or Plus? YES: ACCEPT LOT <input type="checkbox"/> NO: Go to [21] <input checked="" type="checkbox"/>		
[21] Computed Standard Deviation of Sample Errors <b>6.9897</b>	[22] Sample Correction Factor (Table 2-1, Col. 3) <b>0.836</b>	[23] Sample Error Limit (SEL) [21] x [22] <b>5.8434</b>	[24] AVERAGE ERROR [18] IS MINUS (Use the absolute value of [18] for these determinations)		
Average Error [18] / Labeled Content [1] = ☆ x 100 = % Error <b>3.5 / 300 = 0.0116 x 100 = 1.16 %</b>			MLA <input checked="" type="checkbox"/> Moisture Loss Allowance is greater than 0% <b>1.0 %</b>		
☆ x Lot Size [5] x Price Per Package* = Total \$ Value <b>0.0116 x 8 x 2.29 = \$ 0.21</b>			Is <b>3.5</b> [18] less than or equal to <b>5.843</b> [23] IF YES, ACCEPT <input checked="" type="checkbox"/>		
* IF PRICED PER POUND: USE PRICE PER POUND X LABELED CONTENTS			Is _____ [18] greater than _____ [23] + [4A] IF YES, REJECT <input type="checkbox"/>		
REMARKS:			Is _____ [18] greater than _____ [23] IF YES, COMMODITY IS IN THE GREY AREA, STATUS NOT DETERMINED. <input type="checkbox"/>		
			OTHER <input type="checkbox"/> No Moisture Loss Allowance OR <input type="checkbox"/> Moisture Loss Allowance equals 0%		
			Is _____ [18] less than or equal to _____ [23] IF YES, ACCEPT <input type="checkbox"/>		
			Is _____ [18] greater than _____ [23] IF YES, REJECT <input type="checkbox"/>		
<input type="checkbox"/> THESE PACKAGES HAVE BEEN ORDERED OFF SALE UNDER PROVISIONS OF DIVISION 5, SECTION 12211 OF THE CALIFORNIA BUSINESS AND PROFESSIONS CODE.  <b>DO NOT MOVE, TRANSPORT, COMMINGLE OR DISPOSE OF WITHOUT WRITTEN AUTHORIZATION.</b>			DISPOSITION: Date: ____/____/____ Corrected and Released <input type="checkbox"/> Destroyed <input type="checkbox"/> Shipped to: Packer <input type="checkbox"/> Distributor <input type="checkbox"/> On ____/____/____ Disposition Not determined <input type="checkbox"/>		Packages Off Sale: (rejected) <b>0</b> Packages Accepted: <b>8</b> Packages Status Not Determined <b>0</b> Packages Weighed / Measured <b>8</b>
I HAVE RECEIVED A COPY OF THIS REPORT AND HAVE BEEN GIVEN THE OPPORTUNITY TO REVIEW THE DATA.					
OWNER OR AGENT	TITLE	SEALER	INSPECTOR		

PACKAGE INSPECTION REPORT

CATEGORY <b>A</b>	Date <b>6/10/03</b>	Time <b>9:40</b> a.m. p.m.	COUNTY <b>GOLDEN</b>	Report # or Off Sale Order #	Commodity Number <b>4.50</b>
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CHECK PARTY RESPONSIBLE FOR NET CONTENTS			INSPECTED AT		
<input checked="" type="checkbox"/> Packer	<b>BIG TOP MARKET</b>		Address <b>141 FIFTH AVE., ELMIRA, CA 93069</b>		
Distributor			Address		
Dealer			Address		

Brand Name <b>BIG TOP</b>	Other Identification / Code Symbols	Date <b>06-11-03</b>	Other Code
Commodity <b>ROUND STEAK</b>	Container Description <b>TRAY, WRAP, SOAKER</b>		
\$ <b>3.89</b>	<input checked="" type="checkbox"/> Package Pound	Group <input checked="" type="checkbox"/> MLA <input type="checkbox"/> Other	%
[2] Device Division <b>0.01 LB</b>	[5] Inspection Lot Size <b>14</b>	[6] Sample Size <b>12</b>	[7] Tare Sample Size (Initial) <b>2</b>
			[8] Unreasonable Minus Errors (UME) Allowed <b>0</b>

[1] Labeled Content or Random Average Weight (RA)	[A] Gross Weight	[B] Tare Weight	[C] Net Weight [A] - [B]	[D] Error [Initial tare sample] [C] - [1]	[14] Nominal Gross Weight [1] + [13]	[E] Package Error Standard [A] - [14] Random [A] - [13] - [1]	[3] MAV from Table	[4A] MLA 0 X Labeled Content	[4B] Adjusted MAV [3] + [4A]
RA <b>2.42 LB</b>									
1. <b>2.41</b>	<b>2.50</b>	<b>0.09</b>	<b>2.41</b>	<b>0</b>		<b>0.01</b>			
2. <b>2.32</b>	<b>2.36</b>	<b>0.10</b>	<b>2.26</b>	<b>-0.06</b>		<b>0.06</b>			
3. <b>2.29</b>	<b>2.38</b>	<b>0.13</b>				<b>0.01</b>	<b>0.078</b>		
4. <b>2.53</b>	<b>2.59</b>	<b>0.08</b>				<b>0.04</b>			
5. <b>2.46</b>	<b>2.55</b>					<b>0.01</b>			
6. <b>2.39</b>	<b>2.49</b>						<b>0</b>		
7. <b>2.34</b>	<b>2.43</b>					<b>0.01</b>			
8. <b>2.62</b>	<b>2.70</b>					<b>0.02</b>			
9. <b>2.45</b>	<b>2.52</b>					<b>0.03</b>			
10. <b>2.37</b>	<b>2.45</b>					<b>0.02</b>			
11. <b>2.42</b>	<b>2.50</b>					<b>0.02</b>			
12. <b>2.48</b>	<b>2.56</b>					<b>0.02</b>			
Total <b>29.08</b>	Total of Tare Weights <b>0.40</b>				Error: Total for Each Column	<b>0.25</b>	<b>0</b>		

[9] Rc - Range of Errors [D] <b>0.06</b>	[10] Rt - Range of Tare Weights [B] <b>0.01</b>	[11] Ratio of Rc / Rt [9] / [10] <b>6</b>	[12] Total Number Tare (Table 2 - 3) <b>4</b>	[13] Average Tare Weight <b>0.10</b>	[15] Total Error <b>-0.25</b>	[16] Number of UME's <b>0</b>	[17] Is [16] greater than [8]? YES: REJECT <input type="checkbox"/> NO: Continue <input checked="" type="checkbox"/>	[18] Average Error (([15] / [6]) <b>-0.0208</b>	[20] Is [18] Zero or Plus? YES: ACCEPT LOT <input type="checkbox"/> NO: Go to [21] <input checked="" type="checkbox"/>
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[21] Computed Standard Deviation of Sample Errors <b>0.0162</b>	[22] Sample Correction Factor (Table 2 - 1, Col. 3) <b>0.635</b>	[23] Sample Error Limit (SEL) ([21] x [22]) <b>0.0102</b>	[24] AVERAGE ERROR [18] IS MINUS (Use the absolute value of [18] for these determinations)
Average Error [18] / Labeled Content [1] = $\frac{0.0208}{2.42} = 0.0085$ x 100 = <b>0.85</b> % Error			MLA <input type="checkbox"/> Moisture Loss Allowance is greater than 0% _____ %
☆ x Lot Size [5] x Price Per Package* = Total \$ Value <b>0.0085 x 14 x 3.89 x 2.42 = \$ 1.13</b>			Is _____ [18] less than or equal to _____ [23] IF YES, ACCEPT <input type="checkbox"/>
* IF PRICED PER POUND: USE PRICE PER POUND X LABELED CONTENTS			Is _____ [18] greater than _____ [23] + [4A] IF YES, REJECT <input type="checkbox"/>
REMARKS:			Is _____ [18] greater than _____ [23] AND less than or equal to _____ [23] + [4A] IF YES, COMMODITY IS IN THE GREY AREA, STATUS NOT DETERMINED. <input type="checkbox"/>

OTHER <input checked="" type="checkbox"/> No Moisture Loss Allowance OR <input type="checkbox"/> Moisture Loss Allowance equals 0%	Is _____ [18] less than or equal to _____ [23] IF YES, ACCEPT <input type="checkbox"/>
Is <b>0.0208</b> [18] greater than <b>0.0102</b> [23] IF YES, REJECT <input checked="" type="checkbox"/>	

<input checked="" type="checkbox"/> THESE PACKAGES HAVE BEEN ORDERED OFF SALE UNDER PROVISIONS OF DIVISION 5, SECTION 12211 OF THE CALIFORNIA BUSINESS AND PROFESSIONS CODE.  DO NOT MOVE, TRANSPORT, COMMINGLE OR DISPOSE OF WITHOUT WRITTEN AUTHORIZATION.	DISPOSITION: Date: <b>6/10/03</b> Corrected and Released <input checked="" type="checkbox"/> Destroyed <input type="checkbox"/> Shipped to: Packer <input type="checkbox"/> Distributor <input type="checkbox"/> On ____/____/____ Disposition Not determined <input type="checkbox"/>	Packages Off Sale: (rejected) <b>14</b> Packages Accepted: <b>0</b> Packages Status Not Determined <b>0</b> Packages Weighed / Measured <b>12</b>
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I HAVE RECEIVED A COPY OF THIS REPORT AND HAVE BEEN GIVEN THE OPPORTUNITY TO REVIEW THE DATA.	OWNER OR AGENT <b>Carl Stobie</b>	TITLE <b>Mgr</b>	SEALER <b>[Signature]</b>	INSPECTOR <b>[Signature]</b>
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PACKAGE INSPECTION REPORT

CATEGORY <b>A</b>	Date <b>6/10/03</b>	Time <b>11:20</b> <small>a.m. p.m.</small>	COUNTY <b>GOLDEN</b>	Report # or Off Sale Order #	Commodity Number <b>2.04</b>
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CHECK PARTY RESPONSIBLE FOR NET CONTENTS INSPECTED AT

✓ Packer <b>DOWN EAST CHEESE CO</b>	Address <b>BORTERVILLE, VERMONT 00121</b>
Distributor <b>RACO FOODS</b>	Address <b>1001A WESTSIDE BLVD, METRO, CA 95001</b>
Dealer <b>BIG TOP MARKET</b>	Address <b>141 FIFTH AVE, ELMIRA CA 93069</b>

Brand Name <b>YANKEE</b>	Other Identification / Code Symbols <b>3-12-04</b>	Date <b>3-12-04</b>	Other Code
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Commodity <b>VERMONT SHARP CHEDDAR</b>	Container Description <b>PLASTIC VACUUM PACK</b>
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\$ <b>4.29</b>	<input type="checkbox"/> Package Pound	Group	MLA <input type="checkbox"/> Other <input checked="" type="checkbox"/>	%	[2] Device Division <b>0.01 LB</b>	[5] Inspection Lot Size <b>28</b>	[6] Sample Size <b>12</b>	[7] Tare Sample Size (Initial) <b>2</b>	[8] Unreasonable Minus Errors (UME) Allowed <b>0</b>
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[1] Labeled Content or Random Average Weight (RA)	[A] Gross Weight	[B] Tare Weight	[C] Net Weight [A] - [B]	[D] Error [Initial tare sample] [C] - [1]	[14] Nominal Gross Weight [1] + [13]	[E] Package Error Standard [A] - [14] Random [A] - [13] - [1]	[3] MAV from Table	[4A] MLA 0. X Labeled Content	[4B] Adjusted MAV [3] + [4A]
<b>RA 1.60 LB</b>									
1. <b>1.64</b>	<b>1.70</b>	<b>0.02</b>	<b>1.68</b>	<b>+0.04</b>					
2. <b>1.71</b>	<b>1.66</b>	<b>0.02</b>	<b>1.64</b>	<b>-0.07</b>		<b>0.07</b>		<b>0.064</b>	
3. <b>1.55</b>	<b>1.58</b>						<b>0.01</b>		
4. <b>1.68</b>	<b>1.73</b>						<b>0.03</b>		
5. <b>1.48</b>	<b>1.45</b>					<b>0.05</b>		<b>0.056</b>	
6. <b>1.57</b>	<b>1.63</b>						<b>0.04</b>		
7. <b>1.55</b>	<b>1.52</b>					<b>0.05</b>			
8. <b>1.62</b>	<b>1.67</b>						<b>0.03</b>		
9. <b>1.67</b>	<b>1.71</b>						<b>0.02</b>		
10. <b>1.59</b>	<b>1.60</b>					<b>0.01</b>			
11. <b>1.64</b>	<b>1.66</b>						<b>0</b>		
12. <b>1.61</b>	<b>1.65</b>						<b>0.02</b>		
Total <b>19.31</b>	Total of Tare Weights				Error: Total for Each Column	<b>0.18</b>	<b>0.19</b>		

[9] Rn - Range of Errors [D] <b>0.11</b>	[10] Rt Range of Tare Weights [B] <b>0</b>	[11] Ratio of Rn / Rt [9] / [10] <b>∞</b>	[12] Total Number Tare [Table 2 - 3] <b>2</b>	[13] Average Tare Weight <b>0.02</b>	[15] Total Error <b>+0.01</b>	[16] Number of UME's <b>1</b>	[17] Is [16] greater than [8]? YES: REJECT <input checked="" type="checkbox"/> NO: Continue <input type="checkbox"/>	[18] Average Error ([15] / [8]) <b>+0.0008</b>	[20] Is [18] Zero or Plus? YES: ACCEPT LOT <input type="checkbox"/> NO: Go to [21] <input type="checkbox"/>
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[21] Computed Standard Deviation of Sample Errors	[22] Sample Correction Factor (Table 2 - 1, Col. 3)	[23] Sample Error Limit (SEL) [21] x [22]	[24] AVERAGE ERROR [18] IS MINUS (Use the absolute value of [18] for these determinations)
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Average Error [18] / Labeled Content [1] =  $\frac{0.0008}{1.60} \times 100 = 0.05\%$  Error

Is 0.05 [18] less than or equal to 0.064 [23] IF YES, ACCEPT

Is 0.05 [18] greater than 0.064 [23] + [4A] IF YES, REJECT

Is 0.05 [18] greater than 0.064 [23] AND less than or equal to 0.064 [23] + [4A] IF YES, COMMODITY IS IN THE GREY AREA, STATUS NOT DETERMINED.

REMARKS:

OTHER  No Moisture Loss Allowance OR  Moisture Loss Allowance equals 0%

Is 0.05 [18] less than or equal to 0.064 [23] IF YES, ACCEPT

Is 0.05 [18] greater than 0.064 [23] IF YES, REJECT

<input checked="" type="checkbox"/> THESE PACKAGES HAVE BEEN ORDERED OFF SALE UNDER PROVISIONS OF DIVISION 5, SECTION 12211 OF THE CALIFORNIA BUSINESS AND PROFESSIONS CODE.  <b>DO NOT MOVE, TRANSPORT, COMMINGLE OR DISPOSE OF WITHOUT WRITTEN AUTHORIZATION.</b>	DISPOSITION: Date: ___/___/___	Packages Off Sale: (rejected) <b>28</b>
	Corrected and Released <input type="checkbox"/> Destroyed <input type="checkbox"/>	Shipped to: Packer <input type="checkbox"/> Distributor <input checked="" type="checkbox"/>
	On <b>6/11/03</b>	Packages Status Not Determined: <b>0</b>
	Disposition Not determined <input type="checkbox"/>	Packages Weighted / Measured: <b>12</b>

I HAVE RECEIVED A COPY OF THIS REPORT AND HAVE BEEN GIVEN THE OPPORTUNITY TO REVIEW THE DATA.

OWNER OR AGENT <i>James Carl</i>	TITLE <i>Di M...</i>	SENDER <i>Sanders</i>	INSPECTOR <i>E. Hunter</i>
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PACKAGE INSPECTION REPORT

CATEGORY <b>A</b>	Date <b>6-10-03</b>	Time <b>9:05</b> <small>a.m. p.m.</small>	COUNTY <b>GOLDEN</b>	Report # or Off Sale Order #	Commodity Number <b>4.12</b>
CHECK PARTY RESPONSIBLE FOR NET CONTENTS					INSPECTED AT
<input checked="" type="checkbox"/> Packer	<b>CRANDALL FARMS P8654C</b>			<b>GLOSTER, CA 95665</b>	
<input type="checkbox"/> Distributor	<b>MRS. HAMILTON'S FINE FOODS</b>			<b>200 PALM AVE. EASTWOOD, CA 93081</b>	
<input type="checkbox"/> Dealer	<b>BIG TOP MARKET</b>			<b>141 FIFTH AVE., ELMIRA, CA 93069</b> <input checked="" type="checkbox"/>	
Brand Name <b>WEST RIDGE FARMS</b>	Other Identification / Code Symbols	Date <b>SELL BY 06-22-03</b>	Other Code		
Commodity <b>WHOLE BODY CHICKEN</b>	Container Description <b>PLASTIC BAG, METAL CLIP, SOAKER</b>				
\$ <b>1.99</b>	<input checked="" type="checkbox"/> Package Pound	Group MLA <input checked="" type="checkbox"/> 3 %	[2] Device Division <b>0.002 LB</b>	[5] Inspection Lot Size <b>31</b>	[6] Sample Size <b>12</b>
[7] Tare Sample Size (Initial) <b>2</b>	[8] Unreasonable Minus Errors (UME) Allowed <b>0</b>				
[1] Labeled Content or Random Average Weight (RA) <b>2.523 LB</b>	[A] Gross Weight	[B] Tare Weight	[C] Net Weight [A] - [B]	[D] Error (Initial tare sample) [C] - [1]	[14] Nominal Gross Weight [1] + [13]
					[15] Package Error Standard [A] - [14] Random [A] - [13] - [1]
					Minus (-)      Plus (+)
1. <b>2.54</b>	<b>2.702</b>	<b>0.220</b>	<b>2.482</b>	<b>-0.058</b>	<b>0.042</b>
2. <b>2.48</b>	<b>2.574</b>	<b>0.166</b>	<b>2.408</b>	<b>-0.072</b>	<b>0.110</b>
3. <b>2.32</b>	<b>2.404</b>	<b>0.182</b>			<b>0.120</b>
4. <b>2.45</b>	<b>2.582</b>	<b>0.234</b>			<b>0.072</b>
5. <b>2.61</b>	<b>2.766</b>	<b>0.194</b>			<b>0.048</b>
6. <b>2.58</b>	<b>2.702</b>	<b>0.172</b>			<b>0.082</b>
7. <b>2.36</b>	<b>2.514</b>	<b>0.256</b>			<b>0.050</b>
8. <b>2.48</b>	<b>2.568</b>	<b>0.136</b>			<b>0.116</b>
9. <b>2.24</b>	<b>2.394</b>	<b>0.224</b>			<b>0.050</b>
10. <b>2.44</b>	<b>2.568</b>	<b>0.184</b>			<b>0.076</b>
11. <b>3.09</b>	<b>3.304</b>	<b>0.272</b>			<b>0.010</b>
12. <b>2.69</b>	<b>2.776</b>	<b>0.208</b>			<b>0.118</b>
Total <b>30.28</b>	Total of Tare Weights <b>2.448</b>			Error Total for Each Column	<b>0.884 0.010</b>
[9] Rc - Range of Errors [D] <b>0.014</b>	[10] Rt Range of Tare Weights [E] <b>0.054</b>	[11] Ratio of Rc / Rt [9] / [10] <b>0.259</b>	[12] Total Number Tare (Table 2 - 3) <b>12</b>	[13] Average Tare Weight <b>0.204</b>	[15] Total Error <b>-0.874</b>
[16] Number of UME's <b>0</b>	[17] Is [16] greater than [9]? YES: REJECT <input type="checkbox"/> NO: Continue <input checked="" type="checkbox"/>	[18] Average Error ([15] / [9]) <b>-0.0728</b>	[20] Is [18] Zero or Plus? YES: ACCEPT LOT <input type="checkbox"/> NO: Go to [21] <input checked="" type="checkbox"/>		
[21] Computed Standard Deviation of Sample Errors <b>0.03939</b>	[22] Sample Correction Factor (Table 2 - 1, Col. 3) <b>0.635</b>	[23] Sample Error Limit (SEL) [21] x [22] <b>0.0250</b>	[24] AVERAGE ERROR [18] IS MINUS (Use the absolute value of [18] for these determinations)		
Average Error [18] / Labeled Content [1] = ☆ x 100 = % Error <b>0.0728 / 2.523 = 0.0288 x 100 = 2.88 %</b>			MLA <input checked="" type="checkbox"/> Moisture Loss Allowance is greater than 0% <b>3.0 %</b>		
☆ x Lot Size [5] x Price Per Package* = Total \$ Value <b>0.0288 x 31 x 1.99 x 2.523 = \$ 4.49</b>			Is _____ [18] less than or equal to _____ [23] IF YES, ACCEPT <input type="checkbox"/>		
* IF PRICED PER POUND: USE PRICE PER POUND X LABELED CONTENTS			Is _____ [18] greater than _____ [23] + [4A] IF YES, REJECT <input type="checkbox"/>		
REMARKS:			Is <b>0.0728</b> [18] greater than <b>0.0250</b> [23] AND less than or equal to <b>0.1006</b> [23] + [4A] IF YES, COMMODITY IS IN THE GREY AREA. STATUS NOT DETERMINED. <input checked="" type="checkbox"/>		
OTHER <input type="checkbox"/> No Moisture Loss Allowance OR <input type="checkbox"/> Moisture Loss Allowance equals 0%			Disposition: Date: ____/____/____		
Is _____ [18] less than or equal to _____ [23] IF YES, ACCEPT <input type="checkbox"/>			Corrected and Released <input type="checkbox"/> Destroyed <input type="checkbox"/>		
Is _____ [18] greater than _____ [23] IF YES, REJECT <input type="checkbox"/>			Shipped to: Packer <input type="checkbox"/> Distributor <input type="checkbox"/>		
			On ____/____/____		
			Disposition Not determined <input type="checkbox"/>		
<input type="checkbox"/> THESE PACKAGES HAVE BEEN ORDERED OFF SALE UNDER PROVISIONS OF DIVISION 5, SECTION 12211 OF THE CALIFORNIA BUSINESS AND PROFESSIONS CODE.			Packages Off Sale: (rejected) <b>0</b>		
<b>DO NOT MOVE, TRANSPORT, COMMINGLE OR DISPOSE OF WITHOUT WRITTEN AUTHORIZATION.</b>			Packages Accepted: <b>0</b>		
			Packages Status Not Determined <b>31</b>		
			Packages Weighed / Measured <b>12</b>		
I HAVE RECEIVED A COPY OF THIS REPORT AND HAVE BEEN GIVEN THE OPPORTUNITY TO REVIEW THE DATA.					
OWNER OR AGENT	TITLE	SEALER	INSPECTOR		

EXAMPLE PRIOR TO CHANGE- USED DRY TARE FOR MEAT & POULTRY NOW!

PACKAGE INSPECTION REPORT

CATEGORY <b>A</b>	Date <b>6/13/03</b>	Time <b>8:10</b> <small>a.m. p.m.</small>	COUNTY <b>SAN PABLO</b>	Report # or Off Sale Order #	Commodity Number <b>5.10</b>
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CHECK PARTY RESPONSIBLE FOR NET CONTENTS			INSPECTED AT		
<input checked="" type="checkbox"/> Packer	<b>MAYFIELD INDUSTRIES LTD.</b>		Address <b>JIM GREY, NV 88412</b>		
Distributor	<b>SMART DIST.</b>		Address <b>18642 OLD ROCKVILLE RD, ALGOSO, CA 92216</b>		
Dealer					

Brand Name <b>MAYFIELD</b>	Other Identification / Code Symbols	Date / Code	Other Code <b>02-864-CDA 1</b>
Commodity <b>CIDER VINEGAR</b>	Container Description <b>GLASS BOTTLE, METAL SCREW TOP</b>		

\$ <b>1.89</b>	<input checked="" type="checkbox"/> Package	Group	MLA <input type="checkbox"/> Other <input checked="" type="checkbox"/>	% <b>0</b>	[2] Device Division <b>1/2 (0.5)</b>	[5] Inspection Lot Size <b>240</b>	[6] Sample Size <b>12</b>	[7] Tare Sample Size (Initial) <b>NA</b>	[8] Unreasonable Minus Errors (UME) Allowed <b>0</b>
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[1] Labeled Content or Random Average Weight (RA)	[A] Gross Weight	[B] Tare Weight	[C] Net Weight [A] - [B]	[D] Error [Initial tare sample] [C] - [1]	[14] Nominal Gross Weight [1] + [13]	[E] Package Error Standard [A] - [14] Random [A] - [13] - [1]	[3] MAV from Table 2	[4A] MLA 0 X Labeled Content	[4B] Adjusted MAV [3] + [4A]
<b>(18 FL OZ) 530 mL</b>						Minus (-) Plus (+)	<b>0.63 fl oz</b>		<b>5.04 fl dr</b>
1.						1			
2.						1			
3.						0.5			
4.						1			
5.						1			
6.						0.5			
7.						1.5			
8.						0.5			
9.						0.5			
10.							0		
11.						0.5			
12.						1			
Total	Total of Tare Weights		Error: Total for Each Column			<b>9</b>	<b>0</b>		

[9] Rc - Range of Errors [2]	[10] Rt - Range of Tare Weights [B]	[11] Ratio of Rc / Rt [9] / [10]	[12] Total Number Tare [Table 2 - 3]	[13] Average Tare Weight	[15] Total Error <b>-9</b>	[16] Number of UME's	[17] Is [16] greater than [8]? YES: REJECT <input type="checkbox"/> NO: Continue <input checked="" type="checkbox"/>	[18] Average Error ([15] / [9]) <b>-0.75</b>	[20] Is [18] Zero or Plus? YES: ACCEPT LOT <input type="checkbox"/> NO: Go to [21] <input checked="" type="checkbox"/>
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[21] Computed Standard Deviation of Sample Errors <b>0.3988</b>	[22] Sample Correction Factor (Table 2 - 1, Col. 3) <b>0.635</b>	[23] Sample Error Limit (SEL) [21] x [22] <b>0.2532</b>	[24] AVERAGE ERROR [18] IS MINUS (Use the absolute value of [18] for these determinations)
$\text{Average Error [18] / Labeled Content [1]} = \star \times 100 = \text{\% Error}$ $0.0937 / 18 = 0.0052 \times 100 = 0.52 \%$			MLA <input type="checkbox"/> Moisture Loss Allowance is greater than 0% _____ % Is _____ [18] less than or equal to _____ [23] IF YES, ACCEPT <input type="checkbox"/> Is _____ [18] greater than _____ [23] + [4A] IF YES, REJECT <input type="checkbox"/> Is _____ [18] greater than _____ [23] AND less than or equal to _____ [23] + [4A] IF YES, COMMODITY IS IN THE GREY AREA, STATUS NOT DETERMINED.
$\star \times \text{Lot Size [5]} \times \text{Price Per Package}^* = \text{Total \$ Value}$ $0.0052 \times 240 \times 1.89 = \$ 2.36$			OTHER <input type="checkbox"/> No Moisture Loss Allowance OR <input checked="" type="checkbox"/> Moisture Loss Allowance equals 0% Is _____ [18] less than or equal to _____ [23] IF YES, ACCEPT <input type="checkbox"/> Is <b>0.75</b> [18] greater than <b>0.253</b> [23] IF YES, REJECT <input checked="" type="checkbox"/>

REMARKS:  
 8 FLUID DR (DRAM) = 1 FLUID OUNCE  
 MAV = 0.63 fl oz = 5.04 fl dr  
 [18] AVERAGE ERROR = -0.75 fl dr = 0.0937 fl oz

<input checked="" type="checkbox"/> THESE PACKAGES HAVE BEEN ORDERED OFF SALE UNDER PROVISIONS OF DIVISION 5, SECTION 12211 OF THE CALIFORNIA BUSINESS AND PROFESSIONS CODE.  DO NOT MOVE, TRANSPORT, COMMINGLE OR DISPOSE OF WITHOUT WRITTEN AUTHORIZATION.	DISPOSITION: Date: <b>6/23/03</b>	Packages Off Sale: (rejected) <b>240</b>
	Corrected and Released <input type="checkbox"/> Destroyed <input type="checkbox"/>	Packages Accepted: <b>0</b>
	Shipped to: Packer <input checked="" type="checkbox"/> Distributor <input type="checkbox"/>	Packages Status Not Determined: <b>0</b>
	On: <b>6/23/03</b>	Packages Weighed / Measured: <b>12</b>
Disposition Not determined <input type="checkbox"/>		

OWNER OR AGENT <i>Abraham S. Stein</i>	TITLE <i>Director</i>	SEALER <i>[Signature]</i>	INSPECTOR <i>[Signature]</i>
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PACKAGE INSPECTION REPORT

CATEGORY <b>A</b>	Date <b>6-12-03</b>	Time <b>10:10</b> <small>a.m. p.m.</small>	COUNTY <b>MISSION</b>	Report # or Off Sale Order #	Commodity Number <b>9.02</b>
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CHECK PARTY RESPONSIBLE FOR NET CONTENTS

✓ Packer <b>OAK CREEK VINEYARD</b>	Address <b>15 BORDEAUX LANE, ROCKRIDGE, CA 98801</b>	INSPECTED AT
Distributor <b>PACIFIC SPIRITS</b>	Address <b>5002 COMMERS LANDING, SOUTH ADELADE, CA 95962</b>	
Dealer <b>VILLA OAK SPIRITS</b>	Address <b>21 BUENA VISTA, SANTA JULIA, CA 90112</b>	✓

Brand Name <b>OAK CREEK</b>	Other Identification / Code Symbols <b>VINTAGE 1995</b>	Date <b>32-BA-612</b>	Other Code
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Commodity <b>CABERNET SAUVIGNON 1999 SILVER METAL GLASS BOTTLE, FOIL COVERED NATURAL CORK</b>	Container Description
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\$ <b>18.99</b>	Package Pound <input type="checkbox"/>	Group <input checked="" type="checkbox"/>	MLA Other <input type="checkbox"/>	MLA <input type="checkbox"/>	% <b>1/4</b>	[2] Device Division <b>1 mL</b>	[5] Inspection Lot Size <b>24</b>	[6] Sample Size <b>12</b>	[7] Tare Sample Size (Initial) <b>NA</b>	[8] Unreasonable Minus Errors (UME) Allowed <b>0</b>
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[1] Labeled Content or Random Average Weight (RA) <b>750 mL</b>	[A] Gross Weight	[B] Tare Weight	[C] Net Weight [A] - [B]	[C] Error (initial tare sample) [C] - [1]	[14] Nominal Gross Weight [1] + [13]	[5] Package Error Standard [A] - [14] Random [A] - [13] - [1]		[3] MAV from Table <b>22</b>	[4A] MLA <b>0.0025</b> X Labeled Content	[4B] Adjusted MAV [3] + [4A] <b>23.875</b>
						Minus (-)	Plus (+)			
1.							4			
2.							4			
3.							2			
4.								0		
5.							5			
6.							2			
7.							4			
8.							3			
9.							4			
10.								0		
11.							4			
12.							3			
Total	Total of Tare Weights				Error: Total for Each Column		<b>35</b>			

[8] Rc - Range of Errors [D]	[10] Rt Range of Tare Weights [B]	[11] Ratio of Rc / Rt [8] / [10]	[12] Total Number Tare (Table 2 - 3)	[13] Average Tare Weight	[15] Total Error <b>- 35</b>	[16] Number of UME's <b>0</b>	[17] Is [18] greater than [8]? YES: REJECT <input type="checkbox"/> NO: Continue <input checked="" type="checkbox"/>	[18] Average Error ((15) / [8]) <b>- 2.916</b>	[20] Is [18] Zero or Plus? YES: ACCEPT LOT <input type="checkbox"/> NO: Go to [21] <input checked="" type="checkbox"/>
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[21] Computed Standard Deviation of Sample Errors <b>1.6213</b>	[22] Sample Correction Factor (Table 2 - 1, Col. 3) <b>0.635</b>	[23] Sample Error Limit (SEL) [21] x [22] <b>1.0295</b>	[24] AVERAGE ERROR [18] IS MINUS (Use the absolute value of [18] for these determinations)
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Average Error [18] / Labeled Content [1] =  $\frac{2.916}{750} = 0.0038$  x 100 = **0.38** % Error

$\frac{0.0038}{1} \times 24 \times 18.99 = \$ 1.77$

\* IF PRICED PER POUND: USE PRICE PER POUND X LABELED CONTENTS

MLA  Moisture Loss Allowance is greater than 0% **1/4** %

Is **2.916** [18] less than or equal to **2.904** [23] IF YES, ACCEPT

Is **2.916** [18] greater than **2.904** [23] + [4A] IF YES, REJECT

AND less than or equal to [23] + [4A] IF YES, COMMODITY IS IN THE GREY AREA, STATUS NOT DETERMINED.

REMARKS:  
**MOISTURE LOSS STADY - NATURAL CORK ABSORBS 1/4% OF WINE IN BOTTLE AFTER 10 MONTHS**

OTHER  No Moisture Loss Allowance OR  Moisture Loss Allowance equals 0%

Is [18] less than or equal to [23] IF YES, ACCEPT

Is [18] greater than [23] IF YES, REJECT

<input checked="" type="checkbox"/> THESE PACKAGES HAVE BEEN ORDERED OFF SALE UNDER PROVISIONS OF DIVISION 5, SECTION 12211 OF THE CALIFORNIA BUSINESS AND PROFESSIONS CODE.  <b>DO NOT MOVE, TRANSPORT, COMMINGLE OR DISPOSE OF WITHOUT WRITTEN AUTHORIZATION.</b>	DISPOSITION: Date: ___/___/___	Packages Off Sale: (rejected) <b>24</b>
	Corrected and Released <input type="checkbox"/> Destroyed <input type="checkbox"/>	Packages Accepted: <b>0</b>
	Shipped to: Packer <input type="checkbox"/> Distributor <input type="checkbox"/>	Packages Status Not Determined: <b>0</b>
	On ___/___/___ Disposition Not determined <input checked="" type="checkbox"/>	Packages Weighed / Measured: <b>12</b>

I HAVE RECEIVED A COPY OF THIS REPORT AND HAVE BEEN GIVEN THE OPPORTUNITY TO REVIEW THE DATA.	OWNER OR AGENT <b>Dana Sanders</b>	TITLE <b>Owner</b>	SEALER <b>[Signature]</b>	INSPECTOR <b>[Signature]</b>
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PACKAGE INSPECTION REPORT

PAGE 1 OF 2

CATEGORY <b>A</b>	Date <b>6/5/03</b>	Time <b>10:25</b> <small>a.m.</small>	COUNTY <b>CARSON</b>	Report # or Off Sale Order #	Commodity Number <b>5.03</b>
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CHECK PARTY RESPONSIBLE FOR NET CONTENTS INSPECTED AT

<input checked="" type="checkbox"/> Packer <b>WING LEE 1818 RAFFLES BLVD, SINGAPORE 11859-001</b>	Address
Distributor (IMPORTER) <b>FONG &amp; SONS 7850 KAHALAKUA BLVD, HONOLULU, HA 99444</b>	Address
Dealer <b>A.L. WONG FOODS 684 GRACE AVE. LOS ROBLES, CA 94480</b>	Address

Brand Name <b>NIGHT FLOWER</b>	Other Identification / Code Symbols Date Code <b>6FC 859-0688</b>
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Commodity <b>PEANUT OIL</b>	Container Description <b>PRINTED RECTANGULAR METAL CAN</b>
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\$ <b>12.99</b>	<input checked="" type="checkbox"/> Package Pound	Group	MLA Other <input type="checkbox"/> <b>0</b>	%	[2] Device Division <b>0.002 LB</b>	[5] Inspection Lot Size <b>870</b>	[6] Sample Size <b>24</b>	[7] Tare Sample Size (Initial) <b>2</b>	[8] Unreasonable Minus Errors (UME) Allowed <b>0</b>
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[1] Labeled Content or Random Average Weight (RA) <b>1/2 GAL (1.8L)</b> <b>3.71 LB</b>	[A] Gross Weight	[B] Tare Weight	[C] Net Weight [A] - [B]	[D] Error (Initial tare sample) [C] - [1]	[14] Nominal Gross Weight [1] * [13] <b>4.150</b>	[E] Package Error Standards [A] - [14] Random [A] - [13] - [1]		[3] MAV from Table <b>1.5 fl oz</b> <b>0.0869 LB</b>	[4A] MLA 0 X Labeled Content	[4B] Adjusted MAV [3] - [4A]
						Minus (-)	Plus (+)			
1.	4.112	0.442	3.670	-0.040		0.038				
2.	4.070	0.438	3.632	-0.078		0.080				
3.	4.192	0.438					0.042			
4.	4.108	0.442					0.042			
5.	4.188						0.038			
6.	4.088						0.062			
7.	4.238						0.088			
8.	4.064						0.086			
9.	4.068						0.082			
10.	4.196						0.046			
11.	4.144						0.006			
12.	4.128						0.022			
Total	Total of Tare Weights <b>1.76</b>				Error: Total for Each Column <b>0.418</b>	<b>0.214</b>	<b>TOTAL PAGE 1 = -0.204</b>			

[9] Rc - Range of Errors [D] <b>0.038</b>	[10] Rr - Range of Tare Weights [B] <b>0.004</b>	[11] Ratio of Rc / Rr [9] / [10] <b>9.5</b>	[12] Total Number Tare (Table 2 - 3) <b>4</b>	[13] Average Tare Weight <b>0.440</b>	[15] Total Error <b>-0.534</b>	[16] Number of UME's <b>0</b>	[17] Is [16] greater than [9]? YES: REJECT <input type="checkbox"/> NO: Continue <input checked="" type="checkbox"/>	[18] Average Error ([15] / [8]) <b>-0.0222</b>	[20] Is [18] Zero or Plus? YES: ACCEPT LOT <input type="checkbox"/> NO: Go to [21] <input checked="" type="checkbox"/>
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[21] Computed Standard Deviation of Sample Errors <b>0.0487</b>	[22] Sample Correction Factor (Table 2 - 1, Col. 3) <b>0.422</b>	[23] Sample Error Limit (SEL) [21] x [22] <b>0.0205</b>	[24] AVERAGE ERROR [18] IS MINUS (Use the absolute value of [18] for these determinations)
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MLA  Moisture Loss Allowance is greater than 0% \_\_\_\_\_ %

Is \_\_\_\_\_ [18] less than or equal to \_\_\_\_\_ [23] IF YES, ACCEPT

Is \_\_\_\_\_ [18] greater than \_\_\_\_\_ [23] + [4A] IF YES, REJECT

Is \_\_\_\_\_ [18] greater than \_\_\_\_\_ [23]

AND less than or equal to \_\_\_\_\_ [23] + [4A] IF YES, COMMODITY IS IN THE GREY AREA, STATUS NOT DETERMINED.

Average Error [18] / Labeled Content [1] = ☆ x 100 = % Error  
**0.0222 / 3.71 = 0.00598 x 100 = 0.59 %**

☆ x Lot Size [5] x Price Per Package\* = Total \$ Value  
**0.00598 x 870 x 12.99 = \$67.62**

\* IF PRICED PER POUND: USE PRICE PER POUND X LABELED CONTENTS

REMARKS:  
**① 1/2 GAL OIL = 3.71 LB**  
**MAV FROM TABLE = 1.5 fl oz = 0.0869 LB**

OTHER  No Moisture Loss Allowance OR  Moisture Loss Allowance equals 0%

Is \_\_\_\_\_ [18] less than or equal to \_\_\_\_\_ [23] IF YES, ACCEPT

Is **0.0222** [18] greater than **0.0205** [23] IF YES, REJECT

<input checked="" type="checkbox"/> THESE PACKAGES HAVE BEEN ORDERED OFF SALE UNDER PROVISIONS OF DIVISION 5, SECTION 12211 OF THE CALIFORNIA BUSINESS AND PROFESSIONS CODE.  <b>DO NOT MOVE, TRANSPORT, COMMINGLE OR DISPOSE OF WITHOUT WRITTEN AUTHORIZATION.</b>	DISPOSITION: Date: <b>6/10/03</b>	Packages Off Sale: (rejected) <b>870</b>
	Corrected and Released <input type="checkbox"/> Destroyed <input type="checkbox"/> Shipped to: Packer <input type="checkbox"/> Distributor <input checked="" type="checkbox"/> On <b>6/20/03</b> Disposition Not determined <input type="checkbox"/>	Packages Accepted: <b>0</b> Packages Status Not Determined <b>0</b> Packages Weighed / Measured <b>24</b>

I HAVE RECEIVED A COPY OF THIS REPORT AND HAVE BEEN GIVEN THE OPPORTUNITY TO REVIEW THE DATA.

OWNER OR AGENT <b>At Wong</b>	TITLE <b>Owner</b>	SEALER <b>Carla Corrallo</b>	INSPECTOR <b>B. Barlow</b>
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49-003 (Rev. 5/03) DEPARTMENT OF FOOD AND AGRICULTURE - DIVISION OF MEASUREMENT STANDARDS A

PACKAGE INSPECTION REPORT

PAGE 2 OF 2

CATEGORY <b>A</b>	Date <b>6/5/03</b>	Time <b>10:25</b> a.m. p.m.	COUNTY <b>CARSON</b>	Report # or Off Sale Order #	Commodity Number <b>5.03</b>
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CHECK PARTY RESPONSIBLE FOR NET CONTENTS			INSPECTED AT
<input checked="" type="checkbox"/> Packer <b>WING LEE</b>	Address		
<input type="checkbox"/> Distributor	Address		
<input type="checkbox"/> Dealer <b>A.L. WONG</b>	Address		<input checked="" type="checkbox"/>

Brand Name <b>NIGHT FLOWER</b>	Other Identification / Code Symbols	Date Code	Other Code <b>6FC 859-0688</b>
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Commodity <b>PEANUT OIL</b>	Container Description
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\$	<input type="checkbox"/> Package Pound	Group	MLA <input type="checkbox"/>	Other <input type="checkbox"/>	%	[2] Device Division <b>0.002 LB</b>	[5] Inspection Lot Size <b>870</b>	[6] Sample Size	[7] Tare Sample Size (Initial)	[8] Unreasonable Minus Errors (UME) Allowed
[1] Labeled Content or Random Average Weight (RA) <b>3.71 LB</b>	[A] Gross Weight	[B] Tare Weight	[C] Net Weight [A] - [B]	[D] Error (Initial tare sample) [C] - [1]	[14] Nominal Gross Weight [1] + [13] <b>4.150</b>	[E] Package Error Standard [A] - [14] Random [A] - [13] - [1] Minus (-) Plus (+)		[3] MAV from Table	[4A] MLA 0 _____ X Labeled Content	[4B] Adjusted MAV [3] + [4A]
1.	<b>4.112</b>					<b>0.038</b>				
2.	<b>4.070</b>					<b>0.080</b>				
3.	<b>4.088</b>					<b>0.062</b>				
4.	<b>4.094</b>					<b>0.056</b>				
5.	<b>4.178</b>						<b>0.028</b>			
6.	<b>4.154</b>						<b>0.004</b>			
7.	<b>4.134</b>					<b>0.016</b>				
8.	<b>4.166</b>						<b>0.016</b>			
9.	<b>4.064</b>					<b>0.086</b>				
10.	<b>4.108</b>					<b>0.042</b>				
11.	<b>4.158</b>						<b>0.008</b>			
12.	<b>4.144</b>					<b>0.006</b>				
Total	Total of Tare Weights		Error: Total for Each Column			<b>0.386</b>	<b>0.056</b>	Total Page 2 = <b>-0.33</b>		

[9] Rc - Range of Errors [D]	[10] Rr - Range of Tare Weights [B]	[11] Ratio of Rc / Rr [9] / [10]	[12] Total Number Tare (Table 2 - 3)	[13] Average Tare Weight	[15] Total Error	[16] Number of UME's	[17] Is [16] greater than [8]? YES: REJECT <input type="checkbox"/> NO: Continue <input type="checkbox"/>	[18] Average Error (([15] / [9])	[20] Is [18] Zero or Plus? YES: ACCEPT LOT <input type="checkbox"/> NO: Go to [21] <input type="checkbox"/>
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[21] Computed Standard Deviation of Sample Errors	[22] Sample Correction Factor (Table 2 - 1, Col. 3)	[23] Sample Error Limit (SEL) [21] x [22]	[24] AVERAGE ERROR [18] IS MINUS (Use the absolute value of [18] for these determinations)
<p>Average Error [18] / Labeled Content [1] = ☆ x 100 = % Error</p> <p>_____ / _____ = _____ x 100 = _____ %</p> <p>☆ x Lot Size [5] x Price Per Package* = Total \$ Value</p> <p>_____ x _____ x _____ = \$ _____</p> <p>* IF PRICED PER POUND: USE PRICE PER POUND X LABELED CONTENTS</p>			<p>MLA <input type="checkbox"/> Moisture Loss Allowance is greater than 0% _____ %</p> <p>Is _____ [18] less than or equal to _____ [23] IF YES, ACCEPT <input type="checkbox"/></p> <p>Is _____ [18] greater than _____ [23] + [4A] IF YES, REJECT <input type="checkbox"/></p> <p>Is _____ [18] greater than _____ [23]</p> <p>AND less than or equal to _____ [23] + [4A] IF YES, COMMODITY IS IN THE GREY AREA, STATUS NOT DETERMINED. <input type="checkbox"/></p>

REMARKS:	OTHER <input type="checkbox"/> No Moisture Loss Allowance OR <input type="checkbox"/> Moisture Loss Allowance equals 0%
	Is _____ [18] less than or equal to _____ [23] IF YES, ACCEPT <input type="checkbox"/>
	Is _____ [18] greater than _____ [23] IF YES, REJECT <input type="checkbox"/>

<input type="checkbox"/> THESE PACKAGES HAVE BEEN ORDERED OFF SALE UNDER PROVISIONS OF DIVISION 5, SECTION 12211 OF THE CALIFORNIA BUSINESS AND PROFESSIONS CODE.  <b>DO NOT MOVE, TRANSPORT, COMMINGLE OR DISPOSE OF WITHOUT WRITTEN AUTHORIZATION.</b>	DISPOSITION: Date: ____/____/____	Packages Off Sale: (rejected) _____
	Corrected and Released <input type="checkbox"/> Destroyed <input type="checkbox"/>	Shipped to: Packer <input type="checkbox"/> Distributor <input type="checkbox"/>
	On ____/____/____	Packages Status Not Determined _____
	Disposition Not determined <input type="checkbox"/>	Packages Weighed / Measured _____

I HAVE RECEIVED A COPY OF THIS REPORT AND HAVE BEEN GIVEN THE OPPORTUNITY TO REVIEW THE DATA.	OWNER OR AGENT	TITLE	SEALER	INSPECTOR
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PACKAGE INSPECTION REPORT

CATEGORY <b>A</b>	Date <b>6/22/03</b>	Time <b>4:10 a.m.</b>	COUNTY <b>KLAMATH</b>	Report # or Off Sale Order #	Commodity Number <b>12.02</b>
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CHECK PARTY RESPONSIBLE FOR NET CONTENTS INSPECTED AT

<input checked="" type="checkbox"/> Packer <b>TITAN FOUNDRY</b>	Address <b>7181 N. MEADOWVIEW RD, PARKFIELD RD, UT 80101</b>
Distributor <b>BC TRADING</b>	Address <b>SMITHVILLE, NV 89402</b>
Dealer <b>HERBERT HARDWARE</b>	Address <b>800 MAIN ST, WIEST, CA 99116</b>

Brand Name <b>TITAN</b>	Other Identification / Code Symbols <b>NONE</b>	Date Code <b>NONE</b>	Other Code <b>NONE</b>
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Commodity <b>8x 2 1/4 Woodscrews</b>	Container Description <b>PAPERBOARD BOX</b>
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\$ <b>6.49</b>	<input checked="" type="checkbox"/> Package Pound	Group	MLA <input type="checkbox"/>	Other <input checked="" type="checkbox"/>	%	[2] Device Division <b>0.0102</b>	[5] Inspection Lot Size <b>102</b>	[6] Sample Size <b>12</b>	[7] Tare Sample Size (Initial) <b>2</b>	[8] Unreasonable Minus Errors (UME) Allowed <b>0</b>
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[1] Labeled Content or Random Average Weight (RA)	[A] Gross Weight	[B] Tare Weight	[C] Net Weight [A] - [B]	[D] Error [Initial tare sample] [C] - [1]	[14] Nominal Gross Weight [1] + [13]	[E] Package Error Standard [A] - [14]		[3] MAV from Table <b>3 =</b>	[4A] MLA 0 X Labeled Content	[4B] Adjusted MAV [3] + [4A]
						Random [A] - [13]	Minus (-)			
<b>96 count</b> <b>12.48 oz</b>					<b>12.93</b>					
1.	<b>12.80</b>	<b>0.45</b>	<b>12.35</b>	<b>-0.13</b>			<b>0.13</b>			
2.	<b>12.93</b>	<b>0.45</b>	<b>12.48</b>	<b>0</b>				<b>0</b>		
3.	<b>12.87</b>						<b>0.06</b>			
4.	<b>13.12</b>							<b>0.19</b>		
5.	<b>12.95</b>							<b>0.02</b>		
6.	<b>13.16</b>							<b>0.23</b>		
7.	<b>12.76</b>						<b>0.17</b>			
8.	<b>12.58</b>						<b>0.35</b>			
9.	<b>12.84</b>						<b>0.09</b>			
10.	<b>12.70</b>						<b>0.23</b>			
11.	<b>12.59</b>						<b>0.34</b>			
12.	<b>12.97</b>							<b>0.04</b>		
Total	Total of Tare Weights				Error: Total for Each Column	<b>1.37</b>	<b>0.48</b>			

[9] R- Range of Errors [D] <b>0.13</b>	[10] Rt Range of Tare Weights [B] <b>0</b>	[11] Ratio of Rc / Rt [9] / [10] <b>0</b>	[12] Total Number Tare (Table 2 - 3) <b>2</b>	[13] Average Tare Weight <b>0.45</b>	[15] Total Error <b>-0.89</b>	[16] Number of UME's <b>0</b>	[17] Is [16] greater than [8]? YES: REJECT <input type="checkbox"/> NO: Continue <input checked="" type="checkbox"/>	[18] Average Error ([15] / [8]) <b>-0.0741</b>	[20] Is [18] Zero or Plus? YES: ACCEPT LOT <input type="checkbox"/> NO: Go to [21] <input checked="" type="checkbox"/>
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[21] Computed Standard Deviation of Sample Errors <b>0.1842</b>	[22] Sample Correction Factor (Table 2 - 1, Col. 3) <b>0.635</b>	[23] Sample Error Limit (SEL) [21] x [22] <b>0.1170</b>	[24] AVERAGE ERROR [18] IS MINUS (Use the absolute value of [18] for these determinations)
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Average Error [18] / Labeled Content [1] =  $\frac{0.0741}{12.48} \times 100 = 0.59\%$  Error

$\star \times \text{Lot Size [5]} \times \text{Price Per Package}^* = \text{Total \$ Value}$   
 $0.0059 \times 102 \times 6.49 = \$ 3.93$

\* IF PRICED PER POUND: USE PRICE PER POUND X RANDOM AVERAGE WEIGHT (RA)

REMARKS:  
**Pkg 1 contains 95 screws, net 12.35 = 0.13 oz / unit**  
**\* 2 contains 96 screws, net 12.48 = 0.13 oz / unit**

OTHER  No Moisture Loss Allowance OR  Moisture Loss Allowance equals 0%

Is **0.0741** [18] less than or equal to **0.117** [23] IF YES, ACCEPT

Is \_\_\_\_\_ [18] greater than \_\_\_\_\_ [23] IF YES, REJECT

<input type="checkbox"/> THESE PACKAGES HAVE BEEN ORDERED OFF SALE UNDER PROVISIONS OF DIVISION 5, SECTION 12211 OF THE CALIFORNIA BUSINESS AND PROFESSIONS CODE.  <b>DO NOT MOVE, TRANSPORT, COMMINGLE OR DISPOSE OF WITHOUT WRITTEN AUTHORIZATION.</b>	DISPOSITION: Date: ___/___/___	Packages Off Sale: (rejected) <b>0</b>
	Corrected and Released <input type="checkbox"/> Destroyed <input type="checkbox"/>	Packages Accepted: <b>102</b>
	Shipped to: Packer <input type="checkbox"/> Distributor <input type="checkbox"/>	Packages Status Not Determined: <b>0</b>
	On ___/___/___	Packages Weighed / Measured: <b>12</b>
Disposition Not determined <input type="checkbox"/>		

I HAVE RECEIVED A COPY OF THIS REPORT AND HAVE BEEN GIVEN THE OPPORTUNITY TO REVIEW THE DATA.

OWNER OR AGENT	TITLE	SEALER	INSPECTOR
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PACKAGE INSPECTION REPORT

CATEGORY <b>B</b>	Date <b>6/11/03</b>	Time <b>8:20</b> <small>a.m. p.m.</small>	COUNTY <b>GOLDEN</b>	Report # or Off Sale Order #	Commodity Number <b>4.50</b>
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INSPECTION LOCATION AND PARTY RESPONSIBLE FOR NET CONTENTS

Packer Address  
**SCHULTZ SAUSAGE CO. EST 101 HCR 56, BRYSON, CA 93001**

Brand Name  
**SCHULTZ**

Other Identification / Code Symbols  
**9/20'03**

Date  
**03A-119602**

Other

Commodity  
**OLD FASHIONED BEEF FRANKS**

Container Description  
**PAPERBOARD BOX, PAPER LINER**

\$ **14.99**  Package  Pound

[2] Device Division  
**0.002 LB**

[5] Inspection Lot Size  
**4,800**

[6] Sample Size  
**30**

[7] Tare Sample Size (Initial)  
**5**

[8] Unreasonable Minus Errors (UME) Allowed  
**0**

[1] Labeled Content or Random Average Weight (RA) <b>12 LBS</b>	[A] Gross Weight	[B] Tare Weight	[C] Net Weight [A] - [B]	[D] Error (initial tare sample) [C] - [1]	[14] Nominal Gross Weight [1] + [13] <b>12.252</b>	[E] Package Error Standard [A] - [14] Random [A] - [13] - [1]		[3] Maximum Allowable Variation (MAV) from table <b>1% = 0.12</b>
						Minus (-)	Plus (+)	
1.	12.190	0.252	11.938	-0.062		0.062		
2.	12.290	0.252	12.038	+0.038			0.038	
3.	12.258	0.254	12.004	+0.004			0.006	
4.	12.254	0.252	12.002	+0.002			0.002	
5.	12.300	0.254	12.046	+0.046			0.048	
6.	12.196					0.056		
7.	12.272						0.020	
8.	12.244					0.008		
9.	12.276						0.024	
10.	12.156					0.096		
11.	12.294						0.042	
12.	12.304						0.052	
13.	12.338						0.086	
14.	12.224					0.028		
15.	12.380						0.078	
TOTAL	Total of Tare Weights <b>1.264</b>				Error: Total for Each Column <b>0.250</b>	<b>0.396</b>		Total 2% = +0.146

Average Error [18] / Labeled Contents [1] =  $\star$  x 100 = %

$\star$  / \_\_\_\_\_ = \_\_\_\_\_ x 100 = %

$\star$  x Lot Size [5] x Price Per Package\* = Total \$ Value

x \_\_\_\_\_ x \_\_\_\_\_ = \$ \_\_\_\_\_

\* IF PRICED PER POUND: USE PRICE PER POUND x LABELED CONTENTS

[9] Rc - Range of Errors (See [D])  
**0.108**

[10] Rt - Range of Tare Weights. (See [B])  
**0.002**

[11] Ratio of Rc / Rt [9] / [10]  
**54**

[12] Total Number of Tare: nt (Table 2-4)  
**5**

[13] Average Tare Weight  
**0.252**

[15] Total Error  
**+0.078**

[16] Number of Unreasonable Minus Errors (UME's)  
**1**

REMARKS:

[17] Is [16] greater than [8]?  
YES: REJECT   
NO: Continue

[18] Average Error (([15] / [6])  
**+0.0026**

[19] Is [18] Zero or Plus?  
YES: ACCEPT LOT   
NO: REJECT LOT

THESE PACKAGES HAVE BEEN ORDERED OFF SALE UNDER PROVISIONS OF DIVISION 5, SECTION 12211 OF THE CALIFORNIA BUSINESS AND PROFESSIONS CODE.

**DO NOT MOVE, TRANSPORT, COMMINGLE OR DISPOSE OF WITHOUT WRITTEN AUTHORIZATION.**

DISPOSITION: Date: **6/11/03**

Corrected and Released  Destroyed  Disposition Not determined

Packages Off Sale: (rejected) **4800**

Packages Accepted: **0**

Packages Weighed / Measured **30**

I HAVE RECEIVED A COPY OF THIS REPORT AND HAVE BEEN GIVEN THE OPPORTUNITY TO REVIEW THE DATA.

OWNER OR AGENT: *James J. Jenson* TITLE: *Dent Mgr* SEALER: *R. Gordon* INSPECTOR: *Bob Winner*

8-004 (Rev. 1/03) DEPARTMENT OF FOOD AND AGRICULTURE - DIVISION OF MEASUREMENT STANDARDS **B**

PACKAGE INSPECTION REPORT

PAGE 2 OF 2

CATEGORY <b>B</b>	Date <b>6/11/03</b>	Time <b>8:20</b> <small>a.m. p.m.</small>	COUNTY <b>GOLDEN</b>	Report # or Off Sale Order #	Commodity Number <b>4:50</b>
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INSPECTION LOCATION AND PARTY RESPONSIBLE FOR NET CONTENTS

Packer <b>SCHULTZ</b>	Address	
Brand Name <b>SCHULTZ</b>	Other Identification / Code Symbols	Date <b>9/20'03</b>
Commodity <b>OLD FASHIONED BEEF FRANKS</b>		Other <b>03A-119602</b>

Container Description	[5] Inspection Lot Size <b>4,800</b>	[6] Sample Size	[7] Tare Sample Size (Initial)	[8] Unreasonable Minus Errors (UME) Allowed <b>0</b>
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[1] Labeled Content or Random Average Weight (RA)	[A] Gross Weight	[B] Tare Weight	[C] Net Weight [A] - [B]	[D] Error (Initial tare sample) [C] - [1]	[14] Nominal Gross Weight [1] + [13]	[5] Package Error Standard [A] - [14] Random [A] - [13] - [1]	[3] Maximum Allowable Variation (MAV) from table
12 LBS					12.252	Minus (-) Plus (+)	
1.	12.148					0.104	
2.	12.120					0.132	
3.	12.316						0.064
4.	12.326						0.074
5.	12.330						0.078
6.	12.234					0.018	
7.	12.274						0.022
8.	12.314						0.062
9.	12.284						0.032
10.	12.284						0.032
11.	12.300						0.048
12.	12.274						0.022
13.	12.154					0.098	
14.	12.210					0.042	
15.	12.144					0.108	
TOTAL	Total of Tare Weights				Error: Total for Each Column	0.502 0.434	0.068

Average Error [18] / Labeled Contents [1] = ☆ x 100 = %	[9] Rc - Range of Errors (See [D])	[10] Rt - Range of Tare Weights (See [B])	[11] Ratio of Rc / Rt [9] / [10]
☆ x Lot Size [5] x Price Per Package* = Total \$ Value	[12] Total Number of Tare: nt (Table 2-4)	[13] Average Tare Weight	[15] Total Error
* IF PRICED PER POUND: USE PRICE PER POUND x LABELED CONTENTS			[16] Number of Unreasonable Minus Errors (UME's)

REMARKS:	[17] Is [16] greater than [8] ? YES: REJECT <input type="checkbox"/> NO: Continue <input type="checkbox"/>	[18] Average Error ([15] / [6])	[19] Is [18] Zero or Plus? YES: ACCEPT LOT <input type="checkbox"/> NO: REJECT LOT <input type="checkbox"/>
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<input type="checkbox"/> THESE PACKAGES HAVE BEEN ORDERED OFF SALE UNDER PROVISIONS OF DIVISION 5, SECTION 12211 OF THE CALIFORNIA BUSINESS AND PROFESSIONS CODE.  <b>DO NOT MOVE, TRANSPORT, COMMINGLE OR DISPOSE OF WITHOUT WRITTEN AUTHORIZATION.</b>	DISPOSITION: Date: ___/___/___ Corrected and Released <input type="checkbox"/> Destroyed <input type="checkbox"/> Disposition Not determined <input type="checkbox"/>	Packages Off Sale: (rejected) _____ Packages Accepted: <b>SEE PAGE 1</b> _____ Packages Weighed / Measured _____
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I HAVE RECEIVED A COPY OF THIS REPORT AND HAVE BEEN GIVEN THE OPPORTUNITY TO REVIEW THE DATA.

OWNER OR AGENT	TITLE	SEALER	INSPECTOR
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PACKAGE INSPECTION REPORT

CATEGORY <b>B</b>	Date <b>6/12/03</b>	Time <b>7:55</b> <small>a.m. p.m.</small>	COUNTY <b>MISSION</b>	Report # or Off Sale Order #	Commodity Number <b>4.50</b>
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INSPECTION LOCATION AND PARTY RESPONSIBLE FOR NET CONTENTS

Packer <b>CRANDALL FARMS</b>	Address <b>256 EAST ST GLOSTER, CA 95665</b>
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Brand Name <b>WEST RIDGE FARMS</b>	Other Identification / Code Symbols	Date <b>SELL BY 7-02-03</b>	Other
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Commodity <b>WHOLE BODY CHICKEN</b>	Container Description <b>PLASTIC BAG, METAL CLIP, SOAKER</b>
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\$ <b>0.69</b>	<input type="checkbox"/> Package <input checked="" type="checkbox"/> Pound	[2] Device Division <b>0.002 LB</b>	[5] Inspection Lot Size <b>840</b>	[6] Sample Size <b>30</b>	[7] Tare Sample Size (Initial) <b>5</b>	[8] Unreasonable Minus Errors (UME) Allowed <b>0</b>
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[1] Labeled Content or Random Average Weight (RA)	[A] Gross Weight	[B] Tare Weight	[C] Net Weight [A] - [B]	[D] Error (initial tare sample) [C] - [1]	[14] Nominal Gross Weight [1] + [13]	[E] Package Error Standard [A] - [14] Random [A] - [13] - [11]		[3] Maximum Allowable Variation (MAV) from table
						Minus (-)	Plus (+)	
RA <b>2.810 LB</b>								
1. <b>2.58</b>	<b>2.684</b>	<b>0.122</b>	<b>2.562</b>	<b>-0.018</b>		<b>0.020</b>		
2. <b>2.65</b>	<b>2.748</b>	<b>0.126</b>	<b>2.622</b>	<b>-0.028</b>		<b>0.026</b>		
3. <b>3.10</b>	<b>3.182</b>	<b>0.122</b>	<b>3.060</b>	<b>-0.040</b>		<b>0.042</b>		
4. <b>2.46</b>	<b>2.610</b>	<b>0.124</b>	<b>2.486</b>	<b>+0.026</b>			<b>0.026</b>	
5. <b>3.09</b>	<b>3.228</b>	<b>0.126</b>	<b>3.102</b>	<b>+0.012</b>			<b>0.014</b>	
6. <b>2.86</b>	<b>2.972</b>					<b>0.012</b>		
7. <b>2.75</b>	<b>2.842</b>					<b>0.032</b>		
8. <b>3.04</b>	<b>3.170</b>						<b>0.006</b>	
9. <b>3.15</b>	<b>3.274</b>						<b>0</b>	
10. <b>2.96</b>	<b>3.074</b>					<b>0.010</b>		
11. <b>2.74</b>	<b>2.860</b>					<b>0.004</b>		
12. <b>2.98</b>	<b>3.112</b>						<b>0.008</b>	
13. <b>2.66</b>	<b>2.772</b>					<b>0.012</b>		
14. <b>2.34</b>	<b>2.466</b>						<b>0.002</b>	<b>0.062</b>
15. <b>2.54</b>	<b>2.646</b>					<b>0.018</b>		
TOTAL <b>Pa 1 41.90</b>	Total of Tare Weights <b>0.620</b>				Error: Total for Each Column	<b>0.176</b>	<b>0.056</b>	<b>0.062 - 0.12</b>

Average Error [18] / Labeled Contents [1] = $\star \times 100 =$ % <b>0.0089 / 2.81 = 0.0031 x 100 = 0.31 %</b>	[9] R <sub>c</sub> - Range of Errors (See [D]) <b>0.066</b>	[10] R <sub>t</sub> - Range of Tare Weights (See [B]) <b>0.004</b>	[11] Ratio of R <sub>c</sub> / R <sub>t</sub> [9] / [10] <b>16.5</b>
$\star \times$ Lot Size [5] $\times$ Price Per Package* = Total \$ Value <b>0.0031 x 840 x 0.69 x 2.81 = \$ 5.15</b>	[12] Total Number of Tare: nt (Table 2 - 4) <b>5</b>	[13] Average Tare Weight <b>0.124</b>	[15] Total Error <b>-0.268</b>
* IF PRICED PER POUND: USE PRICE PER POUND x LABELED CONTENTS			[16] Number of Unreasonable Minus Errors (UME's) <b>0</b>

REMARKS:	[17] Is [16] greater than [8]? YES: REJECT <input type="checkbox"/> NO: Continue <input checked="" type="checkbox"/>	[18] Average Error (([15] / [6]) <b>-0.0089</b>	[19] Is [18] Zero or Plus? YES: ACCEPT LOT <input type="checkbox"/> NO: REJECT LOT <input checked="" type="checkbox"/>
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<input checked="" type="checkbox"/> THESE PACKAGES HAVE BEEN ORDERED OFF SALE UNDER PROVISIONS OF DIVISION 5, SECTION 12211 OF THE CALIFORNIA BUSINESS AND PROFESSIONS CODE. <b>DO NOT MOVE, TRANSPORT, COMMINGLE OR DISPOSE OF WITHOUT WRITTEN AUTHORIZATION.</b>	DISPOSITION: Date: <b>6/12/03</b> Corrected and Released <input checked="" type="checkbox"/> Destroyed <input type="checkbox"/> Disposition Not determined <input type="checkbox"/>	Packages Off Sale: (rejected) <b>840</b> Packages Accepted: <b>0</b> Packages Weighed / Measured <b>30</b>
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OWNER OR AGENT <i>Ann Erickson</i>	TITLE <i>Operator</i>	SEALER <i>Albin Fowler</i>	INSPECTOR <i>Murray Swadley</i>
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PACKAGE INSPECTION REPORT

CATEGORY <b>B</b>	Date <b>6-12-01</b>	Time <b>7:55 am</b>	COUNTY <b>MISSION</b>	Report / OSO #	Insp. Type <b>2</b>	Est. Type <b>0110</b>	Commodity No. <b>4.50</b>
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CHECK PARTY RESPONSIBLE FOR NET CONTENTS INSPECTED AT

Packer **CRANDALL FARMS** Address \_\_\_\_\_

Brand Name **WEST RIDGE FARMS** Other Identification - Code Symbols \_\_\_\_\_ Date **SELL BY 7-02-01** Other \_\_\_\_\_

Commodity **WHOLE BODY CHICKEN** Container Description \_\_\_\_\_

\$ **0.39**  Package Pound  Unit of Measure **0.001 LB** [5] Inspection Lot Size **840** [6] Sample Size \_\_\_\_\_ [7] Tare Sample Size (Init.) \_\_\_\_\_ [8] Unreas. Minus Err. (UME) Allowed \_\_\_\_\_

[1] Labeled Cont. or Random Avg. RA	[A] Gross Weight	[B] Tare Weight	[C] Net Weight [A] - [B]	[13] Avg. Tare	[14] Nom. Gross Weight [1] + [13]	[D] Package Error Std. A - [14] Rdm. A - [13] - [1]	[E] Error	[3] MAV from table	[4] MAV in UOM
2.71	2.818			0.124		-0.016	16		
2.83	2.942					-0.012	12		
2.79	2.918					+0.004	4		
2.93	3.046					-0.008	8		
3.12	3.226					-0.018	18		
3.04	3.142					-0.022	22		
2.85	2.976					+0.002	2		
2.97	3.080					-0.014	14		
3.14	3.256					-0.008	8		
2.66	2.764					-0.020	20		
2.38	2.488					-0.016	16	0.062	62
2.56	2.690					+0.006	6		
3.01	3.138					+0.004	4		
2.99	3.096					-0.018	18		
2.44	2.552					-0.012	12		
<b>TOTAL 84.32</b>	STANDARD: Range of Net Weights		RANDOM: Range of Errors				<b>164</b>	<b>16</b>	

Avg. Err. [19] / Labeled Cont. [1] = ☆ x 100 = % Err.  
 ☆ x Lot Size [5] x Price Per Pkg.\* = Total \$ Value

[9] Std. Range of [C] Rdm. Range of [D] [10] Range of Tare Wts. Rt ( See [B] ) [11] Ratio of Pc / Rt [9] / [10]

[12] Total no. of Tare nt (Table 2-4) [15] Total Error [16] No. of UME's [17] Is [16] greater than [8] ?  
 YES: REJECT   
 NO: Continue

REMARKS:

[18] Average Error ([15] / [6]) [19] Avg. Error in Labeled Units ([18] x [2]) [20] Is [19] Zero or Plus? YES: Accept Lot  NO: Reject Lot

THESE PACKAGES HAVE BEEN ORDERED OFF SALE UNDER PROVISIONS OF DIVISION 5, SECTION 12211 OF THE CALIFORNIA BUSINESS AND PROFESSIONS CODE.  
 DO NOT MOVE, TRANSPORT, COMMINGLE OR DISPOSE OF WITHOUT WRITTEN AUTHORIZATION.

DISPOSITION: Date: \_\_\_\_\_  
 Packages Off Sale: (rejected)  
 Corrected and Released  Destroyed  Packages Accepted: **SEE PAGE 1**  
 Not determined  Packages Weighed / Measured \_\_\_\_\_

I HAVE RECEIVED A COPY OF THIS REPORT AND HAVE BEEN GIVEN THE OPPORTUNITY TO REVIEW THE DATA.  
 OWNER OR AGENT \_\_\_\_\_ TITLE \_\_\_\_\_ SEALER \_\_\_\_\_ INSPECTOR \_\_\_\_\_

PACKAGE INSPECTION REPORT

CATEGORY <b>C</b>	Date <b>6/7/03</b>	Time <b>2:10</b> a.m. p.m.	COUNTY <b>OCEANSIDE</b>	Report # or Off Sale Order #	Commodity Number <b>17.40</b>
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CHECK PARTY RESPONSIBLE FOR NET CONTENTS INSPECTED AT

✓ Packer <b>RL. ROBINS NOVELTIES</b>	Address <b>RANCHO HOOVER, CA 90112</b>
Distributor <b>G &amp; L SPECIALITIES</b>	Address <b>460 ELLIS DR., SAN GEORGIO, CA 91164</b>
Dealer <b>HENRIKSON'S</b>	Address <b>16 GREENTREE MALL, WEST BIRMORE, CA 95122</b>

Brand Name <b>BELLE NOEL</b>	Other Identification / Code Symbols <b>NONE</b>	Date Code <b>NONE</b>	Other Code <b>NONE</b>
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Commodity <b>GLASS CHRISTMAS TREE ORNAMENTS</b>	Container Description <b>PAPERBOARD BOX, PLASTIC TRAY</b>
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\$ <b>24.99</b> Per Package	[2] Device Division	[4] Weight per Unit	[5] Inspection Lot Size <b>510</b>	[6] Sample Size, Table 5-1 <b>24</b>	[7] Initial Tare Sample Size, Table 5-1 <b>NA</b>	[8] Number Under-count Packages Allowed, Table 5-1 <b>2</b>	[8A] Maximum Allowable Variation (MAV), Table 2-7 <b>1</b>
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[1] Labeled Content <b>36</b>	[A] Gross Weight		[B] Tare Weight		[C] Net Weight [A] - [B]		[D] Error (Initial tare sample) [C] - [1]		[E] Package Error By Weight [(A) - (14)] / (4)		[1] Labeled Content	[A] Gross Weight		[B] Tare Weight		[C] Net Weight [A] - [B]		[E] Package Error By Weight [(A) - (14)] / (4)		
	Minus (-)	Plus (+)	Minus (-)	Plus (+)	Minus (-)	Plus (+)	Minus (-)	Plus (+)	Minus (-)	Plus (+)		Minus (-)	Plus (+)	Minus (-)	Plus (+)	Minus (-)	Plus (+)	Minus (-)	Plus (+)	
1.											13.									0
2.											14.									0
3.											15.									0
4.											16.									0
5.											17.									0
6.											18.									0
7.											19.									0
8.											20.									0
9.											21.									0
10.											22.									0
11.											23.									0
12.											24.									0
Total of Tare Weights						Error: Total for Each Column		<b>3</b>				Total of Tare Weights				Error: Total for Each Column		<b>1</b>		

[9] Rc - Range of Errors [D]	[10] Rt - Range of Tare Weights [B]	[11] Ratio Rc / Rt [9] / [10]	[12] Total Number Tare [Table 2 - 3]	[13] Average Tare Weight	[14] Nominal Gross Weight [1] + [13]	[15] Total Error <b>-3</b>	[16] Number Under-count Packages *	[17] Is [16] greater than [8]? YES: REJECT <input type="checkbox"/> NO: ACCEPT lot Reject MAVs and Compute [18] <input checked="" type="checkbox"/>	[18] Average Error [15] / [8] <b>-0.125</b>
------------------------------	-------------------------------------	-------------------------------	--------------------------------------	--------------------------	--------------------------------------	-------------------------------	------------------------------------	---	--

Average Error [18] / Labeled Content [1] =  $\star \times 100 =$  % Error

$0.125 / 36 = 0.00347 \times 100 = 0.34$  %

$\star \times$  Lot Size [5]  $\times$  Price Per Package = Total \$ Value

$0.00347 \times 510 \times 24.99 = \$ 44.25$

\* [16] To be considered undercount, the individual package error must be -1 or more. Ignore any decimal values, do not round.

REMARKS:

<input checked="" type="checkbox"/> THESE PACKAGES HAVE BEEN ORDERED OFF SALE UNDER PROVISIONS OF DIVISION 5, SECTION 12211 OF THE CALIFORNIA BUSINESS AND PROFESSIONS CODE.  <b>DO NOT MOVE, TRANSPORT, COMMINGLE OR DISPOSE OF WITHOUT WRITTEN AUTHORIZATION.</b>	DISPOSITION: Date: <b>6/7/03</b>	Packages Off Sale: (rejected) <b>1</b>
	Corrected and Released <input type="checkbox"/> Destroyed <input checked="" type="checkbox"/>	Shipped to Packer <input type="checkbox"/> Distributor <input type="checkbox"/>
On ___/___/___	Disposition Not Determined <input type="checkbox"/>	Packages Weighed / Measured <b>24</b>

I HAVE RECEIVED A COPY OF THIS REPORT AND HAVE BEEN GIVEN THE OPPORTUNITY TO REVIEW THE DATA.

OWNER OR AGENT <i>Carley</i>	TITLE <i>Mgr</i>	SEALER <i>Ang Lopez</i>	INSPECTOR <i>Tommy</i>
---------------------------------	---------------------	----------------------------	---------------------------

49-003 (Rev. 7/03) DEPARTMENT OF FOOD AND AGRICULTURE - DIVISION OF MEASUREMENT STANDARDS



## **SAMPLE PACKAGE INSPECTION REPORTS**

### **VARIATIONS AND EXPLANATIONS**

#### **GENERAL**

The formulas used in the boxed areas of the PIRs have been simplified to calculate the data needed for the majority of the inspections. In some instances, modifications must be made to either the formula or data for specific tests or products.

#### **#1, page 8-55, Old Erin Irish Soda Bread**

Even though the lot is accepted, complete the calculations for % ERROR and TOTAL \$ (DOLLAR) VALUE. In general, complete both these sections for any lot with a minus average error, even if the lot is accepted.

#### **#2, page 8-56, Big Top Round Steak**

The Category is **A**. Even though the commodity is meat, this inspection is not being conducted in a USDA Packing Plant. According to the Retail Exemption in Federal Regulations, a retail establishment packaging meat or poultry for sale at the same retail location is not considered to be a USDA packing plant or under USDA inspection.

The Group is "OTHER." There are two reasons for this:

1. The commodity is not federally regulated.
2. There is no distribution; the packages are for sale at the packing location.

Note: Moisture loss consideration is only given when required by a Federal agency and is only for unavoidable moisture loss occurring in good distribution.

The MAV is from Table 2-5 (page 8-42) Packages Labeled by Weight. This Table, 2-5, is used, not Table 2-9, because the commodity is not packaged in a USDA Plant. A quick way to determine this is to look for the USDA Establishment number and logo on the package.

#### **#3, page 8-57, Yankee Vermont Sharp Cheddar Cheese**

The Group is OTHER, not MLA. Step 3, question MLA 3, page 8-12, asks "Is the commodity packaged in a way that allows moisture to evaporate into the atmosphere?" As plastic vacuum pack allows no evaporation, the inspector must continue to group OTHER. Since food is regulated by Federal Food and Drug Administration, moisture loss must be considered. Due to the packaging, the moisture loss is determined to be 0%. (Step 3, GROUP OTHER, 2d, UNUSED OR DRIED USED TARE, page 8-14.)

#4, page 8-58, West Ridge Farms Whole Body Chicken **THIS EXAMPLE IS DATED**

The Category is **A**. Even though the commodity is poultry and it was packaged in a USDA establishment, this inspection is not being conducted in the USDA Packing Plant.

Since this lot was packaged, weighed, and labeled in a USDA establishment, the MAV is from Table 2-9, U.S. Department of Agriculture, Meat and Poultry, Groups and Lower Limits for Individual Packages, page 8-48. To determine if Table 2-9 should be used, look for a USDA establishment number and logo on the package. Use Table 2-9 if one is present. If there is no establishment number, use Table 2-5. **USDA packaged fresh meat products' net weight is determined using "Used dry tare" not wet tare.**

# 5, page 8-59, Mayfield Cider Vinegar

In this example, the labeled content is stated in fluid ounces, but the inspection is being done in terms of fluid drams and the errors will be recorded as fluid drams.

To apply the formulas for boxes **[4]** and **[19]**, the moisture loss allowance and labeled content must be in the same terms (i.e., fluid drams).

The MAV **[4]** must also be in the fluid drams. To convert from fluid ounces to fluid drams, follow the steps outlined below.

The MAV for 18 fluid ounces is 0.63 fl oz (Table 2-6, page 8-44)

8 fluid drams = 1 fluid ounce

The MAV stated in fluid drams is 5.04 (0.63 fl oz x 8 fl dr/1 fl oz)

To compute the % Error and Total \$ Value the Average Error and the Labeled Content must be in the same terms (e.g., both in fluid ounces or both in fluid drams).

In this example, the Average Error **[18]** is converted to fluid ounces for the calculations.

Divide the average error by the number of fluid drams in a fluid ounce:

$$0.75 \div 8 = 0.09375 \text{ fl oz}$$

#6, page 8-60, Oak Creek Cabernet Sauvignon

An example of moisture loss in a bottle because the wine is absorbed into the cork of the bottle.

#7, page 8-61, Night Flower Peanut Oil

The tare sample packages are used to establish the weight for 1/2 gallon of oil.

The MAV is from Table 2-6, Packages **Labeled by Liquid or Dry Volume**, page 8-44. It is converted to pounds using the weight per 1/2 gallon of oil.

$$1/2 \text{ gallon} = 64 \text{ fluid ounces} = 3.71 \text{ lb}$$

$$3.71 \text{ lb} \div 64 \text{ fl oz} = 0.0579 \text{ lb per fluid ounce}$$

$$\text{MAV} = 1.5 \text{ fluid ounces (from table)}$$

$$\text{MAV in terms of weight: } 1.5 \text{ fl oz} \times 0.0579 \text{ lb per fl oz} = 0.086 \text{ lb}$$

#8, page 8-63, Titan #8 x 2-1/4 Wood Screws

The packages in this lot are labeled with count, but since the count is greater than 50, the lot is tested using Category A.

In this example the test is conducted by weight. The tare sample is used to calculate the weight of the "Labeled Content" and the Weight of the "MAV" (Maximum Allowable Variation).

The MAV is from Table 2-7, Packages Labeled by Count, page 8-46. It is converted to ounces using the calculated weight per unit. (See data recorded in Remarks section.)

Package #1 contains 95 screws and has a net weight of 12.35 oz

$$\text{Weight of one screw is } 12.35 \div 95 = 0.13 \text{ oz}$$

Package #2 contains 96 screws and has a net weight of 12.48 oz

$$\text{Weight of one screw is } 12.48 \div 96 = 0.13 \text{ oz}$$

Labeled content by weight is  $96 \times 0.13 = 12.48 \text{ oz}$

MAV from the table is  $3 \text{ screws} \times 0.13 = 0.39 \text{ oz}$

#9, pages 8-64 to 8-67 examples of Form B

#10, page 8-68, example of Form C

Note that a certain number of undercount packages are allowed and only the box that exceeded the MAV was rejected.

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## OFF SALE PROCEDURES

The forms, which currently include an Off Sale Order, are Package Inspection Reports (PIR) and Labeling Violation Reports, see page 9-2 for examples. The Off Sale Order is incorporated into these forms and only the appropriate box needs to be checked to place the commodity off sale. The form **must** be signed by the person in possession.

### CORRECTION

A. A commodity placed off sale may be corrected or disposed of by the person in possession by any of the following:

1. Marking with the correct net contents. Any incorrect statement must be completely covered or removed.
2. Repackaging or reprocessing so that the content statement is correct
3. Covering the incorrect content statement and donating or giving it away
4. Destroying or defacing the package so as to render it un-salable
5. Returning to the distributor or packer

NOTE: There may be other agency requirements limiting the content labeling and options for correction.

B. If a commodity is not corrected at the time of inspection:

1. A "Hold - Off Sale" card is attached to the lot. Be sure to enter your agency name and address on the address side of the card and your telephone number on the reverse.
2. The lot is clearly marked with "Hold" tape.
3. An instruction letter for the packers, distributors and retailers should be attached to the lot. A Sample Letter is on page 9-4.

STATE OF CALIFORNIA, DEPARTMENT OF FOOD AND AGRICULTURE DIVISION OF MEASUREMENT STANDARDS		DATE: 12-10-97 OFF SALE ORDER NO. 96-21007		
48-002 (REV 1/97)		<b>HOLD - OFF SALE</b>		
WARNING: THESE PACKAGES HAVE BEEN ORDERED OFF SALE. DO NOT REMOVE THIS IDENTIFICATION CARD OR IN ANY WAY DISPOSE OF, TRANSPORT OR SELL THIS COMMODITY WITHOUT AUTHORIZATION FROM A WEIGHTS AND MEASURES OFFICIAL. VIOLATION OF THIS ORDER IS A MISDEMEANOR, AND MAY RESULT IN A FINE OF UP TO \$1,000 AND/OR 1 YEAR IN JAIL.				
PERSON IN POSSESSION:	BRAND NAME AND COMMODITY	LABELED CONTENTS	LOT CODES OR IDENTIFICATION	NUMBER OF PACKAGES
ADDRESS:	BUSINESS & PROFESSIONS CODE, SECTION 170000			
MIDDLEBOROUGH	SUNDER DUPER #8	RAMIREZ-CRO TORTILLAS 24oz	A-15-11-19 96	186
		HOT PEPPER CHIPS 8oz	15-15-9996	340
			TOTAL	526
DO NOT DESTROY THIS CARD - TO THE RELEASING AGENCY: INDICATE THE DATE AND FINAL DISPOSITION BELOW AND RETURN THIS CARD TO THE AGENCY ON REVERSE.				
ISSUING AGENCY TELEPHONE NUMBER: (214) 498-1004 (NAME AND ADDRESS ON REVERSE)				

PACKAGE INSPECTION REPORT

CATEGORY <b>A</b>	Date	Time	COUNTY	Report / ODO #	Imp Type	Est. Type	Commodity No.
CHECK QUANTITY RESPONSIBLE FOR NET CONTENTS				INSPECTED AT			
Packer				Address			
Distributor				Address			
Dealer				Address			
Brand Name		Other Identification - Code Symbols		Date		Other	
Commodity							
Commodity Description							
<input type="checkbox"/> Package Group EGA <input type="checkbox"/> MSA <input type="checkbox"/> MLD <input type="checkbox"/> Packed <input type="checkbox"/> Other							
<input type="checkbox"/> Labeled Cont. or Random Avg. <input type="checkbox"/> Gross Weight <input type="checkbox"/> Tare Weight <input type="checkbox"/> Net Weight <input type="checkbox"/> Avg. Tare <input type="checkbox"/> Impression Lit Size <input type="checkbox"/> Sample Size <input type="checkbox"/> Tare Sample Size (gms.) <input type="checkbox"/> Urea N Mean Er. (MRE) Allowed <input type="checkbox"/> EGA, MSA, MLD <input type="checkbox"/> ADI <input type="checkbox"/> ADI <input type="checkbox"/> ADI							
1.							
2.							
3.							
4.							
5.							
6.							
7.							
8.							
9.							
10.							
11.							
12.							
TOTAL: <input type="checkbox"/> if more than half samples to opened, package errors are <input type="checkbox"/> - <input type="checkbox"/> labeled contents							
Range of Net Wt. No. (Cat. 2)		Range of Tare Wt. No. (Cat. 2)		Ratio of Tare Wt. / Net Wt. (Cat. 2)		Total no. of Tare Wt. at (Table 2 - 3)	
Range of Net Wt. (Cat. 2)		Range of Tare Wt. (Cat. 2)		Ratio of Tare Wt. / Net Wt. (Cat. 2)		Total Error at (Table 2 - 3)	
No. of UNITS		No. of gross (Cat. 2)		No. of net (Cat. 2)		Average Error at (Table 2 - 3)	
YES		NO		YES		NO	
REJECT		CONTINUE		ACCEPT		LOT	
NO		CONTINUE		NO		GO TO 2	
Compute Sample Standard Dev.		Sample Correction Factor (Table 2 - 1, Col. 3)		Sample Error Limit (SEL)		AVERAGE ERROR (E) IS MINUS	
Avg. Er. / Labeled Cont. =		X 100 =		% Er.		EGA EGA is greater than 0% <input type="checkbox"/> is less than or equal to <input type="checkbox"/> YES, ACCEPT <input type="checkbox"/> is greater than <input type="checkbox"/> YES, REJECT <input type="checkbox"/> is greater than <input type="checkbox"/> AND less than or equal to <input type="checkbox"/> IF YES - COMMODITY IS IN THE GREY AREA HOLD FINAL DETERMINATION. DATE / / HOLD <input type="checkbox"/> ACCEPT <input type="checkbox"/> REJECT <input type="checkbox"/> ACCEPT <input type="checkbox"/>	
X Lot Size X Price Per Pkg = Total Value		X X =		MSA MSA is greater than 0% <input type="checkbox"/> is less than or equal to <input type="checkbox"/> YES, ACCEPT <input type="checkbox"/> is greater than <input type="checkbox"/> YES, REJECT <input type="checkbox"/> OTHER No EGA or MSA <input type="checkbox"/> Or EGA or MSA equals 0% <input type="checkbox"/> is less than or equal to <input type="checkbox"/> YES, ACCEPT <input type="checkbox"/> is greater than <input type="checkbox"/> YES, REJECT <input type="checkbox"/>		* IF PRICED PER POUND USE PRICE PER POUND X LABELED CONTENTS REMARKS: THESE PACKAGES HAVE BEEN ORDERED OFF SALE UNDER PROVISIONS OF DIVISION 8, SECTION 12211 OF THE CALIFORNIA BUSINESS AND PROFESSIONS CODE. DO NOT MOVE, TRANSPORT, COMMINGLE OR DISPOSE OF WITHOUT WRITTEN AUTHORIZATION.	
DISPOSITION: Date: / /		Packed Off Sale (Accepted)		Packed Off Sale (Rejected)		Packed Off Sale (Accepted)	
Connected and Released		Dismantled		Packed Off Sale (Rejected)		Packed Off Sale (Accepted)	
Shipped to Packer		Distributor		Packed Off Sale (Rejected)		Packed Off Sale (Accepted)	
on		as		Packed Off Sale (Rejected)		Packed Off Sale (Accepted)	
Not Dismantled		Measured		Packed Off Sale (Rejected)		Packed Off Sale (Accepted)	
I HAVE RECEIVED A COPY OF THIS REPORT AND HAVE BEEN GIVEN THE OPPORTUNITY TO REVIEW THE DATA.							
OWNER OR AGENT	SCALE	INSPECTOR					

STATE OF CALIFORNIA  
DEPARTMENT OF FOOD AND AGRICULTURE  
DIVISION OF MEASUREMENT STANDARDS

LABELING VIOLATION REPORT

49-002 Rev. 4/80

COUNTY: \_\_\_\_\_

DATE: \_\_\_\_\_

CATEGORY NO.: \_\_\_\_\_

Check Person Responsible for Net Contents		Inspected At	
Packer	Address		
Distributor	Address		
Dealer	Address		
Brand Name	Commodity	Method Contents	
Other Identification - Code / Symbols		Container Description	

CHECK WHERE OUT OF COMPLIANCE WITH CALIFORNIA LAWS(S) OR REGULATION(S)

VIOLATION	BUSINESS & PROFESSIONS	CCR 4610	DESCRIPTION
<input type="checkbox"/> IDENTITY	<input type="checkbox"/> 12603(a) <input type="checkbox"/> 12603(a)	<input type="checkbox"/> 3.1 <input type="checkbox"/> 4.	Consumer Package Nonconsumer
<input type="checkbox"/> RESPONSIBILITY	<input type="checkbox"/> 12603(a)	<input type="checkbox"/> 5.	
<input type="checkbox"/> QUANTITY	<input type="checkbox"/> 12603(b) <input type="checkbox"/> 12603(b) <input type="checkbox"/> 12605 <input type="checkbox"/> 12602(a) <input type="checkbox"/> 12602(a) <input type="checkbox"/> 12603(b)	<input type="checkbox"/> 6.3 <input type="checkbox"/> 6.1 <input type="checkbox"/> 6.14 <input type="checkbox"/> 8.1 <input type="checkbox"/> 8.2.1 <input type="checkbox"/> 7.2	Name Method & Inch-pound Qualifying Terms Prominence & Placement Letter Size Nonconsumer
<input type="checkbox"/> OTHER			

Complete description of label; include area of principal display panel and package dimensions.

THESE PACKAGES HAVE BEEN ORDERED OFF SALE UNDER PROVISION OF DIVISION 8, CHAPTER 6 OF THE CALIFORNIA BUS. & PROF. CODE. DO NOT MOVE OR IN ANY WAY DISPOSE WITHOUT WRITTEN AUTHORIZATION. CORRECTED AND RELEASED: / / Number of Packages: \_\_\_\_\_

Owner / Agent	Title	Sealer	By
---------------	-------	--------	----

LABELING VIOLATION INQUIRY

DO NOT SEND THIS INQUIRY WITHOUT ACTUAL LABEL, DIAGRAM, PHOTO, ETC.

Agency Violation Reported To	Address
------------------------------	---------

TO RECEIVING AGENCY: UPON COMPLETION OF INVESTIGATION, PLEASE SUBMIT YOUR FINDINGS TO AGENCY

Agency	Office
Address	Phone

### C. Movement

Commodities being held off sale should not be released for movement until the following information has been obtained. This information should be sent to the receiving county or DMS. A Sample Form is on page 9-5.

1. Where is it to be shipped?
2. Date of shipment.
3. How is it to be transported?
4. Approximate date of arrival.
5. Commodity identity.
6. Brand.
7. Number of packages/cases.
8. Code marks.
9. Manufacturer or processor.
10. Location where the product was removed from sale (Person/Business in Possession).

The authorization for returning commodity should be signed by a responsible person, and this person should have proof of commodity's return available for inspection.

### D. Release and Disposition

1. Time enough to notify the receiving county or DMS should be allowed between writing the release and the movement date.
2. Perishable commodities may be released for transport with a telephone call. Telephone the receiving county or DMS with all of the information covered under Section C, Movement.
3. The "Hold - Off Sale" card has been designed as a postcard. It is to be returned to the issuing county (the address is on the reverse). The disposition of the lot is to be noted in the space on the face of the card.
4. **When packages under an Off Sale order have been shipped to another county, the receiving county should check that all packages are present in the shipment. The receiving county should supervise the correction or disposal of the packages, note the disposition in the space on the face of the Hold Card. The card should then be mailed to the county originally issuing the Off Sale Order.**

- E. If product under an Off Sale Order is not handled according to the directions given by the issuing agency, this needs to be documented and a Notice of Violation of Business and Professions Code 12025.5 issued.

STATE OF CALIFORNIA

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DEPARTMENT OF FOOD AND AGRICULTURE

Division of Measurement Standards  
6790 Florin Perkins Rd, Ste 100  
Sacramento, CA 95828-1812  
(916) 229-3000

**INSTRUCTIONS FOR CORRECTION OR HANDLING  
OF COMMODITIES UNDER HOLD - OFF SALE ORDER**

**WARNING:**

1. Do Not Sell.
2. Do Not Remove Hold - Off Sale Card.
3. **Do Not** move, transport, commingle, or dispose of any commodities under an Off Sale order without written permission from issuing department.

Contact your local County Department of Weights and Measures:

1. For methods of correcting the violation(s).
2. Before transporting Off Sale commodities to any other location.
3. Before disposal or reprocessing of any Off Sale commodities.
4. If you have any questions regarding these instructions.

**Issuing Agency:** \_\_\_\_\_

**Address:** \_\_\_\_\_

**Telephone No.:** \_\_\_\_\_

**NOTICE:** Removal of Hold - Off Sale card or selling, transporting or disposing of a commodity under an Off Sale order without permission is a misdemeanor offense (B&P Code 12025.5), which may result in a fine of up to \$1,000 and/or 1 year in jail.



STATE OF CALIFORNIA

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DEPARTMENT OF FOOD AND AGRICULTURE

Division of Measurement Standards  
6790 Florin Perkins Rd, Ste 100  
Sacramento, CA 95828-1812  
(916) 229-3000

**SHIPMENT INFORMATION, OFF SALE COMMODITY**

THIS INFORMATION IS REQUIRED BEFORE THIS COMMODITY  
WILL BE RELEASED FOR SHIPMENT FROM THIS LOCATION

1. Brand and Commodity: \_\_\_\_\_
  2. Number of Cases/Packages: \_\_\_\_\_ Code(s): \_\_\_\_\_
  3. Manufacturer/Processor: \_\_\_\_\_
  4. Person/Business in Possession: \_\_\_\_\_
  5. Date of Shipment: \_\_\_\_\_
  6. Carrier: \_\_\_\_\_
  7. Destination: \_\_\_\_\_  
\_\_\_\_\_
  8. Approximate Date of Arrival: \_\_\_\_\_
- Owner/Agent: \_\_\_\_\_ Title: \_\_\_\_\_
- Date: \_\_\_\_\_ Telephone Number: \_\_\_\_\_
- Issuing Agency:** \_\_\_\_\_
- Address:** \_\_\_\_\_
- Telephone No.:** \_\_\_\_\_

**NOTICE:** As soon as all the above information is completed, contact the issuing agency for authorization to ship the merchandise from this location.

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## **LABEL VIOLATIONS**

### **Label Violation Report; Procedure and Routing**

Follow the steps in the section which best describe where the package was labeled and which agency regulates the commodity. Instructions for filling out the report begin on page 10-11. Examples of completed reports are on pages 10-13 through 10-16.

#### **1. LABELED IN YOUR COUNTY**

- Personally contact the party responsible for label compliance (usually this is the party in the Statement of Responsibility on the package) and supervise the correction.
- Send a copy of the completed Label Violation Report to your area Price and Quantity Verification Investigator. Note in the “remarks” section the corrective action taken by the responsible party.

#### **2. LABELED IN CALIFORNIA, NOT REGULATED BY A FEDERAL AGENCY**

The list, beginning on page 10-6, identifies these commodities with (CA).

- Complete the Labeling Violation Report, including the Inquiry Section.

In the inquiry section, the “Agency Violation Referred To” is the County Weights and Measures Office for the packing location. List your county name and address in the Section “To Receiving Agency...”

Attach or include a label, a copy of the label, or a diagram with the report.

- Send a copy of the completed Labeling Violation Report to the Sealer of the county where the packages are labeled. That county will contact the labeler and oversee the correction.
- Send a copy of the completed report to your area Price and Quantity Verification Investigator.
- In some situations additional copies may be required, see page 1-2.

#### **3. LABELED IN CALIFORNIA **AND** REGULATED BY A FEDERAL AGENCY**

The list, beginning on page 10-6, identifies the appropriate agency in parenthesis behind each category [(FTC), (FDA), (USDA), (EPA), and (UST)]. Agency addresses are listed on page 10-5 of this procedure.

- Complete the Labeling Violation Report, including the Inquiry Section.

In the inquiry section, list the federal agency as the “Agency Violation Referred To” and your county’s name and address in the Section “To Receiving Agency...”

Attach or include a label, a copy of the label, or a diagram with the report. The Food and Drug Administration (FDA) requires an actual label before action may be taken.

- Send a copy of the completed Labeling Violation Report to the Sealer of the county where the packages are labeled. That county will contact the labeler and oversee the correction.
- Send a copy of the completed report to the federal agency.
- Send a copy of the completed report to your area Price and Quantity Verification Investigator.
- In some situations additional copies may be required, see page 1-2.

4. LABELED **OUTSIDE** OF CALIFORNIA, **NOT** REGULATED BY A FEDERAL AGENCY

The list, beginning on page 10-6, identifies these commodities with (CA).

Complete the Labeling Violation Report, including the Inquiry Section.

- In the inquiry section, list the DMS Office for your area Price and Quantity Verification Investigator as the “Agency Violation Referred To” and your county name in the Section “To Receiving Agency...”

Attach or include a label, a copy of the label, or a diagram with the report.

- Send the completed Report to your area Price and Quantity Verification Investigator.

The Price and Quantity Verification Investigator will send a “violation notice” letter and copy of the Violation Report to the labeler and to the Weights and Measures Agency where the labeler is located. A copy of the letter will be sent to you for your county records.

- In some situations additional copies may be required, see page 1-2.

5. LABELED **OUTSIDE** CALIFORNIA **AND** REGULATED BY A FEDERAL AGENCY

The list, beginning on page 45, identifies the appropriate agency in parenthesis behind each category [(FTC), (FDA), (USDA), (EPA), and (UST)]. Agency addresses are listed on page 10-5 of this procedure.

- Complete the Labeling Violation Report, including the Inquiry Section.

In the inquiry section, list the federal agency as the “Agency Violation Referred To” and your county’s name and address in the Section “To Receiving Agency...”

Attach or include a label, a copy of the label, or a diagram with the report. The Food and Drug Administration (FDA) requires an actual label before action may be taken.

- Send the completed Report to your area Price and Quantity Verification Investigator.

The Price and Quantity Verification Investigator will send a “violation notice” letter and copy of the Violation Report to the labeler, to the Federal agency, and to the Weights and Measures Agency where the labeler is located. A copy of the letter will be sent to you for your county records.

- In some situations additional copies may be required, see page 1-2.

## **Label Violation; Procedure for Correction**

1. When a Label Violation Report has been referred to your county.

- Personally contact the responsible party. Determine how the violation will be corrected.
- If the packages have been ordered Off Sale, ensure that all packages are present.

Do not release the packages until the violation or violations have been corrected and the required information appears on the labels.

- If the violation is technical, e.g., letter size too small, incorrect abbreviation, etc.

Establish the time needed for correction and an estimate of the time required for the corrected packages to be in retail outlets.

- Notify the county or agency listed in the Inquiry Section as to the corrective action and required times.
- Notify your area Price and Quantity Verification Investigator as to the corrective action and required times.

2. When a violation is found on a package labeled at the inspection site.

- Complete the Label Violation Report in order to document the violation.
- Determine how the violation will be corrected
- If there is no net content statement, order the packages "Off Sale"

Do not release the packages until the violation or violations have been corrected and the required information appears on the labels.

- If the violation is technical, e.g., letter size too small, incorrect abbreviation, etc.

Establish the time needed for correction and an estimate of the time required for the corrected packages to be in retail outlets.

Send a copy of the report, including the corrective action, to your area Price and Quantity Verification Investigator.

**FTC - Federal Trade Commission** -- Designates commodities under jurisdiction of the Federal Trade Commission. (FPLA, Title 16, Part 500)

**CA - Per Federal Trade Commission Interpretation** -- Designates categories that have been excluded by the Commission in the light of legislative history of the definition of "consumer commodity." (Section 503.5.) These commodities are controlled by California laws only.

**FDA - Food and Drug Administration** -- Designates commodities subject to regulation by the Food and Drug Administration and under the portion of the FPLA administered by that agency or the Federal Food, Drug, and Cosmetic Act. (Section 10 (a)(3) and Section 7 of the FPLA.)

**USDA - U.S. Department of Agriculture** -- Designates commodities excluded from jurisdiction under Section 10(a) of the FPLA and subject to regulation by the Department of Agriculture.

**EPA - Environmental Protection Agency** -- Designates commodities excluded from jurisdiction under Section 10(a) of the FPLA and are subject to regulation by the Environmental Protection Agency under the Federal Insecticide, Fungicide, and Rodenticide Act.

**UST - U.S. Department of the Treasury** -- Designates those commodities excluded from jurisdiction under Section 10(a) of the FPLA and subject to regulations administered by the Alcohol, Tobacco and Firearms Division, Internal Revenue Service, Department of the Treasury's Tax and Trade Bureau, **UST/BTAF/TTB.**

The list of commodities and commodity groups, beginning on the following page, is quite broad for some categories and quite specific for others. The list was prepared by the Federal Trade Commission and is the best reference currently possessed by the Division. Officials should familiarize themselves with the list and refer to it to ensure the appropriate regulations are followed for correct labeling. When it is not clear which agency should be contacted, consult your area Price and Quantity Verification Investigator.

Federal agency addresses are on page 10-5.

## FEDERAL AGENCIES AND ADDRESSES

### **UST/BATF/TTB**

Trade Analysis and Enforcement Division  
Tax and Trade Bureau  
Suite 200 W  
1310 G Street, NW  
Washington, D.C. 20226

### **FTC**

Division of Enforcement  
Bureau of Consumer Protection  
Federal Trade Commission  
Washington, D.C. 20580

### **EPA**

Environmental Protection Agency  
Office of Pesticide and Toxic  
Substance Registration Division (TS-767 C)  
401 M Street, SW  
Washington, D.C. 20460

### **FDA**

Division of Enforcement (HFS-607)  
CFRAN FDA  
5100 Paint Branch Parkway  
College Park, MD 20740-3835

### **USDA (Meat and Poultry Products)**

U.S. Department of Agriculture  
Standards and Labeling Division (MPITS)  
Washington, D.C. 20250

### **USDA (Seed Products)**

Federal Seed Regulatory Branch  
1400 Independence Avenue, SW  
Washington, D.C. 20250

## **COMMODITIES**

**ADHESIVES AND SEALANTS:** Pastes, glue, specialty adhesives and sealants, tapes including pressure sensitive, masking, electrical, binding, etc. (FTC)

**ADHESIVE TAPE FOR BANDAGES** (FDA)

**AIR FRESHENERS AND DEODORIZERS** (FTC)

**ALCOHOLIC BEVERAGES** (UST/TTB)

**ALUMINUM CLOTHESLINE:** Including plastic clothesline with a steel core (CA)

**ANTIFREEZE** (CA)

**ARTIFICIAL FLOWERS AND PARTS** (CA)

**AUTOMOTIVE ACCESSORIES:** Floor mats, seat covers, spare parts, etc. (CA)

**AUTOMOTIVE CHEMICAL PRODUCTS:** Auto polish, wax and finish conditioner, rubbing compound, tire paint, chrome polish, gasoline additives, etc. (CA)

**BATH OIL AND BUBBLE BATH** (FDA)

**BICYCLE TIRES AND TUBES** (CA)

**BOOKS** (CA)

**BOTTLED GAS FOR COOKING OR HEATING** (CA)

**BRUSHES:** Paint brushes, etc. (CA)

**BROOMS AND MOPS:** Glass, dish mops, floor mops, etc. (CA)

**“BUG PROOF” SHELF PAPER** (EPA)

**CANDLE HOLDERS:** Packaged without candles (CA)

**CAMERAS** (CA)

**CHINAWARE** (CA)

**CHRISTMAS LIGHT SETS** (CA) Note: Replacement or other bulbs sold separately are FTC.

**CIGARETTE LIGHTERS** (CA)

**CLEANING DEVICES:** Sponges, steel wool, scouring soap pads, chamois (FTC)

**CLEANING COMPOUNDS:** Liquid, powder, paste or cake (FTC)

**CLOTHESPINS** (CA)



**CLOTHING AND WEARING APPAREL:** Socks, gloves, shoelaces, underwear, etc. (CA)

**COMPACTS AND MIRRORS** (CA)

**CONTAINERS:** Paper (plain, waxed or plastic coated), foil, plastic, styrofoam, vacuum cleaner bags, etc. (FTC)

**COSMETICS:** Defined by Section 501(l) of the Food, Drug, and Cosmetic Act as “(1) articles intended to be rubbed, poured, sprinkled, or sprayed on, introduced into, or otherwise applied to the human body or any part thereof for cleansing, beautifying, promoting attractiveness, or altering the appearance; and (2) articles intended for use as a component of any such articles; except that such term shall not include soap.” (FDA)

**COTTON PUFFS, STERILIZED** (FDA)

**CRYSTAL WARE** (CA)

**DETERGENT BAR WITH A DRUG OR COSMETIC CLAIM** (FDA)

**DECORATIONS:** Christmas, birthday, other holidays and special events (FTC)

**DECORATIVE MAGNETS** (CA)

**DEVICES:** Defined by Section 201(h) of the Food, Drug, and Cosmetic Act as “instruments, apparatus, and contrivances, including their components, parts and accessories, intended (1) for use in the diagnosis, cure, mitigation, treatment, or prevention of disease in man or other animals; or (2) to affect the structure or any function of the body of man or other animals.” This category includes trusses, syringes, arch supports, etc. (FDA)

**DIARIES AND CALENDARS** (CA)

**DISINFECTANTS** (EPA)

**DRUGS:** Defined by Section 201(g)(l) of the Food, Drug, and Cosmetic Act as “(a) articles recognized in the official United States Pharmacopoeia, official Homeopathic Pharmacopoeia, or official National Formulary, or any supplement to any of them; (b) articles intended for use in the diagnosis, cure, mitigation, treatment, or prevention of disease in man or other animals; (c) articles (other than food) intended to affect the structure or any function of the body of man or other animals; and (d) articles intended for use as a component of any articles specified in clauses (a), (b) or (c); but does not include devices or their components, parts, or accessories.” (FDA)

**DURABLE ARTICLES OR COMMODITIES** (CA)

**ELECTRICAL SUPPLIES:** Light and flashlight bulbs, household batteries, fuses, etc. (FTC)

**FIFRA COVERED PRODUCTS:** Products subject to regulation under the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA) which is now administered by the Environmental Protection Agency. Normally the label will bear an EPA or USDA number if subject to. (EPA)

**FINGERNAIL FILES** (CA)

**FLOWERS, FLOWER SEEDS, FERTILIZER AND FERTILIZER MATERIALS, PLANTS OR SHRUBS, GARDEN AND LAWN SUPPLIES (CA)**

**FOOD:** Defined by Section 201(f) of the Food, Drug, and Cosmetic Act as “(1) articles used for food and drink for man or other animals; (2) chewing gum; and (3) articles used for components of any such article.” (FDA)

**FOOD WRAPS:** Plastic, cellophane, wax paper, paper, foil or other types (FTC)

**FOUNTAIN PENS, MECHANICAL PENCILS, AND KINDRED PRODUCTS:** Ballpoint pens, pencils, lead refills, etc. (CA)

**GARDEN TOOLS:** Hose, trowels, grass clippers, etc. (CA)

**GERM KILLING OR GERM PROOFING PRODUCTS (EPA)**

**GIFT TAPE AND TIES (CA)**

**GIFT WRAPPING MATERIAL:** Decorative wrapping foil, paper, cellophane, etc. (CA)

**GLASSES AND GLASSWARE:** Note, disposable plastic glasses are regulated by FTC (CA)

**GLOVES (CA)**

**GREETING CARDS (CA)**

**HAIR COMBS, HAIR NETS, HAIR PINS (FDA)**

**HAND TOOLS (CA)**

**HANDICRAFT, SEWING THREAD, YARN (CA)**

**HARDWARE:** Extension cords, thumbtacks, hose clamps, nails and screws, picture hangers, etc. (CA)

**HOUSEHOLD APPLIANCES, EQUIPMENT OR FURNISHINGS:** Feather and down-filled products, synthetic-filled bed pillows, mattress pads, quilts, comforters, and decorative curtains (CA)

**HOUSEHOLD SUPPLIES:** Matches, candles, toothpicks, cordage (string, twine, rope, clothes-line, etc.), drinking straws, lighter fluid, propane torch fuel, flints, pipe cleaners, household lubricants, picnic supplies, sandpaper, emery paper, charcoal briquettes, chips, logs, dyes, tints, camera film, photo supplies, protective fabric sprays, plastic or paper drop cloths, etc. (FTC)

**INK (CA)**

**INSECTICIDES:** Insect repellents in any form, mothballs, etc. (EPA)

**IRONING BOARD COVERS (CA)**

**JEWELRY (CA)**

**LAMBS WOOL DUSTERS (CA)**

**LAUNDRY SUPPLIES:** Conditioners, softeners, ironing aids, distilled water, sizing, starches, bluing, bleaches, presoaks, enzymes, etc. (FTC)

**LUGGAGE (CA)**

**MAGNETIC RECORDING TAPE:** Reels, cassettes, and cartridges (CA)

**MEAT AND MEAT PRODUCTS (USDA)**

**METAL PAILS (CA)**

**MOTOR OIL AND ADDITIVES (CA)** Note: Household multipurpose oil is regulated by FTC.

**MOUSE AND RAT TRAPS (CA)**

**MOUTHWASH (FDA)**

**MUSICAL INSTRUMENTS (CA)**

**PAINTS AND KINDRED PRODUCTS:** Wallpaper, turpentine, putty, paint removers, glazing compounds, wood fillers, etc. (CA) Note: Caulking materials, patching plaster, spackling compound, and plastic wood are regulated by FTC.

**PAINTINGS AND WALL PLAQUES (CA)**

**PAPER PRODUCTS:** Toweling, napkins, tablecloths, place mats, facial tissues, bathroom tissues, disposable diapers, crepe paper, shelf paper, wrapping paper, eye glass tissues, etc. (FTC)

**PET CARE SUPPLIES (CA)**

**PEWTER WARE (CA)**

**PHOTO ALBUMS (CA)**

**PICTURES (CA)**

**PLASTIC BUCKETS AND GARBAGE CANS (CA)**

**PLASTIC SHELF LINING (CA)**

**PREMOISTENED TOWELETTES (FDA)**

**POLISHING CLOTHS (CA)** Note: Polishing cloths impregnated with polish or chemicals (silicone, etc.) are regulated by FTC.

**POULTRY AND POULTRY PRODUCTS (USDA)**

**RUBBER GLOVES (CA)**

**RUBBING ALCOHOL (FDA)**

**SAFETY FLARES (CA)**

**SAFETY PINS (CA)**

**SANITARY NAPKINS, TAMPONS (FDA)**

**SCHOOL SUPPLIES:** Rulers, crayons, paper, pencils, etc. (CA)

**SEEDS, AGRICULTURAL (USDA)**

**SELF-STICK PROTECTIVE FELT PADS (CA)**

**SEWING ACCESSORIES:** Needles of any type, thimbles, kindred articles, etc. (CA)

**SHAMPOO (FDA)**

**SHOELACES (CA)**

**SMALL ARMS AMMUNITION (CA)**

**SILVERWARE, STAINLESS STEEL WARE, AND PEWTER WARE (CA)**

**SMOKING PIPES (CA)**

**SOAP BARS WITH A DRUG CLAIM:** Includes any claim for removing facial blemishes, etc. (FDA)

**SOAPS AND DETERGENTS:** Powder, flakes, chips, liquid, paste, cake, or tablet (FTC)

**SOAP DISHES (CA)**

**SOUVENIRS (CA)**

**SPORTING GOODS (CA)**

**STATIONERY AND WRITING SUPPLIES:** Loose-leaf binders, paper tablets, etc. (CA)

**TEXTILES AND ITEMS OF WEARING APPAREL:** Cloth laundry bags, towels, cheesecloth, shoe shine cloths, etc. (CA)

**TOBACCO AND TOBACCO PRODUCTS (UST/TTB)**

**TOOTHPASTE (FDA)**

**TOYS (CA)**

**TYPEWRITER RIBBON (CA)**

**WAXES AND POLISHES:** Powder, liquid, paste, cake, polish impregnated cloths, scratch removers, etc. (FTC)

**WIRE OF ANY TYPE (CA)**

**WOODEN WARE (CA)**

## INSTRUCTIONS FOR LABELING VIOLATION REPORT, FORM 49-062

### A. Heading

1. The Date and Time the inspection begins.
2. The full County name. S.C. could be Santa Clara or Santa Cruz
3. Report or Off Sale Number (optional): Used according to county policy. It is the number used by some jurisdictions to identify the inspection or for tracking off sale commodities.
4. Commodity Number: The number used by the State of California to designate the specific classification of the commodity under inspection. If the commodity is being inspected at the packing location, it is considered to be an audit and the number is the general classification followed by .50. For example, 2.00 is the general classification for Dairy Type Products. The commodity number for an inspection of packages of cottage cheese at the packing plant would be "2.50-Prepackaged Dairy Type Products (Audits)." If this same cottage cheese were to be inspected at the retail market, the classification would be "2.06-Cottage Cheese."

The next section contains information about the inspection and commodity. The information is used to identify and locate all parties having some control over the commodity. Always enter the complete name and address of all the parties. If at a retail location, it may be necessary to ask for or to check invoices to determine the distributor.

5. Packer is the name and address of the party actually placing the commodity into the package. Usually this is the Statement of Responsibility (i.e., the company name and address printed on the label).
  6. Distributor is the party transferring the commodity from the packer to the sales location. It may be the packer if the lot was a direct shipment to the sales location. The dealer's distribution center or warehouse is considered to be the distributor when the packer ships to that location.
  7. Dealer is the party selling the commodity. The location may be wholesale or retail location.
- \* Check the box in front of Packer, Distributor, or Dealer to indicate which one of these parties is responsible for the accuracy of the label (i.e., the one that specified the content of the label).
- \* Check the appropriate box following Packer, Distributor, and Dealer to indicate at which location the inspection is taking place.

### B. Commodity information

1. Brand Name: Trademark or the name the commodity is marketed under (e.g., for Blue Seas Chunk Light Tuna, "Blue Seas" is the brand name).
2. Commodity: Identity of the commodity. In the above example, it is "Chunk Light Tuna."
3. Marked Contents: The content statement exactly as written on the package. If there is none, write "None."

4. Other Identification - Code/Symbols:

- a. Date: Any and all dates printed on the label. If there is more than one, record all of them and identify the type. Types of dates may include pack, best used by, or sell by.
- b. Other: Any code or identifying marks on the package designating the part of the production or the location that this commodity is from.

5. Container Description: A complete explanation of everything considered tare for this commodity. This is any part of the whole package and commodity not considered to be the net contents. The description should give enough detail so that someone not familiar with the package could recognize the container and tare.

C. Out-of-Compliance Check Boxes

1. Check the box in front of the type of violation(s), Identity, Responsibility, Quantity, and/or Other.
2. Check the box in front of the B&P Code and CCR section numbers of the violation(s). If the section is not listed, check the box in front of the blank line in the appropriate area and write in the section number. If in doubt, look up the sections.
3. Description: Write a brief description of the violation (e.g., **Qualifying Terms** "*may not use the words when packed*").
4. Complete description of label . . . : Attach the label, a copy of the label, or a picture of the label to the report. If this is not possible, draw a picture of the package and label in this area. Show the dimensions of the principal display panel, wording, and letter size used in the quantity statement.

This area may also be used for an explanation of the violation(s) or the needed corrections.

D. Off Sale Order: If the lot has been rejected as a result of the violation(s), it is ordered "Off Sale" by checking this box.

1. If CORRECTED AND RELEASED: Write in the date of release. This may be different from the inspection date. If the disposition is not determined, a follow-up will be necessary.
2. Number of Packages: The number of packages placed Off Sale.
3. The next line contains the signature and title of the Owner or Agent for the owner, of the lot inspected, and the names of the County Sealer and the Inspector conducting the inspection. The signature of the agent or owner signifies his or her understanding of the conditions of the Off Sale order. If there is no Off Sale as a result of the violation(s), it is not necessary to obtain the Owner or Agent's signature.

E. Labeling Violation Inquiry

Complete this section when the correction or follow-up to this violation is being referred to a federal agency, DMS, or another county or agency. See pages 10-1 to 10-4. Be sure to complete your agency name and address so that you will receive notification of the correction or investigation results.

STATE OF CALIFORNIA  
DEPARTMENT OF FOOD AND AGRICULTURE  
DIVISION OF MEASUREMENT STANDARDS

COUNTY: MISSION

DATE: 12-6-96

CATEGORY NO.: 11.05

### LABELING VIOLATION REPORT

49-052 (Rev. 4/85)

Check Person Responsible for Net Contents			Inspected At
<input checked="" type="checkbox"/> Packer	KANE KEMICAL COMPANY		167 ROAD D OUTLAND, TX 49608
Distributor	NATIONAL MERCHANDISING		18557 INDUSTRIAL, BRIDGER NV 88571
Dealer	SUPER DUDE DISCOUNT CENTER		109 So. MAIN, ROCKRIDGE, CA
Brand Name	Commodity	Marked Contents	
KEEP AWAY	INSECT REPELLENT	1 LB. (16 oz) 1/2 KILD	
Other Identification - Code / Symbols	Container Description		
79-00684 ZBN	FIBERBOARD CAN, METAL ENDS		

CHECK WHERE OUT OF COMPLIANCE WITH CALIFORNIA LAWS(S) OR REGULATION(S)

VIOLATION	BUSINESS & PROFESSIONS	CCR 4510	DESCRIPTION
<input type="checkbox"/> IDENTITY	<input type="checkbox"/> 12603(a) <input type="checkbox"/> 12603(a) <input type="checkbox"/>	<input type="checkbox"/> 3.1 <input type="checkbox"/> 4. <input type="checkbox"/>	Consumer Package Nonconsumer
<input checked="" type="checkbox"/> RESPONSIBILITY	<input checked="" type="checkbox"/> 12603(a) <input type="checkbox"/>	<input checked="" type="checkbox"/> 5. <input type="checkbox"/>	NO STATEMENT OF RESPONSIBILITY
<input checked="" type="checkbox"/> QUANTITY	<input type="checkbox"/> 12603(b) <input type="checkbox"/> 12603(b) <input type="checkbox"/> 12605 <input checked="" type="checkbox"/> 12602(a) <input type="checkbox"/> 12602(a) <input type="checkbox"/> 12603(b) <input checked="" type="checkbox"/> 12611 <input checked="" type="checkbox"/> 12611	<input type="checkbox"/> 6.3 <input type="checkbox"/> 6.1 <input type="checkbox"/> 6.14 <input checked="" type="checkbox"/> 8.1 <input type="checkbox"/> 8.2.1 <input type="checkbox"/> 7.2 <input type="checkbox"/> 6.5 (f) <input type="checkbox"/> 6.5.1	None Metric & inch-pound Qualifying Terms Prominence & Placement <u>MUST BE ON PRINCIPAL DISPLAY PANEL</u> Letter Size Nonconsumer <u>SI NUMERICAL VALUES TO BE ROUNDED 1-1000</u> <u>INCORRECT SI SYMBOLS</u>
<input type="checkbox"/> OTHER			

Complete description of label; include area of principal display panel and package dimensions.

	CONTAINER DIAMETER = 3 INCH CONTAINER HEIGHT = 7 INCH	
PRINCIPAL DISPLAY PANEL		REAR PANEL
		QUANTITY STATEMENT
		INSTRUCTIONS FOR USE

THESE PACKAGE HAVE BEEN ORDERED OFF SALE UNDER PROVISION OF DIVISION 5, CHAPTER 6 OF THE CALIFORNIA BUS. & PROF. CODE.  
DO NOT MOVE OR IN ANY WAY DISPOSE WITHOUT WRITTEN AUTHORIZATION. CORRECTED AND RELEASED: / / Number of Packages: /

Owner / Agent	Title	Sealer	By
		G. GARDNER	E. PEEL

LABELING VIOLATION INQUIRY

DO NOT SEND THIS INQUIRY WITHOUT ACTUAL LABEL, DIAGRAM, PHOTO, ETC.

Agency Violation Referred To
EPA OFFICE OF PESTICIDE AND SUBSTANCE REGISTRATION DIV (TS-767C)
Address
401 M STREET SW, WASHINGTON DC 20460

TO RECEIVING AGENCY; UPON COMPLETION OF INVESTIGATION, PLEASE SUBMIT YOUR FINDINGS TO AGENCY

Agency	Officer
MISSION COUNTY DEPT. OF WEIGHTS & MEASURES	E. PEEL
Address	Phone
100 SUNSET DR, METRO CA 96605	(713) 452-9768

STATE OF CALIFORNIA  
DEPARTMENT OF FOOD AND AGRICULTURE  
DIVISION OF MEASUREMENT STANDARDS

COUNTY: MISSION

DATE: 12-2-96

CATEGORY NO.: 15.13

### LABELING VIOLATION REPORT

49-052 (Rev. 4/85)

Check Person Responsible for Net Contents			Inspected At
<input checked="" type="checkbox"/> Packer	SMART BROS. INC 10213 FIRST ST. PABCO, CA 94021		
<input type="checkbox"/> Distributor	TRI CITY PAPER BROKER HWY 40 #12 AYALA CA 98017		
<input type="checkbox"/> Dealer	SUPER DUPER DISCOUNT CENTER 109 So MAIA, ROCKRIDGE CA		
Brand Name	Commodity	Marked Contents	
SMART'S	TYPING PAPER	200	
Other Identification -- Code / Symbols		Container Description	
NAME		FIBERBOARD BOX	

#### CHECK WHERE OUT OF COMPLIANCE WITH CALIFORNIA LAWS(S) OR REGULATION(S)

VIOLATION	BUSINESS & PROFESSIONS	CCR 4610	DESCRIPTION
<input type="checkbox"/> IDENTITY	<input type="checkbox"/> 12603(a) <input type="checkbox"/> 12603(a) <input type="checkbox"/>	<input type="checkbox"/> 3.1 <input type="checkbox"/> 4. <input type="checkbox"/>	Consumer Package Nonconsumer
<input type="checkbox"/> RESPONSIBILITY	<input type="checkbox"/> 12603(a) <input type="checkbox"/>	<input type="checkbox"/> 5. <input type="checkbox"/>	
<input checked="" type="checkbox"/> QUANTITY	<input type="checkbox"/> 12603(b) <input type="checkbox"/> 12603(b) <input type="checkbox"/> 12605 <input checked="" type="checkbox"/> 12602(a) <input type="checkbox"/> 12602(a) <input type="checkbox"/> 12603(b) <input checked="" type="checkbox"/> 12602 <input checked="" type="checkbox"/> 12602	<input type="checkbox"/> 6.3 <input type="checkbox"/> 6.1 <input type="checkbox"/> 6.14 <input checked="" type="checkbox"/> 8.1.1 <input type="checkbox"/> 8.2.1. <input type="checkbox"/> 7.2 <input checked="" type="checkbox"/> 8.1.1 <input checked="" type="checkbox"/> 6.9	None Metric & inch-pound Qualifying Terms Prominence & Placement <b>REQUIRED IN LOWER 30% OF PRINCIPAL DISPLAY PANEL</b> Letter Size Nonconsumer <b>STATEMENT TO BE PARALLEL</b> <b>BOTH COUNT &amp; DIMENSIONS REQUIRED</b>
<input type="checkbox"/> OTHER			

Complete description of label; include area of principal display panel and package dimensions.

	<p>NOTE: QUANTITY COMPLAINT; SEE PIR 12-2-96, AVG. SHORTAGE 3.2 SHEETS / PACKAGE</p>
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THESE PACKAGE HAVE BEEN ORDERED OFF SALE UNDER PROVISION OF DIVISION 5, CHAPTER 6 OF THE CALIFORNIA BUS. & PROF. CODE. DO NOT MOVE OR IN ANY WAY DISPOSE WITHOUT WRITTEN AUTHORIZATION. CORRECTED AND RELEASED: / / Number of Packages: \_\_\_\_\_

Owner / Agent	Title	Sealer	By
		G. CALOGERO	J. STEED

### LABELING VIOLATION INQUIRY

DO NOT SEND THIS INQUIRY WITHOUT ACTUAL LABEL, DIAGRAM, PHOTO, ETC.

Agency Violation Referred To
GOLDEN CO. DEPT WEIGHTS & MEASURES
Address
11882 GREEN ST. BERNAL, CA 94270

TO RECEIVING AGENCY; UPON COMPLETION OF INVESTIGATION, PLEASE SUBMIT YOUR FINDINGS TO AGENCY

Agency	Officer
MISSION COUNTY W M	J. STEED
Address	Phone
100 SUNSET DR. METRO CA 94605	(713) 452-9768



STATE OF CALIFORNIA  
DEPARTMENT OF FOOD AND AGRICULTURE  
DIVISION OF MEASUREMENT STANDARDS

COUNTY: MISSION

DATE: 12-5-96

CATEGORY NO.: 11.04

### LABELING VIOLATION REPORT


49-052 (Rev. 4/86)

Check Person Responsible for Net Contents		Inspected At
<input checked="" type="checkbox"/> Packer	<u>NORTHWOODS FORESTRY PRODUCTS</u>	Address <u>SITKA, WA</u>
<input type="checkbox"/> Distributor	<u>HOME SUPPLY</u>	Address <u>8585 FOUNDRY WAY, BAYSIDE CA 98620</u>
<input type="checkbox"/> Dealer		
Brand Name	Commodity	Marked Contents
<u>HEARTH SIDE</u>	<u>PREMIUM HARDWOOD</u>	<u>NONE</u>
Other Identification - Code / Symbols	Container Description	
<u>NONE</u>	<u>SHRINK WRAP BUNDLE OF SPLIT FIREWOOD</u>	

#### CHECK WHERE OUT OF COMPLIANCE WITH CALIFORNIA LAWS(S) OR REGULATION(S)

VIOLATION	BUSINESS & PROFESSIONS	CCR 4510	DESCRIPTION
<input type="checkbox"/> IDENTITY	<input type="checkbox"/> 12603(a) <input type="checkbox"/> 12603(a) <input type="checkbox"/> _____	<input type="checkbox"/> 3.1 <input type="checkbox"/> 4. <input type="checkbox"/> _____	Consumer Package Nonconsumer
<input checked="" type="checkbox"/> RESPONSIBILITY	<input checked="" type="checkbox"/> 12603(a) <input type="checkbox"/> _____	<input checked="" type="checkbox"/> 5. <input type="checkbox"/> _____	<u>NO ZIP, NO ADDRESS, NOT IN DIRECTORY</u>
<input checked="" type="checkbox"/> QUANTITY	<input checked="" type="checkbox"/> 12603(b) <input type="checkbox"/> 12603(b) <input type="checkbox"/> 12605 <input type="checkbox"/> 12602(a) <input type="checkbox"/> 12602(a) <input type="checkbox"/> 12603(b) <input type="checkbox"/> _____ <input type="checkbox"/> _____	<input checked="" type="checkbox"/> 6.3 <input type="checkbox"/> 6.1 <input type="checkbox"/> 6.14 <input type="checkbox"/> 8.1 <input type="checkbox"/> 8.2.1. <input type="checkbox"/> 7.2 <input type="checkbox"/> _____ <input type="checkbox"/> _____	None Metric & Inch-pound Qualifying Terms Prominence & Placement Letter Size Nonconsumer
<input checked="" type="checkbox"/> OTHER	<u>12026</u>	<u>4534 (C)</u>	<u>NAME OR GROUP OF ORIGIN OF WOODS REQUIRED</u>

Complete description of label; include area of principal display panel and package dimensions.



1 - 15 1/2" - 1

THESE PACKAGE HAVE BEEN ORDERED OFF SALE UNDER PROVISION OF DIVISION 5, CHAPTER 6 OF THE CALIFORNIA BUS. & PROF. CODE. DO NOT MOVE OR IN ANY WAY DISPOSE WITHOUT WRITTEN AUTHORIZATION. CORRECTED AND RELEASED: / / . Number of Packages: 1,350

Owned Agent	Title	Sealer	By
<u>[Signature]</u>	<u>Owner</u>	<u>[Signature]</u>	<u>E. PEEL</u>

LABELING VIOLATION INQUIRY DO NOT SEND THIS INQUIRY WITHOUT ACTUAL LABEL, DIAGRAM, PHOTO, ETC.

Agency Violation Referred To
<u>DMS SACRAMENTO</u>
Address
<u>8500 FRUITRIDGE RD. SACRAMENTO</u>

TO RECEIVING AGENCY; UPON COMPLETION OF INVESTIGATION, PLEASE SUBMIT YOUR FINDINGS TO AGENCY

Agency	Officer
<u>MISSION Co. WEIGHTS &amp; MEASURES</u>	<u>E. PEEL</u>
Address	Phone
	<u>(713) 452-9768</u>

STATE OF CALIFORNIA  
DEPARTMENT OF FOOD AND AGRICULTURE  
DIVISION OF MEASUREMENT STANDARDS

COUNTY: MISSION

DATE: 8-10-96

CATEGORY NO.: 3.01

**LABELING VIOLATION REPORT**

49-062 (Rev. 4/85)

Check Person Responsible for Net Contents		Inspected At
<input checked="" type="checkbox"/> Packer	Address	
<input checked="" type="checkbox"/> DISTRIBUTOR	Address	
Dealer		Address
Brand Name	Commodity	Marked Contents
<u>SUPER DUPER</u>	<u>DINNER ROLLS</u>	<u>ONE DOZEN</u>
Other Identification - Code / Symbols	Container Description	
<u>8-8-96</u>	<u>PLASTIC BAG, SPOT LABEL, TWIST TIE</u>	

**CHECK WHERE OUT OF COMPLIANCE WITH CALIFORNIA LAWS(S) OR REGULATION(S)**

VIOLATION	BUSINESS & PROFESSIONS	CCR 4510	DESCRIPTION
<input type="checkbox"/> IDENTITY	<input type="checkbox"/> 12603(a) <input type="checkbox"/> 12603(a) <input type="checkbox"/> _____	<input type="checkbox"/> 3.1 <input type="checkbox"/> 4. <input type="checkbox"/> _____	Consumer Package Nonconsumer
<input type="checkbox"/> RESPONSIBILITY	<input type="checkbox"/> 12603(a) <input type="checkbox"/> _____	<input type="checkbox"/> 5. <input type="checkbox"/> _____	
<input checked="" type="checkbox"/> QUANTITY	<input type="checkbox"/> 12603(b) <input type="checkbox"/> 12603(b) <input type="checkbox"/> 12605 <input type="checkbox"/> 12602(a) <input type="checkbox"/> 12602(a) <input type="checkbox"/> 12603(b) <input checked="" type="checkbox"/> <u>12607</u> <input type="checkbox"/> _____	<input type="checkbox"/> 6.3 <input type="checkbox"/> 6.1 <input type="checkbox"/> 6.14 <input type="checkbox"/> 8.1 <input type="checkbox"/> 8.2.1. <input type="checkbox"/> 7.2 <input checked="" type="checkbox"/> <u>6.4</u> <input type="checkbox"/> _____	None Metric & inch-pound. Qualifying Terms Prominence & Placement Letter Size Nonconsumer <u>NET WEIGHT REQUIRED*</u>
<input type="checkbox"/> OTHER			

Complete description of label; include area of principal display panel and package dimensions.

\*COUNT ALONE DOES NOT PERMIT PRICE AND QUANTITY COMPARISONS AS ROLLS MAY BE HIGHLY VARIABLE IN DENSITY BUT APPEAR THE SAME. SECTION 6.4.1 PERMITS THE USE OF COUNT IN ADDITION TO NET WEIGHT

THESE PACKAGE HAVE BEEN ORDERED OFF SALE UNDER PROVISION OF DIVISION 5, CHAPTER 6 OF THE CALIFORNIA BUS. & PROF. CODE. DO NOT MOVE OR IN ANY WAY DISPOSE WITHOUT WRITTEN AUTHORIZATION. CORRECTED AND RELEASED: 8/10/96 Number of Packages: 47

Owner/Agent <u>Officer Orde</u>	Title <u>Bakery Rep</u>	Sealer <u>Cherindora</u>	By <u>J. STEEN</u>
------------------------------------	----------------------------	-----------------------------	-----------------------

LABELING VIOLATION INQUIRY

DO NOT SEND THIS INQUIRY WITHOUT ACTUAL LABEL, DIAGRAM, PHOTO, ETC.

Agency Violation Referred To
Address

TO RECEIVING AGENCY: UPON COMPLETION OF INVESTIGATION, PLEASE SUBMIT YOUR FINDINGS TO AGENCY

Agency	Officer
Address	Phone

## **DECEPTIVE CONTAINER DETERMINATIONS**

The following procedures are taken from the Federal Food and Drug Net Quantity of Contents Compendium and can be helpful in reporting deceptive packaging violations (Section 12606 California Business and Professions Code).

### **GENERAL**

While the problems of reporting results on deceptive containers are extremely diversified, a general pattern to be followed by all officials will be helpful. It is not presumed that instructions will cover all cases. The official will be left to exercise good judgment when omissions or additions in the outline are indicated. It is important that the summary sheet contains a clear and accurate description of the container together with drawings and/or photographs. A sample package should be submitted with the summary sheet. If a report is forwarded without a sample package, the summary sheet should contain a complete description and drawing or photographs.

### **DEFINITIONS**

In order to avoid confusion and misunderstanding, the following definitions can be used for the purpose of reporting results:

- A. The term "**Headspace**" is the distance from the top of the container to the top of the product. In making this measurement, any extensions of the cover or lid above the body of the container are disregarded.
- B. The terms "**Volume of Container**," "**Internal Volume of Container**," and "**Capacity of Container**" are synonymous and mean the space occupied by the product plus the headspace. (Methods I and II below)
- C. The term "**Calculated Volume of Container**" means the internal volume (capacity) of the container obtained solely by calculation from dimensional measurements of length, height, and thickness.
- D. The terms "**Displacement Volume of Container**" and "**External Volume of Container**" are synonymous and refer solely to the external volume of the container exclusive of paneling, indentations, etc. (Method III)
- E. The term "**Apparent Displacement Volume of Container**" means the external volume of the container plus the volume due to paneling, indentations, etc. (Method IV)
- F. The terms "**False Bottom Volume of Container**," "**Raised Cover Volume of Container**," etc., mean the additional volumes which are added to the internal volume of the container by means of these devices.
- G. The term "**Maximum Volume of Product**" means the largest space occupied by the product after fluffing. (Method V)
- H. The term "**Minimum Volume of Product**" means the smallest space occupied by the product. (Method V)
- I. The term "**Average Volume of Product**" means the average of G and H.

## LABORATORY EXAMINATION

It has been found that determination of volume by direct measurement is more accurate in most cases than calculated volume. This is due to the fact that many containers are not perfect geometric figures. Volumes, therefore, should be determined by direct measurement whenever possible and direct measurement should be used for all subsequent calculations. Calculated values, using dimensional measurements, may be used for check purposes and in cases where there is no doubt as to their accuracy.

**Method I** - (Volume of bottles, tin cans, etc.)

Run water at 20°C (68°F) directly into the container from a burette or other calibrated apparatus.

**Method II** - (Volume of cartons, baskets, etc.)

Pour mustard seed, turnip seed, or other small spherical seed directly into the container, tapping and shaking the container gently until level full. Transfer seed to graduated cylinder, tapping and shaking gently until there is no further decrease in volume.

**Method III** - (External volume of bottles, jars, tubes, etc.)

(a) By Weight:

Using a suitable balance, weigh the container full of water at 20°C in the air, and then weigh it submerged in water at 20°C (68°F). The difference in weight in avoirdupois ounces divided by the conversion factor 0.0352 is the displacement volume in cubic centimeters.

(b) By Volume:

Using a graduated cylinder containing a known amount of water at 20°C (68°F). submerge container and read the increase in volume.

**Method IV** - (Apparent displacement volume)

(a) By Weight:

Fill indentations with modeling clay (Permoplast) and proceed by Method III above. To fill indentations, remove labels and press in an excess of plastic. Excess plastic is removed and leveling accomplished by means of a knife blade held perpendicular to the plastic surface. All extraneous plastic is removed by means of a cloth; and weighings are then performed in the usual manner, although the container should not be placed in direct contact with balance pan.

(b) By Volume:

Run colored kerosene or a liquid with low surface tension at 20°C (68°F) into panels or depressions until level full. The external or displacement volume of the container plus the volume due to paneling or depressions is the apparent displacement volume.

**Method V** - Maximum and Minimum Volume of Product (not applicable to products where breakage will result).

The maximum and minimum volumes are determined on 2 ounces of the product; the space occupied by other weights being determined by direct proportion.

When extrapolating the maximum and minimum volumes from 2 ounces to x ounces, be sure to determine the total weight (x ounces) of the product in the container by direct weighing. Relying on the labeled weight of the commodity when computing these values can sometimes render incorrect results. If the contents of the container are greater than or less than the labeled weight, an inaccurate representation of the maximum and minimum volume in the container will occur.

Roll 2 ounces of the material back and forth on a sheet of paper 10 times. Fill into a 250 ml graduated cylinder without shaking or moving the cylinder. Level material in cylinder gently with a spatula and read maximum volume.

Tap cylinder 100 times and read volume. Tap 20 times and again read volume. Continue until 20 taps reduce the volume by less than 1 ml and read the minimum volume.

## **REPORT RESULTS AS FOLLOWS**

The data desired on the summary sheet is illustrated below by typical examples. The determinations listed deal solely with deceptive container factors.

### **A. OVERSIZED CONTAINER (SLACK FILLED) (e.g., Grated Cheese)**

1. Description of sample.
2. Headspace (as received).
3. Inside dimensions of container.
4. Volume of container: (direct) - (calculated).
5. Minimum volume occupied by product.
6. Maximum volume occupied by product.
7. Average volume occupied by product.
8. Percent fill of container (minimum volume).
9. Percent fill of container (maximum volume).
10. Percent fill of container (average volume).
11. Drawings or photographs of container and contents.
12. Sample to accompany summary sheet.

### Illustration of Method for Reporting Results

The containers are of the shaker type and of uniform size. They are cylindrical in shape with tin ends and cardboard bodies. The bottom end is solid metal and indented .12 inch. The top end has 3 holes, each .44 inch in diameter, which are opened and closed by means of rotating the lid (not hermetically sealed). When received, the holes were covered with cellophane that must be removed before the cheese can be shaken out.

<u>headspace (inches)</u> (as received)	<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>	<u>6</u>	<u>Avg.</u>
	2.00	1.90	1.95	1.93	2.00	2.00	1.96

Inside dimensions of container = 2.30" diameter by 3.30" height

Volume of container (direct) = 224 ml  
(calculated) = 13.68 cu. in. or 224.2 ml (see page 17-10 for conversion)

Minimum volume occupied by product = 93.7 ml

Maximum volume occupied by product = 124.9 ml

Average volume occupied by product = 109.33 ml

Fill of container (minimum volume) = 41.8%

Fill of container (maximum volume) = 55.8%

Fill of container (average volume) = 48.8%

#### B. OVERSIZED CARTON (container within carton) (e.g., Toothpaste)

1. Description of sample.
2. Distance from top of outside container to top of inside container.
3. Inside dimensions of outside container.
4. Volume of outside container: (direct) - (calculated).
5. Displacement volume of inside container.
6. Percent of height of outside container occupied by inside container.
7. Percent of volume of outside container occupied by inside container.
8. Drawings or photographs showing both containers.
9. Sample to accompany summary sheet.

### Illustration of Method for Reporting Results

The package consists of tubes of toothpaste in rectangular cardboard cartons. The tubes and cardboard cartons are of uniform size. The tube has a screw top and the bottom of the tube is crimped. There are no circulars or other literature inside the carton.

Distance from top of outside container to tube = 1.60"

Inside dimensions of container = 6.40" x 1.68" x 1.16"

Volume of outside container (direct) = 204 ml  
(calculated) = 12.47 cu. in. or 204.4 ml (see page 17-10)

Displacement volume of inside container = 52 ml

Height outside container occupied by inside container = 75.0%

Volume outside container occupied by inside container = 25.5%

### C. FALSE BOTTOM CONTAINER (e.g., Candy)

1. Description of sample.
2. Distance from top of container to top of false bottom.
3. Total inside dimensions of container including false bottom.
4. False bottom dimensions (derived from 2 and 3).
5. Volume of container including false bottom: (direct) - (calculated).
6. False bottom volume.
7. Percent volume available for product.
8. Percent false bottom volume.
9. Drawings or photographs showing false bottom.
10. Sample to accompany summary sheet.

### Illustration of Method for Reporting Results

The package is a cardboard box with extension edges (2/16 inch). It contains two layers of candy. The bottom layer has a W-shaped strip of cardboard so that it contains fewer pieces of candy than would be the case if this device were not used. The top layer contains 22 pieces of candy while the bottom layer contains 12 pieces. The box has a false bottom consisting of a sheet of cardboard supported by a .56-inch turn down side and end.

Distance from top of container to top of false bottom = 1.63"

Total inside dimensions of container including false bottom = 2.19" deep x 4.50" x 6.50"

False bottom dimensions (derived from preceding measurement) = 0.56" deep x 4.50" x 6.50"

Volume of container including false bottom (direct) = 1050 ml  
(calculated) = 64.06 cu in or 1049.9 ml (see page 17-10)

False bottom volume = 269 ml

Percent volume available for product = 74.4%

Percent false bottom volume = 24.6%

**D. INDENTED BOTTOM and RAISED COVER CONTAINER (e.g., Deodorant Cream)**

1. Description of sample.
2. Overall height of container.
3. Height of cover above full container.
4. Depth of indented bottom.
5. Capacity of container.
6. Displacement volume of container.
7. Volume of indented bottom.
8. Apparent displacement volume.
9. Percent apparent displacement volume occupied by product.
10. Drawings or photographs of container.
11. Sample to accompany summary sheet.

**Illustration of Method for Reporting Results**

The package consists of a round, lithographed, metal box that fits snugly into a cardboard carton. The metal box has an indented bottom and a slip cover which extends above the contents of the box. The inside compartment, which is basin-shaped, contains a white perfumed cream.

Overall height of container = 0.64"

Height of cover above full container = 0.25"

Depth of indented bottom = 0.10"

Capacity of container = 9.0 ml



Displacement volume of container = 28.5 ml

Volume of indented volume = 5.2 ml

Apparent displacement volume = 33.7 ml

Percent apparent displacement volume occupied by product = 26.7%

NOTE: In the case of bottle measurements, the ratio of apparent displacement volume to capacity of bottle should always be included in the report.

#### **Method VI - (For products such as breakfast cereals, canned nuts, etc.)**

A Procedure for Determining Minimum and Maximum Bulk Density of Free-Flowing Food Products and Minimum and Maximum Percent of Fill.

#### **PURPOSE**

The method outlined below involves transferring the contents of a readily available standardized graduated container from which the volume of the contents can be read directly.

The inside of container is measured when empty, to the nearest 0.1 cm, so that the effects of bulge are eliminated. For a container containing a liner, determine the volume of the liner occupied in the container.

#### **PROCEDURE**

- A. Open the container and transfer its contents to a standard graduated glass cylinder of such size that untapped volume will occupy more than half of the capacity of the cylinder. (Fill as many times as is necessary to get the entire volume of product.) Before reading a volume, the top surface should be leveled. (A point midway between the highest and lowest point of the inclined surface may be used in place of leveling the surface.)
- B. Record this total volume as the maximum volume in cubic centimeters.
- C. Carefully pour out the product and divide into quarters. Transfer each quarter successively to the graduate cylinder, firmly tapping the container 5 times after addition of each quarter. When all of the product is transferred, or the cylinder is filled, continue tapping to obtain full settling -- when 5 taps result in additional settling of less than 2.0%. Fill cylinder as many times as is necessary to obtain the total settled volume of the contents (level top surface of contents as before). It is desirable to use a cylinder of such size that the four quarters will be contained in one filling.

NOTE: Tapping is accomplished by raising the cylinder vertically about 2" and then dropping onto a firm, level surface; impact should be sufficient to effect settling of the product but not so severe as to cause product breakage. The cylinder should be tapped onto a cork pad or corrugated cardboard paper.

- D. Record this total volume as the minimum volume in cubic centimeters.
- E. Determine the available volume of the container in the following manner: calculate the inside volume of the container in cubic centimeters.
- F. Calculate the percent fill as follows:

$$\frac{\text{Maximum volume of product in ml}}{\text{Available volume of container in ml}} \times 100 = \text{maximum \% fill}$$

$$\frac{\text{Minimum volume of product in ml}}{\text{Available volume of container in ml}} \times 100 = \text{minimum \% fill}$$

NOTE: Many products are fragile and subject to breakage. If excessive, breakage can significantly lower the apparent percent fill determined by the above method. If the percent fill for a particular lot of product appears low, the possibility of excessive breakage should be investigated.

### **SUGGESTED OPERATIONAL STEPS**

Measuring volume and fill of container for free-flowing food products such as mixed nuts in cans, jars, etc., using Method VI.

- A. Determine gross weights of 10 full and intact containers.
- B. Open can from the top, using a can opener. Do not use key.
- C. Determine headspace on 5 containers (with liner in place).
- D. Determine maximum and minimum fill of 5 containers by the above procedure.
- E. Calculate apparent volume of containers, subtracting from the height the two double seams. Do not correct for indentations; assume ends (lids) to be flat.
- F.
  - 1. Determine water capacity of one container opened at the top.
  - 2. Refill the container to water capacity with the nut product, adding as required from contents of other containers. Add about a quarter of the estimated required quantity at a time and tap in the container as directed in Method V, last paragraph, page 11-3. The surface of the product should be level, and as near 3/16" below the top edge of the double seam as possible. Determine the weight of the contents.
- G. For the purpose of obtaining the volume of indentations, proceed as follows:

Determine the water capacity of one can from the top and one can from the bottom, using the countersink dimension as measured for the height of the double seam instead of 3/16" or titrate top and bottom indentations, using odorless kerosene or another liquid of equal or lower capillary action.

- H. Compute volume of indentations of the top and bottom lids by taking the difference between the calculated apparent volume and the water capacities as previously determined (e.g., calculated apparent volume minus water capacity determined from bottom equals volume of top indentation).
- I. Determine volume of corrugated liners, using the distance from trough to crest as thickness.
- J. Sketch cross section of container (side view).
- K. Submit 2 intact containers.
- L. Submit a color photograph of a representative portion of the nuts.
- M. Report results as in following format.

#### **REPORTING FORMAT**

- A. Net contents declared.
- B. Net contents found.
- C. Maximum volume of nuts.
- D. Minimum volume of nuts.
- E. Calculated apparent volume of can.
- F. Measured water capacity of can:
  - 1. Maximum weight the can will hold when completely filled to water capacity.
  - 2. Divide net contents (B) by (A) and multiply by 100 to obtain percent.
- G. Calculate available volume: (Subtract volume of bottom indentation from water capacity F).
- H. Volume occupied by corrugated liner.
- I. Volume of top indentation (countersink dimension).
- J. Volume of bottom indentations (countersink dimensions).
- K. Headspace.

- |    |                          |                             |                          |
|----|--------------------------|-----------------------------|--------------------------|
| L. | % Maximum fill based on: | Measured available volume   | $[C/(F-I)] \times 100 =$ |
|    |                          | Calculated available volume | $(C/G) \times 100 =$     |
|    |                          | Calculated apparent volume  | $(C/E) \times 100 =$     |
| M. | % Minimum fill based on: | Measured available volume   | $[D/(F-I)] \times 100 =$ |
|    |                          | Calculated available volume | $(D/G) \times 100 =$     |
|    |                          | Calculated apparent volume  | $(D/E) \times 100 =$     |

## **SURVEILLANCE REQUESTS**

**Surveillance Requests** are sent out to alert officials of a problem and to request their assistance.

Usually surveillance requests are the result of a follow-up to a potential problem and indicate that a local or a state agency is considering legal action.

Though there are two forms used for surveillance requests, under-filled packages and price irregularities, any violation that can occur region-wide or statewide is suitable for a surveillance request to enable officials to evaluate the extent of any problem encountered.

### **When Responding to a Surveillance Request:**

Copies of all reports and forms generated from the investigation of the request are to be sent to the requesting agency. A tabulation of hours and costs expended while investigating the request or problem should be kept. If legal action is taken as a result of the request, the prosecuting agency may request that all involved parties send costs for reimbursement.

**NOTE:** The surveillance tare is to be used **only** to audit the commodity. An actual tare average must be determined to complete the PIR and legally determine the lot status.

If the commodity or violation is not found, return the request to your area Price and Quantity Verification Investigator, noting on the margin "**Unable to Locate**".

### **Instructions for Requests:**

Instructions for requests involving under-filled packages and pricing irregularities are on the following pages. For any other type of violation, similar requests have been issued, including those resulting from deceptive package complaints, faulty tare weight procedures, and incorrect price computations in bulk sales.

The following examples and instructions can be used as a guide to help ensure that key information is provided to other investigating officials.

12-2  
Rev. 11/09

STATE OF CALIFORNIA

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DEPARTMENT OF FOOD AND AGRICULTURE

Division of Measurement Standards  
6790 Florin Perkins Road, Suite 100  
Sacramento, CA 95828-1812  
(916) 229-3070  
FAX (916) 229-3064

**SURVEILLANCE REQUEST, QUANTITY VERIFICATION PACKAGE SHORTAGES**

**INFORMATION REQUESTED BY:** MISSION COUNTY WEIGHTS & MEASURES

**BRAND NAME:** RAMIREZ

**COMMODITY:** CORN TORTILLAS

**LABELED CONTENTS:** 24 oz (1-1/2 LB) 680 g

**PRICE:** \$0.49

**AVERAGE SHORTAGE:** 1.1 oz

**% AVERAGE SHORTAGE:** 4.5

**CODE/PLANT/ESTABLISHMENT #:** A-15 11-19-96

**COMMODITY # 3.11:**  **CATEGORY A**  EGA,  MLA 3%,  OTHER,  **CATEGORY C**

**SURVEILLANCE TARE:** 0.25 oz

**PARTY RESPONSIBLE FOR NET CONTENTS:** SINALOA INDUSTRIES, NATIONAL CITY, CA 90585

**DISTRIBUTOR (IF DIFFERENT):** JUAN CARLOS DIST., CHULA VISTA, CA 90444

**LOCATION WHERE COMMODITY CAN BE FOUND:** MOST MARKETS, BAKERY, OR  
MEAT DEPARTMENT

**REMARKS:** PLEASE CHECK ANY OTHER SIZES AND CODES.  
QUESTIONS, CONTACT KAREN LANGFORD, (916) 229-3070

**SEND INSPECTION REPORTS AND INVESTIGATION RESULTS TO:**

KAREN LANGFORD, DMS  
6790 FLORIN PERKINS ROAD, SUITE 100, SACRAMENTO, CA 95828-1812

**INCLUDE COSTS**

**DATE ASSIGNED:** 11-21-99

**ASSIGNED TO:**

<input checked="" type="checkbox"/> CLAY	<input type="checkbox"/> ALAMEDA	<input type="checkbox"/> SAN FRANCISCO	<input checked="" type="checkbox"/> STANISLAUS
<input checked="" type="checkbox"/> DELPERDANG	<input type="checkbox"/> AMADOR	<input checked="" type="checkbox"/> SAN JOAQUIN	<input type="checkbox"/> TUOLUMNE
<input checked="" type="checkbox"/> MACEY	<input type="checkbox"/> CALAVERAS	<input type="checkbox"/> SAN MATEO	
<input checked="" type="checkbox"/> McDERMOTT	<input type="checkbox"/> SACRAMENTO	<input type="checkbox"/> SANTA CLARA	

### **SHORT QUANTITY SURVEILLANCE REQUESTS:**

#### **To request surveillance when package shortages have been found:**

1. First check at least two more retail establishments and, if possible, at the distribution or packaging level.
2. Verify that the shortages are not caused by excessive shelf life or poor distribution. Old or poorly kept merchandise should be corrected immediately at the location where found.
3. Notify the area Price and Quantity Verification Investigator for the county, or DMS, with the following information:

- \* Brand Name
- \* Commodity
- \* Marked Contents
- \* Average Shortage
- \* Unit Price
- \* Code Number and Plant Number
- \* Category Number
- \* Surveillance Tare
- \* Packer Name and Address
- \* Distribution Locations
- \* Retail Locations where they may be found
- \* Remarks; e.g., Control Weight, MLA or EGA percentage, special test methods, etc.

4. The Investigator will contact another county to determine if the shortage exists in a larger area.
5. If the shortage is found in more than one area, the Investigator will contact DMS and the other Specialists to send out a statewide surveillance.

To maintain effective and efficient communication between agencies, please report legal actions involving the Price and Quantity Verification Program to your area Price and Quantity Verification Investigator. See page 13-1, Legal Action Report, for reporting procedure.

**NOTE:** The surveillance tare is to be used only to audit the commodity. An actual tare average must be determined to complete the PIR and legally determine the lot status.

STATE OF CALIFORNIA

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DEPARTMENT OF FOOD AND AGRICULTURE

Division of Measurement Standards  
6790 Florin Perkins Road, Suite 100  
Sacramento, CA 95828-1812  
(916) 229-3070  
FAX (916) 229-3064

**SURVEILLANCE REQUEST, PRICE VERIFICATION**

**DATE REQUESTED:** 9/2/03

**INFORMATION REQUESTED BY:** GOLDEN COUNTY WEIGHTS & MEASURES

**PLEASE CONDUCT PRICE VERIFICATION INSPECTIONS AT:**

ULTRA SAVE DISCOUNT EMPORIUM

**NOTE:** ENSURE THAT SALES REGISTERS ARE NOT IN TRAINING MODE.

**REMARKS:** ERRORS HAVE BEEN FOUND THROUGHOUT THE STORE. PLEASE CHECK A SAMPLE OF ITEMS FROM ALL DEPARTMENTS.

**SEND INSPECTION REPORTS AND INVESTIGATION RESULTS TO:**

DENNIS GORMAN, DMS SACRAMENTO  
6790 FLORIN PERKINS ROAD, SUITE 100, SACRAMENTO, CA 95828-1812

**INCLUDE INVESTIGATIVE COSTS**

<b>ASSIGNED TO:</b>	<input checked="" type="checkbox"/> DELPERDANG	<input checked="" type="checkbox"/> ALAMEDA	<input type="checkbox"/> NEVADA
	<input checked="" type="checkbox"/> DeCONTRERAS	<input type="checkbox"/> AMADOR	<input type="checkbox"/> SACRAMENTO
	<input checked="" type="checkbox"/> ESTABROOKS	<input type="checkbox"/> CALAVERAS	<input type="checkbox"/> SAN JOAQUIN
	<input checked="" type="checkbox"/> LANGFORD	<input type="checkbox"/> CONTRA COSTA	<input checked="" type="checkbox"/> SAN MATEO
	<input checked="" type="checkbox"/> THESKEN	<input type="checkbox"/> EL DORADO/ALPINE	<input type="checkbox"/> PLACER



**To Request Surveillance When Pricing Irregularities Have Been Found:**

1. Check at least two more branches of the business
2. Notify the area Price and Quantity Verification Investigator for the county, or DMS, with at least the following information:
  - Business name
  - Type or types of items with pricing problems; i.e., all departments, sale or non-sale items, end-cap display, secondary checkstand display, etc.
  - Special instructions
3. The Price and Quantity Verification Investigator will contact another county to determine if the pricing irregularities exist in a larger area.
4. If the problem is found in more than one area, the Price and Quantity Verification Investigator will contact DMS and the other Investigators and send out a statewide surveillance.

To maintain effective and efficient communication between agencies, please report legal actions involving the Price and Quantity Verification Program to your assigned Price and Quantity Verification Investigator. See page 13-1, Legal Action Report, for reporting procedure.

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## **LEGAL ACTION REPORT, FORM 42-038**

This report is used to summarize the basic facts of any legal case: e.g., investigations or complaints resulting in, or that could result in, enforcement action, office or district attorney hearings, citations, and criminal or civil complaints. It replaced the Violation Hearing Report (40-002) and the court case status file card (49-027). The form is printed on 8 x 10 stock without a heading so it may be folded and filed directly in a 5 x 8 status card file box used for permanent records or simply placed in a file for legal actions.

At the beginning of any investigation that could result in some type of legal action, a report should be filled out and a copy sent to your area Price and Quantity Verification Investigator. Updates may be added as necessary to keep the information up to date. Upon completion, a copy of the report along with copies of any dispositions, judgments or injunctions should be sent to the Area Specialist.

Information received from counties and area offices is combined into a central file at DMS-Sacramento. It is used to provide a history of actions against individuals or companies and to coordinate actions by different jurisdictions.

If you wish information about previous action against an individual or company, contact your area Price and Quantity Verification Investigator.

### **LEGAL ACTION REPORT INSTRUCTIONS**

BUSINESS NAME, ADDRESS: The name and address of the party responsible for the violation(s). If this is an individual (e.g., Mary Jones selling firewood), list the business name as Jones, Mary Firewood. If the business is owned by another entity, list the parent company under Remarks. In many cases, a corporation or parent company will assume responsibility for the violations. If this occurs, do not change the original name, but list the details under Activities.

TYPE LIC. & NO.: If a business license or seller's permit is relevant to the legal action, enter the type and number here.

PRODUCT/TYPE: The commodity under investigation (e.g., Big Chicken fryers, or Acme soap). If this action is a result of violations found during a compliance test, list the type of inspection, meat counter, scanning, etc.

SUBJECT: The name of the individual party being held responsible for the violation or the name of the individual representing a business or corporation.

ADDRESS: The address to be entered for an individual is his or her home address, not the business address. If the subject is representing the business or corporation, the address should be the home company or corporate address.

TITLE/OCCUPATION: The SUBJECT'S title or occupation (e.g., Department Manager, Owner, CEO, etc.).

DR. LIC. NO., D.O.B.: The SUBJECT'S driver's license number (and state if other than California) and date of birth.

REMARKS: Any other useful information.

PROGRAM: QC for all Price and Quantity Verification cases.

COUNTY, REGION: Name of the county taking the action. Please do not abbreviate. SB could be Santa Barbara, San Benito, or San Bernardino. Region is the number used by DMS to identify the area of the State.

COURT DISTRICT: Name of the local court where the violation occurred or where the citation or the case will be filed.

TYPE OF LEGAL ACTION: Check the appropriate box. If a Notice to Appear (Citation or Cite) was issued, fill in the number. "Other" includes an investigation, DA's review, administrative hearing/NOPA, probation violation, etc.

CASE NUMBER: Identification number used by the agency or the prosecutor.

DOCKET NUMBER: File number issued by the court clerk.

DATE: The date the investigation began (opened), the citation was issued, or the case was given to the prosecutor (presented).

VIOLATION(S): The abbreviation for the code and the section numbers, followed by the number of counts for each section (e.g., B&P 12024.3a, 4 counts).

IQ: Prosecutor's name and title. For direct citations, write in "court" to indicate the subject was cited directly into court for arraignment.

BY: Investigator's name.

## **DISPOSITION**

DATE: The date the case is settled, completed, or closed.

TRIAL or HEARING: Check the appropriate box:

If a hearing, state the type: office, administrative, DA's, pretrial conference, arraignment, etc.

If a trial, check the box for the plea entered.

The findings of the court or the type of agreement between parties (e.g., guilty, stipulated judgment, civil compromise, etc.).

List the names of the judge, prosecutor, defense attorney, and any other party.

FINE/PENALTY: Circle the one that applies, and follow with the dollar amount of the fine (criminal) or penalty (civil).

PENALTY ASSESSMENT: The dollar amount of any court imposed assessment in addition to the FINE\PENALTY.

COST RECOVERY: The dollar amount of investigative or other costs awarded by the court. Restitution may be listed here.

TOTAL: The total of the dollar amounts listed above.

SUSPENDED: May be the dollar amount of any fine or penalty suspended by the court or may be all or part of a jail term suspended by the court.

PROBATION: The length of time a subject is placed on probation by the court, or the length of time an injunction (civil) remains in place. If the injunction does not have a termination date, state "permanent injunction."

## **ACTIVITIES**

This space is for listing progress during the investigation or action (e.g., arraignments, conferences, details of settlements, etc.).

BUSINESS NAME: SPECTER FOODS, LTD. PROGRAM: QC  
 ADDRESS: 1015 MONUMENT BLVD COUNTY: MISSION REGION: 9  
HILL PARK, CA 91999 COURT DISTRICT: SO. MISSION MUNI  
 TYPE LIC. & NO.: N/A  CIVIL  CRIMINAL, CITE NO.: \_\_\_\_\_  
 PRODUCT/TYPE (e.g. ACME Soap, bakery, meat counter, etc.): MEAT COUNTER, TEST PURCHASE, SCANNING  OTHER: \_\_\_\_\_  
 SUBJECT: E. A. MARTIN CASE NO.: 84-47-008 DOCKET NO.: MA 012-9  
 ADDRESS: 384 EL DORADO BLVD DATE (opened/issued/presented): 11-28-96  
WESTFIELD, CA 98812 VIOLATIONS: 12023, 12024, 12024.2 (b),  
12024.3 (a), 17200, 17500  
 TITLE/OCCUPATION: CEO  
 DR. LIC. NO.: UNAVAILABLE D.O.B.: 10-31-67 TO (court/D.A.'s name/etc.): DDA D. FIELDING  
 REMARKS: \_\_\_\_\_ BY Investigator: ROGER MACEY

**DISPOSITION** DATE: 12-29-96  TRIAL  HEARING, TYPE: PRE TRIAL  
 PLEA:  GUILTY  NOT GUILTY  NO CONTEST FINE/PENALTY: \$ 54,000.00  
 JUDGEMENT/SETTLEMENT: PLEA CHANGED TO NO CONTEST PENALTY ASSESSMENT: NA  
 JUDGE: H. STONE COST RECOVERY: 5,940.68  
 PROSECUTOR: D. FIELDING TOTAL: 59,940.68  
 DEFENSE REPRESENTATIVE: M. SULLIVAN SUSPENDED: NA  
 OTHER REPRESENTATIVE: \_\_\_\_\_ PROBATION TERMS: PERMIT INJUNCTION

**ACTIVITIES** CONSUMER COMPLAINT, UNDER INVESTIGATION, ARRAIGNMENT, TRIAL, ETC.

DATE	ACTION
<u>10-26-96</u>	<u>CITE #12264 ISSUED TO SUPER DUPER #4 FOR GROSS WEIGHT &amp; SHORT WEIGHT MEAT COUNTER DURING ROUTINE SURVEY</u>
<u>11-7-96</u>	<u>CITE #12385 ISSUED TO SUPER DUPER #8, SCANNING OVERCHARGES, TEST PURCHASE OVERCHARGES</u>
<u>11-28-96</u>	<u>CITABLE VIOLATIONS, SCANNING CONSUMER COMPLAINT INVESTIGATION AT SUPER DUPER DISCOUNT MART</u>
<u>11-28-96</u>	<u>CONF DDA, CIVIL COMPLAINT WILL BE FILED AGAINST SPECTER FOODS, PARENT CORP OF SUPER DUPER</u>

CONTINUE ON REVERSE SIDE IF NECESSARY

**METHOD OF SALE  
AND  
QUANTITY STATEMENTS**

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## **QUANTITY DECLARATIONS**

### **APPROPRIATE STATEMENTS**

In general, unless there exists an established and customary accepted trade practice with respect to the terms of sale for a commodity: (CCR 6.4, and 7.3)

- A. A solid, semi-solid, viscous, or mixture of solid and liquid shall be sold by weight.

The net content statement may stand alone, or may include, either spelled out or properly abbreviated, the words "NET WEIGHT." Food products may also use the word "NET."

- B. A liquid shall be sold by fluid measure.

If the net content statement could be confused with weight, it shall state, spelled out or abbreviated, the words "FLUID OUNCES."

- C. A dry commodity shall be sold by dry measure or in some cases by count.

If the content statement could be confused with liquid measure, it must state, for example: "DRY PINT" or "DRY QUART."

- D. Count is only acceptable for items for which count alone is a fully informative statement of net quantity to the consumer. It would not be acceptable for commodities which may be sold in a variety of sizes and weights (e.g., cookies, rolls, napkins, etc.). (CCR 6.4.1)

- E. However the net contents are stated, the statement and method of sale must be fully informative and permit value comparison between similar commodities. For example, if all brands of a certain commodity have the net contents stated by net weight, a new brand of the same commodity marketed by dry measure would not be acceptable as there is no basis for value comparison. (B&P Code 12601)

## **GENERALLY ACCEPTED QUANTITY DECLARATIONS**

### **FOOD AND DRUG ADMINISTRATION (FDA)**

The following list shows types of statements generally made. FDA accepts these as complying with requirements pending further data showing that some other form of statement is more informative to consumers and will more accurately express the quantity of contents.

NOTE: Although not adopted into California regulations, NIST Handbook 130, Section "Interpretations and Guidelines", Section 2.3.2 contains methods of sale for fresh fruits and vegetables. Not all acceptable declarations are appropriate for retail sales.

<u>Product</u>	<u>Acceptable, Common, or Usual Declaration</u>
Apples, Fresh	Dry Measure or Net Weight. In addition, may also show minimum size, range in size, and/or count
Anchovies (in Salt)	Weight of Fish
Apricots, Canned	Net Weight
Artichokes, Canned	Drained Weight
Asparagus, Fresh	Net Weight
Crabmeat, Canned (Dry)	Net Weight
Crackers	Net Weight
Cranberries	Dry Measure (Cranberry Barrel). Also, Net Weight
Dates	Net Weight
Doughnuts	Net Weight and Count
Fish, Canned	Net Weight
Fish, Fresh	Net Weight
Fish, Frozen	Net Weight
Fish, Salted or Smoked	Net Weight and Count
Fruits, Canned	Net Weight
Fruits, Fresh	Dry Measure or Net Weight. Also, Min. Size and/or Count
Fruit Juices	Net Volume
Grains, Sacked	Net Weight

<u>Product</u>	<u>Acceptable, Common, or Usual Declaration</u>
Grapefruit, Fresh	Dry Measure, Size and Count. Also, Net Weight
Grapes, Fresh	Net Weight and Dry Measure
Greens, Fresh	Dry Measure and Net Weight. No marking
Herring Roe	Net Weight
Herring Spiced	Drained Weight Herring. Total Weight Contents
Honey, Comb	Net Weight
Honey, Strained	Net Weight
Jelly	Net Weight
Lemons, Fresh	Count and Average Diameter. Also, Dry Measure
Lettuce	Dozen Count and Dry Measure
Lobster, Canned (Dry)	Net Weight
Mayonnaise	Volume
Meats	Net Weight
Milk, Sweetened Condensed	Net Weight
Milk, Evaporated	Volume and Net Weight
Molasses	Net Weight and/or Volume
Mushrooms, Canned	Drained Weight
Mushrooms, Fresh, Dry, Dehydrated	Net Weight
Mustard, Prepared	Net Weight
Oil, Salad, Olive	Volume
Olives, Green (in Brine)	Drained Weight
Olives, Ripe	Drained Weight
Oranges	Dry Measure and Count. Also, Net Weight and Size
Oysters, Fresh	Volume

<u>Product</u>	<u>Acceptable, Common, or Usual Declaration</u>
Oysters, Canned	Total Weight
Peaches, Canned	Net Weight
Peaches, Fresh	Dry Measure, Min. Diameter. Also, Net Weight and Count
Peanut Butter	Net Weight
Pears, Canned	Net Weight
Pears, Fresh	Count. Also, Dry Measure or Net Weight
Pickles	Volume
Pineapple, Fresh	Count
Plums, Prunes, Fresh	Net Weight or Dry Measure. Count and Size denoted by rows in top layer
Potatoes, Fresh	Net Weight or Dry Measure
Rabbits, Dressed	Net Weight
Rolls	Net Weight and Count
Relish	Net Weight
Rock Lobster, Canned (Dry)	Net Weight
Roe, Herring	Net Weight
Salad Dressing	Volume
Salmon, Canned	Net Weight
Sardines, Canned	Net Weight
Sauces, Hot, Tabasco, A-I, Etc.	Volume
Sauerkraut, Canned	Net Weight
Sauerkraut (Unprocessed in Glass)	Volume
Shrimp, Canned (Wet)	Drained Weight
Shrimp, Canned (Dry)	Net Weight

<u>Product</u>	<u>Acceptable, Common, or Usual Declaration</u>
Syrup	Volume. Also, Volume and Net Weight
Soups, Canned (Liquid)	Net Volume
Soups, Canned (Condensed and Semi-condensed)	Net Weight
Spaghetti Sauce	Net Weight
Tea	Net Weight
Tea Bags	Net Weight and Count
Tomatoes, Canned	Net Weight
Tomatoes, Fresh	Net Weight or Dry Measure. Size denoted by rows in top layer
Tomato Sauce	Net Weight
Tuna Fish, Canned	Net Weight
Vegetables, Canned	Net Weight
Vegetables, Fresh	Dry Measure or Net Weight. Also, Count

This compilation may be revised from time-to-time as may be required by changes in consumer understanding, administrative opinion, or court decisions. If the necessity for corrections, additions, or deletions becomes apparent to the field, FDA requests to be notified promptly so that provision can be made for inclusion in the next revision.

Reference: FDA "Quantity of Contents Compendium."

**NOTE:** Many fruits and vegetables also are subject to packaging and labeling requirements administered by the California Department of Food and Agriculture, Division of Inspection Services. Some of the common declarations above may not be allowed in California.

## **EXEMPTIONS FROM LABELING REQUIREMENTS**

### **BULK FOODS REPACKED AND SOLD BY RETAILER - FOOD AND DRUG ADMINISTRATION (FDA) RETAIL FOOD LABELING EXEMPTIONS**

Federal Food and Drug regulations specify that foods received by retailers in bulk quantities which are repackaged by the retailer and displayed for sale on the premises are exempt from:

1. Net content statements, if it is clearly evident that they are to be weighed, measured, or counted, either within view of the customer or in compliance with the customer's order. [21 CFR § 1.24(a)(l)]
2. Identity statements, if a placard, counter card, or the master container bears the identity statement. [21 CFR § 101.100(b)(3)]
3. Responsibility statements. [21 CFR § 101.100(b)(l)]

### **COMMODITIES PACKED AND SOLD ON THE SAME PREMISES**

A package sold on the same premises where it was packed does not have to have a declaration of responsibility: i.e., name and address of the manufacturer, packer, or distributor. [CCR § 5] It still must have the declarations of Quantity and Identity. [CCR §§ 3, 4, 6, 7]

## RANDOM WEIGHT PACKAGES

### LABEL REQUIREMENTS AND EXEMPTIONS

#### REQUIREMENTS

Random Weight Packages, are packages from a lot having identical labels EXCEPT for the net weight. An example would be packages of bricks of cheese labeled: Extra Sharp Cheddar, Audry Cheese Company, Sell by April 25 '01, each package having a different net weight ranging from 0.94 to 1.64 lb.

As of January 1, 2000 a random weight package **must bear** a label conspicuously declaring:

- (1) the net weight,
- (2) unit price, and
- (3) the total price.

[CCR 4510, §6.16]

#### EXEMPTIONS

1. If the random weight package is packaged for sale at another location, the unit price and total price may be omitted **providing they are on the package at the time of sale.** [CCR 4510, § 6.16]
2. Random weight packages are not required to be labeled with the net weight if they are “sold intact and intended to be weighed or measured at the time of sale.” For this exemption, no quantities can be represented on the package prior to being weighed or measured at the time of sale. [CCR 4510, §11.26]
3. A random weight package, having a conspicuous label stating:

net weight  
price per pound  
total sales price

is exempt from the requirements for:

SI (Metric) quantity labeling  
type size  
placement in the lower 30% of the principal display panel  
free area

[CCR 4510, §11.1]

14-8  
Rev. 11/09

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## CALIFORNIA WEIGHTS AND MEASURES LABEL REQUIREMENTS

This is a brief summary of major regulations adopted by the State of California, pursuant to the Fair Packaging and Labeling Act, for packages in general.

For complete requirements, consult the California Code of Regulations Title 4.

NOTE: Other agencies may have different or additional labeling requirements (e.g., ingredient or nutritional labeling).

Packages and their labels should enable consumers to obtain accurate information as to the quantity of the contents and should facilitate value comparisons.

The **three basic requirements** are:

1. A declaration of **identity** that is the common or usual name of the commodity.
2. A declaration of **responsibility** that includes the **name, address, and zip code** of the manufacturer, packer, or distributor. A street address is required if the name is not listed in a current directory. The connection of a distributor must be shown (e.g., "packed for, distributed by"). This statement is not required to be on the principal display panel.
3. A declaration of the **quantity** of the commodity in the lower 30% of the principal display panel area, in a size depending upon the area of the principal display panel.

**UNITS OF WEIGHT OR MEASURE:** Consumer packages are **required** to have both SI (metric) and inch-pound units.

**Exceptions:** The following may, but are not required to, have both units: labels printed before February 14, 1994, random weight packages, foods packed at retail, camera film, audio and video recording media. There may be different requirements for the following federally regulated commodities: meat, poultry, alcoholic beverages, drugs, cosmetics, insecticides, fungicides, rodenticides, and tobacco products. Contact the appropriate agency for specific requirements.

SI units may appear first. A converted value must not overstate the net contents.

**RULE OF 1000 FOR SI UNITS:** Numerical values should be between 1 and 1000 (e.g., 500 g not 0.5 kg; 1.96 kg not 1960 g; 750 ml not 0.75 l; 750 mm or 75 cm not 0.75 meters).

### PRINCIPAL DISPLAY PANEL AREA DETERMINATION

This area, not the area of the label, determines the minimum height requirement of the declaration of quantity.

1. A rectangular package where an entire side is the principal display panel - height times width.
2. A cylindrical or nearly cylindrical container - 40% of the product of the height times the circumference.
3. Other shaped containers - 40% of the entire square area of the container.
4. Obvious principal display panels - the actual square area of the panel.

Determination does not include tops, bottoms or flanges of cans, or shoulders, necks of bottles or jars.

### NUMBERS AND LETTERS IN THE DECLARATION OF QUANTITY

Square Area of Panel	Minimum Height (For Printer)	Minimum Height (Blown or Molded)
<b>32 cm<sup>2</sup></b> (5 in <sup>2</sup> ) or less	1.6 mm (1/16 in)	3.2 mm (1/8 in)
Over <b>32 cm<sup>2</sup></b> (5 in <sup>2</sup> ) to <b>161 cm<sup>2</sup></b> (25 in <sup>2</sup> )	3.2 mm (1/8 in)	4.8 mm (3/16 in)
Over <b>161 cm<sup>2</sup></b> (25 in <sup>2</sup> ) to <b>645 cm<sup>2</sup></b> (100 in <sup>2</sup> )	4.8 mm (3/16 in)	6.4 mm (1/4 in)
Over <b>645 cm<sup>2</sup></b> (100 in <sup>2</sup> ) to <b>2581 cm<sup>2</sup></b> (400 in <sup>2</sup> )	6.4 mm (1/4 in)	7.9 mm (5/16 in)
Over <b>281 CM<sup>2</sup></b> (400 in <sup>2</sup> )	12.7 mm (1/2 in)	14.3 mm (9/16 in)

**PROPORTION:** Letters of a declaration of quantity must not be more than 3 times as high as they are wide. Except for blown or molded declarations, the style of type or lettering shall be bold, clear, and conspicuous against its background.

**A FREE AREA** equal to at least the height of the lettering is required above and below the quantity declaration. At each end, the free area must be equal to twice the width of the capital "N" of the style and size of type used.

**DECIMAL FRACTIONS** may be carried to three places. SI unit declarations may contain only decimal fractions. Decimal fractions are permitted in inch-pound declarations.

**COMMON FRACTION** use is restricted to inch-pound units and is normally limited to halves, quarters, eighths, sixteenths, and thirty-seconds to the lowest term. Each number of a fraction in a declaration of quantity must be at least 1/2 the minimum height.

**ABBREVIATIONS:** **Inch-pound** - avdp, lb, oz, gal, qt, pt, yd, ft, in, sq, and cu  
**SI units** - kg, g, mg, L or l, mL or ml, m, cm, mm, m, m<sup>2</sup>, dm<sup>2</sup>, cm<sup>2</sup>, m<sup>3</sup>, dm<sup>3</sup>, and cm<sup>3</sup>  
Both systems may use - wt, fl, liq, dr, dia, pc, ea, and ct  
Periods and plural forms are not recommended for inch-pound units and are prohibited for metric.

**WEIGHT DECLARATIONS:** The words "net mass" or "net weight" are optional.

**Less than 1 kilogram** - must be stated in grams, decimals of a gram or milligrams.  
**1 kilogram or more** - kilograms and decimals of a kilogram up to three places.  
**Less than 1 pound** - must be stated as ounces or fraction of ounces.  
**1 pound or more** - in pounds, with remainder in fractions of pounds, or ounces and fractions of ounces.

**FLUID DECLARATIONS:** The words "net" or "net contents" are optional. "Fluid" is required with ounces (e.g., 12 fl oz) unless the meaning is obvious by association (e.g., 1 pint 4 ounces).

**Less than 1 liter** - must be stated in milliliters.  
**1 liter or more** - liters and decimal fractions of a liter up to three places.  
**Less than 1 pint** - fluid ounces and fractions of an ounce.  
**1 pint to less than 1 gallon** - largest whole unit (quarts or pints as appropriate), with remainder in ounces, fractions of a pint or a quart. (2 quarts may be stated as 1/2 gallon.)  
**1 gallon or more** - gallons and fractions of a gallon.

**SUPPLEMENTARY DECLARATIONS:** Non-required quantity declarations are not permitted on the principal display panel.

**QUALIFYING STATEMENTS:** Quantity declarations containing qualifying words are not permitted. Words such as "minimum", "approximately", "when packed", or any words that tend to exaggerate are considered qualifying words.

**MULTI-UNIT, COMBINATION OR VARIETY PACKAGES:** Consult the California Code of Regulations, Title 4, for specific requirements.

## NONCONSUMER PACKAGES

**NONCONSUMER PACKAGE** shall mean any package other than a consumer package, and particularly a package intended solely for industrial or institutional use or for wholesale distribution.

**BASIC REQUIREMENTS:** A declaration of identity of the commodity, the name, address, and zip code of the packer, and a declaration of quantity shall be prominently and conspicuously displayed on the outside of the package.

**DECLARATION OF QUANTITY** shall be in the largest whole unit. SI and inch-pound units may be used, individually or together.

## **SPECIFIC COMMODITY REQUIREMENTS**

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## **ANIMAL BEDDING, SHAVINGS**

Consumer packages of animal bedding, except for bales of straw, must be labeled with all information required by the Fair Packaging and Labeling Act.

The quantity is to be stated in terms of the largest whole unit of dry volume in both inch-pound and SI (metric) units.

Inch-pound units to be used are the cubic inch, cubic foot, or cubic yard  
SI units are the cubic meter, liter, or milliliter

If the package contains compressed material, the label must include the quantity in the compressed state and **the usable quantity that can be recovered.**

TEST PROCEDURE: Animal Bedding, page 16-9

## **AUTOMOBILE AND APPLIANCE PARTS**

When sold over the counter, parts are not subject to packaging and labeling requirements.

The basic requirement for packaged items is count. If count alone is not fully informative, it must be combined with the weight, measure, or size of the item.

TEST PROCEDURES: Packages Labeled by Count of 51 or more, Handbook 133, page 54, 4.4  
Packages Labeled by Count of 50 or less, and Handbook 133, page 54, 4.3

## **BANDAGES, ELASTIC OR GAUZE**

Roll type elastic or gauze bandages are bi-dimensional commodities. The content declaration shall include width and length, and in some cases, the area (CCR 4510 § 6.9).

Both width and length are measured without tension or stretching, and to be correct each dimension must meet the content statement independently of the other. Qualified statements such as “stretched” are not acceptable (CCR 4510 § 6.14).

A supplemental quantity statement is allowed, but it may not appear on the principal display panel (CCR 4510 § 6.12).

TEST PROCEDURE: Bidimensional Flat or Roll Commodities, page 16-15

## BERRIES, FRESH

California regulations permit the following methods of sale for fresh berries:

1. By the basket in prescribed standard sizes, with equivalent weights.
2. By net weight in containers, with the net weight determined at the time of sale.
3. By net weight from bulk, no basket or container, with the net weight determined at the time of sale.
4. By standard or random pack containers, fully labeled including net weight.

### **METHOD OF SALE EXAMPLES:**

<u>Retail Method Sale</u>	<u>Consumer Labeling Required</u>	<u>Flat Quantity Labeling Required</u>
Baskets in Standard Volume Sizes (must also meet weight equivalency)	None, CCR 4500 specifically exempts Berries in Standard Volume Sizes from labeling	12 dry pint baskets (weight statement would be permitted in addition)
Baskets, to be weighed at time of sale	None	12 baskets, or 12 random weight baskets, net wt x lbs x oz
Bulk sales, no containers	None, not a package	Net weight x lbs x oz
Standard or random pack containers	All labeling requirements (CCR 4510 § 3, §5, and § 6)	12 - x oz baskets, net weight x lbs x oz.

NOTE: All nonconsumer flats must meet the requirements of CCR 4, 5, and 6 or 7. Flats for retail sale must meet all consumer package labeling requirements.

TEST PROCEDURE: Net Weight, Handbook 133, page 10.

## **BUILDING BLOCKS, CONCRETE MASONRY**

### **BUILDING BLOCKS:**

The size designation used for the width, height, and length of structural concrete masonry is a nominal dimension, which is 3/8 inch less than the actual dimension.

This is in accord with the established product standard and trade custom that concrete masonry is sold according to the "Modular Masonry Unit;" that is a masonry unit whose actual dimensions are one mortar joint less than the modular dimension; e.g., the building block commonly referred to as 8 x 8 x 16 is according to standard actually, 7-5/8" x 7-5/8" x 15-5/8". The modular dimension is based on a given module, usually 8' in the case of concrete block masonry.

For inspection, the error should be determined from the minimum size for the particular standard dimension (nominal dimension) in question. This will be the nominal size minus 3/8 inch.

The industry tolerance of  $\pm 1/8$  inch from the actual size (minimum size) could be considered the industry MAV. It has no legal status in determining compliance. To be acceptable, a lot must meet the requirements of the current sampling and testing regulations.

TEST PROCEDURE: Direct Measure



## **BULK SALES**

### **CANDY, HEALTH FOODS, ETC.**

When individually packaged or wrapped items are sold by weight from bulk displays, they must be sold by net weight **not** including the packages or wrapping, and the sales price must be a true extension of the advertised or posted price per pound. (B&P Code §§ 12023 and 12024.2)

TEST PROCEDURE: Net Weight, Handbook 133, page 10

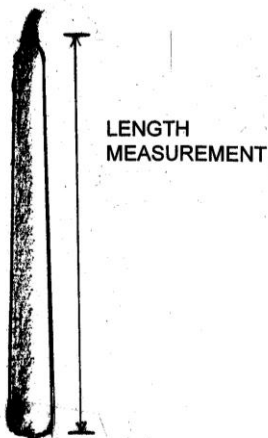
## **CANDLES**

**Tapered candles, either hand dipped or molded, and irregularly shaped candles** are not required to be labeled with a diameter measurement. Requirements for content labeling are count and length, or count and height.

**Decorative candles and uniformly shaped candles** (e.g., plumbers, utility, emergency, and similar) are labeled with the length, diameter, and count.

The length of a candle is determined by measuring from the bottom of the wax to the top or shoulder of the wax exclusive of the wick. The small protrusion surrounding the wick at either end is not to be included unless it is determined to be a configuration of the candle.

TEST PROCEDURES: Direct Measure  
Packages Labeled by Count of 51 or more, Handbook 133, page 54, 4.4  
Packages Labeled by Count of 50 or less, Handbook 133, page 54, 4.3



## CHEESE, WAX COATING

### FOOD AND DRUG ADMINISTRATION (FDA) RESPONSE

Wax coating on cheese (wholesale or retail) is tare - not to be included in net weight.



DEPARTMENT OF HEALTH & HUMAN SERVICES

Public Health Service

Food and Drug Administration  
Washington DC 20204

MAR 29 1984

Carroll S. Brickenkamp, Ph.D.  
Manager, Research and Development  
Office of Weights and Measures  
National Bureau of Standards  
U.S. Department of Commerce  
Washington, DC 20234

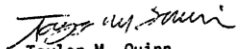
Dear Dr. Brickenkamp:

This is in response to your February 28 letter that requested our opinion on whether the wax coating on certain kinds of cheese should be considered part of the tare or part of the net weight. You pointed out that although the wax is not consumed, it may be an integral part of the manufacture of the cheese. Also, you stated that cheese is sold wholesale by a weight that includes the wax.

We are of the opinion that 21 CFR 101.105(g) requires that wax coatings on cheese always be considered part of the tare. This section states that the declaration of quantity of contents shall accurately reveal the quantity of food in the package exclusive of wrappers and other material packed therewith. Even when the wax is an integral part of the manufacture of the cheese, the wax itself is not derived from the curd of any type of milk. As a result, it would be inappropriate to consider the wax to be part of the food known as cheese. Also, most consumers would consider such wax inedible and would discard it. Under these circumstances, we believe that consumers would be misled by declarations of net weight including the wax coating. Further, you should be aware that our position on these wax coatings applies to wholesale as well as retail cheese packages. Both types of packages could be considered misbranded if the net weight declaration included the wax coating.

If we can be of further assistance, please let us know.

Sincerely yours,

  
Taylor M. Quinn  
Associate Director for  
Compliance  
Bureau of Foods

## **FIRE STARTERS/FIRE STICKS**

Only count is required as a quantity statement for **uniformly shaped fire starters and fire sticks** (CCR4510 § 6.4). If more than one unit is to be used, the label should also state the number to be used, or indicate the number of starts. For example:

10 pieces, use 2 to light a fire

16 starters, lights 8 fires

TEST PROCEDURES: Packages Labeled by Count of 51 or more, Handbook 133, page 54, 4.4  
Packages Labeled by Count of 50 or less, Handbook 133, page 54, 4.3

**Fire sticks, fat wood, pitch pine, or other small pieces of wood of varying thickness or sizes** are to be labeled by cubic measure (CCR 4531).

TEST PROCEDURE: Direct Measure

## **FIREWOOD/WOOD FOR FUEL PURPOSES**

Firewood/wood for fuel purposes, includes kindling, logs, boards, timbers, mill wood, pellets, pressed logs, chips, chunks, and any other type of wood or wood product used or intended to be used for campfires, or for heating in fireplaces or stoves, or for cooking.

### A. Method of Sale

1. Wood, except for manufactured wood products:
  - a. When in quantities of 1/8 cord (16 cubic feet) or more, must be sold by the cord, fraction of the cord, or percentage of the cord.
  - b. When there is less than 1/8 cord, must be sold by the cubic foot or fraction of the cubic foot. Fraction of the ft<sup>3</sup> includes cubic inches, in<sup>3</sup>.
2. Manufactured wood products: Wood for fuel purposes which has been processed and is no longer in the form of logs, boards, timbers, rounds, or split wood pieces.
  - a. Compressed products with any dimension greater than 6 inches are sold by net weight and count (e.g., pressed logs, etc.).
  - b. Compressed products with no dimension greater than 6 inches are sold by net weight (e.g., pellets, etc.).
  - c. Non-compressed products having no dimension greater than 6 inches are sold by the cubic foot or fraction of the cubic foot (including in<sup>3</sup>) (e.g., smoking chips, chunks and chips of wood used for flavoring).
3. Firewood **cannot** be sold or advertised using the terms face cord, truck load, rick, rack, unit, tier, bundle, or any other term not specified in CCR § 4531, Method of Sale. [CCR 4530(f)]

### B. Packaged

If the firewood is packaged prior to sale, each package must be labeled in full accord with the Fair Packaging and Labeling Act (B&P Code Chapter 6) and regulations including the statements of quantity, responsibility, and identity. Packaged includes boxes and containers, shrink-wrapped pallets, bags, bundles, shrink-wrapped pieces, tied pieces, racks, bins, or any other type of container holding a pre-measured amount. (CCR 4510 § 2.1)

### C. Unpackaged

A sales invoice or delivery ticket must be given to the buyer whenever non-packaged wood is sold. The invoice or ticket must state the name and address of the seller, the date purchased, the quantity, and price of the quantity purchased. (CCR 4532)

D. Identity

The required statement of identity may be simply firewood or split wood. The name of the species, group of origin (oak, pine, etc.), or type (hardwood or softwood) does not have to be stated. However, if there is a representation of the species, group or type, either written or oral, it must be in accord with CCR § 4534.

1. If a common name is stated, all of the wood must be of that species (e.g., White Oak, Jeffery Pine, Grand Fir, etc.).
2. If a group is stated, all of the wood must be of that group of origin (e.g., oak, pine, fir, etc.).
3. If hardwood or soft wood is stated, all wood must be the stated type **and** the common name (species) or group(s) of origin for any wood present must be stated.

If the identity is represented as both “hardwood” and “softwood” (or if the represented species and/or groups of origin include both hardwoods and softwoods), the percentage of hardwood and the percentage of softwood must be stated as well as the common name(s), or groups of origin.

E. Kindling

If kindling is included in the represented quantity and constitutes 10 percent or more of the quantity, the percentage must be stated. (CCR § 4533)

TEST PROCEDURE: Volumetric Test Procedure for Firewood:

Boxed Firewood	HB 133, 3.16, page 50
Crosshatched Firewood	HB 133, 3.17, page 51
Bundles and Bags of Firewood	HB 133, 3.18, page 51

## **HARDWOOD/SOFTWOOD IDENTITY**

California regulations differentiate between hardwoods and softwoods. The classification of common species is made by using a combination of trade custom, BTU heating values, and opinions from the California State Department of Forestry, California Energy Commission, US Forest Service, and University of California Agricultural Engineering Department. A good reference is the California Woodheat Handbook, 1982, publication number p500-82-047, by the California Energy Commission and the California Department of Forestry.

The table on the following page is only a guideline. In the event a legal determination is needed, as in a prosecution involving a misrepresentation of a softwood as a hardwood, an expert identification can be obtained from the US Department of Forestry, the California Department of Forestry, an industry forester, a college or university instructor, or other forest products expert.

**FOR USE AS A GUIDELINE ONLY - IN CASE OF VIOLATION, EXPERT  
OPINION NEEDED FOR IDENTITY AND CLASSIFICATION**

**COMMON WOODS RANKED ACCORDING TO BTU VALUE PER CORD**

	(BTU millions)	(avg. rounded)
<b>SOFTWOODS</b>		
Cottonwood	15.8 - 16.8	16
Western Red Cedar	15.4 - 17.4	16
Aspen	17.0 - 18.0	18
Black Willow	17.5 - 18.6	18
Red Alder	18.4 - 19.5	19
Sugar Pine	17.3 - 19.6	18
Incense Cedar	17.8 - 20.1	19
Grand Fir	17.8 - 20.1	19
Coast Redwood	17.8 - 20.1	19
Red Fir	18.3 - 20.6	19
White Fir	18.8 - 21.1	20
Jeffery Pine	19.3 - 21.7	20
Ponderosa Pine	19.3 - 21.7	20
Sitka Spruce	19.3 - 21.7	20
Lodgepole Pine	19.7 - 22.3	21
-----		
<b>COULD BE CONSIDERED SOFT OR HARDWOOD, USUALLY SOFTWOOD</b>		
Big Leaf Maple	21.4 - 22.7	22
Sycamore	21.9 - 23.3	23
Port Orford Cedar	20.7 - 23.4	22
-----		
<b>HARDWOODS</b>		
Almond	22.3 - 23.7	23
Cherry	22.3 - 23.7	23
Elm	22.3 - 23.7	23
Magnolia	22.3 - 23.7	23
Western Hemlock	21.6 - 24.4	23
Chinquapin	23.2 - 24.7	24
Ash	24.5 - 26.0	25
Black Walnut	24.5 - 26.0	25
California Laurel	24.6 - 26.1	25
Western Juniper	23.4 - 26.4	25
Douglas Fir	23.5 - 26.5	25
Black Oak	25.8 - 27.4	27
Birch	25.9 - 27.5	27
Tan Oak	25.9 - 27.5	27
White Oak	26.4 - 28.0	27
Beech	28.6 - 30.4	30
Dogwood	28.6 - 30.4	30
Madrone	29.1 - 30.9	30
Black Locust	29.5 - 31.4	30
Eucalyptus	32.5 - 34.5	34
Live Oak	34.4 - 36.6	36

## **FLOWERS, DECORATIVE AND EDIBLE**

**DECORATIVE FLOWERS** - either natural or artificial are sold individually by count, in bunches with the count stated or by the bunch without a count.

**EDIBLE FLOWERS** - packaged or un-packaged, are sold by count. Net weight is not required but may be included in the quantity statement.

TEST PROCEDURES: Packages Labeled by Count of 51 or more, Handbook 133, page 54, 4.4  
Packages Labeled by Count of 50 or less, Handbook 133, page 54, 4.3

## **GLUE STICKS**

Packaged hot-melt glue sticks must be labeled with:

1. Count.
2. Actual diameter (not the gun size the stick fits).
3. Length.

TEST PROCEDURES: Direct Measure  
Packages Labeled by Count of 51 or more, Handbook 133, page 54, 4.4  
Packages Labeled by Count of 50 or less, Handbook 133, page 54, 4.3



## **ICE CREAM, FROZEN YOGURT AND SIMILAR PRODUCTS**

Ice cream and frozen yogurt may be sold by weight or measure.

1. When sold by weight, it must be net weight, excluding the carton or any packaging. There is no specific weight relationship to volume due to variations in the specific gravity of differing types and flavors.
2. When sold by volume, i.e. Factory Packaged Ice Cream and similar frozen products, the product must meet or exceed the stated volume regardless of any check weights.
3. When **not** packaged in advance of sale, it may be sold by a size designation such as “small,” “medium,” or “large.” However, If the size refers to a weight or measure (e.g., small = 8 oz or small - 1/2 pint), then the weight or measure must be correct and accurate.

TEST PROCEDURES: Net Weight, Handbook 133, page 10  
Displacement, Handbook 133, page 41, 3.12

## **INSULATION**

1. Loose-fill insulation is labeled and sold on the basis of coverage in square feet, the recommended thickness, the R value (insulation resistance), and net weight.
2. Batt and blanket insulation is labeled with the total square feet in the package, length, width, R value, and thickness. (NIST Handbook 130)

TEST PROCEDURES: Net Weight, Handbook 133, page 10  
Direct Measure

## **LAVA ROCKS, BRIQUETTES**

1. Natural, irregularly shaped lava rocks for the barbecue are required to state the coverage and the net weight. Any spacing instructions may appear on other than the principal display panel.
2. Manufactured briquettes shall be labeled with the count and coverage. Spacing instructions may appear on other than the principal display panel.
3. Coverage is checked by placing the product end-to-end.

TEST PROCEDURES: Net Weight, Handbook 133, page 10  
Direct Measure  
Packages Labeled by Count of 51 or more, Handbook 133, page 54, 4.4  
Packages Labeled by Count of 50 or less, Handbook 133, page 54, 4.3

## MEAT, POULTRY, FISH, SEAFOOD

### 1. Sale by Net Weight

With only the exceptions stated below (4), all meat, poultry, and fish must be advertised and sold by net weight. (B&P Code §12024.5)

- A. The net weight must be determined at the time of sale or the package must be marked with the net weight.
- B. It is illegal to sell or advertise by the serving, piece, box, or case without stating the net weight.

### 2. Door-to-Door Sales

The box or package must be marked with the actual selling price per pound as well as having all other required labeling. It is a violation to mark the box with a high price per pound then reduce the price without remarking the box with the true sales price. (B&P Code § 12024.55)

### 3. In Combination With Other Foods

Under federal policy, packages of meat and poultry may be sold in combination with other items (e.g., packages of gravy, sauce, or seasoning) providing the labeling clearly indicates that the purchaser is paying for both the meat or poultry and the other item. The net weight statement must show the total net weight of all the edible components and **may** state the individual net weights. Individual net weights are not required,

For consistency, similar packages put up by local markets should be accepted. (USDA, FSIS, Policy Memo 099, B&P Code §12613)

A nominal amount of garnish (parsley, etc.) may be negligible in weight. If the amount of garnish is large enough to increase the net weight, it should be treated as tare unless it is specifically stated in the identity.

### 4. Exceptions and Exemptions

#### A. Ready-to-Eat Foods (B&P Code § 12024.5)

The requirement that meat, poultry, or fish must be sold by weight does **not** apply to ready-to-eat foods that are:

- (1) sold for consumption on premises or
- (2) one of three or more different items (excluding condiments) comprising a ready-to-eat take out meal or
- (3) un-packaged ready-to-eat meat, poultry, or seafood which has been cooked or heated on the same premises as sold or
- (4) sandwiches made and sold on the same premises.

## B. Small Packages

Packages of meat and meat products weighing less than one-half ounce do not require a quantity statement. (USDA/FSIS)

## C. Fish, Seafood

The requirement that fish must be sold by net weight applies only to “fin fish and crustaceans, when sold for human consumption, and when not alive.”  
(B&P Code § 12024.5 and CCR § 4501)

- (1) **Live crustaceans:** lobster, crab, crayfish, etc., **and live fish having fins** may be sold by count, weight, or measure. Sale by weight is not required.
- (2) **Mollusks with shells**, abalone, oysters, clams, mussels, etc., and **other mollusks such as octopus, cuttlefish, and squid** are not covered by the sections requiring “sale by weight” for “fin fish and crustaceans.”

The following methods of sale for mollusks is recognized and recommended by the Food and Drug Administration and the National Conference on Weights and Measures:

**Whole Clams, Oysters, Mussels, or Other Mollusks in the Shell** - (fresh or frozen) shall be sold by weight (including the weight of the shell, but not including the liquid or ice packed with them), dry measure (e.g., bushel), and/or count. In addition, size designations may be provided.

**Whole Clams, Oysters, Mussels, or Other Mollusks on the Half Shell** - (fresh, cooked, smoked, or frozen, with or without sauces or spices added) shall be sold by weight (excluding the weight of the shell) or by count. Size designations may also be provided.

**Fresh Oysters Removed From the Shell** – Shall be sold by weight, drained weight, or by fluid volume. For oysters sold by weight or by volume, a maximum of 15 percent free liquid by weight is permitted.

**Processed Clams, Mussels, Oysters, or Other Mollusks, on the Half Shell** - (fresh or frozen) shall be sold by net weight excluding the net weight of the shell. The term “processed” means removing the meat from the shell and chopping it or cutting it or commingling it with other solid foods.

**Canned (Heat-Processed) Mussels, Clams, Oysters, or Other Mollusks** - shall be sold by net weight. A maximum of 41 percent free liquid by weight is permitted for canned oysters. (NIST Handbook 130)

There is no recommended method of sale for raw mollusks without shells: i.e., squid octopus, cuttlefish, sea cucumber, etc.

## **PADDED MAILING ENVELOPES**

Padded mailing envelopes are required to be labeled with the usable dimensions of the envelope, which is the inside width and length when closed according to instructions.

So called "Nominal Dimensions" that are larger than the usable dimensions are not allowed.

TEST PROCEDURE: Direct Measure

## **PICKLES**

Whole pickles from bulk or transparent packages of one or two pickles may be sold by count.

All other pickles (whole, sliced, diced, relish, etc.) are sold according to liquid measure. (NIST Handbook 130)

TEST PROCEDURES: Headspace (Titled "Mayonnaise"), Handbook 133, page 29, 3.5  
Depth Gauge (Titled "Other"), Handbook 133, page 28, 3.4

## **POPSICLES, FROZEN NOVELTIES**

Packages of popsicles and other frozen novelties such as ice cream sandwiches, juice bars, ice cream bars, ice cream cones, and frozen yogurt, are labeled by fluid measure. The fluid measure includes edible coatings, cookies, crackers, etc., but does not include sticks or other inedible parts. Pelletized Ice Cream is labeled by net weight.

When sold individually, a package containing one popsicle or other frozen novelty must have all labeling as required by the Fair Packaging and Labeling Act.

The required labeling for a multiunit package containing individual packages of individual popsicles or other frozen novelties varies according to the intended method of sale and the labeling of the individual packages.

1. Except as noted below\*, when the individual packages are fully labeled for sale as individual packages, but are intended to be sold as part of the multiunit package, the outside of the multiunit package must be labeled with:
  - a. the number of individual units
  - b. the quantity of each individual unit
  - c. the total quantity of the entire package

Example: 10 ICE CREAM SANDWICHES  
EACH 4 FL OZ (118 ml), TOTAL 1.25 QUART (1.18 L)

\* NOTE: If the number of individual units and the labeling of each individual unit can be seen through the multiunit package, the multiunit package does not have to state the number and net quantity of the individual units.

2. When the individual packages are not labeled for sale as individual packages (or are unlabeled) **and** are not intended for individual sale, the multiunit package is only required to be labeled with the total quantity. Other information such as the number and quantity of individual units may be included, but is not required.

Example: ICE CREAM SANDWICHES, 1.25 QUART (1.18 L)

TEST PROCEDURE: Displacement (Titled "Ice Cream Novelties"), Handbook 133, page 41, 3.12 or Net Weight, Handbook 133, page 10 for pelletized ice cream such as "Dippin' Dots", etc"

## **POTPOURRI**

Potpourri sold from bulk, may be sold by net weight or by dry measure.

With the following exception, prepackaged potpourri must be labeled with the net weight.

If prepackaged in non-refillable decorative containers (e.g., decorative sachets, potpourri-stuffed animals, hearts, etc.), no declaration of weight or volume is required.

TEST PROCEDURES: Dry Measure  
Net Weight

## **POULTRY, SALES PRACTICES**

Poultry includes all fowl: chicken, turkey, goose, duck, squab, quail, game hen, etc.

1. With the exception of unpackaged ready-to-eat poultry, all poultry must be sold and advertised by net weight, and the sales price must be a true extension of the price per pound.
2. Poultry may be sold as a random weight lot (each package having a different net weight) or as a standard lot (all packages labeled with the same net weight) as appropriate.
3. To be eligible for the exemptions for random weight packages (see page 14-9), poultry, just as any other random pack commodity, must have the net weight, price per pound, and total sales price on the package.

All required information must be on the same label. CCR 4510 § 2.5 defines a label as affixed to, applied to, blown into, formed, molded into, embossed on, or appearing upon or adjacent to a package. If there is more than one label, all required information must appear on each label. (CCR 4510 § 2.7, § 3.1 and § 6.3)

4. When using a random weight label for poultry sold at varying prices according to other “special” conditions, the package is to be labeled with the highest price per pound, and the labeled sales price computed from that price.

## **PRODUCE IN CONTAINERS**

Individual “open” containers of one quart or less of produce, or cellophane wrappers containing fresh fruit or fresh vegetables are exempt from the requirement for a declaration of identity. Except for berries in standard containers (page 15-3), **they are still required to have declarations of responsibility and quantity.**

The quantity statement must be in terms of net weight with the following exceptions:

1. If there is a size standard so that there is no variation in weight for individual items, count alone is acceptable.\*
2. If the item is normally sold according to “the bunch”, count alone is acceptable.\*

An open container is defined by the Federal Food and Drug Administration as a container of rigid or semi-rigid construction not closed by a lid, wrapper, or any other material except an uncolored transparent wrapper that does not obscure the contents.

\* If the package contains six or less and the items are fully visible, the package does not need a statement of count. (CCR 4510 § 11.27)

## **RAWHIDE PET PRODUCTS**

On December 10, 1985, Los Angeles County Officials, DMS representatives, and pet supply industry representatives met and agreed to the following guidelines.

Rawhide bones and similar items made from continuous sheets of hide rolled or formed into bone shapes or sticks, shall be labeled with length **and** count. The count statement may be omitted if there are six or less units in a package and the units are clearly visible through the packaging materials.

Rawhide chew sticks, which are generally much more uniform in size and manufactured from reconstituted particles of hide, shall be labeled with the net weight and count. The count statement may be omitted if there are six or less units in the package and all units are clearly visible to the customer through the packaging material.

Rawhide chips and pieces shall be sold by net weight.

CCR 4510 § 6.4, § 6.4.1 and § 11.27.

(DMS Memorandum dated January 2, 1986, Resolution of Labeling Violations for Rawhide Pet Products)



## **SEEDS INTENDED FOR PLANTING**

### **PACKAGED IN ADVANCE OF SALE**

Small packages (weighing less than 225 grams or 8 ounces) must be labeled according to the Fair Packaging and Labeling Act requirements with these exceptions:

1. The quantity statement is to be in the upper 30% of the principal display panel.
2. The terms of the quantity statement are as follows:
  - a. **Count** for seed tapes, preplanters and for coated, encapsulated, and pelletized seed.
  - b. The largest whole SI (metric) unit for other types of seeds in packages weighing up to 7 grams.
  - c. Both grams and ounces for other types of seeds in packages with weights from 7 grams up to but not including 225 grams or 8 ounces.

Larger packages are also labeled according to the Fair Packaging and Labeling Act requirements. The method of stating the quantity is based on trade practice. Generally, this is weight for common seeds and count for coated, encapsulated, pelletized, or hybrid seeds.

TEST PROCEDURES: Net Weight, Handbook 133, page 10  
Packages Labeled by Count of 51 or more, Handbook 133, page 54, 4.3  
Packages Labeled by Count of 50 or less, Handbook 133, page 54, 4.2

## **SHOE POLISH AND WAX**

Liquid shoe polish or wax is labeled in terms of liquid measure.

Paste or cream polish or wax is labeled by net weight.

(CCR 4510 § 6.4)

TEST PROCEDURES: Net Weight, Handbook 133, page 10  
Direct Measure, Handbook 133, page 28, 3.3  
Gravimetric, Handbook 133, page 24  
Depth Gauge (Titled "Other"), Handbook 133, page 28, 3.4  
Headspace (Titled "Mayonnaise"), Handbook 133, page 29, 3.5

**TEXTILES-ORNAMENTATION**  
**DIMENSIONS OF IRREGULAR SHAPES**

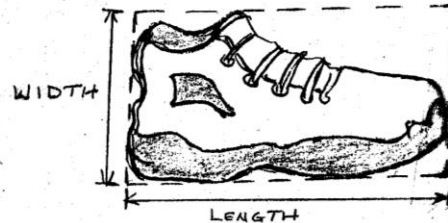
A. Ornementation

The width or length of ornamentation such as fringe, scallops, decorative hems, bindings, etc., is included in the required length and width quantity declarations. The ornamentation is part of the usable length and width of the item. (The consumer does not want to purchase a bedspread only to find the fringe drags on the floor.)

For value comparison, a separate declaration stating the width or length of ornamentation is permitted (but not required) in conjunction with the required quantity statement.

B. Irregular Shapes

The length and width dimensions for irregularly shaped textiles (usually novelty or whimsically shaped mats and rugs) are the dimensions of a rectangle that would tightly enclose the item.



TEST PROCEDURES: Textiles, page 16-42  
Bidimensional Irregular Commodities  
Weight, page 16-13  
Template, page 16-4

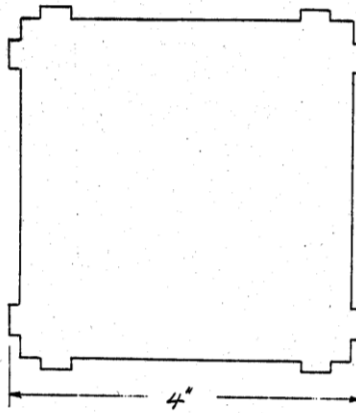
## **TILE, CERAMIC**

Containers of tile must state the count, width, length (if different from width), and the thickness.

The quantity statement must also state the total area covered with the minimum possible spacing or with a stated grout width.

“Nominal tile sizes” (trade designation or whole number rounding of metric sizes) may be included on the carton as a shape or size identification so long as this does not mislead or confuse a buyer. Prevention of such confusion will normally require a size statement in addition to the “nominal” designation and total coverage. The product must meet all quantity statements (thickness, length, width and area).

### **Tile With Spacing Lugs**

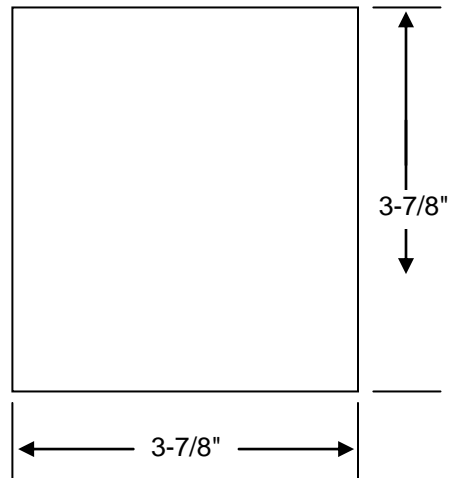


Nominal Size - 4 inches by 4 inches (includes lugs)

Actual Size - 4 inches by 4 inches

Total coverage need not specify grout width if it is no wider than that determined by the lugs.

### Square or Rectangular Tile

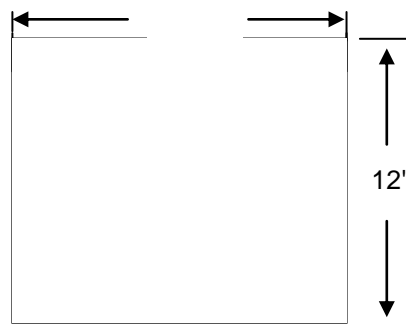


Nominal Size - 4 inches by 4 inches

Actual Size - 3-7/8 inches by 3-7/8 inches

Total coverage must specify any grout widths necessary or must state the area without spacing.

### Tiles Attached to Cloth Mesh



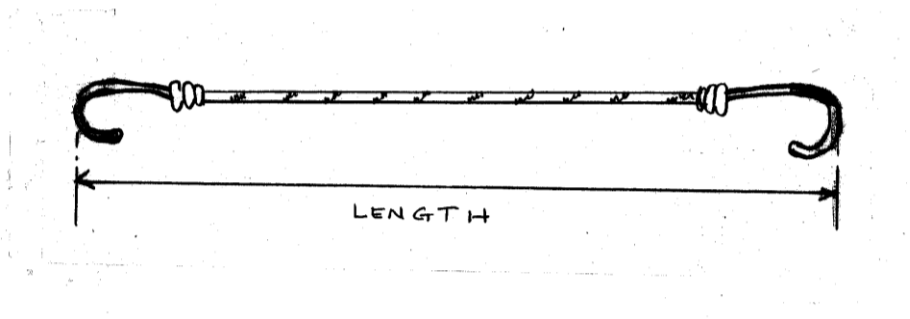
Total coverage includes a grout spacing along the outer edge. In this case, the grout space is defined by the tile spacing on the mesh and need not be additionally specified.

TEST PROCEDURE: Direct Measure

## TIE CORDS, ELASTIC (BUNGEE™) CORDS

Length is measured by laying out the cord in a straight line without tension. Length includes the hooks or fasteners on the ends.

Packages must be labeled with the length and count. (Count may be omitted if the package contains six or less and the individual cords are fully visible.)



## TORTILLAS

The quantity statement for tortillas shall be stated with Net Weight **and** Count.

Neither Weight nor Count alone is fully informative and is not an acceptable quantity statement.

(CCR 4510 § 6.4 and 6.4.1)

TEST PROCEDURES: Net Weight, Handbook 133, page 14  
Packages Labeled by Count of 51 or more, Handbook 133, page 54, 4.3  
Packages Labeled by Count of 50 or less, Handbook 133, page 54, 4.2

## **WHOLESALE (NONCONSUMER) LABEL REQUIREMENTS**

A nonconsumer (or wholesale) package must have the identity, responsibility, and quantity declarations on the outside of the package. (CCR 4510 § 4, § 5 and § 7)

Either the SI (metric) or the inch-pound system, or both, may be used for the quantity declaration. (Federal law may restrict the use of only the SI system for some commodities.) (CCR 4510 § 7.1)

Unless the nonconsumer package is for sale to retail consumers, it does not have to conform to consumer package requirements for the location, free area, parallel placement, letter size, and proportion of the net quantity statement.

All required package information shall be “definitely and clearly stated thereon in the English language.” (CCR 4510 § 9.1)

### **WHOLESALE PACKAGES SOLD AT RETAIL**

If a nonconsumer or wholesale package is for sale at a retail outlet for consumption or use by individuals, it is considered to be a consumer package and must meet all consumer package labeling requirements. (CCR 4510 § 2.2)

## **WIPING CLOTHS, RAGS**

When sold by count, the label shall state the number of units and the width and length of each unit.

When sold by weight, the labeled weight shall be the net weight regardless of any industry or trade practice.

(B&P Code § 12023 and 12603; CCR4510 § 6.4.1 and § 7.3)

## WOOD, HARDWOOD

At **retail**, hardwood lumber may be sold according to nominal dimensions provided that either the table of “Minimum Surfaced Sizes for Kiln Dried Hardwood Lumber” or the actual dimensions are prominently displayed. The term “Nominal” or “Nom” is used in conjunction with any representation of a nominal dimension.

**The use of nominal dimensions does not apply to flooring, molding, or preformed products.**

<b>MINIMUM SURFACED SIZES FOR COMMON STOCK WIDTHS OF KILN DRIED HARDWOOD LUMBER</b>		
SI UNITS FOR THICKNESS AND WIDTH	THICKNESS AND WIDTH IN INCHES	
MINIMUM SIZES IN MILLIMETERS	NOMINAL SIZES	MINIMUM SIZES IN INCHES
38 x 89	2 x 4	1-1/2 x 3-1/2
38 x 140	2 x 6	1-1/2 x 5-1/2
38 x 184	2 x 8	1-1/2 x 7-1/4
38 x 235	2 x 10	1-1/2 x 9-1/4
38 x 286	2 x 12	1-1/2 x 11-1/4
19 x 19	1 x 1	3/4 x 3/4
19 x 38	1 x 2	3/4 x 1-1/2
19 x 63	1 x 3	3/4 x 2-1/2
19 x 89	1 x 4	3/4 x 3-1/2
19 x 140	1 x 6	3/4 x 5-1/2
19 x 184	1 x 8	3/4 x 7-1/4
19 x 235	1 x 10	3/4 x 9-1/4
19 x 286	1 x 12	3/4 x 11-1/4

Additional stock sizes are 1-1/4 inch (1 in surfaced) and 1-1/2 in (3/16 surfaced).

Quantity representations are to be one of the following:

- a. Linear measure when surfaced width and thickness are stated.
- b. Count when length, surfaced width, and thickness are stated.
- c. Surface measure (square feet) when thickness is stated.

(National Institute of Standards and Technology Handbook 130)

**Wholesale** hardwood is generally sold by net board footage.

A board foot is one foot long, one foot wide, and one inch thick or its equivalent.

See Hardwood Test Procedure, page 16-34, to calculate board feet.



## **WOOD, SOFTWOOD**

Softwood lumber is sold according to nominal or designated sizes representing a standard width and thickness. The nominal size is greater than the actual width and thickness.

The actual thickness, for **dressed softwood boards, dimension lumber, and timbers** must equal or exceed the minimum size for the nominal size as stated in the table on the following page.

If the actual dimension of the lumber does not meet the minimum size, it cannot be sold according to nominal dimensions. It must be advertised, invoiced, and sold using only the actual dimension. (DMS Notice, QC-96-1)

The actual thickness for **rough softwood boards, dimension lumber, and timbers** must be 1/8 inch or greater than the corresponding minimum dressed thickness listed in the table.

EXAMPLE: A lot of 8-foot long rough, dry cedar lumber is advertised 4" x 6" x 8'.

Using the current Sampling and Testing Plan, the length of the pieces of lumber must average 8 feet with no more than the number allowed exceeding the Maximum Allowable Variation. **Nominal dimensions are not used for the length.**

Using the table, the minimum thickness for dressed, dry 4-inch dimension lumber is 3-1/2 inch, and for 6 inch is 5-1/2 inch. Since the lumber is rough, 1/8 is added to these minimums. The measurements used for testing for compliance are 3-5/8 x 5-5/8.

### **DEFINITIONS:**

Dry Lumber - Having maximum moisture content of 19% or less.

Green lumber - Having a moisture content greater than 19%.

Dressed Lumber - Has been surfaced to attain smoothness on one or more sides or edge.

Rough Lumber - Has not been dressed (surfaced) but has been sawed, edged and trimmed to the extent of showing saw or manufacturing marks.

Boards - Less than nominal 2-inch thick and of nominal 2-inch or greater in width.

Dimension - From nominal 2-inch thick up to but not including nominal 5-inch thick wood with nominal 2-inch or greater width.

Timbers - Nominal 5-inch or greater in the smallest dimension.

(NIST Handbook 130 and VPS 20-05)

TEST PROCEDURE: Lumber, Softwood Page 16-35

<b>NOMINAL AND MINIMUM-DRESSED SIZES OF SOFTWOOD BOARDS, DIMENSION, AND TIMBERS</b>										
ITEM	THICKNESS					FACE WIDTHS				
	NOMINAL INCH	MINIMUM DRESSED				NOMINAL INCH	MINIMUM DRESSED			
		DRY		GREEN			DRY		GREEN	
		INCH	mm	INCH	mm		INCH	mm	INCH	mm
Boards						2	1-1/2	38	1-9/16	40
						3	2-1/2	64	2-9/16	65
						4	3-1/2	89	3-9/16	90
						5	4-1/2	114	4-5/8	117
	1	3/4	19	25/32	2	6	5-1/2	140	5-5/8	143
	1-1/4	1	25	1-1/32	26	7	6-1/2	165	6-5/8	168
	1-1/2	1-1/4	32	1-9/32	33	8	7-1/4	184	7-1/2	190
						9	8-1/4	210	8-1/2	216
						10	9-1/4	235	9-1/2	241
						11	10-1/4	260	10-1/2	267
						12	11-1/4	286	11-1/2	292
						14	13-1/4	337	13-1/2	343
					16	15-1/4	387	15-1/2	394	
Dimension						2	1	38	1-9/16	40
						3	2-1/2	64	2-9/16	65
	2	1-1/2	38	1-9/16	40	4	3-1/2	89	3-9/16	90
	2-1/2	2	51	2-1/16	52	5	4-1/2	114	4-5/8	117
	3	2-1/2	64	2-9/16	65	6	5-1/2	140	5-5/8	143
	3-1/2	3	76	3-1/16	78	8	7-1/4	184	7-1/2	190
	4	3-1/2	89	3-9/16	90	10	9-1/4	235	9-1/2	241
	4-1/2	4	102	4-1/16	103	12	11-1/4	286	11-1/2	292
						14	13-1/4	337	13-1/2	343
						16	15-1/4	387	15-1/2	394
Timbers	5 & THICKER	1/2 OFF	13 OFF	1/2 OFF	13 OFF	5 & WIDER	1/2 OFF	13 OFF	1/2 OFF	13 OFF

- See NIST, Voluntary Product Standard PS 20-05, American Softwood Lumber Standard for nominal and minimum sizes of finish, flooring, ceiling, partition, stepping, siding, shiplap, centermatch, dressed and matched, and worked lumber (factory flooring, heavy roofing, decking, and sheet piling).

**TEST  
PROCEDURES**

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## **SAFETY WARNING**

### CHEMICALS

1. Prior training is mandatory before testing of chemicals. The inspector must have a thorough knowledge of safety and test procedures.
2. Before testing any chemical, read and thoroughly understand all safety warnings on the label.
3. If you are unsure, call a qualified official with the proper authority to give guidance before you begin testing.

### MATERIAL SAFETY DATA SHEETS (MSDS)

MSDS are provided by the manufacturer of a product to identify the product's basic characteristics and hazardous information. MSDS typically provide information pertaining to the characteristics of a product such as hazardous ingredients, physical data, fire and explosion hazard information, fire hazard information, reactivity data, spill or leak procedures, special protection information, special precautions, toxicological information, and other relevant information. MSDS can be obtained from the manufacturer of the product. As new information is discovered concerning the properties of a product and the effects of various levels of exposure to it, MSDS can change. It is recommended that updated versions of the MSDS be obtained periodically to ensure that information is current. For further information on MSDS, contact your local OSHA office.

## **GENERAL TEST PROCEDURES**

### **PACKAGES LABELED BY:**

Page and/or  
Section Number

#### **WEIGHT**

Drained Weight HB 133, pg. 20, 2.5

Net Weight, Tare Procedure (Net Weight = Gross Weight - Tare Weight) HB 133, pg. 14

#### **LIQUID VOLUME**

Capacity Measure HB 133, pg. 30, 3.6

Depth Gage (Titled "Other") HB 133, pg. 28, 3.4

Direct Measure HB 133, pg. 28, 3.3

Displacement (Titled "Solids or Semisolids") HB 133, pg. 41, 3.12

Gravimetric, Weight of Known Volume HB 133, pg. 24

Headspace (Titled "Mayonnaise") HB 133, pg. 29, 3.5

Pycnometer, Density Cup (Titled "Very Viscous Materials") HB 133, pg. 37, 3.9

#### **LINEAR OR SQUARE (AREA MEASURE)**

Bidimensional Flat or Roll Commodities QC Manual, 16-15

Bidimensional Irregular Commodities, Weight QC Manual, 16-13

Bidimensional Irregular Commodities, Template QC Manual, 16-14

Gravimetric HB 133, pg. 62, 4.8

#### **COUNT**

Labeled 51 or More Units per Package, Weight HB 133, pg. 54, 4.3

Labeled 50 or Fewer Units per Package HB 133, pg. 53, 4.2

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## COMMODITY - TEST PROCEDURE INDEX

<u>Product</u>	<u>Procedure(s)</u>	<u>Page and/or Section Number</u>
Aluminum Foil	Bidimensional, Flat, Roll	QC Manual, 16-15
Animal Bedding	Animal Bedding	QC Manual, 16-9
Aerosol Commodities	Aerosol Packages	HB 133, pg. 13
Asphalt Patching Compound	Depth Gauge (Titled "Other") Headspace (Titled "Mayonnaise")	HB 133, pg. 28, 3.4 HB 133, pg. 29, 3.5
Baler Twine	Procedure for Length	HB 133, pg. 64, 4.9
Bandages, Elastic, Roll Type	Bidimensional, Flat, Roll	QC Manual, 16-15
Beer	Beer	QC Manual, 16-11
Blankets	Textiles	QC Manual, 16-41 HB133, pg. 62, 4.8
Borax	Borax	HB 133, pg. 19, 2.4
Bungee™ Cords	Direct Measure	QC Manual, 15-25
Butter	Net Weight	HB 133, pg. 14
Candles	Candles	QC Manual, 15-5
Carbonated Beverages, Nonalcoholic (inc. water)	Gravimetric Carbonated Beverages	HB 133, pg. 25, 3.2 QC Manual, 16-17
Caulking	Measure	HB 133, pg. 37, 3.9 QC Manual, 16-18
Chitterlings	Drained Weight, Frozen Foods	HB 133, pg. 21, 2.6
Coffee, Canned	Canned Coffee	HB 133, pg. 14
Compressed Gas, Cylinders	Compressed Gas	HB 133, pg. 46, 3.14
Cottage Cheese	Depth Gauge (Titled "Other") Headspace (Titled "Mayonnaise") Net Weight	HB 133, pg. 28, 3.4 HB 133, pg. 29, 3.5 HB 133, pg. 14
Crabmeat, Frozen	Drained Weight, Frozen Foods	HB 133, pg. 21, 2.6



<b><u>Product</u></b>	<b><u>Procedure(s)</u></b>	<b><u>Page and/or Section Number</u></b>
Detergents & Soaps, Liquid	Depth Gauge (Titled "Other") Headspace (Titled "Mayonnaise") Gravimetric	HB 133, pg. 28, 3.4 HB 133, pg. 29, 3.5 HB 133, pg. 25
Fertilizer	Net Weight	HB 133, pg. 14
Firewood	Firewood Bulk Firewood, Boxed Firewood, Bundles or Bagged	HB 133, pg 51, 3.17 QC Manual 16-19 HB 133, pg 50, 3.16 QC Manual 16-24 HB 133, pg 51, 3.18
Frozen Fish & Seafood Shrimp, Frozen Block Crab, Frozen Canned	Glazed Raw Seafood & Fish Drained Weight, Frozen Food Drained Weight, Frozen Food	HB 133, pg. 22, 2.7 HB 133, pg. 21, 2.6 HB 133, pg. 21, 2.6
Frozen Foods	Drained Weight of	HB 133, pg. 21, 2.6
Frozen Beverages (juice, etc.)	Ice Cream Novelties Depth Gauge (Titled "Other") Headspace (Titled "Mayonnaise")	HB 133, pg. 41, 3.12 HB 133, pg. 28, 3.4 HB 133, pg. 29, 3.5
Gift Wrapping	Bidimensional, Flat, Roll	QC Manual, 16-15
Ice Cream, Factory Packed	Displacement (Solids or Semisolid)	HB 133, pg. 42. 3.12
Ice Cream, Pelletized	Net Weight	HB 133, pg. 14
Ice Cream, Hand Pack	Net Weight Ice Cream Novelties	HB 133, pg. 14 HB 133, pg. 41, 3.12
Ice Cream Bars, Sandwiches	Ice Cream Novelties	HB 133, pg. 41, 3.12
Landscape Materials Bark, Mulch, Gravel, Rock, Etc.	Mulch and Soil	HB 133, pg. 40, 3.11
Lotions, Liquid	Depth Gauge (Titled "Other") Headspace (Titled "Mayonnaise") Gravimetric	HB 133, pg. 28, 3.4 HB 133, pg. 29, 3.5 HB 133, pg. 25
Liquids, Thick	Depth Gauge (Titled "Other") Headspace (Titled "Mayonnaise") Gravimetric	HB 133, pg. 28, 3.4 HB 133, pg. 29, 3.5 HB 133, pg. 25

<b><u>Product</u></b>	<b><u>Procedure(s)</u></b>	<b><u>Page and/or Section Number</u></b>
Liquor, Hard	Liquor	QC Manual, 16-28
Lumber, Board Foot	Lumber, Hardwood	QC Manual, 16-34
Lumber, Dimensional	Lumber, Softwood	QC Manual, 16-35
Margarine	Net Weight	HB 133, pg. 14
Mayonnaise	Headspace (Titled "Mayonnaise")	HB 133, pg. 29, 3.5
Milk	Gravimetric	HB 133, pg. 25, 3.2
Mulch	Mulch and Soil	HB 133, pg. 40, 3.11
Multi-Unit Packages	Multi-Unit	QC Manual, 16-36
Oil, Edible or Lubricating	Depth Gauge (Titled "Other") Headspace (Titled "Mayonnaise") Gravimetric	HB 133, pg. 28, 3.4 HB 133, pg. 29, 3.5 HB 133, pg. 25, 3.2
Olives, Black or Cooked	Drained Weight	HB 133, pg. 20, 2.5
Oysters, Fresh	Fresh Oysters, Volume	HB 133, pg. 45, 3.13
Paint	Depth Gauge (Titled "Other") In Plant Audit Procedure Possible Violation Procedure Headspace (Titled "Mayonnaise") Gravimetric	HB 133, pg. 28, 3.4 HB 133, pg. 35 HB 133, pg. 35 HB 133, pg. 29, 3.5 HB 133, pg. 25
Paper Plates	Paper Plates	HB 133, pg. 57, 4.5
Paper, Sanitary Products	Sanitary Paper Products	HB 133, pg. 57, 4.5
Paste	Volume, Very Viscous Materials	HB 133, pg. 37, 3.9
Patching Compounds	Volume, Very Viscous Materials	HB 133, pg. 37, 3.9
Peat Moss	Dry Measure, Peat Moss	HB 133, pg. 38, 3.10
Pet Foods, Dry	Flour & Dry Pet Foods	HB 133, pg. 14

<b><u>Product</u></b>	<b><u>Procedure(s)</u></b>	<b><u>Page and/or Section Number</u></b>
Petroleum Products	Depth Gauge (Titled "Other") Headspace (Titled "Mayonnaise") Gravimetric	HB 133, pg. 28, 3.4 HB 133, pg. 29, 3.5 HB 133, pg. 25
Plastic, other than polyethylene	Bidimensional Commodities Flat or Roll Gravimetric	QC Manual, 16-15 HB 133, pg. 62, 4.8
Plywood, Particle Board	Plywood	QC Manual, 16-37
Polyethylene Sheeting Bags, Tubing, etc.	Polyethylene Polyethylene	HB 133, pg. 59, 4.7 QC Manual, 16-38
Popsicles	Ice Cream Novelties	HB 133, pg. 41, 3.12
Pots, Cooking	Goods Labeled by Capacity	HB 133, pg. 30, 3.6
Potting Soil	Dry Measure, Peat Moss Animal Bedding, etc.	HB 133, pg. 40, 3.11 QC Manual, 16-9
Roof Patch, Cement	Depth Gauge (Titled "Other") Headspace (Titled "Mayonnaise")	HB 133, pg. 28, 3.4 HB 133, pg. 29, 3.5
Salad Dressing	Depth Gauge (Titled "Other") Headspace (Titled "Mayonnaise")	HB 133, pg. 28, 3.4 HB 133, pg. 29, 3.5
Shavings	Animal Bedding, etc.	QC Manual, 16-9
Shampoo, Conditioners	Depth Gauge (Titled "Other") Headspace (Titled "Mayonnaise") Gravimetric	HB 133, pg. 28, 3.4 HB 133, pg. 29, 3.5 HB 133, pg. 25
Shoelaces	Shoelaces	QC Manual, 16-40
Shrimp, IQF, (Individually Quick Frozen)	Glazed Raw Seafood & Fish	HB 133, pg. 22
Shrimp, Frozen Block	Drained Weight, Frozen Food	HB 133, pg. 21, 2.6

<b><u>Product</u></b>	<b><u>Procedure(s)</u></b>	<b><u>Page and/or Section Number</u></b>
Sleeping Bags	Textiles	QC Manual, 16-41
Soup	Net Weight Gravimetric Depth Gauge (Titled "Other") Headspace (Titled "Mayonnaise")	HB 133, pg. 14 HB 133, pg. 25 HB 133, pg. 28, 3.4 HB 133, pg. 29, 3.5
Syrup	Depth Gauge (Title "Other") Headspace (Titled "Mayonnaise") Gravimetric	HB 133, pg. 28, 3.4 HB 133, pg. 29, 3.5 HB 133, pg. 25
Textiles	Textiles	QC Manual, 16-41
Tile, Ceramic	Direct Measure	QC Manual, 15-23
Tubing, Flexible	Tubing	QC Manual, 16-43
Turkey, Whole Frozen	Turkey	QC Manual, 16-45
Tofu	Drained Weight	HB 133, pg. 20, 2.5
Toothpaste	Net Weight	HB 133, pg. 14
Yogurt	Net Weight Headspace (Titled "Mayonnaise")	HB 133, pg. 14 HB 133, pg. 29, 3.5
Wine	Wine	QC Manual, 16-46

## ANIMAL BEDDING, SHAVINGS,

## AND GARDEN AMENDMENTS

Do **not** use this procedure when testing **Peat Moss, Soil** or **Mulch** (including all above ground dressings for decoration or moisture, weed, erosion, and temperature control).

Instead, use: Peat Moss, Method of Test, Handbook 133, page 38, Section 3.10, or Mulch or Soil, Method of Test, Handbook 133, page 40, Section 3.11.

NOTE: Peat Moss procedure, Handbook 133, may also be used for testing potting soil and garden amendments.

### A. Equipment

1. Calibrated dry measure, or combination of measures, equal to the labeled contents. If possible, use no more than two measures to equal the labeled contents.

NOTE: The same measure may be used more than once.

2. Calibrated linear measure.
3. Straight edge(s).
4. Tarp or plastic sheet.
5. Bubble level.
6. Calculator (optional).

### B. Procedure

1. Select sample packages. Each sample package must be opened and measured. There is no tare sample.
2. Cover a level area with the tarp and set up measure(s).
3. Open each sample package in turn and gently pour the contents into the measure. If the material is compacted or clumped, separate or sift it by hand as it is poured.
4. If the material overfills the measure(s), use a straight edge with a zigzag motion to level the top surface even with the top edge of the measure, allowing the overage to spill onto the tarp. Place the material from the tarp into a calibrated smaller measure and determine the value of the overage (i.e., plus error).

5. If the material from the package does not completely fill the measure (or the last measure, if more than one is being used), either one of two methods may be used to determine the shortage.
  - a. Using a straight edge, level the material in the measure taking care not to compact it. Measure from the top edge of the measure down to the level of the material in at least three different locations. Use the average of these three measurements to calculate the volume of the shortage.
  - b. If the material is uniform from package to package, use a small calibrated measure equal in volume to the unit of measure. Fill the small measure with previously measured material or material from another package from the lot. Add this to the measure holding the test material. Repeat until the measure containing the test material is completely full, keeping count of the number of small measures added. This number is the value of the shortage in units of measure.

#### Dry Measure Equivalents

1 dry pint	=	1/2 dry quart / 33.6 cubic inches
1 dry quart	=	2 dry pints / 67.2006 cubic inches
1 peck ( pk. )	=	8 dry quarts / 16 dry pints / 537.605 cubic inches
1 bushel ( bu. )	=	4 pecks / 32 dry quarts / 2,150.42 cubic inches / 1.2445 cubic ft.
1 cubic foot	=	1728 cubic inches

## **BEER**

### **VOLUMETRIC TEST PROCEDURE**

#### **A. Equipment**

1. Calibrated glass graduates "To Contain" (See Special Note 2).
2. Thermometer -20°F to 120°F.
3. Defoaming agent; Hexanol, Octanol (Capryl Alcohol), or commercial anti-foam product.
4. Calculator (optional).

#### **B. Special Notes**

1. Beer has a reference temperature of 39.1°F.
2. "To Deliver" graduates may be used if a correction factor is known for the difference between "To Deliver" and "To Contain" graduates.
3. Add defoaming agent to can or bottle as the need arises.
4. Gravimetric testing of beer may be performed by using the procedure for establishing a weight per liquid volume.

#### **C. Procedure**

1. Select "To Contain" graduate for the volume of beer under test.
2. Wet graduate with beer and give a 10-second drain. This compensates for the retention in the bottle or can.
3. Pour a sample into wetted graduate giving the sample a 1 minute drain, record volume to be corrected ( $V_o$ ). When testing cans, a hole should be made to allow for complete drainage.
4. Insert the thermometer in graduate until reading stabilizes, then read temperature.
5. Temperature correction factors for malt beverages can normally be disregarded if testing is performed between 35°F and 45°F.

6. Formula:

$$\text{Error} = V_o [0.0000625 (39.1 - T_o) + 1] - V_L$$

$V_o$  = Observed volume

$T_o$  = Actual temperature of beer in degrees Fahrenheit

$V_L$  = Labeled volume

0.0000625 = Coefficient of expansion per degree Fahrenheit

D. Examples

1. Example 1:

(a) Observed volume is 11.75 fl oz

(b) Observed temperature is 76°F

(c) Labeled volume is 12 fl oz

(d) Utilizing the formula:

$$V_o = 11.75 \text{ fl oz}$$

$$T_o = 76^\circ\text{F}$$

$$V_L = 12 \text{ fl oz}$$

$$\text{Error} = 11.75 \text{ fl oz} [0.0000625 (39.1 - 76) + 1] - 12 \text{ fl oz} = -0.27 \text{ fl oz}$$

2. Example 2:

(a) Observed volume is 12.25 fl oz

(b) Observed temperature is 60°F

(c) Labeled volume is 12 fl oz

(d) Utilizing the formula:

$$V_o = 12.25 \text{ fl oz}$$

$$T_o = 60^\circ\text{F}$$

$$V_L = 12 \text{ fl oz}$$

$$\text{Error} = 12.25 \text{ fl oz} [0.0000625 (39.1 - 60) + 1] - 12 \text{ fl oz} = +0.23 \text{ fl oz}$$



## **BIDIMENSIONAL IRREGULAR COMMODITIES**

### **WEIGHT METHOD**

#### A. Equipment

1. Paper of uniform thickness at least as large in area as the specimen to be measured.
2. An instrument for cutting the paper.
3. Balance accurate to 0.01 gram and weights when required.
4. Rule or tape graduated in millimeters.

#### B. Procedure

1. The piece of paper shall be placed flat on a smooth surface. The specimen shall be placed flat on the paper and the area of the specimen traced on the paper. The paper shall be cut to the shape of the specimen, weighed, and the weight recorded to the nearest 0.1 gram as  $W_1$ . A rectangle consisting of more than half of the total area of the weighed paper shall be cut from the weighed paper. The paper rectangle shall be weighed and the weight recorded as  $W_2$ . The dimensions of the paper rectangle shall be measured to the nearest millimeter by means of the graduated rule or tape, the area calculated by multiplying the width by the length and the value recorded to the nearest square centimeter as  $A$ .
2. Calculation. The area of the specimen shall be calculated as follows:

$$\text{Area, Square Centimeters} = \frac{W_1 \times A}{W_2}$$

$W_1$  = Weight of the specimen-shaped paper, grams

$W_2$  = Weight of the paper rectangle, grams

$A$  = Area of the paper rectangle, square centimeters

3. The area of the rectangle should be recorded to the nearest square centimeter.

#### C. Reference: Federal Test Method Standard Number 311.

## **BIDIMENSIONAL IRREGULAR COMMODITIES**

### **TEMPLATE METHOD**

#### **A. Equipment**

A transparent, flexible template graduated in square centimeters. The template shall be large enough to cover the specimen completely.

#### **B. Procedure**

The specimen shall be placed on a smooth surface. The template shall be placed smoothly over the specimen. The area shall be determined by counting the number of square centimeters covering the surface of the specimen. Parts of the squares of the template not completely covered by the specimen shall be estimated and the value recorded to the nearest 0.5 square centimeters.

#### **C. Reference: Federal Test Method Standard Number 311.**

## **BIDIMENSIONAL FLAT OR ROLL COMMODITIES**

### A. Equipment

1. Calibrated linear measure.
2. Calculator (optional).

B. This procedure may be used to verify the width and length of most regularly shaped flat or roll type bidimensional commodities, e.g., tarps, tape, ribbon, bandages, food wrap, gift wrap, etc.

NOTE: There are specific test procedures for the following commodities: **Hardwood Lumber- Board foot**, page 16-34; **Lumber- Dimensional**, page 16-35 **Paper Towels, Tissue, Napkins, etc.** Handbook 133, page 57, 4.5; **Paper Plates**, Handbook 133, page, 57, 4.5; **Polyethylene Sheeting**, Handbook 133, page 59, 4.7; **Polyethylene Bags, Tubing, Other Plastics**, page 16-38; **Plywood**, page 16-37; and **Textiles**, page 16-42.

### C. Procedure

1. Remove commodity from package, place on smooth surface.
2. Smooth out creases or wrinkles and secure in place. If necessary apply sufficient tension to woven, un-stretchable, tarps or fabrics to remove wrinkles or creases in the fabric that would adversely affect measurement. This can be done at the time of, and at the point of each measurement. However do not risk damage or measurement errors when measuring products that easily stretch or tear under application of tension.
3. To determine the width:
  - a. For commodities labeled 10 feet or less in length, take three measurements across the width at locations approximately  $1/4$ ,  $1/2$ , and  $3/4$  along the length of the commodity and compute the average width.
  - b. For commodities labeled greater than 10 feet in length, take one additional width measurement, up to a maximum of 10 measurements, per every additional 10 feet, or portion thereof. The measurements should be evenly spaced at approximately equal intervals along the length. Width measurements should not be made across the ends of the commodity.
4. To determine the length:
  - a. For commodities labeled 2 inches or less in width, take one measurement along the length. The measurement should not be made along the edges. (If desired, more measurements may be taken and an average length calculated.)

- b. For commodities labeled from 2 inches up to and including 2 feet in width, take at least 2 measurements and compute the average length. The measurements should be spaced at approximately equal intervals and not be made along the edges.
  - c. For commodities labeled from 2 feet up to and including 10 feet, take at least 3 measurements spaced at approximately equal intervals across the width, and compute the average width. Measurements should not be made along the edges.
  - d. For commodities labeled 10 feet or wider, take 3 measurements plus one additional length measurement, up to a maximum of 10 measurements, per every additional 10 feet, or portion thereof, in labeled width.
5. To be in compliance, the width or average width must meet the stated width, **and** the length or average length must meet the stated length. Both must be correct independently of the other. A separate Package Inspection Report must be completed for each dimension tested.

**CARBONATED BEVERAGES**  
**(NONALCOHOLIC)**

A. Equipment

Appropriate size test measure calibrated "To Deliver."

B. Procedure

1. Rinse test measure with water. Drain for 10 seconds after water comes to the drip stage.
2. Open each sample container immediately prior to pouring. Pour product into test measure. Give the container a 1 minute drain after the product comes to the drip stage.
3. Observe the quantity of the product immediately after the excess foam has died down. It is not necessary to use a defoaming agent if this occurs within approximately 30 seconds after pouring.
4. Record errors on the appropriate form.
5. Rinse the test measure with water and give a 10-second drain between measurements of sample containers.

C. General Information

Commodities requiring refrigeration to maintain freshness or retard spoilage are tested at 40°F; others at 68°F.

In order to completely drain the can, punch a hole in the can just below the top rim. Punch from the inside to the outside so that any remaining liquids will flow out of the can. This should be done before the container has been completely emptied (approximately 1/2 full).

NOTE: Carbonated beverages may also be tested gravimetrically, see procedure "Gravimetric," Handbook 133, page 25.

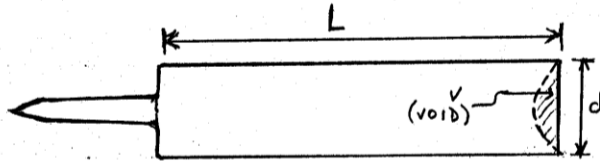
## CAULKING AND SEALANTS IN TUBES (VOLUME)

### A. Equipment

1. Calibrated measure (linear or caliper).
2. Calibrated graduate "To Deliver", density cup or pycnometer.
3. Slicker plate.
4. Calculator (optional).
5. Caulking gun (optional).

### B. Special Note

Gravimetric testing of caulking and sealants may be performed by using the procedure for density cup or pycnometer, Handbook 133, page 37, 3-9.



### C. Procedure

1. All tubes in the sample must be measured.
2. Carefully push the inner cap into the tube until it is in contact with the caulking material; this can be accomplished by using a caulking gun.
3. Determine the average length ( $L$ ), and average diameter ( $d$ ). A minimum of three measurements should be taken for each. Round each measurement up to the nearest 1/32 inch or 0.02 inch. Convert any fraction to a decimal.
4. Determine volume of the void ( $v$ ). Using slicker plate and graduate, fill void with measured amount of water.
5. Calculate volume of tube contents ( $V$ ) in cubic inches using:

$$V = [\pi (d^2 \div 4) L] - v$$

where  $\pi = 3.1416$ ,  $d =$  average internal diameter of tube  
 $L =$  average length of tube  $v =$  volume of void

Multiply result by 0.554 112 6 for fluid ounces, or by 16.387 06 for milliliters.

## **FIREWOOD - BULK**

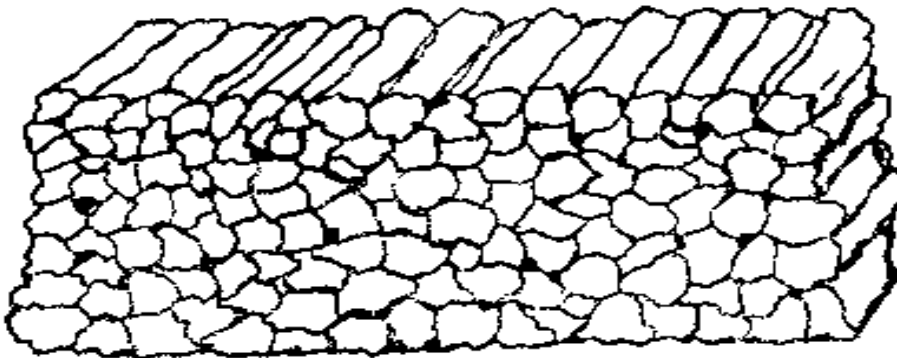
### **UNPACKAGED OR PACKAGES LABELED 4 CUBIC FEET OR MORE**

#### A. Equipment

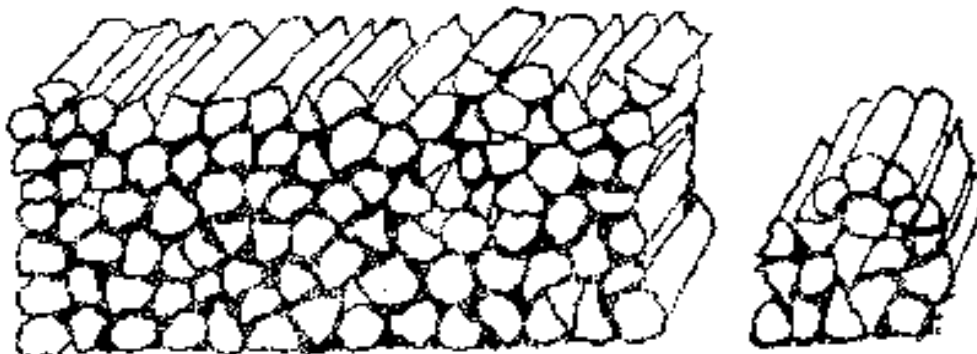
1. Calibrated linear measure.
2. Calculator.
3. Gloves (optional).

#### B. Special Notes

1. Testing firewood is more easily performed by two people.
2. Measurements are made in increments no greater than 1/8 inch. A measurement falling between increments is rounded up to the next higher increment.
3. Inspection is made after the firewood has been delivered and stacked in a geometrical shape that will simplify calculations (i.e., rectangular, triangular or a combination). The stack may need adjustment before measuring. Width measurements may be made during the stacking process.
4. Ranked and well-stowed means the pieces of wood are placed parallel to each other and touching so that air spaces are kept to a minimum.



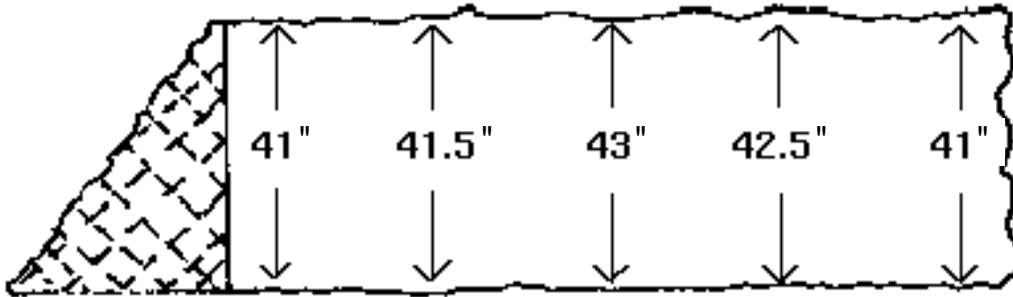
**Cord of 128 cubic feet ranked and well-stowed.**



**Same cord of 128 cubic feet, not ranked and well-stowed. Shows overage!**

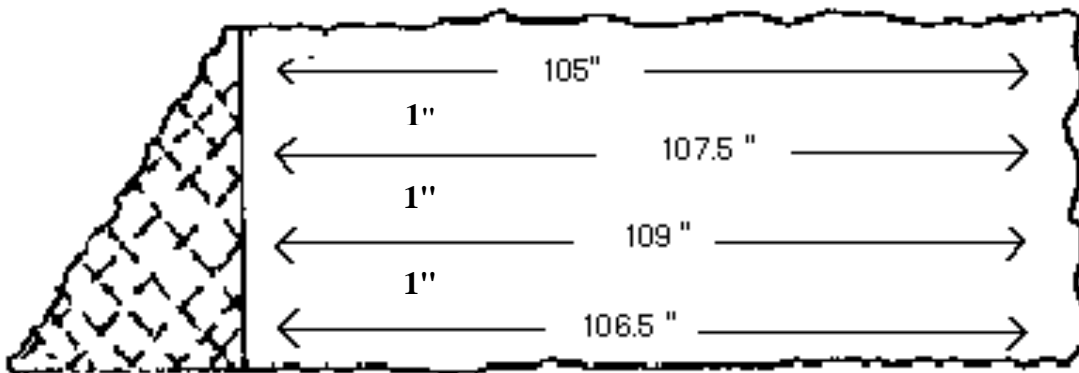
C. Procedure

1. Measurement of a rectangular stack or rectangular portion of a stack.
  - a. Average Height: Starting at one end of the stack, measure the height of the stack, on both sides, at approximately 2 foot intervals, along the length of the stack, or at four proportionately equal intervals if the stack is less than 6 feet long. (Minimum of 4 measurements on each side shall be taken.) Calculate the average height.



$$\text{Average Height} = (41" + 41.5" + 43" + 42.5" + 41") \div 5 = 41.8"$$

- b. Average Length: Starting at the base, measure the length of the stack at approximate 1 foot intervals up to the top, or at four proportionately equal intervals if the stack is less than 3 feet high. (Minimum of 4 measurements) Calculate the average length.



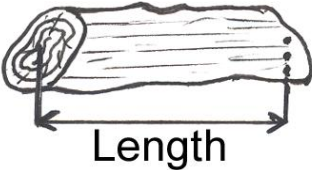
$$\text{Average Length} = (106.5" + 109" + 107.5" + 105") \div 4 = 107 \text{ inches}$$



- c. Average Width: This dimension is calculated by averaging the length of individual pieces of wood. A representative random sample of the individual pieces shall be selected. If a triangular stack is combined with a rectangular stack, the sample shall be selected randomly from the entire stack. The minimum sample size is in the following table.

Amount Represented	Number of Pieces
1/2 cord and less	12
More than 1/2 cord to 1 cord	24
Over 1 cord to 1-1/2 cords	36
Over 1-1/2 cords to 2 cords	48
Over 2 cords	48 plus 12 for each 1/2 cord or fraction thereof

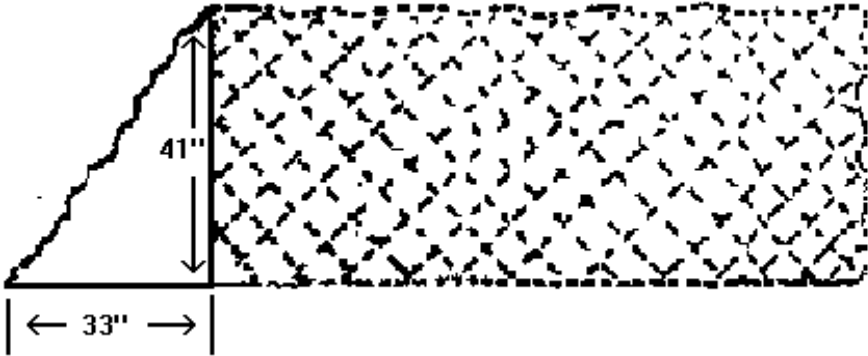
Measure the length of the pieces, measuring from center-to-center, as shown. Calculate the average length.



**Length of Angle-Cut Log**

$$\text{Average Length} = (18" + 18.25" + 19" + 17.75" + 18.5" + 18") \div 6 = 18.25 \text{ in}$$

- 2. Measurement of a triangular portion of a stack:
  - a. Measure the height and the base of the triangular portion.



**Triangular Measurements: Height = 41"; Length = 33"**

b. Average width of the stack is the same as previously calculated.

3. Calculate the volume:

a. Volume of the rectangular portion = average height of the stack x average length of the stack x average width of the stack. (Example: 41.8" x 107" x 18.25" = 81,624.95 cu in)

b. Volume of the triangular portion = height x base length x average width of the stack divided by 2. (Example: 41" x 33" x 18.25" ÷ 2 = 12,346.125 cu in)

c. Volume of the combined portions = volume of the rectangular portion + volume of triangular portion. (Example: 81,624.95 cu in + 12,346.125 cu in = 93,971.075 cu in)

NOTE: For stacks with multiple rows, the volume of the total stack is the sum of the volumes of the individual rows.

d. Volume of stack in cords = volume of stack in cubic inches divided by 221,184 cubic inches per cord. (Example: 93,971.075 cu in ÷ 221,184 cu in per cord = 0.42 cords)

e. Percentage of the cord = decimal fraction of the cord times 100. (Example: 0.42 cords x 100 = 42% [Percent].)

TABLE OF EQUIVALENTS				
1 cubic foot = 1,728 cubic inches				
1 cord = 128 cubic feet = 221,184 cubic inches				
Common Fractions		Decimal Fractions		Percentages
1/8	=	.125	=	12.5%
1/4	=	.25	=	25%
3/8	=	.375	=	37.5%
1/2	=	.5	=	50%
5/8	=	.625	=	62.5%
3/4	=	.75	=	75%
7/8	=	.875	=	87.5%

**CONVERSIONS AND EQUIVALENTS  
FOR FIREWOOD INSPECTIONS**

**CUBIC INCH EQUIVALENTS FOR  
COMMONLY USED CUBIC  
FOOT LABELS**

CUBIC FOOT	CUBIC INCH
2 1/4 (2.25)	3,888
2.2	3,801.6
2	3,456
1.9	3,283.2
1.75	3,024
1.7	2,937.6
1-1/2	2,592
1.4	2,419.2
1	1,728
0.9	1,555.2
7/8	1,512
0.8	1,382.4
3/4 (0.75)	1,296
0.7	1,209.6
0.65	1,123.2
5/8	1,080
0.6	1,036.8
1/2 (0.5)	864
3/8	648
1/4 (0.25)	432
1/8	216

**DECIMAL EQUIVALENTS  
FOR COMMONLY USED  
FRACTIONS**

FRACTION	DECIMAL
7/8	0.875
3/4	0.750
5/8	0.625
1/2	0.500
3/8	0.375
1/4	0.250
1/8	0.125

**SI (METRIC) - INCH - POUND  
CONVERSION FACTORS**

SI (METRIC)	INCH - POUND
1 cm <sup>3</sup> (cubic centimeter)	0.06102374 in <sup>3</sup> (cubic inch)
1 dm <sup>3</sup> (cubic decimeter)	0.0353147 ft <sup>3</sup> (cubic foot)
1 m <sup>3</sup> (cubic meter)	35.3147 ft <sup>3</sup>

INCH - POUND	SI (METRIC)
1 in <sup>3</sup> (cubic inch)	16.3871 cm <sup>3</sup> (cubic centimeter)
1 ft <sup>3</sup> (cubic foot)	28.3168 dm <sup>3</sup> (cubic decimeters)
	0.0283168 m <sup>3</sup> (cubic meter)

## FIREWOOD IN CONTAINERS

### LABELED CONTENTS OF 4 CUBIC FEET OR LESS

A. Equipment

Additionally for Bundles

- |                               |                                      |
|-------------------------------|--------------------------------------|
| 1. Calibrated linear measure. | 1. Tracing Paper.                    |
| 2. Calculator (optional).     | 2. Template marked in square inches. |
| 3. Gloves (optional).         | 3. Strap(s) for securing bundle.     |

B. Special Notes

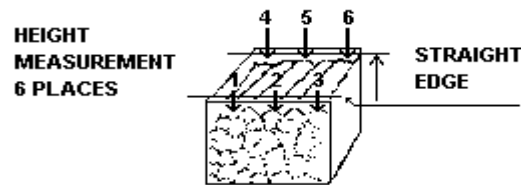
1. Measurements are made in increments no greater than 1/8 inch. Except when measuring the height of boxed wood, a measurement falling between increments is rounded up to the next higher increment.
2. Unless otherwise indicated, all measurements are to be taken without rearranging the wood or removing it from the package.
3. Ranked and well-stowed means the pieces of wood are stacked so that the individual pieces are touching and parallel, and in a compact manner minimizing spaces between pieces.
4. If the layers of wood are cross-hatched or not ranked in distinct sections in the package, the wood shall be removed from the package and measured according to the procedures for bulk firewood, Handbook 133, 4<sup>th</sup> Edition Checking the Net Contents of Packaged Goods (HB 133), Section 3.15 Volumetric Test Procedure for Packaged Firewood with a Labeled Volume of 113 L (4 Ft<sup>3</sup>) or Less, Section 3.16 (Boxed Firewood) and 3.17 (Crosshatched Firewood), and page 16-19. **Note: While the procedures provided on the following pages are similar, they are not exact word for word of what is in HB 133). Use the information on these pages for reference only as the diagrams provided on pages 16-25 and 16-26 were removed from HB 133 when it was edited in 2003.**

C. Procedure

1. Boxed wood.
  - a. Average height determination of wood within the box:

Open the box and measure the internal height of the box (h).

Take three measurements (d) along each end of the stack by measuring from the bottom of a straight edge placed across the top of the box to the highest point on the two outer-most top pieces of wood and the center-most top piece of wood rounding measurements down to the nearest 1/8 inch.

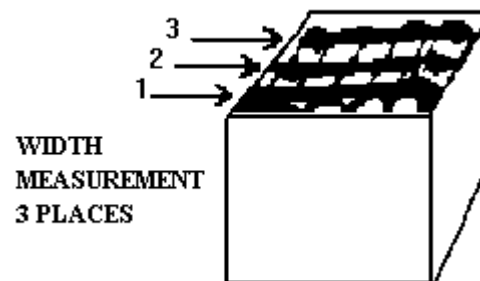


### Calculate the average width

$$\text{Average Height of Stack} = h - [(d^1 + d^2 + d^3 + d^4 + d^5 + d^6) \div 6]$$

- b. Average width of the wood within the box:

To determine the width, take three measurements. These measurements shall be taken on both ends and in the middle of the box, measuring the inside distance from

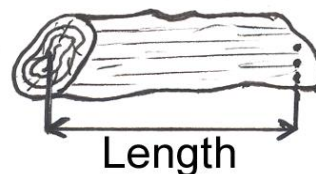


one side of the box to the other, perpendicular to the long axis of the wood.

### Calculate the average width

$$\text{Average Width} = (W^1 + W^2 + W^3) \div 3$$

- c. Average length of the pieces of wood: Remove the wood from the box and select the five pieces with the greatest girth. Measure the length of the five pieces, measuring from center-to-center.



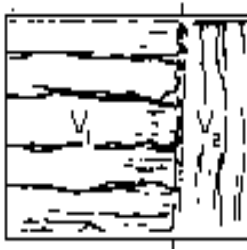
### Calculate the average length of the five pieces

$$\text{Average Length} = (L^1 + L^2 + L^3 + L^4 + L^5) \div 5$$

- d. Calculate the volume of the wood within the box.

$$\text{Volume of Wood (in cu ft)} = \frac{\text{Average Height (in inches)} \times \text{Average Width (in inches)} \times \text{Average Length (in inches)}}{1728 \text{ in}^3/\text{ft}^3}$$

- e. For boxes of wood packed with the pieces in two distinct sections (at right angles to each other), calculate the volume of wood in the box by determining the average height, width, and length as in 1a, 1b, and 1c for each section, then totaling the calculated volumes of the two sections. Except that the width measurement for  $V_2$  shall be taken from the inside edge of the box adjacent to  $V_2$  to the plane separating  $V_1$  and  $V_2$ .



$$\text{Total Volume} = V_1 + V_2$$

## 2. Bundles and Bags of Firewood.

- a. Average area of ends:

Secure a strap around each end of the bundle or bag of wood to prevent movement during testing and to provide a definite perimeter. Set one end of the bundle or bag on tracing paper large enough to cover the end completely. Draw a line around the perimeter of the bundle or bag on the tracing paper. Transfer the tracing paper to a template graduated in square inches. Count the number of square inches enclosed within the perimeter line (portions of square inches not completely within the perimeter line shall be estimated to the nearest one quarter square inch). Repeat this process on the opposite end of the bundle or bag. Calculate the average area.

$$\text{Average Area} = (\text{Area \#1} + \text{Area \#2}) \div 2$$

NOTE: Two thin straps, one inch to two inches wide, with connecting buckles, and long enough to easily encircle the bundle or bag, should be used to secure the wood.

b. Average length of the pieces of wood:

Select the five pieces with the greatest girth. Measure the length of the pieces as shown in Step 1c. for boxed wood.

Calculate the average length of the pieces of wood.

$$\text{Average Length} = (L^1 + L^2 + L^3 + L^4 + L^5) \div 5$$

c. Calculate the volume of the wood.

$$\begin{array}{l} \text{Volume of Wood} \\ \text{(in cu ft)} \end{array} = \begin{array}{l} \text{Average Area} \\ \text{(in inches}^2\text{)} \end{array} \times \begin{array}{l} \text{Average Length} \\ \text{(in inches)} \end{array} \div 1728 \text{in}^3$$

**LIQUOR**  
**VOLUMETRIC TEST PROCEDURE**

A. Equipment

1. Calibrated glass graduates "To Contain" (see Special Note 1).
2. Thermometer -20°F to 120°F.
3. Calculator (optional).

B. Special Notes

1. "To Deliver" graduates may be used if a correction factor is known for the difference between "To Deliver" and "To Contain" graduates which must be added to the observed volume before calculations.
2. Gravimetric testing of liquor may be performed by using the procedure for establishing a weight per liquid volume.

C. Procedure

1. Select "To Contain" graduate for the volume of liquor that you wish to test.
2. Wet graduate with liquor and give a 10-second drain. This compensates for the retention in the liquor bottle.
3. Pour a sample bottle into wetted graduate. After giving the sample a 1 minute drain, record the volume to be corrected ( $V_O$ ).
4. Insert the thermometer in graduate until reading stabilizes, then read temperature.
5. Liquor is corrected to 60°F by using the values from Table 7, beginning on page 257.
6. Formula:  $\text{Error} = [V_O \times (CF_{ot})] - V_L$      $V_O$  = Observed Volume

$CF_{ot}$  = Correction Factor for the observed liquor temperature in degrees Fahrenheit from Table 7

$V_L$  = Labeled Volume



D. Examples

1. Liquor temperature is 84°F.

Proof is 80.6 (use table value for 80 proof).

$$CF_{ot} = 0.991$$

Labeled Volume is 750 ml       $V_L = 750$  ml

Observed Volume is 746 ml       $V_O = 746$  ml

$$\text{Error} = [V_O \times (CF_{ot})] - V_L$$

$$\text{Error} = [746 \text{ ml} \times (0.991)] - 750 \text{ ml} = -10.71 \text{ ml}$$

2. Liquor temperature is 64°F.

Proof is 70.

$$CF_{ot} = 0.999$$

Labeled Volume is 1.75 L (1750 ml)       $V_L = 1750$  ml

Observed Volume is 1746 ml       $V_O = 1746$  ml

$$\text{Error} = [V_O \times (CF_{ot})] - V_L$$

$$\text{Error} = [1746 \text{ ml} \times (0.999)] - 1750 \text{ ml} = -5.75 \text{ ml}$$

E. Reference

Bureau of Alcohol, Tobacco and Firearms.

**TABLE NUMBER 7, TABLE FOR CORRECTION OF VOLUME TO 60°F**

Proof	Temperature °F											
	18°	20°	22°	24°	26°	28°	30°	32°	34°	36°	38°	
5												1.001
10												1.001
15												1.001
20								1.002	1.002	1.002		1.002
25								1.002	1.002	1.002		1.002
30			1.003	1.003	1.003	1.002	1.002	1.002	1.002	1.002		1.002
35			1.003	1.003	1.003	1.003	1.003	1.003	1.003	1.003		1.003
40	1.006	1.004	1.004	1.004	1.004	1.004	1.004	1.004	1.004	1.003		1.003
45	1.007	1.006	1.006	1.005	1.005	1.005	1.005	1.005	1.004	1.004		1.004
50	1.008	1.007	1.007	1.006	1.006	1.006	1.006	1.005	1.005	1.005		1.004
55	1.009	1.008	1.008	1.008	1.007	1.007	1.007	1.006	1.006	1.006		1.005
60	1.010	1.010	1.009	1.009	1.008	1.008	1.008	1.007	1.007	1.006		1.006
65	1.011	1.011	1.010	1.010	1.009	1.009	1.008	1.008	1.007	1.007		1.006
70	1.013	1.012	1.012	1.011	1.010	1.010	1.009	1.009	1.008	1.008		1.007
75	1.014	1.013	1.013	1.012	1.011	1.011	1.010	1.010	1.009	1.008		1.008
80	1.015	1.014	1.013	1.013	1.012	1.011	1.011	1.010	1.009	1.009		1.008
85	1.016	1.015	1.014	1.014	1.013	1.012	1.011	1.011	1.010	1.009		1.008
90	1.016	1.016	1.015	1.014	1.013	1.013	1.012	1.011	1.010	1.010		1.009
95	1.017	1.016	1.016	1.015	1.014	1.013	1.012	1.012	1.011	1.010		1.009
100	1.018	1.017	1.016	1.015	1.014	1.014	1.013	1.012	1.011	1.010		1.009
105	1.018	1.017	1.017	1.016	1.015	1.014	1.013	1.012	1.011	1.011		1.010
110	1.019	1.018	1.017	1.016	1.015	1.014	1.013	1.013	1.012	1.011		1.010
115	1.019	1.018	1.017	1.016	1.016	1.015	1.014	1.013	1.012	1.011		1.010
120	1.019	1.019	1.018	1.017	1.016	1.015	1.014	1.013	1.012	1.011		1.010
125	1.020	1.019	1.018	1.017	1.016	1.015	1.014	1.013	1.012	1.012		1.011
130	1.020	1.019	1.018	1.017	1.016	1.016	1.015	1.014	1.013	1.012		1.011
135	1.021	1.020	1.019	1.018	1.017	1.016	1.015	1.014	1.013	1.012		1.011
140	1.021	1.020	1.019	1.018	1.017	1.016	1.015	1.014	1.013	1.012		1.011
145	1.021	1.020	1.019	1.018	1.017	1.016	1.015	1.014	1.013	1.012		1.011
150	1.022	1.021	1.020	1.019	1.018	1.017	1.015	1.014	1.013	1.012		1.011
155	1.022	1.021	1.020	1.019	1.018	1.017	1.016	1.015	1.014	1.013		1.012
160	1.022	1.021	1.020	1.019	1.018	1.017	1.016	1.015	1.014	1.013		1.012
165	1.023	1.022	1.020	1.019	1.018	1.017	1.016	1.015	1.014	1.013		1.012
170	1.023	1.022	1.021	1.020	1.019	1.018	1.016	1.015	1.014	1.013		1.012
175	1.023	1.022	1.021	1.020	1.019	1.018	1.017	1.016	1.015	1.013		1.012
180	1.024	1.022	1.021	1.020	1.019	1.018	1.017	1.016	1.015	1.014		1.012
185	1.024	1.023	1.022	1.021	1.019	1.018	1.017	1.016	1.015	1.014		1.013
190	1.024	1.023	1.022	1.021	1.020	1.019	1.017	1.016	1.015	1.014		1.013
195	1.024	1.023	1.022	1.021	1.020	1.019	1.018	1.016	1.015	1.014		1.013
200	1.025	1.024	1.022	1.021	1.020	1.019	1.018	1.017	1.015	1.014		1.013

**TABLE NUMBER 7, TABLE FOR CORRECTION OF VOLUME TO 60°F**

<b>Proof</b>	<b>40°</b>	<b>42°</b>	<b>44°</b>	<b>46°</b>	<b>48°</b>	<b>50°</b>	<b>52°</b>	<b>54°</b>	<b>56°</b>	<b>58°</b>
0	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.000	1.000	1.000
5	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.000	1.000	1.000
10	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.000	1.000	1.000
15	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.000	1.000	1.000
20	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.000	1.000	1.000
25	1.002	1.002	1.001	1.001	1.001	1.001	1.001	1.000	1.000	1.000
30	1.002	1.002	1.002	1.002	1.001	1.001	1.001	1.001	1.001	1.000
35	1.003	1.002	1.002	1.002	1.002	1.001	1.001	1.001	1.001	1.000
40	1.003	1.003	1.002	1.002	1.002	1.002	1.001	1.001	1.001	1.000
45	1.004	1.003	1.003	1.003	1.002	1.002	1.002	1.001	1.001	1.000
50	1.004	1.004	1.003	1.003	1.003	1.002	1.002	1.001	1.001	1.000
55	1.005	1.004	1.004	1.003	1.003	1.002	1.002	1.002	1.001	1.000
60	1.005	1.005	1.004	1.004	1.003	1.003	1.002	1.002	1.001	1.001
65	1.006	1.005	1.005	1.004	1.004	1.003	1.002	1.002	1.001	1.001
70	1.006	1.006	1.005	1.005	1.004	1.003	1.003	1.002	1.001	1.001
75	1.007	1.006	1.006	1.005	1.004	1.003	1.003	1.002	1.001	1.001
80	1.007	1.007	1.006	1.005	1.004	1.004	1.003	1.002	1.001	1.001
85	1.008	1.007	1.006	1.005	1.005	1.004	1.003	1.002	1.002	1.001
90	1.008	1.007	1.006	1.006	1.005	1.004	1.003	1.002	1.002	1.001
95	1.008	1.008	1.007	1.006	1.005	1.004	1.003	1.003	1.002	1.001
100	1.009	1.008	1.007	1.006	1.005	1.004	1.004	1.003	1.002	1.001
105	1.009	1.008	1.007	1.006	1.005	1.004	1.004	1.003	1.002	1.001
110	1.009	1.008	1.007	1.006	1.005	1.005	1.004	1.003	1.002	1.001
115	1.009	1.008	1.007	1.007	1.006	1.005	1.004	1.003	1.002	1.001
120	1.009	1.009	1.008	1.007	1.006	1.005	1.004	1.003	1.002	1.001
125	1.010	1.009	1.008	1.007	1.006	1.005	1.004	1.003	1.002	1.001
130	1.010	1.009	1.008	1.007	1.006	1.005	1.004	1.003	1.002	1.001
135	1.010	1.009	1.008	1.007	1.006	1.005	1.004	1.003	1.002	1.001
140	1.010	1.009	1.008	1.007	1.006	1.005	1.004	1.003	1.002	1.001
145	1.010	1.009	1.008	1.007	1.006	1.005	1.004	1.003	1.002	1.001
150	1.010	1.009	1.008	1.007	1.006	1.005	1.004	1.003	1.002	1.001
155	1.011	1.010	1.009	1.007	1.006	1.005	1.004	1.003	1.002	1.001
160	1.011	1.010	1.009	1.008	1.006	1.005	1.004	1.003	1.002	1.001
165	1.011	1.010	1.009	1.008	1.007	1.005	1.004	1.003	1.002	1.001
170	1.011	1.010	1.009	1.008	1.007	1.006	1.004	1.003	1.002	1.001
175	1.011	1.010	1.009	1.008	1.007	1.006	1.004	1.003	1.002	1.001
180	1.011	1.010	1.009	1.008	1.007	1.006	1.005	1.003	1.002	1.001
185	1.011	1.010	1.009	1.008	1.007	1.006	1.005	1.003	1.002	1.001
190	1.012	1.010	1.009	1.008	1.007	1.006	1.005	1.004	1.002	1.001
195	1.012	1.011	1.009	1.008	1.007	1.006	1.005	1.004	1.002	1.001
200	1.012	1.011	1.010	1.008	1.007	1.006	1.005	1.004	1.002	1.001

**TABLE NUMBER 7. TABLE FOR CORRECTION OF VOLUME TO 60°F**

<b>Proof</b>	<b>60°</b>	<b>62°</b>	<b>64°</b>	<b>66°</b>	<b>68°</b>	<b>70°</b>	<b>72°</b>	<b>74°</b>	<b>76°</b>	<b>78°</b>
0	1.000	1.000	1.000	.999	.999	.999	.999	.998	.998	.998
5	1.000	1.000	1.000	.999	.999	.999	.999	.998	.998	.998
10	1.000	1.000	1.000	.999	.999	.999	.999	.998	.998	.998
15	1.000	1.000	1.000	.999	.999	.999	.999	.998	.998	.998
20	1.000	1.000	1.000	.999	.999	.999	.998	.998	.998	.997
25	1.000	1.000	1.000	.999	.999	.999	.998	.998	.998	.997
30	1.000	1.000	.999	.999	.999	.998	.998	.998	.997	.997
35	1.000	1.000	.999	.999	.999	.998	.998	.998	.997	.997
40	1.000	1.000	.999	.999	.998	.998	.998	.997	.997	.996
45	1.000	1.000	.999	.999	.998	.998	.997	.997	.996	.996
50	1.000	1.000	.999	.999	.998	.998	.997	.997	.996	.995
55	1.000	.999	.999	.998	.998	.997	.997	.996	.996	.995
60	1.000	.999	.999	.998	.998	.997	.996	.996	.995	.995
65	1.000	.999	.999	.998	.997	.997	.996	.995	.995	.994
70	1.000	.999	.999	.998	.997	.997	.996	.995	.994	.994
75	1.000	.999	.999	.998	.997	.996	.996	.995	.994	.993
80	1.000	.999	.998	.998	.997	.996	.995	.995	.994	.993
85	1.000	.999	.998	.998	.997	.996	.995	.994	.994	.993
90	1.000	.999	.998	.998	.997	.996	.995	.994	.993	.992
95	1.000	.999	.998	.997	.997	.996	.995	.994	.993	.992
100	1.000	.999	.998	.997	.996	.996	.995	.994	.993	.992
105	1.000	.999	.998	.997	.996	.995	.995	.994	.993	.992
110	1.000	.999	.998	.997	.996	.995	.994	.993	.992	.992
115	1.000	.999	.998	.997	.996	.995	.994	.993	.992	.991
120	1.000	.999	.998	.997	.996	.995	.994	.993	.992	.991
125	1.000	.999	.998	.997	.996	.995	.994	.993	.992	.991
130	1.000	.999	.998	.997	.996	.995	.994	.993	.992	.991
135	1.000	.999	.998	.997	.996	.995	.994	.993	.992	.991
140	1.000	.999	.998	.997	.996	.995	.994	.993	.992	.991
145	1.000	.999	.998	.997	.996	.995	.994	.993	.992	.990
150	1.000	.999	.998	.997	.996	.995	.994	.993	.991	.990
155	1.000	.999	.998	.997	.996	.995	.994	.992	.991	.990
160	1.000	.999	.998	.997	.996	.995	.993	.992	.991	.990
165	1.000	.999	.998	.997	.996	.994	.993	.992	.991	.990
170	1.000	.999	.998	.997	.995	.994	.993	.992	.991	.990
175	1.000	.999	.998	.997	.995	.994	.993	.992	.991	.990
180	1.000	.999	.998	.997	.995	.994	.993	.992	.991	.990
185	1.000	.999	.998	.997	.995	.994	.993	.992	.991	.989
190	1.000	.999	.998	.996	.995	.994	.993	.992	.991	.989
195	1.000	.999	.998	.996	.995	.994	.993	.992	.990	.989
200	1.000	.999	.998	.996	.995	.994	.993	.992	.990	.989

**TABLE NUMBER 7, TABLE FOR CORRECTION OF VOLUME TO 60°F**

<b>Proof</b>	<b>80°</b>	<b>82°</b>	<b>84°</b>	<b>86°</b>	<b>88°</b>	<b>90°</b>	<b>92°</b>	<b>94°</b>	<b>96°</b>	<b>98°</b>	<b>100°</b>
0	.998	.997	.997	.997	.996	.996	.996	.995	.995	.994	.994
5	.998	.997	.997	.997	.996	.996	.996	.995	.995	.994	.994
10	.997	.997	.997	.996	.996	.996	.995	.995	.995	.994	.994
15	.997	.997	.997	.996	.996	.996	.995	.995	.994	.994	.993
20	.997	.997	.996	.996	.996	.995	.995	.994	.994	.994	.993
25	.997	.996	.996	.996	.995	.995	.994	.994	.994	.993	.993
30	.997	.996	.996	.995	.995	.994	.994	.994	.993	.993	.992
35	.996	.996	.995	.995	.994	.994	.993	.993	.992	.992	.991
40	.996	.995	.995	.994	.994	.993	.993	.992	.992	.991	.991
45	.995	.995	.994	.994	.993	.993	.992	.991	.991	.990	.990
50	.995	.994	.994	.993	.993	.992	.991	.991	.990	.990	.989
55	.994	.994	.993	.993	.992	.991	.991	.990	.989	.989	.988
60	.994	.993	.993	.992	.991	.991	.990	.989	.988	.988	.987
65	.993	.993	.992	.991	.991	.990	.989	.988	.988	.987	.986
70	.993	.992	.991	.991	.990	.989	.988	.988	.987	.986	.985
75	.993	.992	.991	.990	.989	.989	.988	.987	.986	.985	.985
80	.992	.991	.991	.990	.989	.988	.987	.986	.986	.985	.984
85	.992	.991	.990	.989	.988	.988	.987	.986	.985	.984	.983
90	.992	.991	.990	.989	.988	.987	.986	.985	.984	.984	.983
95	.991	.990	.989	.989	.988	.987	.986	.985	.984	.983	.982
100	.991	.990	.989	.988	.987	.986	.985	.984	.984	.983	.982
105	.991	.990	.989	.988	.987	.986	.985	.984	.983	.982	.981
110	.991	.990	.989	.988	.987	.986	.985	.984	.983	.982	.981
115	.990	.989	.988	.987	.986	.985	.984	.983	.982	.981	.980
120	.990	.989	.988	.987	.986	.985	.984	.983	.982	.981	.980
125	.990	.989	.988	.987	.986	.985	.984	.983	.982	.981	.980
130	.990	.989	.988	.987	.986	.985	.984	.983	.982	.981	.979
135	.990	.989	.988	.987	.986	.985	.983	.982	.981	.980	.979
140	.990	.989	.987	.986	.985	.984	.983	.982	.981	.980	.979
145	.989	.988	.987	.986	.985	.984	.983	.982	.981	.980	.979
150	.989	.988	.987	.986	.985	.984	.983	.982	.980	.979	.978
155	.989	.988	.987	.986	.985	.984	.982	.981	.980	.979	.978
160	.989	.988	.987	.986	.984	.983	.982	.981	.980	.979	.978
165	.989	.988	.987	.985	.984	.983	.982	.981	.980	.979	.977
170	.989	.988	.986	.985	.984	.983	.982	.981	.979	.978	.977
175	.989	.987	.986	.985	.984	.983	.982	.980	.979	.978	.977
180	.988	.987	.986	.985	.984	.982	.981	.980	.979	.978	.977
185	.988	.987	.986	.985	.984	.982	.981	.980	.979	.977	.976
190	.988	.987	.986	.985	.983	.982	.981	.980	.979	.977	.976
195	.988	.987	.986	.985	.983	.982	.981	.980	.978	.977	.976
200	.988	.987	.986	.984	.983	.982	.981	.980	.978	.977	.976

## LUMBER, HARDWOOD

### BOARD FOOT CALCULATION

A. Equipment

1. Calibrated linear measure.
2. Calculator (optional).

B. Special Notes

1. This procedure applies to wholesale and nonconsumer sales, and to random width hardwood lumber sold at retail.
2. This procedure is **not** applicable to retail sale of “Surfaced (S4S) Hardwood Lumber Manufactured to Stock Widths.” See: Method of Sale - Wood, Hardwood, page 15-27 and NIST HB 130, Sections 2.12, 2.12.3.1, and 2.12.3.2

C. Board Foot

A board foot is one foot long, one foot wide, and one inch thick, or its equivalent.

1. Procedures for calculation of board feet:
  - a. Physical measurement: Measure the actual width, thickness, and length in inches.

$$\text{Board Feet} = \frac{\text{Width} \times \text{Thickness} \times \text{Length}}{144}$$

- b. Industry method:

$$\text{Board Feet} = \frac{\text{Width in Inches} \times \text{Length}^* \text{ in Feet} \times \text{Thickness in Inches}}{12}$$

By convention, fractional board foot units are rounded to the nearest whole number.

- c. The board foot measure of 1 inch thick boards is equal to the surface measure, S.M.

$$\text{S.M.} = \frac{\text{Width in Inches} \times \text{Length}^* \text{ in Feet}}{12}$$

By convention, the surface measure is rounded to the nearest whole number.

\* Fractional lengths are recorded as the next lower whole foot.

D. Reference: National Hardwood Lumber Association Grading Rules.

## **LUMBER, SOFTWOOD and LUMBER SUBSTITUTES**

### A. Equipment

1. Certified linear measure (tape or steel rule)
2. Certified Caliper or micrometer
3. Copy of Voluntary Product Standard 20-05 for Softwood Lumber.
4. Calculator.

### B. Notes

This procedure may be used to verify the width, length, and thickness of most regularly shaped dimensional lumber or lumber substitutes. Most Softwood lumber is represented by a nominal dimension, not its actual milled size. Lumber Substitutes must be labeled by actual dimension as they are not covered under the scope of the Voluntary Product Standard for Softwood lumber.

NOTE: There are other specific test procedures for the following commodities: **Hardwood Lumber**, page 16-34 and **Plywood**, page 16-37

### C. Procedure

1. Place commodity on a flat surface.
2. To determine the width or thickness:
  - a. For commodities labeled 10 feet or less in length, take three measurements across the width/thickness at locations approximately 1/4, 1/2, and 3/4 along the length of the commodity and compute the average width.
  - b. For commodities labeled greater than 10 feet in length, take one additional measurement, per every additional 6 feet, or portion thereof. The measurements should be evenly spaced at approximately equal intervals along the length. Measurements should not be made across the ends of the commodity or in areas where lumber has a knot or product has damage that would affect the measurement.
  - c. Measurements should be made at various locations and on both sides of the board taking care not to measure closer than 6 inches from the corners.
3. To determine the length:
  - a. For commodities labeled 6 inches or less in width, take one measurement along the length. The measurement should not be made along the edges. (If desired, more measurements may be taken and an average length calculated.)
  - b. For commodities labeled from 6 inches up to and including 16 inches in width, take at least 2 measurements and compute the average length. The measurements should be spaced at approximately equal intervals and not be made along the edges.
  - c. Timbers that are greater than 16 inches should have at least two length measurements and possibly a third if lengths vary.

**MULTI-UNIT PACKAGES**

Multi-Unit Packages are packages containing more than one unit of the same item.

Examples: Glue Sticks - 10 sticks, each 1/4 inch diameter, 2-1/2 inch length.  
 Trash Bags - 30 bags, each 28 inch wide, 8 inch deep, 32 inch long  
 Facial Tissues - 600 tissues, 9 inch x 14 inch

For inspection purposes, each container having multiple individual units is considered to be one package for determining the lot size. For example, the lot size for 20 packages with 10 glue sticks in each package would be 20.

The overage or shortage for each package should be calculated by averaging measurements of individual units randomly selected from the package. To determine the number of units to be selected, use the following table derived from Table 2-7, MAV column, of the sampling and testing regulation.

**NUMBER OF UNITS TO BE SAMPLED**

LABELED COUNT	NUMBER UNITS	LABELED COUNT	NUMBER UNITS
UP TO & INC 83	2	541 - 625	12
84 - 116	3	626 - 725	13
117 - 150	4	726 - 815	14
151 - 200	5	816 - 900	15
201 - 240	6	901 - 990	16
241 - 290	7	991 - 1075	17
291 - 345	8	1076 - 1165	18
346 - 400	9	1166 - 1250	19
401 - 465	10	1251 - 1333	20
466 - 540	11	1334 AND GREATER	1.5 % OF LABELED COUNT ROUNDED TO WHOLE NUMBER



**PLYWOOD, HARDBOARD, PARTICLE BOARD,  
PANELING, AND SIDING**

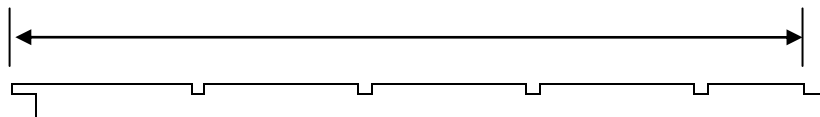
A. Equipment

1. Certified linear measure.
2. Certified Caliper or micrometer

B. Notes

1. The nominal thickness is the actual or full “designated” thickness. Nominal 1/2 inch thick panel is 0.50 inch thick after any sanding or dressing.
2. Industry tolerances could be considered as being similar to maximum allowable variations. Regardless of any industry tolerance, the lot must meet the requirements for MAV’s and the average thickness when tested according to sampling and testing regulations.
3. Overlapping or interlocking panels shall be measured according to the exposed face.

**MEASUREMENT**



C. Procedure

1. Average at least two measurements for length and three for width. Length and width measurements should be made at least 6 inches from the edge.
2. Average at least six measurements to determine thickness. Measurements should be made at various locations keeping as far from the edges as practical.

## **POLYETHYLENE OTHER THAN SHEETING**

For Polyethylene Sheeting, Drop Cloths, and Tarpaulins, see HB 133, page 59, 4.7.

For other plastics (polybutyl, polypropylene, polyacetate, etc.) use bidimensional procedures as appropriate. The weights of other plastics cannot be calculated using gram per square centimeter contained in polyethylene procedures.

### A. Equipment

1. A deadweight dial micrometer with a flat anvil of 1/4-inch diameter or larger in area and a 3/16-inch diameter flat surface on the spindle head. This is available from the local DMS office.
2. A calibrated linear measure.
3. Scale and calibrated weights.

### B. Procedure

1. Weight: All polyethylene commodities having a weight label should be tested according to weight.
2. Thickness. (All measurements are single thickness)
  - a. All measurements should be made at least 3/4-inch from the edge.
  - b. Bags: Six measurements uniformly spaced around the circumference; compute the average.
  - c. Lay flat tubing: Six measurements uniformly spaced around the circumference; compute the average.
3. Width and length.
  - a. Lay flat tubing: Three measurements along the length and ten measurements along the width; compute the averages.
  - b. Bags: Three measurements along the width and length; compute the average. When measuring polyethylene bags, the measurements are the inside or "useable" dimensions, excluding the seams.

### **Note:**

It is suggested that the tare sample be fully tested to determine if weight, dimension, count, or capacity statements are in error. For any statements found in error, the remaining samples may be tested for only those or any one of those statements found to be in error in the interest of saving time.

**Computation of Weight:**

If the film density in  $\text{g/cm}^3$  is known, the following formula can verify that the weight and dimension statements on a container do not conflict. It is generally accepted that the minimum densities for polyethylene resins exceed  $0.92 \text{ g/cm}^3$  so that any weight statement on a package which does not equal or exceed the value obtained by using  $.92 \text{ g/cm}^3$  in the formula ( $D = .92$ ) would indicate the likelihood of a shortage.

**Formula:**  $M = T'' \times L'' \times W'' \times 0.03613 \times D$

M = Weight

T'' = Thickness in inches (i.e., 1.75 mil = .00175 inch)

L'' = Length in inches

W'' = Width in inches

D = Density in  $\text{g/cm}^3$

0.03613 = Conversion factor for density from  $\text{g/cm}^3$  to  $\text{lbs/in}^3$

## **SHOELACES**

### **A. Equipment**

1. Calibrated linear measure.
2. Means of applying a steady 3-ounce pull to shoelaces. The same equipment and set-up as used for testing Flexible Tubing, page 16-44, may be used.

### **B. Procedure**

1. Apply steady 3-ounce pull to shoelace.
2. Measure total length, including the tips.

## TEXTILES

### **SLEEPING BAGS, BEDDING, BLANKETS, RUGS, ETC.**

#### A. Equipment

1. Calibrated linear measure.
2. Four 2-inch "C" clamps, or four weights.
3. Plastic drop cloth - to protect commodity from being soiled.

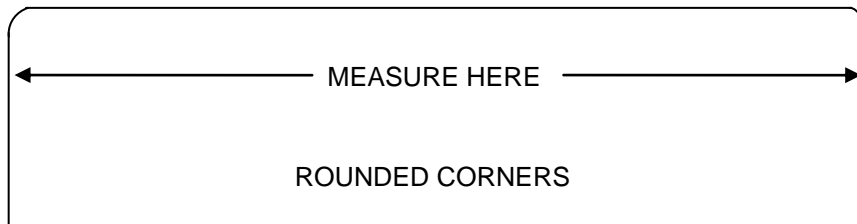
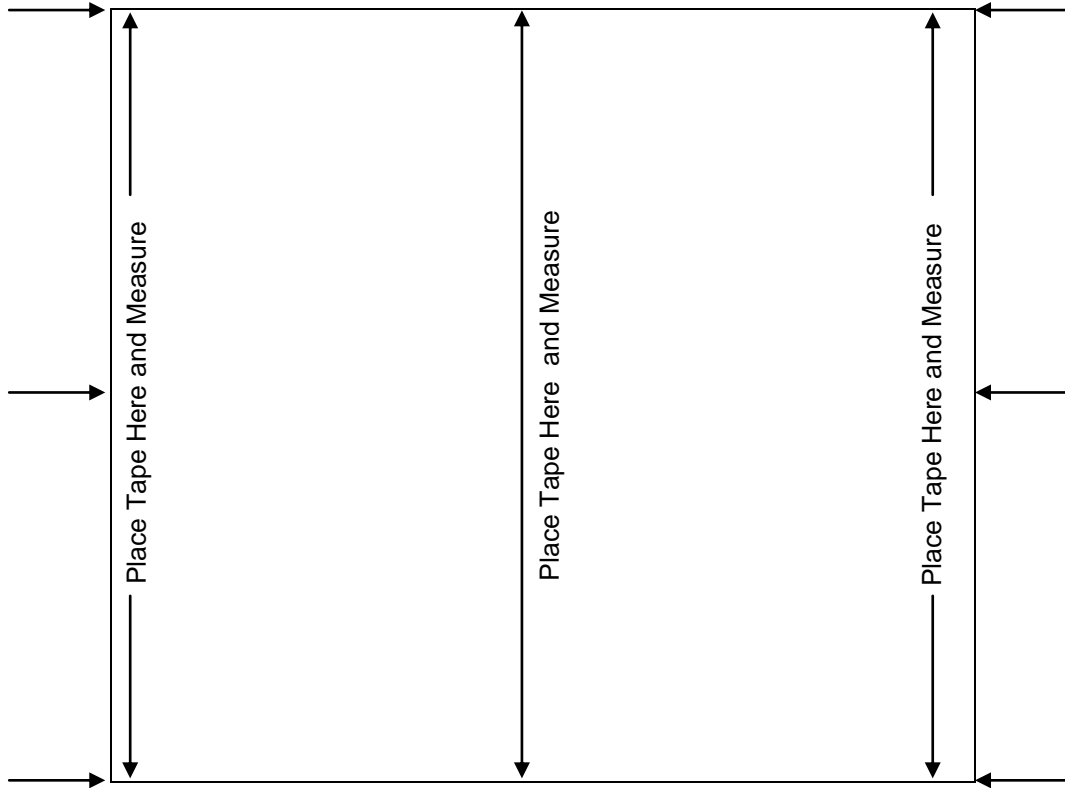
#### B. Special Note

When inspecting for length, width or area, spread the product and remove all wrinkles without stretching the material. The "C" clamps or weights are used to hold the product in place during inspection when there is only one inspector. Ruffles, fringes, etc., are considered part of the product and must be included in the measurement. Do not measure on a rounded corner. The product must meet each stated quantity (length, width and area) independently of the other.

#### C. Procedure

1. Remove the commodity from package and place on table or floor, making sure that adequate protection has been used so that the commodity is not soiled.
2. Remove wrinkles and secure commodity in place.
3. Take 3 measurements for length and 3 measurements for width and compute average length and average width.
4. Area = Average Length x Average Width.

### MEASURING POINTS



## **TUBING - FLEXIBLE**

### A. Equipment

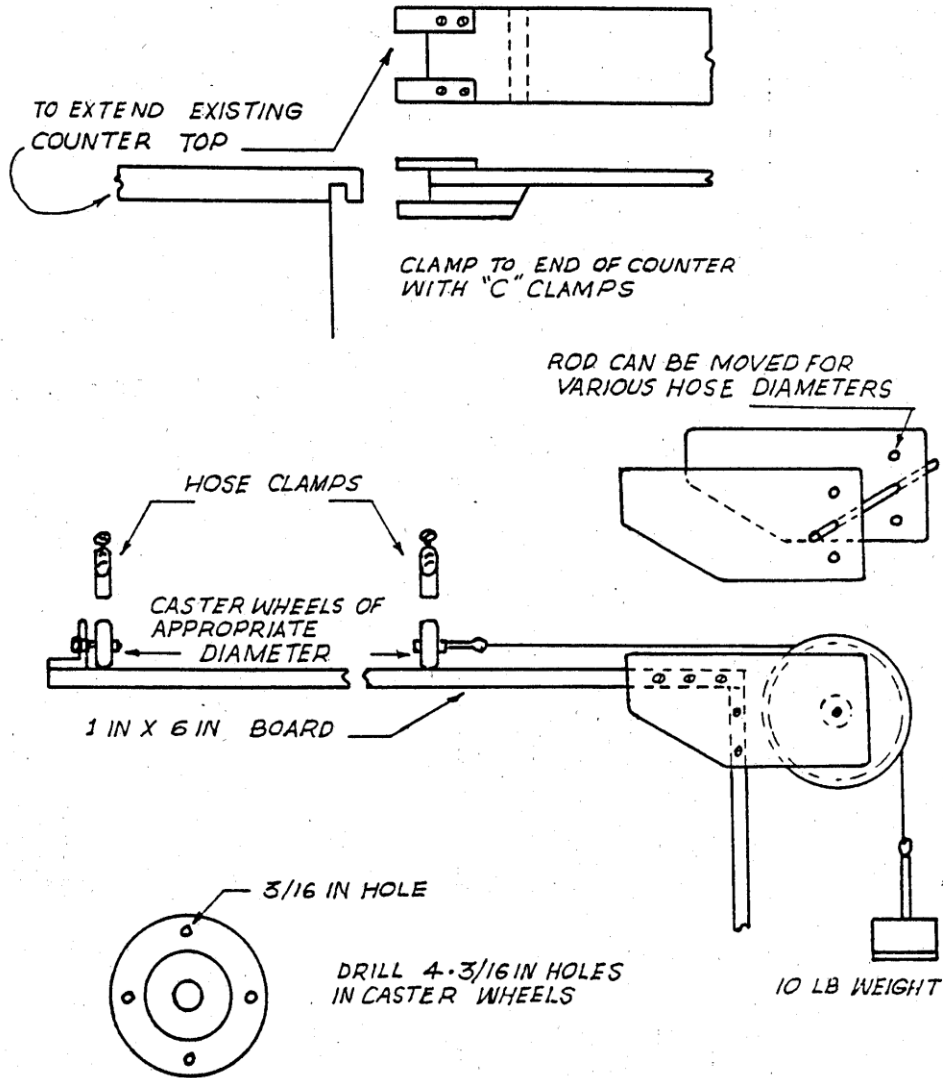
1. Flat surface.
2. Clamp to hold tubing at one end of tubing (see illustration).
3. Clamp and 10 lb weight to apply pull to opposite end of tubing (see illustration).
4. Calibrated linear measure.

### B. Special Notes

1. Flexible tubing is tubing that will extend to a length greater than its constricted length (Example: Clothes dryer vent hose, recreational vehicle drain line hose, etc.). It is labeled to indicate the extended length.
2. Other methods of applying pull to the tubing exist and may be used.

### C. Procedure

1. Secure one end of tubing with clamp.
2. Apply a constant pull of ten pounds.
3. Maintain constant pull for five minutes and measure the length of the flexible tubing while maintaining constant pull.





## **TURKEY: WHOLE, FROZEN**

### A. Equipment

1. Appropriate capacity scale and calibrated weights.
2. Calculator, optional.
3. Rubber gloves, optional.

### B. Special Note

This is a destructive test procedure.

### C. Procedure

1. Determine the gross weight of the turkey (i.e., without opening or removing any packaging).
2. Remove turkey from package: if present, remove temperature indicator and metal leg clip, brush or rinse off any surface ice or frost. (If rinsed, drain well.) Note the weight of the ice free bird.
3. Request the market cut the bird in half so that any cavity ice and giblet wrapping can be removed. Weigh the turkey after cutting.
4. Subtract the cut weight (3) from the whole weight (2) to determine the weight loss from cutting.
5. Remove any giblet wrap and body cavity ice. (If ice was rinsed off, drain well.) Weigh.
6. To determine the net weight, add the cutting weight loss (4) to the weight (5).
7. To determine the tare weight, subtract the net weight (6) from the gross weight (1).

## WINE

### VOLUMETRIC TEST PROCEDURE

#### A. Equipment

1. Calibrated glass graduate "To Contain".
2. Thermometer  $-20^{\circ}\text{F}$  to  $120^{\circ}\text{F}$ .
3. Corkscrew.
4. Calculator (optional).

#### B. Special Notes

1. For carbonated wines and champagnes, maintaining the commodity at about  $40^{\circ}\text{F}$  will simplify testing. Temperature correction is made to  $68^{\circ}\text{F}$ .
2. "To Deliver" graduates may be used if a correction factor is known for the difference between "To Deliver" and "To Contain" graduates.
3. Testing may be done by weight, according to gravimetric procedures.

#### C. Procedure

1. Select "To Contain" graduate for the volume of wine that you wish to test.
2. Wet graduate with wine and give a 10-second drain. This compensates for the retention in the wine bottle.
3. Pour a sample bottle into wetted graduate giving the sample a 1 minute drain, record volume to be corrected ( $V_o$ ).
4. Insert the thermometer in graduate until reading stabilizes, then read temperature.
5. Wine is corrected to  $68^{\circ}\text{F}$  using a coefficient of expansion of 0.0002 per degree Fahrenheit.

6. Formula:  $\text{Error} = V_o [0.0002 (68 - T_o) + 1] - V_L$

$V_o$  = Observed Volume

$T_o$  = Actual Temperature of wine in degrees Fahrenheit

$V_L$  = Labeled Volume

0.0002 = Coefficient of expansion per degree Fahrenheit

#### D. Examples

##### 1. Example 1:

Observed Volume is 746 ml  
Observed Temperature is 76°F  
Labeled Volume is 750 ml

Utilizing the formula:

$$V_o = 746 \text{ ml}$$

$$T_o = 76^\circ\text{F}$$

$$V_L = 750 \text{ ml}$$

$$\text{Error} = 746 \text{ ml} [0.0002 (68 - 76) + 1] - 750 \text{ ml} = -5.19 \text{ ml}$$

##### 2. Example 2:

Observed Volume is 1490 ml  
Observed Temperature is 60°F  
Labeled Volume is 1.5 L (1500 ml)

Utilizing the formula:

$$V_o = 1490 \text{ ml}$$

$$T_o = 60^\circ\text{F}$$

$$V_L = 1500 \text{ ml (1.5 L)}$$

$$\text{Error} = 1490 \text{ ml} [0.0002 (68 - 60) + 1] - 1500 \text{ ml} = -7.62 \text{ ml}$$

E. Reference: Bureau of Alcohol, Tobacco and Firearms.

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# APPENDIX

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## **COMMODITY CLASSIFICATIONS LIST**

### **1.10 Confection, Flavorings & Seasonings**

- 1.01 - Penny Goods
  - 1.02 - Bar Goods
  - 1.03 - Confectionery-Type Chocolate
  - 1.04 - Chocolate Coatings & Syrups
  - 1.05 - Other Flavoring Agents
  - 1.06 - Packaged Goods
  - 1.07 - Bulk Goods
  - 1.08 - Nutmeats & Seeds
  - 1.09 - Sweetening Syrups & Molasses
  - 1.10 - Flavoring Extracts, Emulsions & Other Flavorings
  - 1.11 - Salt
  - 1.12 - Pepper
  - 1.13 - Sugar & Sweeteners
  - 1.14 - Herbs, Spices & Seasoning Mixes
  - 1.15 - Baking Powder & Yeast
  - 1.16 - Tenderizers
  - 1.40 - Confections & Flavorings, N.E.C.
  - 1.50 - Confections, Flavorings & Seasonings, Audits
- 

### **2.00 Dairy-Type Products**

- 2.01 - Eggs, including Liquid, Dried, & Frozen
- 2.02 - Butter
- 2.03 - Margarine & Butter Substitutes
- 2.04 - Natural Cheeses Except Cottage Cheese
- 2.05 - Processed Cheeses & Related Products
- 2.06 - Cottage Cheese
- 2.07 - Sour Cream & Yogurts including Imitations
- 2.08 - Ice Creams & Ices

- 2.09 - Mix, Ice Cream & Ice Milk
  - 2.10 - Bars; Popsicle, Ice Cream, Ices, Fruit
  - 2.11 - Canned & Evaporated Milk
  - 2.12 - Dry Milk Products & Nondairy Creams
  - 2.13 - Milk & Cream
  - 2.14 - Buttermilk, Chocolate & Other Milk Drinks
  - 2.15 - Other Dairy Drinks
  - 2.16 - Puddings, Toppings, & Instant Breakfasts
  - 2.17 - Dips & Salads
  - 2.40 - Dairy-Type Products, N.E.C.
  - 2.50 - Dairy-Type Products, Audits
- 

### **3.0 Bakery Goods-Canned, Fresh, or Frozen**

- 3.01 - Breads & Bread-Type Rolls
- 3.02 - Breading, Croutons, Crumbs, & Dressings
- 3.03 - Cakes
- 3.04 - Pies, nonmeat
- 3.05 - Doughnuts
- 3.06 - Pastries & Cookies
- 3.07 - Sweet Rolls & Coffee Cakes
- 3.08 - Biscuits, Crackers, & Pretzels
- 3.09 - Other Dry Bakery Products
- 3.10 - Chips: Potato, Corn, etc.
- 3.11 - Tortillas & Allied Products
- 3.12 - Sandwiches
- 3.13 - Meat, Fish, Poultry Pies
- 3.40 - Bakery Goods, N.E.C.
- 3.50 - Bakery Goods, Audits

### **4.00 Meat, Fish, Poultry**

- 4.01 - Fish & Seafood, Canned
  - 4.02 - Fish & Seafood, Frozen
  - 4.03 - Fish & Seafood, Fresh
  - 4.04 - Canned Meats
  - 4.05 - Beef, Fresh or Frozen
  - 4.06 - Veal, Fresh or Frozen
  - 4.07 - Pork, Fresh or Frozen
  - 4.08 - Lamb & Mutton, Fresh or Frozen
  - 4.09 - Processed Pork: Ham, Bacon, etc.
  - 4.10 - Sausages, Luncheon & Other Processed Meats
  - 4.11 - Canned Poultry
  - 4.12 - Chicken, Fresh or Frozen
  - 4.13 - Turkey, Fresh or Frozen
  - 4.14 - Other Poultry & Small Game
  - 4.40 - Meat, Fish, Poultry N.E.C.
  - 4.50 - Meat, Seafood, Poultry, Audits
- 

### **5.00 Cooking Oils, Salad Dressings, Condiments**

- 5.01 - Soy & Teriyaki Sauces
- 5.02 - Olive Oil
- 5.03 - Peanut Oil
- 5.04 - Other Vegetable Oils
- 5.06 - Animal or Marine Oil Products
- 5.07 - Shortening, Cooking Oils
- 5.08 - Salad Dressings, Sandwich Spreads, Mayonnaise
- 5.09 - Meat Sauces, Hot Sauces
- 5.10 - Vinegars & Ciders
- 5.40 - Cooking Oils, Salad Dressings, Condiments N.E.C.
- 5.50 - Cooking Oils, Salad Dressings, Condiments, Audits

**6.00 Milling Products**

- 6.01 - Cereals, Breakfast Foods
  - 6.02 - Brans, Wheat Germ
  - 6.03 - Corn Meal
  - 6.04 - Wet Corn Meal Mush
  - 6.05 - Milled Rice & Rice By-Products
  - 6.06 - Prepared Flour & Flour Mixes
  - 6.07 - Grain Mill Products N.E.C.
  - 6.08 - Macaroni & Allied Foods
  - 6.09 - Popcorn
  - 6.40 - Milling Products, N.E.C.
  - 6.50 - Milling Products, Audits
- 

**7.00 Produce**

- 7.01 - Dried & Dehydrated Fruits & Vegetables
  - 7.02 - Canned Fruits & Vegetables, N.E.C.
  - 7.03 - Frozen Fruits & Vegetables
  - 7.04 - Fresh Fruits & Vegetables
  - 7.05 - Nuts in Shells
  - 7.06 - Mushrooms, All Forms
  - 7.40 - Produce, N.E.C.
  - 7.50 - Fruits & Vegetables, Audits
- 

**8.0 Other Food Preparations**

- 8.01 - Jams, Jellies, Preserves
- 8.02 - Peanut Butter & Peanut Butter Mixes
- 8.03 - Honey & Honey Mixes
- 8.04 - Pickles & Other Pickle Products
- 8.05 - Soup Mixes
- 8.06 - Soups, Canned
- 8.07 - Soups, Frozen
- 8.08 - Dinners, Frozen

8.09 - Catsup & Other Tomato Based Sauces

- 8.10 - Baby Food, Canned (Nonmeat, Fish, Poultry)
  - 8.11 - Other Canned Specialties
  - 8.12 - Desserts, Ready-to-Mix
  - 8.13 - Health Foods
  - 8.40 - Other Food Preparations, N.E.C.
  - 8.50 - Other Food Preparations, Audits
- 

**9.00 Beverages**

- 9.01 - Beers, Malt Liquors, & Brewing By-Products
- 9.02 - Wine, Brandy & Cordials
- 9.03 - Other Liquors, Distilled
- 9.04 - Ready-to-Serve Mixed Drinks
- 9.05 - Soft Drinks
- 9.06 - Flavoring Syrups
- 9.07 - Beverage Bases & Concentrated Juices
- 9.08 - Fruit Juices, Ades; Frozen
- 9.09 - Fruit Juices, Ades; Canned or Bottled
- 9.10 - Coffee, Whole Bean & Ground
- 9.11 - Coffee, Concentrated & Instant
- 9.12 - Coffee Substitutes
- 9.13 - Tea, Loose Leaf & Bag
- 9.14 - Tea, Instant or Concentrated
- 9.15 - Vegetable Juices
- 9.16 - Water & Flavored Waters
- 9.17 - Chocolate or Cocoa Based, Nondairy
- 9.18 - Ice
- 9.40 - Beverages, N.E.C.
- 9.50 - Beverages, Audits

**10.00 Pharmacy Products**

- 10.01 - Prescription Drugs
  - 10.02 - Medications, N.E.C.
  - 10.03 - Internal Analgesics (a remedy that lessens or removes pain)
  - 10.04 - External Analgesics & Antiseptics
  - 10.05 - Cough & Cold Items
  - 10.06 - Laxatives
  - 10.07 - Vitamins & Food Supplements
  - 10.08 - Dentifrices, inc. Rinses & Mouthwashes
  - 10.09 - Shaving Preparations
  - 10.10 - Razor Blades & Razors nonelectric)
  - 10.11 - Fragrances; Perfumes, Colognes, Toilet Water
  - 10.12 - Other Cosmetic & Toilet Preparations
  - 10.13 - Hair Products, inc. Shampoos
  - 10.14 - Body Powder & Related Products
  - 10.15 - Oils & Lotions
  - 10.16 - Tapes: Adhesive & other Medical Types
  - 10.17 - Bandages: Adhesive & Compresses
  - 10.18 - Cotton, Medical
  - 10.19 - Devices, Medical
  - 10.40 - Pharmacy Products, N.E.C.
  - 10.50 - Pharmacy Products, Audits
- 

Classifications Continue  
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**11.00 Garden, Farm, & Pet Supplies**

- 11.01 - Charcoal
  - 11.02 - Hickory & Other Wood Flavoring Chips
  - 11.03 - Fire Starters & Matches
  - 11.04 - Firewood, Kindling & Manufactured Logs
  - 11.05 - Household Insecticides & Repellents
  - 11.06 - Economic Poisons, N.E.C.
  - 11.07 - Phosphatic & Superphosphate Fertilizers
  - 11.08 - Organic Fertilizers & Mixed Fertilizers
  - 11.09 - Peat Moss, Mulch, Bark, & Soil Conditioners
  - 11.10 - Poultry Feeds
  - 11.11 - Livestock Feeds; inc. Salt Licks
  - 11.12 - Dog & Cat Foods
  - 11.13 - Other Prepared Animal Feeds
  - 11.14 - Pet & Livestock Supplies N.E.C.
  - 11.15 - Vegetable & Agricultural Seeds
  - 11.16 - Flower & Grass Seeds, Bulbs, Plants
  - 11.17 - Rock, Sand, & Gravel
  - 11.18 - Garden Tools & Related Products
  - 11.19 - Herbicides
  - 11.40 - Garden, Farm, & Pet Supplies, N.E.C.
  - 11.50 - Garden, Farm, & Pet Supplies, Audits
- 

**12.00 Hardware & Building Materials**

- 12.01 - Nails, Tacks, Brads, & Rivets
- 12.02 - Bolts, Nuts, Washers, & Screws

- 12.03 - Furniture Hardware
  - 12.04 - Builders Hardware
  - 12.05 - Other Hardware
  - 12.06 - Electrical Equipment & Supplies
  - 12.07 - Plumbing Equipment & Supplies
  - 12.08 - Tile & Tile Supplies
  - 12.09 - Lime & Fireclay
  - 12.10 - Cement & Cement Color; Stucco, Plaster
  - 12.11 - Mortar & Concrete Mix
  - 12.12 - Flooring Products, except for Linoleum, Carpets, & Rugs
  - 12.13 - Linoleum & Similar Floor Coverings
  - 12.14 - Doors & Windows
  - 12.15 - Molding & Lumber
  - 12.16 - Paneling, Wallboard, & other Wall Sheeting
  - 12.17 - Building Paper, Felt, & Plastic Coverings
  - 12.18 - Composition Shingles, Rolled Roofing
  - 12.19 - Wood Shingles Shakes & Accessory Supplies
  - 12.20 - Metal Roofing Products
  - 12.21 - Fiberglass Roofing, Sheets & Rolls
  - 12.22 - Fencing, Flashings, Wire Products & Posts
  - 12.40 - Hardware & Building Materials, N.E.C.
  - 12.50 - Hardware & Building Materials, Audits
- 

**13.00 Paint & Allied Products**

- 13.01 - Interior & Exterior Oil-Base Paints, including Tint Bases
- 13.02 - Interior & Exterior Water-Base Paints, including Tint Bases
- 13.03 - Lacquers
- 13.04 - Varnishes & Varnish Stains

- 13.05 - Wood Stains
  - 13.06 - Rust Preventives & Solvents
  - 13.07 - Wood Preservatives
  - 13.08 - Putty, Fillers, Caulking Compounds, & Allied Products
  - 13.09 - Glues, Adhesives, Sizing
  - 13.10 - Tapes, Adhesive, N.E.C.
  - 13.11 - Linseed Oil
  - 13.12 - Turpentine & Softwood Distillation Products
  - 13.13 - Other Wood & Gum Chemicals
  - 13.14 - Wallpaper
  - 13.15 - Painter's Equipment & Supplies
  - 13.40 - Paint & Allied Products N.E.C.
  - 13.50 - Paint & Allied Products, Audits
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**14.00 Maintenance Supplies**

- 14.01 - Bleaches & Bluing
  - 14.02 - Starch
  - 14.03 - Soap
  - 14.04 - Synthetic or Organic Detergent
  - 14.05 - Alkaline Detergent & Acid-Type Cleaners
  - 14.06 - Specialty Cleaning & Sanitary Products
  - 14.07 - Polishing & Preparation Products
  - 14.08 - Glycerine
  - 14.09 - Dyes
  - 14.10 - Sawdust & Shavings
  - 14.11 - Oil, Grease Absorbents
  - 14.12 - Polishing Cloths, Rags, & Chamois
  - 14.13 - Swimming Pool & Spa Supplies & Equipment
  - 14.40 - Maintenance Supplies, N.E.C.
  - 14.50 - Maintenance Supplies, Audits
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Classifications Continue  
Next Page

**15.00 Paper & Plastic Products**

- 15.01 - Bags: Grocers, Variety, Paper
- 15.02 - Bags: Specialty and Liners
- 15.03 - Gift Wrap, Ribbon, & Wrapping Products
- 15.04 - Rope, Cordage, Twine
- 15.06 - Party Favors, Supplies, Novelties, Tooth-picks, & Decorations
- 15.07 - Paper Linens, Wearing Apparel, Table Cloths, Wash Cloths & Towels
- 15.08 - Food Containers & Picnic Supplies
- 15.09 - Sanitary Napkins & Tampons
- 15.10 - Paper Napkins, Tissue Products, & Towels
- 15.11 - Foil & Plastic Wrap
- 15.12 - Oiled, Waxed, & Wax Laminated Paper
- 15.13 - School & Office Supplies, Stationary, Envelopes, & Related Products
- 15.14 - Photographic Paper & Film
- 15.15 - Artist's Materials & Supplies
- 15.40 - Paper & Plastic Products N.E.C.
- 15.50 - Paper & Plastic Products, Audits

**16.00 Textile Products**

- 16.01 - Bedspreads, Blankets, Bed Sets, etc.
- 16.02 - Sheets & Pillow Cases
- 16.03 - Towels & Wash Cloths
- 16.04 - Table Covers & Linens
- 16.05 - Curtains & Draperies
- 16.06 - Carpets & Drapes
- 16.07 - Carpet & Rug Padding

- 16.08 - Wearing Apparel
- 16.09 - Yardage Goods; Bolt, Roll or Package
- 16.10 - Thread & Yarn; Sewing Embroidering, Knitting, Crocheting, etc.
- 16.11 - Needles, Fasteners, Pins, & Similar Products
- 16.12 - Buttons & Button Parts, (except for precious metals)
- 16.13 - Zippers, Velcro & Slide Fasteners
- 16.14 - Agriculture Bag Sewing Threads, Twines, Yarns
- 16.15 - Upholstery Supplies
- 16.16 - Sleeping Bags & Mattresses
- 16.17 - Tents & Tarps
- 16.40 - Textile Products, N.E.C.
- 16.50 - Textile Products, Audits

**17.00 Miscellaneous**

- 17.01 - Cigarettes
- 17.02 - Cigars
- 17.03 - Tobacco: Chewing, Smoking, & Snuff
- 17.04 - Other Smoking Supplies & Equipment
- 17.05 - Fishing Equipment, Tackle, & Supplies
- 17.06 - Firearms, Hunting Equipment & Supplies
- 17.07 - Other Sporting & Athletic Goods
- 17.08 - Explosives, Fireworks, & Supplies
- 17.09 - Toys & Children's Items
- 17.10 - Hobby or Handicraft Equipment & Supplies
- 17.11 - Soldering Equipment & Supplies
- 17.12 - Welding Equipment & Supplies

- 17.13 - Tools, Shop Equipment & Supplies
- 17.14 - Extinguishers, Safety Products & Supplies
- 17.15 - Chemicals, General N.E.C.
- 17.16 - Pressurized Gasses
- 17.17 - Motor Oil & Automatic Transmission Fluids
- 17.18 - Lubricating Oils N.E.C.
- 17.19 - Lubricating Greases
- 17.20 - Brake Fluid
- 17.21 - Antifreeze, Coolant
- 17.22 - Automotive Window Cleaners
- 17.23 - Transportation Equipment & Hardware
- 17.24 - Automotive Products, N.E.C.
- 17.40 - Miscellaneous, N.E.C.
- 17.50 - Miscellaneous, Audits

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N.E.C. - Not Elsewhere Classified

AUDITS - Used for packages inspected at the location where they are weighed or measured **AND** labeled.

## CONVERSION FACTORS UNITS OF MEASUREMENT

All **boldface** figures are exact; others are generally seven significant figures.

In using conversion factors, it is possible to perform division as well as the multiplication process shown here. Division may be particularly advantageous where more than the significant figures published here are required. Division may be performed in lieu of multiplication by using the reciprocal of any indicated multiplier as divisor. For example, to convert from centimeters to inches by division, refer to the table headed "To Convert From Inches" and use the factor listed at "centimeters" (2.54) as divisor.

### UNITS OF LENGTH

To Convert From <b>Centimeters</b>	
To	Multiply By
Inches	0.393 700 8
Feet	0.032 808 40
Yards	0.010 936 13
Meters	<b>0.01</b>

To Convert From <b>Meters</b>	
To	Multiply By
Inches	39.370 08
Feet	3.280 840
Yards	1.093 613
Miles	0.000 621 37
Millimeters	<b>1 000</b>
Centimeters	<b>100</b>
Kilometers	<b>0.001</b>

To Convert From <b>Inches</b>	
To	Multiply By
Feet	0.083 333 33
Yards	0.027 777 78
Centimeters	<b>2.54</b>
Meters	<b>0.025 4</b>

To Convert From <b>Feet</b>	
To	Multiply By
Inches	<b>12</b>
Yards	0.333 333 3
Miles	0.000 189 39
Centimeters	<b>30.48</b>
Meters	<b>0.304 8</b>
Kilometers	<b>0.000 304 8</b>

To Convert From <b>Yards</b>	
To	Multiply By
Inches	<b>36</b>
Feet	<b>3</b>
Miles	0.000 568 18
Centimeters	<b>91.44</b>
Meters	<b>0.914 4</b>

To Convert From <b>Miles</b>	
To	Multiply By
Inches	<b>63 360</b>
Feet	<b>5 280</b>
Yards	<b>1 760</b>
Centimeters	<b>160 934.4</b>
Meters	<b>1 609.344</b>
Kilometers	<b>1.609 344</b>

## UNITS OF MASS

To Convert From <b>GRAINS</b>	
To	Multiply By
Avoirdupois Drams	0.036 571 43
Avoirdupois Ounces	0.002 285 71
Avoirdupois Pounds	0.000 142 86
Troy Ounces	0.002 083 33
Troy Pounds	0.000 173 61
Milligrams	<b>64.798 91</b>
Grams	<b>0.064 798 91</b>
Kilograms	<b>0.000 064 798 91</b>

To Convert From <b>GRAMS</b>	
To	Multiply By
Grains	15.432 36
Avoirdupois Drams	0.564 383 4
Avoirdupois Ounces	0.035 273 96
Avoirdupois Pounds	0.002 204 62
Troy Ounces	0.032 150 75
Troy Pounds	0.002 679 23
Milligrams	<b>1 000</b>
Kilograms	<b>0.001</b>

To Convert From <b>AVOIRDUPOIS OUNCES</b>	
To	Multiply By
Grains	<b>437.5</b>
Avoirdupois Drams	<b>16</b>
Avoirdupois Pounds	<b>0.062 5</b>
Troy Ounces	0.911 458 3
Troy Pounds	0.075 954 86
Grams	<b>28.349 523 12</b>
Kilograms	<b>0.028 349 523 125</b>

To Convert From <b>KILOGRAMS</b>	
To	Multiply By
Grains	15 432.36
Avoirdupois Drams	564.383 4
Avoirdupois Ounces	35.273 96
Avoirdupois Pounds	2.204 623
Short Hundredweights	0.022 046 23
Short Tons	0.001 102 31
Long Tons	0.000 984 2
Troy Ounces	32.150 75
Troy Pounds	2.679 229
Grams	<b>1 000</b>
Metric Tons	<b>0.001</b>

To Convert From <b>AVOIRDUPOIS POUNDS</b>	
To	Multiply By
Grains	<b>7 000</b>
Avoirdupois Drams	<b>256</b>
Avoirdupois Ounces	<b>16</b>
Short Hundredweight	<b>0.01</b>
Short Tons	<b>0.000 5</b>
Long Tons	0.000 446 428 6
Troy Ounces	14.583 33
Troy Pounds	1.215 278
Grams	<b>453.592 37</b>
Kilograms	<b>0.453 592 37</b>
Metric Tons	<b>0.000 453 592 37</b>

To Convert From <b>METRIC TONS</b>	
To	Multiply By
Avoirdupois Pounds	2 204.623
Short Hundredweights	22.046 23
Short Tons	1.102 311 3
Long Tons	0.984 206 5
Kilograms	<b>1 000</b>

To Convert From <b>SHORT HUNDREDWEIGHTS</b>	
To	Multiply By
Avoirdupois Pounds	<b>100</b>
Short Tons	<b>0.05</b>
Long Tons	0.044 642 86
Kilograms	<b>45.359 237</b>
Metric Tons	<b>0.045 359 237</b>

To Convert From <b>SHORT TONS</b>	
To	Multiply By
Avoirdupois Pounds	<b>2 000</b>
Short Hundredweights	<b>20</b>
Long Tons	0.892 857 1
Kilograms	<b>907.184 74</b>
Metric Tons	<b>0.907 184 74</b>

To Convert From <b>LONG TONS</b>	
To	Multiply By
Avoirdupois Ounces	<b>35 840</b>
Avoirdupois Pounds	<b>2 240</b>
Short Hundredweights	<b>22.4</b>
Short Tons	<b>1 016.046 908 8</b>
Kilograms	<b>1.016 046 908 8</b>
Metric Tons	

To Convert From <b>TROY OUNCES</b>	
To	Multiply By
Grains	<b>480</b>
Avoirdupois Drams	17.554 29
Avoirdupois Ounces	1.097 143
Avoirdupois Pounds	0.068 571 43
Troy Pounds	0.083 333 3
Grams	<b>31.103 476 8</b>

To Convert From <b>TROY POUNDS</b>	
To	Multiply By
Grains	<b>5 760</b>
Avoirdupois Drams	210.651 4
Avoirdupois Ounces	13.165 71
Avoirdupois Pounds	0.822 857 1
Troy Ounces	<b>12</b>
Grams	<b>373.241 721 6</b>

**UNITS OF CAPACITY, OR VOLUME, LIQUID MEASURE**

To Convert From <b>MILLILITERS</b>	
To	Multiply By
Minims	16.230 73
Liquid Ounces	0.033 814 02
Gills	0.008 453 5
Liquid Pints	0.002 113 4
Liquid Quarts	0.001 056 7
Gallons	0.000 264 17
Cubic Inches	0.061 023 74
Liters	<b>0.001</b>

To Convert From <b>LITERS</b>	
To	Multiply By
Liquid Ounces	33.814 02
Gills	8.453 506
Liquid Pints	2.113 376
Liquid Quarts	1.056 688
Gallons	0.264 172 05
Cubic Inches	61.023 74
Cubic Feet	0.035 314 67
Cubic Yards	0.001 307 95
Milliliters	<b>1 000</b>
Cubic Meters	<b>0.001</b>

To Convert From <b>CUBIC METERS</b>	
To	Multiply By
Gallons	264.172 05
Cubic Inches	61 023.74
Cubic Feet	35.314 67
Cubic Yards	1.307 950 6
Liters	<b>1 000</b>

To Convert From <b>MINIMS</b>	
To	Multiply By
Liquid Ounces	0.002 083 33
Gills	0.000 520 83
Cubic Inches	0.003 759 77
Milliliters	0.061 611 52

To Convert From <b>GILLS</b>	
To	Multiply By
Minims	<b>1 920</b>
Liquid Ounces	<b>4</b>
Liquid Pints	<b>0.25</b>
Liquid Quarts	<b>0.125</b>
Gallons	<b>0.031 25</b>
Cubic Inches	<b>7.218 75</b>
Cubic Feet	0.004 177 517
Milliliters	<b>118.294 118 25</b>
Liters	<b>0.118 294 118 25</b>

To Convert From <b>LIQUID OUNCES</b>	
To	Multiply By
Minims	<b>480</b>
Gills	<b>0.25</b>
Liquid Pints	<b>0.062 5</b>
Liquid Quarts	<b>0.031 25</b>
Gallons	<b>0.007 812 5</b>
Cubic Inches	1.804 687 5
Cubic Feet	0.001 044 38
Milliliters	29.573 53
Liters	0.029 573 53

To Convert From <b>LIQUID PINTS</b>	
To	Multiply By
Minims	<b>7 680</b>
Liquid Ounces	<b>16</b>
Gills	<b>4</b>
Liquid Quarts	<b>0.5</b>
Gallons	<b>0.125</b>
Cubic Inches	<b>28.875</b>
Cubic Feet	0.016 710 07
Milliliters	<b>473.176 473</b>
Liters	<b>0.473 176 473</b>

To Convert From <b>LIQUID QUARTS</b>	
To	Multiply By
Minims	<b>15 360</b>
Liquid Ounces	<b>32</b>
Gills	<b>8</b>
Liquid Pints	<b>2</b>
Gallons	<b>0.25</b>
Cubic Inches	<b>57.75</b>
Cubic Feet	0.033 420 14
Milliliters	<b>946.352 946</b>
Liters	<b>0.946 352 946</b>

To Convert From <b>GALLONS</b>	
To	Multiply By
Minims	<b>61 440</b>
Liquid Ounces	<b>128</b>
Gills	<b>32</b>
Liquid Pints	<b>8</b>
Liquid Quarts	<b>4</b>
Cubic Inches	<b>231</b>
Cubic Feet	0.133 680 6
Cubic Yards	0.004 951 13
Milliliters	<b>3 785.411 784</b>
Liters	<b>3.785 411 784</b>
Cubic Meters	<b>0.003 785 411 784</b>

To Convert From <b>CUBIC INCHES</b>	
To	Multiply By
Minims	265.974 0
Liquid Ounces	0.554 112 6
Gills	0.138 528 1
Liquid Pints	0.034 632 03
Liquid Quarts	0.017 316 02
Gallons	0.004 329 0
Cubic Feet	0.000 578 7
Cubic Yards	0.000 021 43
Milliliters	<b>16.387 064</b>
Liters	<b>0.016 387 064</b>
Cubic Meters	<b>0.000 016 387 064</b>

To Convert From <b>CUBIC FEET</b>	
To	Multiply By
Liquid Ounces	957.506 5
Gills	239.376 6
Liquid Pints	59.844 16
Liquid Quarts	29.922 08
Gallons	7.480 519
Cubic Inches	<b>1 728</b>
Cubic Yards	0.037 037 04
Liters	<b>28.316 846 592</b>
Cubic Meters	<b>0.028 316 846 592</b>

To Convert From <b>CUBIC YARDS</b>	
To	Multiply By
Gallons	201.974 0
Cubic Inches	<b>46 656</b>
Cubic Feet	<b>27</b>
Liters	<b>764.554 857 984</b>
Cubic Meters	<b>0.764 554 857 984</b>

### UNITS OF CAPACITY, OR VOLUME, DRY MEASURE

To Convert From <b>LITERS</b>	
To	Multiply By
Dry Pints	1.816 166
Dry Quarts	0.908 082 98
Pecks	0.113 510 4
Bushels	0.028 377 59
Dekaliters	<b>0.1</b>

To Convert From <b>CUBIC INCHES</b>	
To	Multiply By
Dry Pints	0.029 761 6
Dry Quarts	0.014 880 8
Pecks	0.001 860 10
Bushels	0.000 465 025

To Convert From <b>DEKALITERS</b>	
To	Multiply By
Dry Pints	18.161 66
Dry Quarts	9.080 829 8
Pecks	1.135 104
Bushels	0.283 775 9
Cubic Inches	610.237 4
Cubic Feet	0.353 146 7
Liters	<b>10</b>

To Convert From <b>CUBIC FEET</b>	
To	Multiply By
Dry Pints	51.428 09
Dry Quarts	25.714 05
Pecks	3.214 256
Bushels	0.803 563 95

To Convert From <b>CUBIC METERS</b>	
To	Multiply By
Pecks	113.510 4
Bushels	28.377 59

To Convert From <b>CUBIC YARDS</b>	
To	Multiply By
Pecks	86.784 91
Bushels	21.696 227

To Convert From <b>DRY PINTS</b>	
To	Multiply By
Dry Quarts	<b>0.5</b>
Pecks	<b>0.062 5</b>
Bushels	<b>0.015 625</b>
Cubic Inches	<b>33.600 312 5</b>
Cubic Feet	0.019 444 63
Liters	0.550 610 47
Dekaliters	0.055 061 05

To Convert From <b>DRY QUARTS</b>	
To	Multiply By
Dry Pints	<b>2</b>
Pecks	<b>0.125</b>
Bushels	<b>0.031 25</b>
Cubic Inches	<b>67.200 625</b>
Cubic Feet	0.038 889 25
Liters	1.101 221
Dekaliters	0.110 122 1

To Convert From <b>PECKS</b>	
To	Multiply By
Dry Pints	<b>16</b>
Dry Quarts	<b>8</b>
Bushels	<b>0.25</b>
Cubic Inches	<b>537.605</b>
Cubic Feet	0.311 114
Cubic Yards	0.011 522 74
Liters	8.809 767 5
Dekaliters	0.880 976 75
Cubic Meters	0.008 809 77

To Convert From <b>BUSHELS</b>	
To	Multiply By
Dry Pints	<b>64</b>
Dry Quarts	<b>32</b>
Pecks	<b>4</b>
Cubic Inches	<b>2 150.42</b>
Cubic Feet	1.244 456
Cubic Yards	0.046 090 96
Liters	35.239 07
Dekaliters	3.523 907
Cubic Meters	0.035 239 07



## UNITS OF AREA

To Convert From <b>SQUARE CENTIMETERS</b>	
To	Multiply By
Square Inches	0.155 000 3
Square Feet	0.001 076 39
Square Yards	0.000 119 599
Square Meters	<b>0.000 1</b>

To Convert From <b>SQUARE METERS</b>	
To	Multiply By
Square Inches	1 550.003
Square Feet	10.763 91
Square Yards	1.195 990
Acres	0.000 247 105
Square Centimeters	<b>10 000</b>
Hectares	<b>0.000 1</b>

To Convert From <b>SQUARE INCHES</b>	
To	Multiply By
Square Feet	0.006 944 44
Square Yards	0.000 771 605
Square Centimeters	<b>6.451 6</b>
Square Meters	<b>0.000 645 16</b>

To Convert From <b>ACRES</b>	
To	Multiply By
Square Feet	<b>43 560</b>
Square Yards	<b>4 840</b>
Square Miles	<b>0.001 562 5</b>
Square Meters	<b>4 046.856 422 4</b>
Hectares	<b>0.404 685 642 24</b>

To Convert From <b>SQUARE FEET</b>	
To	Multiply By
Square Inches	<b>144</b>
Square Yards	0.111 111 1
Acres	0.000 022 957
Square Centimeters	<b>929.030 4</b>
Square Meters	<b>0.092 903 04</b>

To Convert From <b>HECTARES</b>	
To	Multiply By
Square Feet	107 639.1
Square Yards	11 959.90
Acres	2.471 054
Square Miles	0.003 861 02
Square Meters	<b>10 000</b>

To Convert From <b>SQUARE YARDS</b>	
To	Multiply By
Square Inches	<b>1 296</b>
Square Feet	<b>9</b>
Acres	0.000 206 611 6
Square Miles	0.000 000 322 830 6
Square Centimeters	<b>8 361.273 6</b>
Square Meters	<b>0.836 127 36</b>
Hectares	<b>0.000 083 612 736</b>

To Convert From <b>SQUARE MILES</b>	
To	Multiply By
Square Feet	<b>27 878 400</b>
Square Yards	<b>3 097 600</b>
Acres	<b>640</b>
Square Meters	<b>2 589 988.110 336</b>
Hectares	<b>258.998 811 033 6</b>

**Reference:** Copied from units of measures, NBS Misc. Publication 286

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SECTION PROPERTIES –  
PLANE AREAS

Figure	General Properties
<p>Square</p>	<p>Area = <math>S^2</math></p> <p>Centroids = <math>\bar{x} = \bar{y} = \frac{S}{2}</math></p>
<p>Rectangle</p>	<p>Area = <math>BH</math></p> <p>Centroids = <math>\bar{x} = \frac{B}{2}</math> <math>\bar{y} = \frac{H}{2}</math></p>
<p>Hollow Square</p>	<p>Area = <math>S^2 - s^2</math></p> <p>Centroids = <math>\bar{x} = \bar{y} = \frac{S}{2}</math></p>
<p>Hollow Rectangle</p>	<p>Area = <math>BH - bh</math></p> <p>Centroid = <math>\bar{x} = \frac{B}{2}</math> <math>\bar{y} = \frac{H}{2}</math></p>
<p>Oblique Triangle</p>	<p>Area = <math>\frac{1}{2} BH</math></p> <p>Centroid = <math>\bar{x} = \frac{B+C}{3}</math> <math>\bar{y} = \frac{H}{3}</math></p>
<p>Isosceles Trapezoid</p>	<p>Area = <math>\frac{H(A+B)}{2}</math></p> <p>Centroid = <math>\bar{y}_a = \frac{H(B+2A)}{3(B+A)}</math> <math>\bar{y}_b = \frac{H(A+2B)}{3(A+B)}</math></p>
<p>Right Angled Trapezoid</p>	<p>Area = <math>\frac{H}{2}(2A+B)</math></p> <p>Centroid = <math>\bar{x} = \frac{3A^2 + 3AB + B^2}{3(2A+B)}</math> <math>\bar{y} = \frac{H}{3} \frac{(3A+B)}{(2A+B)}</math></p>
<p>Oblique Trapezoid</p>	<p>Area = <math>\frac{1}{2} H(A+B)</math></p> <p>Centroid = <math>x</math> is on a line connecting mid-points of sides A and B <math>\bar{y}_a = \frac{H(B+2A)}{3(B+A)}</math> <math>\bar{y}_b = \frac{H(A+2B)}{3(A+B)}</math></p>
<p>Parallelogram</p>	<p>Area = <math>BH</math></p> <p>Centroid = <math>\bar{x} = \frac{A+B}{2}</math> <math>\bar{y} = \frac{H}{2}</math></p>
<p>Regular Polygon</p> <p><math>n = \text{number of sides}</math> <math>\theta = \frac{180^\circ}{n}</math>    <math>B = 2\sqrt{R^2 - r_1^2}</math></p>	<p>Area = <math>\frac{nB^2 \cot \theta}{4}</math> <math>= \frac{nR^2 \sin 2\theta}{2}</math> <math>= nR_1^2 \tan \theta</math></p> <p>Centroid = <math>\bar{x} = \bar{y} = 0</math></p>
<p>Regular Hexagon</p>	<p>Area = <math>0.866H^2</math></p> <p>Centroid = <math>\bar{x} = \frac{B}{2} = A</math> <math>\bar{y} = \frac{H}{2}</math></p>

SECTION PROPERTIES –  
PLANE AREAS

Figure	General Properties
<p>Regular Octagon</p>	<p>Area = <math>2.8284 R^2</math></p> <p>Centroid = <math>\bar{x} = \bar{y} = R</math></p>
<p>Circle</p>	<p>Area = <math>0.7854 D^2</math></p> <p>Centroid = <math>\bar{x} = \bar{y} = R</math></p>
<p>Hollow Circle</p>	<p>Area = <math>\pi(R^2 - r^2)</math></p> <p>Centroid = <math>\bar{x} = \bar{y} = R</math></p>

<p>Semi-Circle</p>	<p>Area = <math>0.3927 D^2 = 1.571R^2</math></p> <p>Centroid = <math>\bar{x} = R</math> <math>\bar{y} = 0.2122D = 0.4244R</math></p>
<p>Hollow Semi-Circle</p>	<p>Area = <math>\frac{\pi(R^2 - r^2)}{2}</math></p> <p>Centroid = <math>\bar{x} = R</math> <math>\bar{y} = 0.4244\left(R + \frac{r^2}{R+r}\right)</math></p>
<p>Ellipse</p>	<p>Area = <math>\pi AB</math></p> <p>Centroid = <math>\bar{x} = A</math> <math>\bar{y} = B</math></p>

Figure	General Properties
<p>Hollow Ellipse</p>	<p>Area = <math>\pi(AB - CD)</math></p> <p>Centroid = <math>\bar{x} = A</math> <math>\bar{y} = B</math></p>
<p>Semi-Ellipse</p>	<p>Area = <math>\frac{\pi AB}{2}</math></p> <p>Centroid = <math>\bar{x} = A</math> <math>\bar{y} = 0.424B</math></p>
<p>Hollow Semi-Ellipse</p>	<p>Area = <math>\frac{\pi(AB - CD)}{2}</math></p> <p>Centroid = <math>\bar{x} = A</math> <math>\bar{y} = \frac{4}{3w} \frac{AB^2 - CD^2}{AB - CD}</math></p>

<p>Circular Sector</p>	<p>Area = <math>R^2 a</math></p> <p>Centroid = <math>\bar{x} = \frac{2}{3} \left[ \frac{R \sin a}{a} \right]</math> <math>\bar{y} = R \sin a</math></p>
<p>Hollow Circular Sector</p>	<p>Area = <math>(R^2 - r^2) a</math></p> <p>Centroid = <math>\bar{x} = \frac{2 \sin a (R^3 - r^3)}{3 a (R^2 - r^2)}</math> <math>\bar{y} = r \sin a</math></p>
<p>Circular Segment</p>	<p>Area = <math>\frac{R^2}{2} (2a - \sin 2a)</math></p> <p>Centroid = <math>\bar{x} = \frac{4 R \sin^3 a}{3 (2a - \sin 2a)}</math> <math>\bar{y} = r \sin a</math></p>

SECTION PROPERTIES –  
PLANE AREAS

Figure	General Properties
<p>Circular Complement</p>	<p>Area = <math>0.2146 R^2</math></p> <p>Centroid = <math>\bar{x} = \bar{y} = 0.2234R</math></p>
<p>Elliptic Complement</p>	<p>Area = <math>0.2146 BC</math></p> <p>Centroid = <math>\bar{y} = \frac{B}{1.288} = 0.7766B</math> <math>\bar{x} = \frac{C}{1.288} = 0.7766C</math></p>
<p>Complement of Half Parabola</p>	<p>Area = <math>\frac{1}{3} BC</math></p> <p>Centroid = <math>\bar{x} = \frac{3}{4} C</math> <math>\bar{y} = \frac{7}{10} B</math></p>

Figure	General Properties
<p>Equilateral Triangle</p>	<p>Area = <math>\frac{BH}{2}</math></p> <p>Centroid = <math>\bar{x} = \frac{B}{2}</math> <math>\bar{y} = \frac{H}{3}</math></p>
<p>Rhombus</p>	<p>Area = <math>BH</math></p> <p>Centroid = <math>\bar{y} = \frac{H}{2}</math> <math>\bar{x} = \frac{A+B}{2}</math></p>
<p>Obtuse Angled Triangle</p>	<p>Area = <math>\frac{BH}{2}</math></p> <p>Centroid = <math>\bar{x} = \frac{B+2C}{3}</math> <math>\bar{y} = \frac{H}{3}</math></p>

<p>Parabolic Segment</p>	<p>Area = <math>\frac{4}{3} AB</math></p> <p>Centroid = <math>\bar{x} = 0.6A</math> <math>\bar{y} = B</math></p>
<p>Parabolic Half-Segment</p>	<p>Area = <math>\frac{2AB}{3}</math></p> <p>Centroid = <math>\bar{x} = 0.6A</math> <math>\bar{y} = 0.375B</math></p>
<p>Nose Rib</p> <p>based on Parabolic Segment</p>	<p>Area = <math>\frac{2}{3} A(B+C)</math></p> <p>Centroid = <math>\bar{x} = 0.6A</math> <math>\bar{y} = 0.375(B-C)</math></p>

SECTION PROPERTIES -  
SOLIDS

Figure	General Properties
<p>Cube</p>	<p>Volume = <math>A^3</math></p> <p>Centroid = <math>\bar{x} = \bar{y} = \bar{z} = \frac{A}{2}</math></p>
<p>Rectangular Prism</p>	<p>Volume = <math>ABH</math></p> <p>Centroid = <math>\bar{x} = \frac{A}{2}</math> <math>\bar{y} = \frac{B}{2}</math> <math>\bar{z} = \frac{H}{2}</math></p>

SECTION PROPERTIES –  
SOLIDS

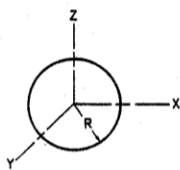
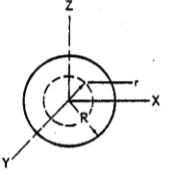
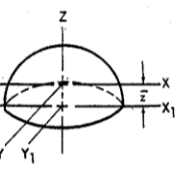
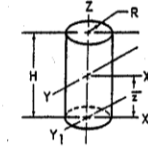
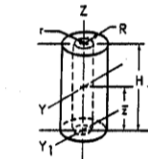
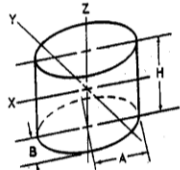
<p style="text-align: center;">Sphere</p> 	<p>Volume = <math>\frac{4}{3} \pi R^3</math></p> <p>Area = <math>4\pi R^2</math></p>
<p style="text-align: center;">Hollow Sphere</p> 	<p>Volume = <math>\frac{4}{3} \pi (R^3 - r^3)</math></p>
<p style="text-align: center;">Hemisphere</p> 	<p>Volume = <math>\frac{2}{3} \pi R^3</math></p> <p>Centroid = <math>\bar{z} = \frac{3}{8} R</math></p>

Figure	General Properties
<p style="text-align: center;">Right Circular Cylinder</p> 	<p>Volume = <math>\pi R^2 H</math></p> <p>Centroid = <math>\bar{z} = \frac{H}{2}</math></p>
<p style="text-align: center;">Hollow Right Circular Cylinder</p> 	<p>Volume = <math>\pi H (R^2 - r^2)</math></p> <p>Centroid = <math>\bar{z} = \frac{H}{2}</math></p>
<p style="text-align: center;">Elliptical Cylinder</p> 	<p>Volume = <math>\pi ABH</math></p> <p>Centroid = <math>\bar{z} = \frac{H}{2}</math></p>

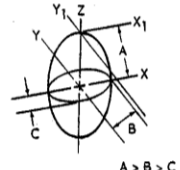
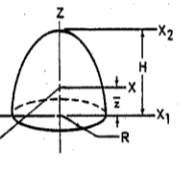
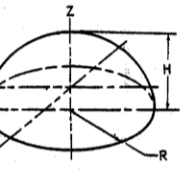
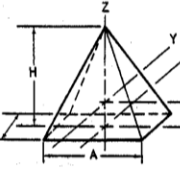
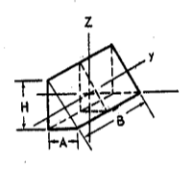
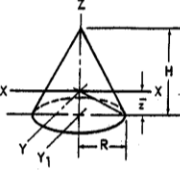
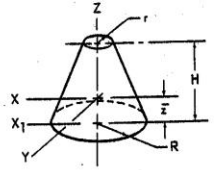
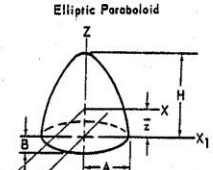
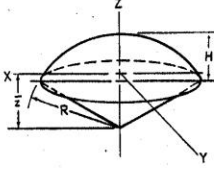
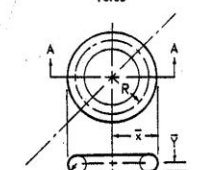
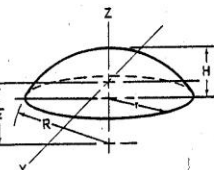
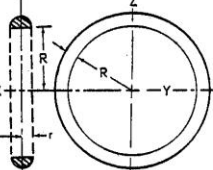
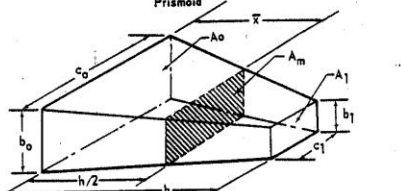
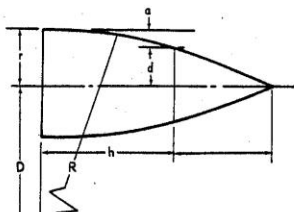
<p style="text-align: center;">Ellipsoid</p>  <p style="text-align: right;"><math>A &gt; B &gt; C</math></p>	<p>Volume = <math>\frac{4}{3} \pi ABC</math></p>
<p style="text-align: center;">Paraboloid of Revolution</p> 	<p>Volume = <math>\frac{\pi R^2 H}{2}</math></p> <p>Centroid = <math>\bar{z} = \frac{H}{3}</math></p>
<p style="text-align: center;">Solid Elliptical Hemispheroid</p> 	<p>Volume = <math>\frac{2}{3} \pi R^2 H</math></p> <p>Centroid = <math>\bar{z} = \frac{3}{8} H</math></p>

Figure	General Properties
<p style="text-align: center;">Right Rectangular Pyramid</p> 	<p>Volume = <math>\frac{ABH}{3}</math></p> <p>Centroid = <math>\bar{z} = \frac{H}{4}</math></p>
<p style="text-align: center;">Right Angled Wedge</p> 	<p>Volume = <math>\frac{ABH}{2}</math></p> <p>Centroid = <math>\bar{x} = \frac{A}{3}</math> <math>\bar{y} = \frac{B}{2}</math> <math>\bar{z} = \frac{H}{3}</math></p>
<p style="text-align: center;">Right Circular Cone</p> 	<p>Volume = <math>\frac{\pi R^2 H}{3}</math></p> <p>Centroid = <math>\bar{z} = \frac{H}{4}</math></p>

SECTION PROPERTIES –  
SOLIDS

<p>Frustum of a Cone</p> 	<p>Volume =</p> $\frac{\pi H}{3} (R^2 + Rr + r^2)$ <p>Centroid =</p> $\bar{z} = \frac{H}{4} \left[ \frac{R^2 + 2Rr + 3r^2}{R^2 + Rr + r^2} \right]$	<p>Figure</p> <p>Elliptic Paraboloid</p> 	<p>General Properties</p> <p>Volume =</p> $\frac{\pi ABH}{2}$ <p>Centroid =</p> $\bar{z} = \frac{H}{3}$
<p>Spherical Sector</p> 	<p>Volume =</p> $\frac{2}{3} \pi R^2 H$ <p>Centroid =</p> $\bar{z} = \frac{3}{8} (2R - H)$	<p>Torus</p> 	<p>General Properties</p> <p>Volume =</p> $2\pi^2 r^2 R$ <p>Centroid =</p> $\bar{x} = \bar{z} = R + r$ $\bar{y} = r$
<p>Spherical Segment</p> 	<p>Volume =</p> $\frac{\pi H}{6} (3r^2 + H^2) = \frac{\pi H^2}{3} (3R - H)$ <p>Centroid =</p> $\bar{z} = \frac{3}{4} \frac{(2R - H)^2}{(3R - H)}$ <p>Area = 2πRH</p>	<p>Outer Half of Solid Torus</p> 	<p>General Properties</p> <p>Length =</p> $2\pi R$ <p>Volume =</p> $\frac{4}{3} \pi r^3 + \pi^2 r^2 R$

<p>Prismoid</p>  <p>Volume <math>V = \frac{h}{6} (A_0 + A_1 + 4A_m)</math></p> <p>Centroid <math>\bar{x} = \frac{h(A_1 + 2A_m)}{(A_0 + A_1 + 4A_m)}</math></p> <p><math>A_0</math> = Area of Base  <math>A_1</math> = Area of Top  <math>A_m</math> = Area @ <math>h/2</math></p> <p>Note:  <math>A_0</math>, <math>A_1</math> and <math>A_m</math>  must be parallel</p>	<p>Solid Ogive</p>  <p><math>R</math> = Ogive Radius  <math>d</math> = Radius of Truncated Nose  (<math>d = 0</math> for a complete ogive)</p> <p><math>D = R - r</math>  <math>a = r - d</math></p> <p>Volume <math>V = \frac{\pi h}{9} \left[ (3r - a)^2 + 2a^2 - \frac{1.2 a^2 (R - r)}{R} \right]</math></p>
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SECTION PROPERTIES –  
SHELLS

Figure	General Properties
<p>Lateral Cylindrical Shell</p>	<p>Surface Area = <math>2\pi RH</math></p> <p>Centroid = <math>\bar{z} = \frac{H}{2}</math></p>
<p>Total Cylindrical Shell</p>	<p>Surface Area = <math>2\pi R(R + H)</math></p> <p>Centroid = <math>\bar{z} = \frac{H}{2}</math></p>
<p>Total Elliptical Shell</p>	<p>Surface Area = <math>\frac{\pi H(3A^2 + B^2)}{2A}</math></p>

<p>Hollow Box</p>	<p>Surface Area = <math>2(AB + BC + AC)</math></p> <p>Surface Area = Hollow Box With Open Ends <math>2C(A + B)</math></p>
<p>Lateral Surface of a Circular Cone</p>	<p>Surface Area = <math>\pi R\sqrt{R^2 + H^2}</math></p> <p>Centroid = <math>\bar{z} = \frac{H}{3}</math></p>
<p>Lateral Surface of Frustum of Circular Cone</p>	<p>Surface Area = <math>\pi(R + r)\sqrt{H^2 + (R - r)^2}</math></p> <p>Centroid = <math>\bar{z} = \frac{H}{3} \left( \frac{2r + R}{r + R} \right)</math></p>

Figure	General Properties
<p>Spherical Shell</p>	<p>Surface Area = <math>4\pi R^2</math></p>
<p>Hemispherical Shell</p>	<p>Surface Area = <math>2\pi R^2</math></p> <p>Centroid = <math>\bar{z} = \frac{R}{2}</math></p>
<p>Elliptical Hemispheroidal Shell</p>	<p>Surface Area = <math>\pi \left[ R^2 + \frac{H^2}{2E} \text{LOG}_e \frac{1+E}{1-E} \right]</math></p> <p>Centroid = <math>\bar{z} = \frac{2\pi H(R^3 - H^3)}{3E^2 R(\text{Surface Area})}</math></p> <p><math>E = \frac{\sqrt{R^2 - H^2}}{R}</math></p>

<p>Paraboloid of Revolution Shell</p>	<p>Surface Area = <math>\frac{\pi R}{6H^2} [P - R^3]</math></p> <p>Centroid = <math>\bar{z} = \frac{P(6H^2 - R^2) + R^5}{10H(P - R^3)}</math></p> <p><math>P = (4H^2 + R^2)^{3/2}</math></p>
<p>Sector of a Hollow Torus</p>	<p>Length <math>2\pi R</math></p> <p>Centroid <math>\bar{x} = \frac{\sin \alpha}{\alpha} \left[ R + \frac{A}{4R} \right]</math></p> <p>Volume <math>2\pi R a (r_0^2 - r_i^2)</math></p>



## JULIAN CALENDAR

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	001	032	060	091	121	152	182	213	244	274	305	335
2	002	033	061	092	122	153	183	214	245	275	306	336
3	003	034	062	093	123	154	184	215	246	276	307	337
4	004	035	063	094	124	155	185	216	247	277	308	338
5	005	036	064	095	125	156	186	217	248	278	309	339
6	006	037	065	096	126	157	187	218	249	279	310	340
7	007	038	066	097	127	158	188	219	250	280	311	341
8	008	039	067	098	128	159	189	220	251	281	312	342
9	009	040	068	099	129	160	190	221	252	282	313	343
10	010	041	069	100	130	161	191	222	253	283	314	344
11	011	042	070	101	131	162	192	223	254	284	315	345
12	012	043	071	102	132	163	193	224	255	285	316	346
13	013	044	072	103	133	164	194	225	256	286	317	347
14	014	045	073	104	134	165	195	226	257	287	318	348
15	015	046	074	105	135	166	196	227	258	288	319	349
16	016	047	075	106	136	167	197	228	259	289	320	350
17	017	048	076	107	137	168	198	229	260	290	321	351
18	018	049	077	108	138	169	199	230	261	291	322	352
19	019	050	078	109	139	170	200	231	262	292	323	353
20	020	051	079	110	140	171	201	232	263	293	324	354
21	021	052	080	111	141	172	202	233	264	294	325	355
22	022	053	081	112	142	173	203	234	265	295	326	356
23	023	054	082	113	143	174	204	235	266	296	327	357
24	024	055	083	114	144	175	205	236	267	297	328	358
25	025	056	084	115	145	176	206	237	268	298	329	359
26	026	057	085	116	146	177	207	238	269	299	330	360
27	027	058	086	117	147	178	208	239	270	300	331	361
28	028	059	087	118	148	179	209	240	271	301	332	362
29	029		088	119	149	180	210	241	272	302	333	363
30	030		089	120	150	181	211	242	273	303	334	364
31	031		090		151		212	243		304		365

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Rev. 9/09

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## RANDOM NUMBERS

### USE OF TABLE

Random sampling numbers are helpful in random sampling when the items in the universe (lot) can be associated with a succession of numbers. In that instance, a selection of a group of numbers from the table will yield a random sample from the universe.

The use of tables of random numbers varies. Generally, to draw a random sample from a given universe, the members of the universe are associated with the set of random numbers. Then a sample is taken from the set of random numbers and the corresponding items of the universe are selected. This gives a random sample of the size desired.

**For example:** Suppose that there are 100 bottles on a rack and we wish to draw a random sample of 10. We note that the numbers in the Table of Random Numbers are grouped in clusters of 2 digits each. If we number the bottles from 00 to 99, we can select a random sample of ten bottles by simply picking any ten numbers from the Table of Random Numbers. Say we open to the Table of Random Numbers, Side 1, and let us pick the first ten two-figured numbers in the third column on that page. The random numbers will thus be 68, 27, 23, 76, 28, 53, 58, 35, 25, and 96. The bottles with these numbers will constitute our sample of bottles.

Possibly a better way of proceeding is to put our pencil down at random on a digit in the table. If it is even, we use Side II; if odd, use Side I. The first two-figured numbers to the right of this that is less than 26 may be used to indicate what column to start in and the next two-figured numbers to the right may be used to indicate the row. If some such method is employed, we will have greater assurance that our starting point will be random. When the starting point is once picked, movement in any direction will give a random sample of numbers.

If more numbers are needed than available in the Table of Random Numbers, reference should be made to one of the larger sets, such as Table XXXIII of R. A. Fisher and F. Yates; Statistical Tables for Biological, Agricultural and Medical Research; Interstate Commerce Commission, Bureau of Transport Economics and Statistics, Table of 105,000 Random Decimal Digits; and the Rand Corporation's A Million Random Digits, published by the Free Press (Glencoe, Ill.).

The general rules to be kept in mind in drawing a random sample are:

1. Adopt a method of selection that will give every member of the universe an equal chance of being drawn.
2. Avoid any method that associates the selection of an item with the classification of the item being selected.
3. Draw sample items from all parts of each subplot of the inspection lot.
4. Draw sample items blind.

### TABLE OF RANDOM NUMBERS

22 17 68 65 84	68 95 23 92 35	87 02 22 57 51	61 09 43 95 06	58 24 82 03 47
19 36 27 59 46	13 79 93 37 55	39 77 32 77 09	85 52 05 30 62	47 83 51 62 74
16 77 23 02 77	09 61 87 25 21	28 06 24 25 93	16 71 13 59 78	23 05 47 47 25
78 43 76 71 61	20 44 90 32 64	97 67 63 99 61	46 38 03 93 22	68 81 21 99 21
03 28 28 26 08	73 37 32 04 05	69 30 16 09 05	88 69 58 28 99	35 07 44 75 47
93 22 53 64 39	07 10 63 76 35	87 03 04 79 88	08 13 13 85 51	55 34 57 72 69
78 76 58 54 74	92 38 70 96 92	52 06 79 79 45	82 63 18 27 44	69 66 92 19 09
23 68 35 26 00	99 53 93 61 28	52 70 05 48 34	56 65 05 61 86	90 92 10 70 80
15 39 25 70 99	93 86 52 77 65	15 33 59 05 28	22 87 26 07 47	86 96 98 29 06
58 71 96 30 24	18 46 23 34 27	85 13 99 24 44	49 18 09 79 49	74 16 32 23 02
57 35 27 33 72	24 53 63 94 09	41 10 76 47 91	44 04 95 49 66	39 60 04 59 81
48 50 86 54 48	22 06 34 72 52	82 21 15 65 20	33 29 94 71 11	15 91 29 12 03
61 96 48 95 03	07 16 39 33 66	98 56 10 56 79	77 21 30 27 12	90 49 22 23 62
36 93 89 41 26	29 70 83 63 51	99 74 20 52 36	87 09 41 15 09	98 60 16 03 03
18 87 00 42 31	57 90 12 02 07	23 47 37 17 31	54 08 01 88 63	39 41 88 92 10
88 56 53 27 59	33 35 72 67 47	77 34 55 45 70	08 18 27 38 90	16 95 86 70 75
09 72 95 84 29	49 41 31 06 70	42 38 06 45 18	64 84 73 31 65	52 53 37 97 15
12 96 88 17 31	65 19 69 02 83	60 75 86 90 68	24 64 19 35 51	56 61 87 39 12
85 94 57 24 16	92 09 84 38 76	22 00 27 69 85	29 81 94 78 70	21 94 47 90 12
38 64 43 59 98	98 77 87 68 07	91 51 67 22 44	40 98 05 93 78	23 32 65 41 18
53 44 09 42 72	00 41 86 79 79	68 47 22 00 20	35 55 31 51 51	00 83 63 22 55
40 46 66 26 84	57 99 99 90 37	36 63 32 08 58	37 40 16 68 97	87 64 81 07 83
02 17 79 18 05	12 59 52 57 02	22 07 90 47 03	28 14 11 30 79	20 69 22 40 98
95 17 82 06 53	31 51 10 96 46	92 06 88 07 77	56 11 50 81 69	40 23 72 51 39
35 76 22 42 92	96 11 83 44 80	34 68 35 48 77	33 42 40 90 60	73 96 53 97 86
26 29 13 56 41	85 47 04 66 08	34 72 57 59 13	82 43 80 46 15	38 26 61 70 04
77 80 20 75 82	72 82 32 99 90	63 95 73 76 63	89 73 44 99 05	48 67 26 43 18
46 40 66 44 52	91 36 74 43 53	30 82 13 54 00	78 47 63 98 35	55 03 36 67 68
37 56 08 18 09	77 53 84 46 47	31 91 18 95 58	24 16 74 11 53	44 10 13 85 57
61 65 61 68 66	37 27 47 39 19	84 83 70 07 48	53 21 40 06 71	95 06 79 88 54
93 43 69 64 07	34 18 04 52 35	56 27 09 24 86	61 85 53 53 45	19 90 70 99 00
21 96 60 12 99	11 20 90 45 18	48 13 93 55 34	18 37 79 49 90	65 94 38 20 46
95 20 47 67 67	27 37 83 28 71	00 06 41 41 74	45 89 09 39 84	51 67 11 52 49
97 86 21 78 73	10 65 81 92 59	58 76 17 14 94	04 76 62 16 17	17 95 70 45 80
69 92 06 34 13	59 71 74 17 32	27 55 10 24 19	23 71 82 13 74	63 52 52 01 41
04 31 17 21 56	33 73 99 19 87	26 72 39 27 69	53 77 57 68 93	60 61 97 22 61
61 06 98 03 91	87 14 77 43 96	43 00 65 98 50	45 60 33 01 07	98 99 46 50 47
85 93 85 86 88	72 87 08 62 40	16 06 10 89 20	23 21 34 74 97	79 38 03 29 63
21 74 32 47 45	73 96 07 94 52	09 65 90 77 47	25 76 16 19 33	53 05 70 53 30
15 69 53 82 50	79 96 23 52 10	65 39 07 16 29	45 33 02 43 70	02 87 40 41 45
02 89 08 04 49	20 21 14 65 86	87 63 93 95 17	11 29 01 95 80	35 15 94 35 33
87 18 15 89 79	86 43 01 72 73	08 61 74 51 69	89 74 39 82 15	94 51 33 41 67
98 83 71 94 22	59 97 50 99 52	08 52 85 08 40	87 80 61 65 31	91 51 80 32 44
10 05 58 51 66	72 68 49 29 31	89 85 84 46 06	59 72 19 86 23	65 09 29 75 63
47 90 56 10 18	88 02 84 27 83	42 29 72 23 19	66 56 45 65 79	20 71 53 20 25
22 85 61 68 91	49 64 92 85 44	16 40 12 89 88	50 14 49 81 06	01 82 77 45 12
67 80 43 79 33	12 83 11 41 16	25 58 19 68 70	77 02 54 00 52	53 43 37 15 26
27 62 50 96 72	79 44 61 40 15	14 53 40 65 39	27 31 58 50 28	11 39 03 34 25
33 78 80 87 15	38 30 06 38 21	14 47 47 07 26	54 96 87 53 32	40 36 40 96 76
13 13 92 66 99	47 24 49 57 74	32 25 43 62 17	10 97 11 69 84	99 63 22 32 98

## SIDE 2

10 27 53 96 23	71 51 54 36 23	54 31 04 82 98	04 14 12 15 09	26 78 25 47 47
28 41 50 61 88	64 85 27 20 18	83 36 36 05 56	39 71 65 09 62	94 76 62 11 89
34 21 42 57 02	59 19 18 97 48	80 30 03 30 98	05 24 67 70 07	84 97 50 87 46
61 81 77 23 23	82 82 11 54 08	53 28 70 58 96	44 07 39 55 43	42 34 43 39 28
61 15 18 13 54	16 86 20 26 88	90 74 80 55 09	14 53 90 51 17	52 01 63 01 59
91 76 21 64 64	44 91 13 32 97	75 31 62 66 54	84 80 32 75 77	56 08 25 70 29
00 97 79 08 06	37 30 28 59 85	53 56 68 53 40	01 74 39 59 73	30 19 99 85 48
36 46 18 34 94	65 95 79 42 94	78 91 69 16 00	08 43 18 73 68	67 69 61 34 25
88 98 99 60 50	65 95 79 42 94	93 62 40 89 96	43 56 47 71 66	46 76 29 67 02
04 37 59 87 21	05 02 03 24 17	47 97 81 56 51	92 34 86 01 82	55 51 33 12 91
63 62 06 34 41	94 21 78 55 09	72 76 45 16 94	29 05 81 83 83	79 88 01 97 30
78 47 23 53 90	34 41 92 45 71	09 23 70 70 07	12 38 92 79 43	14 85 11 47 23
87 68 62 15 43	53 14 36 59 25	54 47 33 70 15	59 24 48 40 35	50 03 42 99 36
47 60 92 10 77	88 59 53 11 52	66 25 69 07 04	48 68 64 71 06	61 65 70 22 12
56 88 87 59 41	65 28 04 67 53	95 79 88 37 31	50 41 06 94 76	81 83 17 16 33
02 57 45 86 67	73 43 07 34 48	44 26 87 93 29	77 09 61 67 84	06 69 44 77 75
31 54 14 13 17	48 62 11 90 60	68 12 93 64 28	46 24 79 16 76	14 60 25 51 01
28 50 16 43 36	28 97 85 58 99	67 22 52 76 23	24 70 36 54 54	59 28 61 71 96
69 39 62 66 50	02 63 45 52 38	67 63 47 54 75	83 24 78 73 20	92 63 13 47 48
45 65 58 26 51	76 96 59 38 72	86 57 45 71 46	44 67 76 14 55	44 88 01 62 12
39 65 36 63 70	74 45 85 50 51	74 13 39 35 22	30 53 36 02 95	49 34 88 73 61
73 71 98 16 04	29 18 94 51 23	76 51 94 54 86	79 93 96 38 63	08 58 25 58 94
72 20 56 20 11	72 65 71 08 86	79 57 95 13 91	97 78 72 66 48	09 71 17 24 89
75 17 26 99 76	89 37 20 70 01	77 31 61 95 46	26 97 05 73 51	53 33 18 72 87
37 48 60 82 29	81 30 15 39 14	48 38 75 93 29	06 87 37 78 48	45 56 00 84 47
68 08 02 80 72	83 71 46 30 49	89 17 95 88 29	02 39 56 03 46	97 74 06 56 17
14 23 98 61 67	70 52 85 01 50	01 84 02 78 43	10 62 98 19 41	18 83 99 47 99
49 08 96 21 44	25 27 99 41 28	07 41 08 34 66	10 42 74 69 91	41 96 53 78 72
78 37 06 08 43	63 61 62 42 29	69 98 95 10 96	09 24 23 00 62	56 12 80 73 16
37 21 34 17 68	68 96 83 23 56	32 84 61 15 31	44 73 69 34 77	91 15 79 74 58
14 29 09 64 04	87 83 07 55 07	76 58 30 83 64	87 29 25 58 84	86 50 60 00 25
58 43 28 06 36	49 52 83 51 14	47 56 91 29 34	05 57 31 06 95	12 45 57 09 09
10 43 67 29 70	80 62 80 03 42	10 80 21 38 84	90 56 35 03 09	43 12 74 49 14
44 38 88 39 54	86 94 37 44 22	00 95 01 31 76	17 16 29 56 63	38 78 94 49 81
90 69 59 19 51	85 39 52 85 13	07 28 37 07 61	11 16 36 27 03	78 68 72 04 95
41 47 10 25 62	97 05 31 03 61	20 26 36 31 62	68 69 86 95 44	84 95 48 46 45
91 94 14 63 19	75 89 11 47 11	31 56 34 19 09	79 57 92 36 59	14 93 87 81 40
80 06 54 18 66	09 18 94 06 19	98 40 07 17 81	22 45 44 84 11	24 62 20 42 31
67 72 77 63 48	84 08 31 55 58	24 33 45 77 58	80 45 44 84 11	24 62 20 42 61
59 41 24 13 27	79 26 88 86 30	01 31 60 10 39	53 58 47 71 93	85 81 56 39 38
05 90 35 89 95	01 61 16 96 94	51 78 13 69 36	37 68 53 37 31	71 26 35 03 71
44 43 81 69 98	46 68 15 14 82	90 78 50 05 62	77 79 13 57 44	59 60 10 39 66
61 81 61 96 82	00 27 25 61 59	46 72 60 18 77	55 66 12 62 11	08 99 55 64 57
42 88 07 10 05	24 98 65 63 21	47 21 61 88 32	49 99 57 94 82	96 88 57 17 91
78 83 19 76 16	94 11 68 84 26	23 54 20 86 85	23 86 66 99 07	36 37 34 92 09
87 76 59 61 81	43 63 64 61 61	65 76 36 95 90	18 48 27 45 68	27 23 65 30 72
91 43 05 96 47	55 78 99 95 24	37 55 85 78 78	01 48 41 19 10	35 19 57 07 73
84 97 77 72 73	09 62 06 65 72	87 12 49 03 60	41 15 20 76 27	50 47 02 29 16
87 47 60 76 83	44 88 96 07 81	83 05 83 38 96	73 70 66 81 90	30 56 10 48 59

## ROUNDING VALUES

### GENERAL

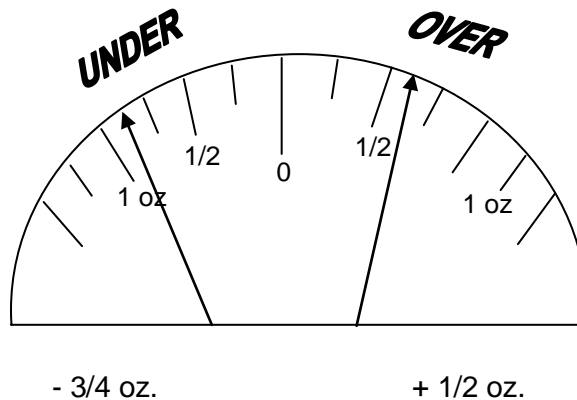
#### A. Recording Package Errors

Package errors can be recorded in whole units of measure. If the indicated or calculated value of a package error falls between whole units of measure, the error value is truncated not rounded.

**Example:** Using a scale with graduations of 0.001 lb, package errors for the first two packages inspected are + 0.019 lb. and + 0.011 lb. The unit of measure used for recording errors is 0.01 lb. Both of these errors would be recorded as +1. Minus errors are recorded in the same manner, - 0.019 lb and - 0.011 would both be recorded as -1. ( $0.019 \text{ lb} \div 0.01 \text{ lb} = 1.9$ , and  $0.011 \text{ lb.} \div 0.01 \text{ lb} = 1.1$ )

#### B. Scale Readings and Rounding

##### 1. Over-Under Balance.



2. Digital indications should be truncated to the lower whole unit of measure (Example: 0.122 to 12; 0.128 to 12 when using .01 as a unit of measure).

#### C. Calculations

When calculations are performed, it will frequently be necessary to round off the calculated number. Only the final result should be rounded. During the computations, the intermediate values should not be rounded.

**TABLE OF EQUIVALENT WEIGHTS, DECIMALS TO NEAREST 1/32 OUNCE**

<u>Pounds</u>	<u>Ounces</u>	<u>Pounds</u>	<u>Ounces</u>
.01	5/32	.51	8-5/32
.02	5/16	.52	8-5/16
.03	15/32	.53	8-15/32
.04	5/8	.54	8-5/8
.05	25/32	.55	8-25/32
.06	31/32	.56	8-15/16
.07	1-3/32	.57	9-3/32
.08	1-1/4	.58	9-1/4
.09	1-7/16	.59	9-7/16
.10	1-19/32	.60	9-19/32
.11	1-3/4	.61	9-3/4
.12	1-29/32	.62	9-29/32
.13	2-1/16	.63	10-1/16
.14	2-7/32	.64	10-7/32
.15	2-3/8	.65	10-3/8
.16	2-17/32	.66	10-17/32
.17	2-23/32	.67	10-23/32
.18	1-7/8	.68	10-7/8
.19	3-1/32	.69	11-1/32
.20	3-3/16	.70	11-3/16
.21	3-11/32	.71	11-11/32
.22	3-1/2	.72	11-1/2
.23	3-21/32	.73	11-21/32
.24	3-13/16	.74	11-13/16
.25	4-0	.75	12-0
.26	4-5/32	.76	12-5/32
.27	4-5/16	.77	12-5/16
.28	4-15/32	.78	12-15/32
.29	4-5/8	.79	12-5/8
.30	4-25/32	.80	12-25/32
.31	4-15/16	.81	12-15/16
.32	5-3/32	.82	13-3/32
.33	5-1/4	.83	13-1/4
.34	5-7/16	.84	13-7/16
.35	5-19/32	.85	13-19/32
.36	5-3/4	.86	13-3/4
.37	5-29/32	.87	13-29/32
.38	6-1/16	.88	14-1/32
.39	6-7/32	.89	14-7/32
.40	6-3/8	.90	14-3/8
.41	6-17/32	.91	14-17/32
.42	6-23/32	.92	14-23/32
.43	6-7/8	.93	14-7/8
.44	7-1/32	.94	15-1/32
.45	7-3/16	.95	15-3/16
.46	7-11/32	.96	15-11/32
.47	7-1/2	.97	15-1/2
.48	7-21/32	.98	15-21/32
.49	7-13/16	.99	15-13/16
.50	8-0	1.00	16-0

**TABLE OF WEIGHTS AND MEASURES**  
**ACCEPTED COMMON CONVERSIONS**

**Weight**

**Grain Weight Equivalents**

Note: The grain is the fundamental unit of the Avoirdupois, Troy, and Apothecaries Weight Systems. Useful equivalents are:

<u>1 grain</u>	=	<u>64.798918 milligrams</u>
1 apothecaries scruple	=	20 grains
1 apothecaries dram	=	60 grains
1 apothecaries / troy ounce	=	480 grains
1 apothecaries / troy pound	=	5,760 grains
1 avoirdupois dram	=	27-11/32 grains
1 avoirdupois ounce	=	437.5 grains
1 avoirdupois pound	=	7,000 grains
1 pennyweight	=	24 grains



**Avoirdupois (U. S. Customary**

1 dram (dr) = 27-11/32 grains

1 ounce (oz) = 16 drams

1 pound (lb) = 16 ounces

1 quarter = 25 pounds

1 hundredweight (cwt) = 100 pounds / 4 quarters

1 ton = 2,000 pounds / 20 hundredweight

1 long ton = 2,240 pounds

**Troy Weight**

1 pennyweight (dwt) =

24 grains

1 ounce troy (oz t) =

20 pennyweight

1 pound troy (lb t) =

12 ounces troy

**Apothecaries Weight**

1 scruple (ʒ or sc) =

20 grains

1 dram apothecaries (or dr ap) =

3 scruples

1 ounce apothecaries (ʒ or oz ap) =

8 drams apothecaries

1 pound apothecaries =

12 ounce apothecaries

**Carat Weight**

1 carat =

200 milligrams / 100 points

### U. S. Liquid Measure

1 fluid dram (fl dr)	=	60 minims (min)
1 fluid ounce (fl oz)	=	8 fluid drams / 1.8047 cubic inches
1 gill (gi)	=	4 fluid ounce / 32 fluid drams / 7.2188 cubic inches
1 cup	=	8 fluid ounce / 2 gills / 64 fluid drams / 14.4376 cubic inches
1 pint (pt)	=	16 fluid ounce / 2 cups / 128 fluid drams / 28.875 cubic inches
1 quart (qt)	=	2 pints / 32 fluid ounces / 256 fluid drams / 57.75 cubic inches
1 gallon (gal)	=	4 quarts / 128 fluid ounces / 1,024 fluid drams / 231 cubic inches
1 barrel	=	31-1/2 gallons
1 hogshead	=	2 barrels

### Dry Measure

1 dry pint	=	1/2 dry quart / 33.6 cubic inches
1 dry quart	=	2 dry pints / 67.2006 cubic inches
1 peck (pk)	=	8 dry quarts / 16 dry pints / 537.605 cubic inches
1 bushel (bu)	=	4 pecks / 32 dry quarts / 2,150.42 cubic inches
1 chaldron	=	36 bushels

### U. S. Linear Measure

1 foot (ft)	=	12 inches (in)
1 yard (yd)	=	3 feet
1 rod (rd)	=	5-1/2 yards / 1 pole / 16-1/2 feet
1 furlong	=	40 rods / 220 yards / 660 feet
1 statute or land mile (mi)	=	5,280 feet / 1,760 yards / 8 furlongs / 320 rods
1 league	=	3 miles / 5,280 yards / 15,840 feet

### **Mariner's Measure**

1 fathom	=	6 feet
1 cable length	=	120 fathoms
1 mile	=	7-1/2 cable lengths
1 statute mile	=	5,280 feet
1 nautical mile	=	6,076.11549 feet

### **Surveyor's Measure**

1 link	=	7.92 inches
1 rod	=	25 links
1 chain	=	100 links / 4 rods / 66 feet
1 square mile	=	640 acres
1 township	=	36 square miles / 6 miles square

### **Cloth Measure**

1 nail	=	2-1/4 inches
1 quarter	=	4 nails
1 yard	=	4 quarters

### **Miscellaneous Measures**

1 hand	=	4 inches
1 span	=	9 inches
1 cubit	=	18 inches
1 pace	=	30 inches

### Square Area Measure

1 square foot	=	144 square inches
1 square yard	=	9 square feet / 1,296 square inches
1 square rod	=	30-1/4 square yards / 272-1/4 square feet
1 rood	=	40 square rods / 1/4 acre
1 acre	=	160 square rods / 4,840 square yards / 43,560 square feet
1 square mile	=	640 acres
1 mile square	=	1 section (of land)
1 township	=	36 miles square / 36 sections / 36 square miles

### Cubic Measure

1 cubic foot	=	1,728 cubic inches / 7.480519 gallons
1 cubic yard	=	27 cubic feet
1 cord	=	128 cubic feet / a stack 4' x 4' x 8'
1 ton (shipping)	=	40 cubic feet

### Miscellaneous

$$\begin{aligned} \text{To convert temperature: } C^{\circ} &= \frac{5}{9} (F^{\circ} - 32) \\ F^{\circ} &= \frac{9}{5} \times C^{\circ} + 32 \end{aligned}$$

### Approximate Weight per Gallon for Some Common Liquids

Water	=	8.337 lbs / gal (at 15 C°)
Gasoline (Reg. Unleaded)	=	6.2 lbs / gal
Diesel Fuel	=	7.2 lbs / gal
Propane	=	4.24 lbs / gal
Butane	=	4.81 lbs / gal

## SI (Système International d'Unités), METRIC SYSTEM

Originally the system was based on the units below. These original base values are not exact when measured with today's precise instruments, but are still used for common measurements.

The SI (Metric) system is based on a unit of length, the **meter**.

A cubic box 1/10 of a meter (10 cm) on the side is the unit of capacity which equals the **liter**. (1,000 cubic centimeters) The weight of the water contained in the liter is the **kilogram**.

The unit of weight, the **gram**, is the weight of water contained in a cubical box 1/100 of a meter on the side. (1 cubic centimeter)

The system is built up by multiplying or dividing the unit by 10, 100, or 1,000, always using the same prefix to indicate what the unit is multiplied or divided by.

milli means 1/1000 or divided by 1,000

centi means 1/100 or divided by 100

deci means 1/10 or divided by 10

deka means 10 or multiplied by 10

hecto means 100 or multiplied by 100

kilo means 1000 or multiplied by 1,000

### Common Weight to Volume Conversions

1 gram (g) = 1 cubic centimeter (cc) of water

1 kilogram (kg) = 1 liter (L) of water

1 liter (L) = 1 cubic decimeter (dc<sup>3</sup>) = 1,000 cubic centimeters

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