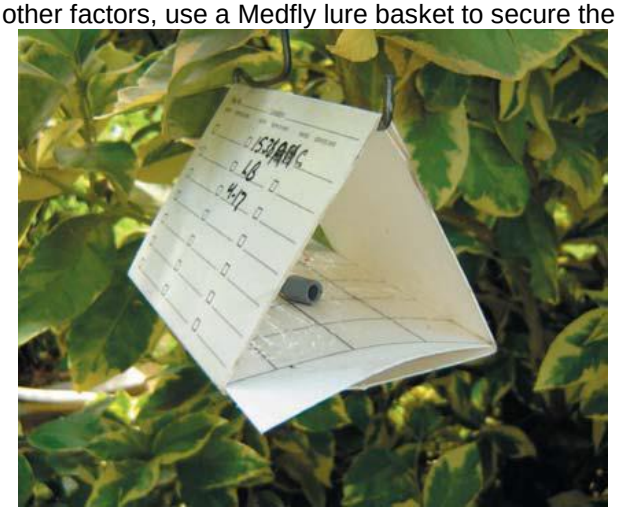
Light Brown Apple Moth Trapping Guide 2018

PROGRAM: Light Brown Apple Moth (LBAM) Trapping (Detection,)

TYPE OF TRAP: Jackson Trap

The delta-shaped Jackson trap is made of plastic-coated cardboard. A sticky insert on the bottom captures moths. The pheromone septum is placed in the stickum on the trap insert. If the pheromone septum is lost due to wind or other factors, use a Medfly lure basket to secure the pheromone septum.



Photos by CDFA

The trap consists of four parts: trap body, insert, septum, and trap hanger.

ATTRACTANT: A mixture of (E)-11-tetradecenyl acetate (96%) and (9E, 11E)-9, 11-tetradecadienyl acetate (4%).

DETECTION TRAPPING SEASON:
Counties that are not part of the contiguous LBAM State Interior Quarantine, but may have satellite quarantine areas and normally manage year-round detection trapping programs - continue with a 14-day service interval. Currently these are:

Orange	Riverside	San Bernardino	San Diego
Santa Barbara	Ventura		

Counties that are not part of the contiguous LBAM State Interior Quarantine, but may have satellite quarantine areas and do not trap year-round all trapping will be conducted during the normal detection trapping season with a 14-day service interval. Currently these are:

Amador	Butte	Calaveras	Colusa
El Dorado	Fresno	Glenn	Kern
Kings	Lake	Madera	Mariposa
Mendocino	Merced	Nevada	Placer
San Luis Obispo	Shasta	Stanislaus	Sutter
Tehama	Tulare	Tuolumne	Yuba

Counties that are partially within the contiguous LBAM State Interior Quarantine will trap in the portion of the county that is outside the contiguous LBAM State Interior Quarantine Boundary (includes detection trapping in satellite quarantine areas outside of the contiguous regulated area) during the normal detection trapping season. These currently are:

Alameda	Contra Costa	Marin	Monterey
Napa	Sacramento	San Benito	San Joaquin
Santa Clara	Solano	Sonoma	Yolo

Revised 06-06-2018

Counties that are completely within the State Interior Quarantine and surrounded by partially infested counties, will not include LBAM trapping in the normal detection trapping season. These currently are:

San Francisco	San Mateo	Santa Cruz

Counties where LBAM trapping is not biologically warranted will not include LBAM trapping in the normal detection trapping season. These currently are:

Alpine	Del Norte	Humboldt	Imperial
Inyo	Lassen	Modoc	Mono
Plumas	Siskiyou	Sierra	Trinity

DETECTION TRAP DENSITY: **Statewide, outside of a quarantine area** - Use up to five traps per square mile piggybacked onto existing trap sites. Existing trap sites would generally be Mediterranean fruit fly (Medfly) or glassy-winged sharpshooter (GWSS) locations. However, other trap sites may be utilized if Medfly or GWSS sites are not available.

CROPLAND TRAP DENSITY: Federally Regulated County, outside of a quarantine area - Trapping for LBAM must occur on each premises or farm in an LBAM area that ships regulated articles interstate in areas 1.5 miles or more from a LBAM detection site. Trapping for LBAM must occur at a trapping density of one trap per square mile in cropland areas.

INSPECTION FREQUENCY:

Detection Trapping – Once every 14 days
Nursery and Cropland Trapping – Once every 30 days.

Delimitation Survey:

All Counties*
When a confirmed LBAM is trapped, pheromone baited Jackson traps will be placed uniformly over a four-square mile area with 25 traps placed in each of the square miles. A total of 100 traps will be deployed. All traps should be placed within 72 hours and inspected once within the first seven days. Traps should be serviced every 14 days thereafter for a period equal to two generations beyond the date of the last LBAM detection. This period is determined by a temperature-dependent developmental model maintained by the LBAM program personnel in Sacramento.

* For the counties listed below, all of the above applies with the following exception. If LBAM delimitation traps are deployed for a single adult, the full array of required traps will only be maintained from April 1 through Oct 31. The find site must be trapped during the full delimitation period at 14-day servicing intervals. This difference is based on LBAM biology.

Amador	Calaveras	El Dorado	Lake
Mariposa	Mendocino	Nevada	Tuolumne

HOSTS: The moth has a wide-range of unrelated hosts including: apple, pear, peach, apricot, blackberry, raspberry, citrus, persimmon, avocado, oak, willow, walnut, poplar, cottonwood, alder, pine, and eucalyptus.

SELECTION OF TRAPPING SITES: Deploy detection and nursery traps onto any existing trapping site. Cropland traps are generally not piggybacked. Piggybacking traps in this manner will allow for rapid deployment, efficient servicing, and reduce program expenses. Ideally, the trap should be placed at least 10 feet from any existing trap. However, piggybacking traps takes priority over the 10-foot separation.

HANGING THE TRAP: Assemble the trap by first writing the trap number and date of deployment on both the trap body and the sticky insert. Trap numbers for this pest will include the identifying letters “LB” (in place of “MF”, “OF”, “ML”, etc.). The trap body is then opened; the bottom is pushed upward and firm pressure is applied laterally. THIS IS IMPORTANT! When pressure is released, the trap bottom will remain flat. The sticky insert is slid into place. It will fit tightly, if properly done. Tear open the septum package and slide the lure onto the insert without touching the lure or the inside of the package with your fingers. Forceps or tweezers may be used for septum placement if necessary. The lure is placed directly onto the center of the sticky insert on its side, use a Medfly lure basket to secure the pheromone septum in windy areas (DO NOT BLOCK THE OPENING OF THE SEPTUM WITH STICKUM!). The trap may be placed in any host tree that fits the following placement criteria – in the upper 1/3 to 1/2 of the tree canopy, and 1/3 to 2/3 the distance from the trunk to the outer edge of the foliage. It is important that neither end of the trap is blocked by foliage. The presence or absence of ripe fruit is not a factor in hanging the trap. Shade is not as critical for this trap as for the fly traps.

TRAP INSPECTION AND SERVICING: When inspecting traps, the following steps should be taken:

1. Remove the trap from the tree.
2. Pull out insert and examine entire area of stickum.
3. Remove leaves and debris from stickum as moths could be beneath these objects. Be certain that the sticky surface is not rendered less effective by dust or debris. The stickum must remain optimally sticky to capture moths.
4. If no moths are found, replace insert, date trap, and rebait, if necessary, according to the recommended baiting interval and suggested handling techniques.
5. Change inserts every month or more often as needed. Always change the trap body, insert and lure when relocating the trap. Mark with the new trap number and current date, make sure to note this on the insert as well.
6. Replace lure according to the schedule below. Avoid contamination when handling lures or lure packages. Use forceps if necessary for placement of septum on to insert.
7. Trap bodies eventually lose their shape, become filled with trap servicing data, or otherwise deteriorate. When this occurs, they should be replaced.

COLLECTION AND SUBMISSION OF SAMPLES: The entire trap insert, containing the suspect moth, should be collected for supervisory review. Specimens should be submitted to Sacramento within 24 hours after a supervisor deems it to be necessary. Specimens should be cut from the stick insert and placed in a dry vial for submission. Send the specimen to Sacramento via overnight delivery with a Standard Form 65-020, “Pest and Damage Record” (PDR). The PDR forms are generated for submission online at https://pdr.cdfa.ca.gov/PDR/pdrmainmenu.aspx. Be sure the identification slip and the outside of the package are marked “RUSH”. Counties should have identification slips on hand. If more are needed, they may be requested via email at pdrstickers@cdfa.ca.gov. Include the trap number in the “Remarks” section of the PDR Form.

BAITING INTERVAL: Change the septum every six weeks or sooner if temperature is above 95 degrees F for a period of time.

TRAP RELOCATION: Relocate the trap on the same relocation interval as the trap with which it is piggybacked. If this trap is not being piggy-backed, relocation is not necessary unless host is removed and no other suitable host is available.