



STEWARDSHIP INDEX FOR SPECIALTY CROPS

Performance Metrics for Specialty Crops: A Common Yardstick

Hank Giclas
Western Growers

CDFA Nitrogen Tracking and Reporting System Task Force Meeting
August 28, 2013



Why performance metrics?

1. Drive internal business management strategy

- Identify cost reduction opportunities
- Drive best practices innovation (continuous improvement)
- Manage risk

2. Respond to marketplace demand for more information

- Reduce duplicative sustainable reporting systems
- Data for backing marketing claims

3. Reduce regulatory pressure

- Solve problems proactively



SISC Goals

“The project will offer a suite of outcomes-based metrics to enable operators **at any point along the supply chain** to benchmark, compare, and communicate their own performance. The Stewardship Index will not seek to provide standards, but will instead provide a yardstick for measuring sustainable outcomes.” --SISC Introduction and FAQ, approved 12/1/2008



Are we talking the same language?

We need a common language for measuring sustainability.

That common language is **metrics** – the yardsticks that measure performance –

not *what* you do (practices) but measuring the *impact* (results) of what you do.

>>> Stewardship Index for Specialty Crops



Key Messages

Vision:

- A single system for measuring sustainability performance can meet the reporting needs of the entire supply chain and reduce producers' reporting burden

Barrier breaker:

- Creating benchmarks can help more producers achieve their sustainability goals faster.

Value:

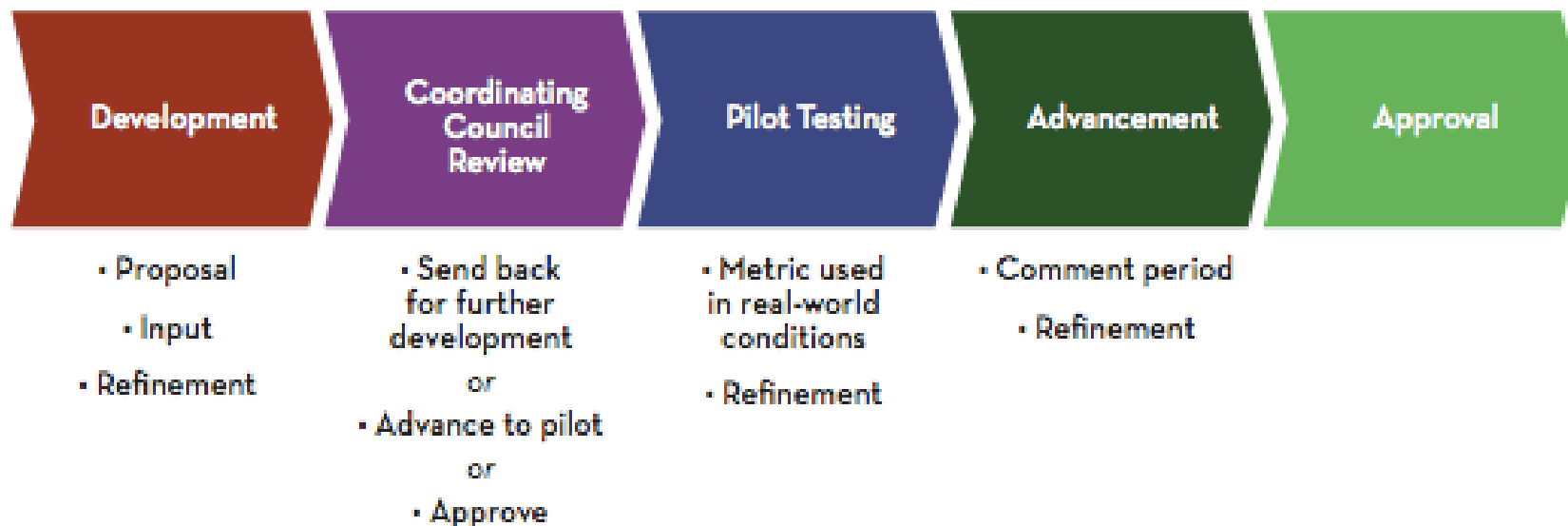
- SISC can be a tool for producers to tell their sustainability story and get recognition for their work



SISC Overview

PROCESS

Metrics are developed in an open, five-step process:



Multi-stakeholder initiative: Growers, Buyers, NGOs



Metrics



Acre inches applied / ton harvested



Pounds of N added to system / ton harvested
(Pounds of P used – Pounds P recommended) /
ton harvested



Total BtU / ton harvested



Soil organic matter /
Soil organic matter potential



Applied Water Use Efficiency Metric

Acre-inches applied water

Tons of product harvested

Notes:

- Applied water: Total ground and surface water applied.
- The same land area (an acre, a field of known size) should be used to quantify both acre-inches applied and tons of product harvested.
- Includes all irrigation events from the end of the previous harvest to the current harvest.
- For educational purposes, metric can also be presented on a per acre basis as:

Acre-inches applied water/acre planted



Nitrogen Use Metric

Pounds N added to system

Tons of product harvested

Notes:

- N inputs include:

$N \text{ applied}_{\text{synthetic}} + N \text{ applied}_{\text{organic}} + N \text{ applied}_{\text{irrigation water}} + N \text{ fixed}_{\text{leguminous crops}}$

- Includes all fertilization events from the end of the previous harvest to the current harvest (non-cash cover crops applied to subsequent cash crop).
- For educational purposes, metric can also be presented on a per-acre basis as:

Pounds N added to system /acre planted



Phosphorus Use Metric

Pounds P added – Pounds P recommended

Tons of product harvested

Notes:

- Pounds P added includes total synthetic and organic P applied
- Pounds P recommended is the agronomic recommendation received with results of soil P test (based on P available in soil, cropping history, and production plans)
- Includes all fertilization events from the end of the previous harvest to the current harvest.
- For educational purposes, metric can also be presented on a per acre basis as:

(Pounds P added – Pounds P recommended)/acre planted



SISC Initiative Current Status

- Primarily a voluntary effort by growers to better understand their farming operations
- Not used currently in any type of mandatory reporting program
- No central reporting or data aggregation point
- Further piloting occurring this season
- Feedback will be collected and metrics will be revised every X years



Economic Costs & Impact

- Costs for metrics should be low. Some lab tests required for soil and P metrics.
- Involves time to track and report. How much depends on grower's system.



Measures of Success

- The value proposition for measure-to-manage is demonstrated.
- One system is used to evaluate growers performance rather than multiple, duplicative methods – buyers, public programs, trade association evaluations etc..
- Through benchmarking against their peers, growers are able to identify opportunities for improved efficiencies (requires data aggregation)



Benefits & Challenges

Benefits

- Avoids duplication of efforts for growers
- Allows growers to benchmark themselves, track performance year over year, and highlight opportunities for improvement
- Allows trade associations or others to evaluate and market collective improvement and identify areas ripe for training

Challenges

- Participation thus far has been low and required significant hand holding/follow up
- Many growers view it as a buyer-driven program
- Robust data collection on the farm is still not ingrained in the farming community



Questions?



(Measure To Manage)

www.stewardshipindex.org



STEWARDSHIP INDEX FOR SPECIALTY CROPS

More Info:

<http://www.stewardshipindex.org>

Contact:

Alison Edwards, Program Director

alison@stewardshipindex.org