GROWING BETTER WITH SANC
A Systems Approach to Nursery Certification
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An Introduction for the Greenhouse and Nursery Industry

2014
What is SANC?

Systems Approach to Nursery Certification
Domestic, state-level certification of plants for planting, established by law to:

• Protect our Natural Plant Resources from harmful pests and diseases

• Facilitate orderly movement of nursery stock in commerce
A *Systems Approach* to Nursery certification is:

“The integration of different risk management measures, at least two of which act independently, and which cumulatively achieve the appropriate level of protection against regulated pests (ISPM 14, 2002)”

*Or put another way……*
Certification based on *how plants are produced* rather than exclusively on how those plants look at the time of a single inspection.

**Systems Approach**

Using at least two independent measures, which together appropriately manage risk.

**Integrated Measures**

Actions taken during the production process
If you were certifying that a plant is free from harmful pests, would you rather:

• Look at it once (Inspection)

~~~~~ Or ~~~~

• Know that the plant originates from cleanest available stock, that good sanitation measures are practiced and a scouting program is in place at the growing site, and that the grower recognizes key pests and employs appropriate controls for pests? (Integrated measures of a Systems Approach)
Systems Approaches to Plant Production Certification are not new

**International Trade – Standards**
North American Plant Protection Organization (NAPPO)
- Regional Standard for Pest Management (RSPM-24)
- International Plant Protection Convention (IPPC)
- International Standard for Pest Management (ISPM-36)

**International Trade – Programs**
- United States Nursery Certification Program (USNCP)
- U.S.–Canada Greenhouse Certification Program (USGCP)

**Domestic Trade – Program**
Some compliance agreements are based on plant production system management
An example of a “Cadillac” systems approach – Geranium offshore program

- Begin with **clean stock**
  - control worker and equipment flow
  - from cleanest to dirtiest in system
- Eliminate potential sources of R3B2
- Clean water source
- Plants grown above the ground
- Greenhouses with concrete or rock floors
- Sound sanitation program
  - frequent knife and hand disinfection
- Trace Back/Trace Forward program
Domestic Example: Boxwood Blight Cleanliness Program

When boxwood blight threatened boxwood production and sales, a compliance agreement template was developed to facilitate orderly shipment of boxwood...

http://nationalplantboard.org/docs/sanc/FINAL_npbd_model_bwb_Agree_4-5-2012_1.pdf
It all boils down to RISK MANAGEMENT

- Prevent problems coming in
- Monitor and scout crops for issues
- Accurately diagnose pests/diseases
- Address problems and Document
- Audit

In order to AVOID SHIPPING PESTS/PATHOGENS
How will SANC work?
For any nursery or greenhouse, the SANC framework is built on several elements:

- Pest Risk Analysis of the nursery --
- Identify *Critical control points*
- Identify and implement appropriate *best management practices*
- Monitor and record pests found on plants at receiving, growing, and shipping sites
- Record actions, including IPM practices, staff training and production methods
- Document the source and distribution of plants to allow for traceability
Critical Control Point (CCPs)
Specific steps in the process where procedures can be applied to most efficiently manage risk – The “What.”

Best Management Practices (BMPs)
Actions taken to address the concerns raised by a critical control point – The “How.”

<table>
<thead>
<tr>
<th>Component, site, or stage of production</th>
<th>Target pests or pathogens</th>
<th>Contamination Hazard</th>
<th>BMP</th>
</tr>
</thead>
<tbody>
<tr>
<td>Imported cuttings, bareroot, tissue culture</td>
<td>Regulated pests and pathogens</td>
<td>Introduction from offshore propagators</td>
<td>Follow import regulations and applicable compliance agreements. Purchase from a systems approach certified source if possible. Inspect or test for pests and pathogens.</td>
</tr>
<tr>
<td>Incoming cuttings, bareroot, tissue culture from domestic sources</td>
<td>Regulated pests and pathogens</td>
<td>Introduction on purchased stock or cuttings</td>
<td>Follow state regulations or compliance agreements.</td>
</tr>
<tr>
<td>Incoming cuttings, bareroot, tissue culture from external sources</td>
<td>Systemic bacterial and viral pathogens</td>
<td>Introduction from purchased stock or cuttings</td>
<td>Purchase from state-certified sources where pre-shipment inspections have occurred. If not from a state-certified source or unknown, grow out and inspect all deliveries prior to accepting into inventory.</td>
</tr>
<tr>
<td>Incoming cuttings, bareroot, tissue culture from domestic sources</td>
<td>All pests and pathogens</td>
<td>Introduction on purchased stock or cuttings</td>
<td>Inspect all deliveries and scout for and root pests, vectors, and weeds upon receipt. Send quartz to a diagnostic lab when appropriate.</td>
</tr>
<tr>
<td>Incoming cuttings, bareroot, tissue culture from domestic sources</td>
<td>All pests and pathogens</td>
<td>Introduction on purchased stock or cuttings</td>
<td>Inspect and scout bulk or during the first two weeks of propagation. Consider determining scouting intervals where mingling of shipments prior to inspection is necessary.</td>
</tr>
</tbody>
</table>

Critical Control Point

Hazard

Best Management Practice (BMP)
The SANC Process, in 10 easy steps:

1. Nursery or greenhouse manager submits request for participation

2. Inspector meets with the Facility manager to discuss Systems Approach Certification (SANC) methodology.

3. Facility manager and the inspector conduct a hazard analysis to identify the critical control points (CCP) of the operation.
   Example: Hazard – Water Source
   CCP – Recycled Irrigation water

4. Facility manager and inspector review hazards, CCPs and identify possible best management practices (BMPS) to address CCPs.
   Example: BMP – Test water for pathogens on a routine basis.
   BMP – Treat water to eliminate disease organisms
5. Facility develops a Production Manual to include facility or site-specific elements such as:
   - Training Plan
   - Pest Management Program
   - Internal Audits
   - Traceability

6. The Facility manager and inspector or designee review the production manual and agree on final elements and terms including scouting regimes, compliance monitoring, communication, etc.

7. Facility manager and regulatory agency enter into a SANC Agreement
The SANC Process, in 10 easy steps:

8. Facility implements the components of the production manual and communicates any adjustments to the inspector.

9. Inspector visits the facility as needed and conducts compliance inspections or audits as identified in the production manual.

10. Regulatory agency issues a certificate of inspection.
Why SANC?
Why Now?

Pressure from Invasive Organisms

- The Pests (Production & Landscape)
- Public Opinion
- Political Pressure

Less Financial Resources

- State and Federal Regulators
- Industry
What is at risk...agricultural trade?

- International

<table>
<thead>
<tr>
<th></th>
<th>Fiscal Years</th>
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<tbody>
<tr>
<td></td>
<td>2009</td>
</tr>
<tr>
<td>Billion dollars</td>
<td></td>
</tr>
<tr>
<td>Agricultural Exports</td>
<td>96.295</td>
</tr>
<tr>
<td>Agricultural Imports</td>
<td>73.404</td>
</tr>
<tr>
<td>Trade Balance</td>
<td>22.891</td>
</tr>
</tbody>
</table>

41% increase
41% increase
What are the Benefits and Advantages of the SANC Program?

- Ease the time crunch during shipping season
- Save money with:
  - Reduced shipping inspection and certification costs
  - Reduced pest pressures and pest control costs
- Use a more effective approach to identifying and managing pest risk
- Grow healthier plants
- Build a better pest management system
- Gain a better understanding of state certification and import requirements
- Improve customer satisfaction
  - ....Perhaps even gain a marketing edge.
Process Is Underway

Industry Working Group
  • Developed BMPs – Toolbox
  • Drafted Standard

USDA-APHIS
  • Providing Scientific Rigor (with Academics)
  • Statutory Oversight

National Plant Board
  • Educating State Regulatory Agencies
  • Educating Inspectors → Auditors
  • Running pilot programs beginning in 2014
Process Is Underway

- Stay Engaged
- Become a Participant
SANC initiative participants:

- AmericanHort
- Society of American Florists
- USDA, APHIS, PPQ
- Horticultural Inspection Society Chapters
  - Nursery Inspectors
- National Plant Board
  - State Departments of agriculture
- University research and extension specialists
- Nursery and Greenhouse Owners and Managers
Thank you!

SANC Website: http://sanc.nationalplantboard.org/