

Lock, Stock, And Barrel

The dracaena Clean Stock Program brings new opportunities for Florida and Costa Rican growers.

USDA APHIS inspectors from the Port of Miami train packinghouse workers how to properly inspect plants for quarantine pests before shipment.



Photo courtesy of Eduardo Hidalgo

By Cliff Sadof, Tamara Benjamin, and Eduardo Hidalgo

Florida nursery growers who finish imported dracaena plants for the domestic market will be pleased to know the long term prospects for growing this crop may be on the upswing thanks to a new project known as the Clean Stock Program (CSP). This project is a joint venture between U.S. regulatory agencies, university researchers, and their Costa Rican counterparts that aims to improve the quality and increase the allowable size of dracaena plants imported into the U.S.

Quality Control

Although Florida growers have enjoyed an increasing supply of dracaena from Costa Rica for the past 30 years, the quality of that supply suffers when shipments of plants fail the USDA's Animal and Plant Health Inspection Service (APHIS) inspections at the Port of Miami and require fumigation. According to Gary Morris of Carter Road Tropical Nursery in Delray Beach, FL, fumigated plants are more difficult to convert to a high-quality plant that he can sell to his U.S. customers. His supplier, Patrick Muntz of Florica Farms in Costa Rica, agrees with him and notes that his customers always get a better quality product if they start with higher-quality plant material. Fumigations

Plants produced in the Clean Stock Program are clearly labeled. If quarantine pests are detected in a shipment, codes on the shipping containers allow growers to trace back the source of the problem to the field where the plants were produced.

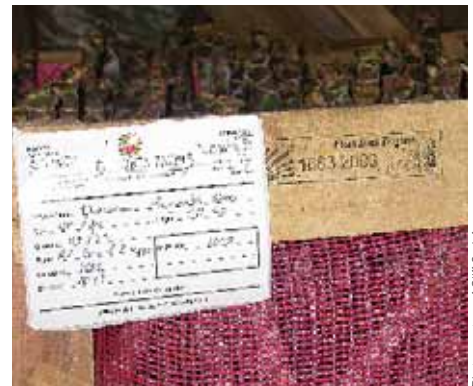


Photo courtesy of Cliff Sadof

often can reduce the rate of transplant success and the amount of time it takes to produce a saleable plant in the nursery.

These fumigations are essential to protect U.S. agriculture and other natural resources from pests that can enter on dracaena plants and other imported nursery crops. Increased concern about invasive species on a national level is likely to bring even more pressure on APHIS inspectors at U.S. ports to become more vigilant in their inspection efforts.

Teaming Up

Fortunately, regulatory agencies here and abroad share the same responsibilities of protecting their borders and facilitating trade. For this reason, APHIS and its Costa Rican counterpart, Servicios Fitosanitarios del Ministerio de Agricultura (SFE-MAG), have been working together to help grow-

ers reduce the number of shipments that have to be fumigated. Although the idea of a CSP goes back 15 years, it was the passage of the Central America Free Trade Act in 2005 that prompted the Costa Rican government to support a research and Extension program that began in 2006.

Making A Difference

CSP has made substantial progress in a number of areas:

- **Improved inspection procedures in Costa Rica for pests of quarantine significance.** Leafhoppers, katyids, snails, and armored scales represent nearly 75% of the pests intercepted in Miami. Producers do not have a long history of managing for these pests because they cause little, if any, damage to dracaena plants. For this reason, in April 2006, Fernando Lenis of the APHIS inspection

Get The Drop On Dracaenas

There are several species of dracaenas (family: Ruscaceae) that are common in the trade and in landscapes of South Florida and the warmer parts of Central Florida:

- ***Dracaena arborea*** grows 20 feet tall on a palm-like trunk. It resembles *D. draco*, dragon tree, but is more tolerant of a humid climate. It's becoming common in South Florida landscapes.
- ***D. deremensis*** is native to tropical Africa. Several cultivars are widely available. They're commonly used as interior specimens.
- ***D. fragrans***, corn plant [pictured], has several cultivars in the trade. It is often used in landscapes and for interiors.
- ***D. marginata*** is native to Madagascar. It has thin leaves and is common in landscapes and as interior specimens. Several different colored cultivars are available.
- ***D. reflexa***, pleome, is native to Madagascar and Mauritius. It is a common interior plant and used in landscapes. Several striped cultivars are available.
- ***D. sanderiana***, ribbon plant or 'lucky bamboo,' is a common interior and landscape plant. It's a smaller specimen that grows 3 to 4 feet tall with slender canes.
- ***D. surculosa***, gold dust plant, is native to western tropical Africa. Often used as an interior plant, it's a smaller, shrubby specimen with spotted leaves.



Information courtesy of Eric Schmidt, Harry P. Leu Gardens, in Orlando, FL.

group at the Port of Miami took his team of inspectors to Costa Rica to demonstrate inspection procedures in fields and packinghouses and to show them how to find these quarantine pests.

- **Better packinghouse conditions.** Growers participating in the CSP have screened their packinghouses to prevent insects from flying into clean shipments. Packing areas have adequate lighting and information guides that are readily displayed to keep packers focused on pest inspection.

- **Traceability.** A coding system has been developed to help exporters trace each interception back to the specific field of origin. With this information, growers can take action to reduce pests in the field.

- **The ability to identify a set of best production practices and address the size issue.** Thanks to the inspection tips provided by Miami inspectors, we were able to develop field inspection practices that reliably estimate the abundance of quarantine pests in the field. Keeping our focus on the growing need for "green" certification for U.S. retailers, we have been conducting research to identify practices compatible with environmentally and socially responsible guidelines. Studies are under way to explore how weed control, fertilization, and biological control can be integrated to produce clean plants. In addition, plans are in the works to develop demonstration plots that test the efficacy of practices under production conditions.

Since the initiation of this project in October 2005, we have seen rates of interceptions in the Port of Miami diminish to near zero. While most of the progress to date is attributed to improved inspection procedures, our ongoing research on production practices will assure that the program will be sustainable for all growers and exporters in the production stream. ■

Cliff Sadof (csadof@purdue.edu) is a professor at Purdue University's Department of Entomology in West Lafayette, IN.

Tamara Benjamin (tamara@catie.ac.cr) and Eduardo Hidalgo (ehidalgo@catie.ac.cr) work for Centro Agronómico Tropical de Investigación y Enseñanza (CATIE) in Costa Rica.

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