Systems Approach to Pest Management Practices - Potted Foliage

Farm Bill Update
Cooperating Nurseries
August 2, 2012
Part 1

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Welcome

Systems Approach to Pest Management Practices - Potted Foliage

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AGENDA

- Status of Pest Concerns at Cooperating Nurseries.
- Confirming Pest Identification.
- Current Pest Management Strategies. (see Part 2)
- Updates on Pest Control Strategies.
- The Next Step: Developing Integrated Pest Management Practices.
- Discussion and Questions.

Presenters:

Principal Investigator: Dr Arnold Hara
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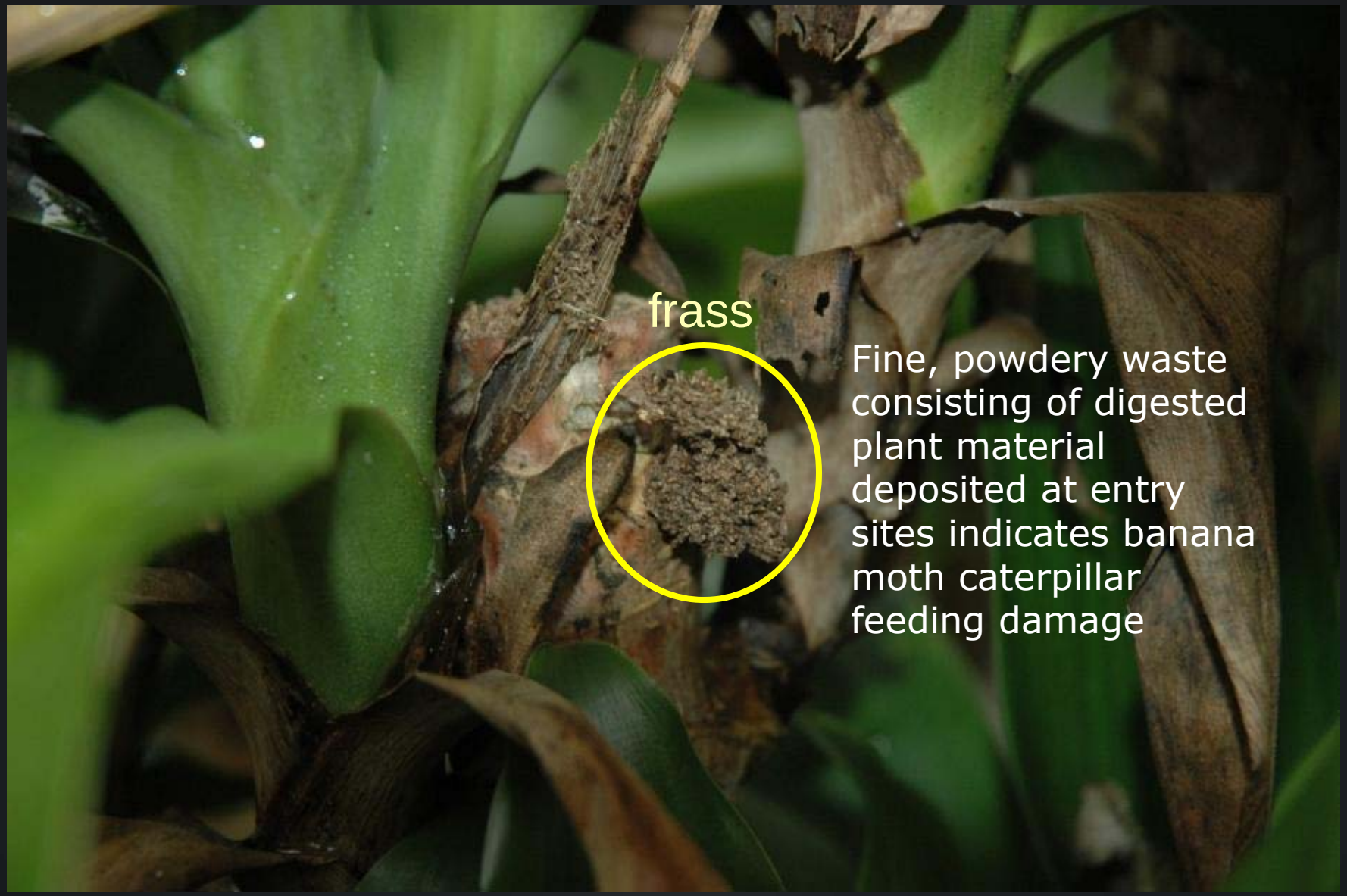
SYSTEMS APPROACH TO PEST MANAGEMENT PRACTICES
POTTED FOLIAGE PLANT PRODUCTION
A Flow Chart of Challenges Encountered at Each Stage of Potted Plant Production

Site Selection, Prep, and Maintenance	Field Stock Production	Field to Bench	Pre-planting	Grow-out Production Management	Shipment Preparation
	1. Management of Insect and Disease Problems. **2. Weed Control.** **3. Plant Nutrition.**	**1. Post Harvest Treatments.**	**1. Planting Media.** **2. Sterilization of Media Components.** **3. Pre-plant media treatments.**	**1. Emerging Insect/ Disease Problems.** **2. Other Pest Problems.** **3. Weed Control in Shadehouse.** **4. Potted Plant Cultural Requirements.**	**1. Clean and Inspect Plants** **2. Shipping Preparation Procedures** **Hot shower**

Banana moth (*Opogona sacchari*) larvae boring into dracaena.

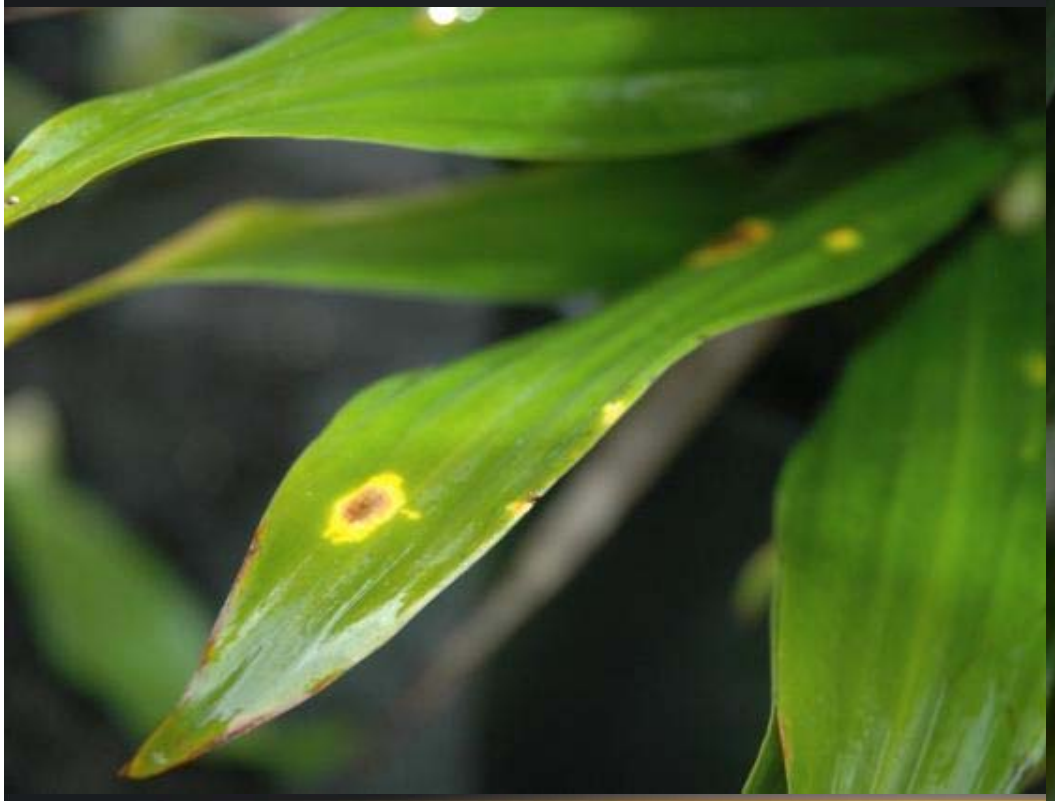
Banana moth damage on a dracaena.



Cull piles are great places for pest populations to flourish.

Undamaged canes: both ends dipped in fungicide to prevent disease.

Lesser snow scale (*Pinnaspis strachani*)



Chlorotic and necrotic plant tissue may reveal pests upon closer inspection of leaf underside.

Importance of Selecting Survey Sites and Survey Methods

Habitats for LFA

LFA on flowering
plants

LFA attracted to a splatter of Tango (S-methoprene) mixed with xanthan gum and oil.

LFA between leaf petiole and stem

LFA between leaf petiole and stem

LFA are attracted to cull piles that are undisturbed.

Root-bound pots left undisturbed serve as LFA nesting sites.

When stacking unused pots, place them in a moat of water with some dishwashing detergent (to break water surface tension) to keep ants out.

LFA colonize under undisturbed weed mats

LFA make nests in debris atop shade houses and anywhere trees overhang structures.

LFA are attracted to discarded food, and the dark, moist area under rubbish bins.

LFA find areas where moisture collects, such as the space beneath culverts and drainage pipes.

LFA will follow hoses and pipes directly into structures.

discarded soda can
Tramp ants, like LFA, find moist, dark, undisturbed nesting sites wherever they can.
discarded pot

Undisturbed piles of building materials

Ants Identified by Surveying

Ant Survey

Genus species	Common Name	Number of sites											
		1	2	3	4	5	6	7	8	9	10	11	12
Anoplolepis gracilipes	Long legged ant												
Brachymyrmex obscuria	Rover ant												
Cardiocondyla kagutsuchi													
Cardiocondyla minutior													
Cardiocondyla sp.													
Cardiocondyla venustula													
Monomorium liliuokalani													
Ochetellus glaber	Black house ant												
Plagiolepis alluaudi	Little yellow ant												
Pheidole fervens													
Pheidole megacephala	Big-headed ant												
Pheidole moerens													
Solenopsis geminata	Tropical fire ant												
Solenopsis globularia													
Solenopsis papuana	Thief ant												
Solenopsis sp H101													
Tapinoma melanocephalum	Ghost ant												
Technomyrmex sp.													
Tetramorium bicarnatum													
Tetramorium caldarium													
Tetramorium simillimum													
Wasmannia auropunctata	Little fire ant												

Little fire ants are not the only species of quarantine concern

End of Part 1

Please proceed to Part 2

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2008 Farm Bill - Section 10201
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