Advanced Master Gardener Training: Improving Service at Plant Clinics

Theresa Badurek
UF/IFAS Urban Horticulture Extension Agent and Master Gardener Coordinator
Why did we need to develop this?

• Like many counties, our MGs work in plant clinics.
  • Many suffer from low confidence.
  • Some never received sufficient training.
  • Lots needed a “refresher”.
  • Some MGs were asking agent and horticulture staff before even attempting to find the answer!
Why did we need to develop this?

- Like many counties, our MGs work in plant clinics.
  - Many work independently at remote Help Desk locations
Objective

- To increase the knowledge, skills, and confidence levels of our plant clinic Master Gardener volunteers.

From this...

...to this.
Methods

- Created the Advanced Master Gardener Training Series.
- Listed critical plant clinic knowledge/skill set.
- Each class was a 3 hour session with lecture and activities held once a month for 10 months.
Topics Covered

- Advanced plant ID
- Questions to ask clients
- What resources to use (text and electronic)
- Using a microscope
- Advanced plant pathology
- Common problems of fruit crops
- Common problems of vegetable crops
- Landscape pest ID and control
- Household pest ID and control
- Weed ID and control
Advanced Plant ID
Learning common plant family characteristics to aid ID

Focused on 10 common families found in our landscapes: ID characteristics, leaf shapes, arrangements, flower morphology, major genera, etc.
Questions to Ask Clients

Plant sleuthing...

**Lawn and Garden Help Desk Questions**

1. **What plant is it?**
   - Variety
   - Time in pot or ground
   - Seedling, air-layering, cutting, graft, etc.?
   - How old is the plant? How long has it been in that location?

2. **What does the problem look like?**
   - Physical damage, flooding, wind, lightning, root zone disturbance, etc.
   - Chewed leaves, sucking damage...
   - Tracks, leaves rolled...
   - Mold, mildew, fungus, conks
   - Color, spots
   - Drooping limbs, leaves
   - Bark damage, root damage
MG plant diagnosis/identification scenario - Oak tree

“Flo” has come to the help desk with a plant sample.

Flo: My oak tree makes such a mess! The acorns fall everywhere and are so sharp to walk on. Is there something wrong with it- the acorns are quite odd. The leaves look just fine and the tree seems healthy.

How can I keep it from producing so many acorns? I love to go barefoot in the yard!

One class member will play Flo, one or two others will be the MG assisting them at the Lawn and Garden Help Desk.
• Resources
Books, websites, posters, oh my!

Featured Creatures
Entomology & Nematology | FDACS/DPI | EDIS

Founded in 1996, Featured Creatures provides in-depth profiles of insects, nematodes, arachnids and other organisms. The site is a cooperative venture of the University of Florida’s Entomology and Nematology Department and the Florida Department of Agriculture and Consumer Services’ Division of Plant Industry.

Search Featured Creatures using:
Common Name
Scientific Name
Crop or Habitat
Higher Class

Follow UF Entomology

Florida’s Best Native Landscape Plants
200 Readily Available Species for Homeowners and Professionals
GIL NELSON

INVASIVE NON-NATIVE PLANTS
Using a Microscope
Not everyone knows how to do this!

- Microscope history
- Tour of a (stereo) microscope
- Looked at various samples one might use the ‘scope for at the help desk (so fun!)
Using a Microscope
Quiz and hands-on use of microscope to solve a problem.
• Advanced Plant Pathology
  The disease triangle and cultural practices

• How do client behaviors influence plant health?
• How can we counsel them to improve cultural practices and use IPM principles?
Common Problems of Fruit Crops

Fruit tree frustrations

MANGO - Anthracnose

- Appears as dark brown to black spots
- Can cause extensive fruit rotting
- Can invade the skin of young fruit and remain latent until fruit ripening begins

Black Sigatoka

http://www.fred.ifas.ufl.edu/iatpc/archive/CPTC_07-09.pdf

Photo: UF-Center for Tropical Agriculture

Papaya Whitefly
• Common Problems of Vegetable Crops

Common struggles for the home gardener

- Pests
  - Diseases
  - Insects
  - Weeds
Landscape Pest ID and Control

Entomology and more!

- What is an insect?
- What makes and insect a pest or beneficial?
- Mouth-parts and feeding damage recognition
- Common plants and their “repeat offenders”

Key Plants and Key Pests in Central Florida Landscapes

Eleanor Foerste, Dr. Cathy Neal, Celeste White
University of Florida Extension

Modified by:
Theresa Badurek, MLA
Urban Horticulture Extension Agent
Household Pest ID and Control

How to keep those critters out of the house!

<table>
<thead>
<tr>
<th>Damage Food</th>
<th>Damage “Stuff”</th>
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<tbody>
<tr>
<td>• Pantry Pests</td>
<td>• Carpet Beetles</td>
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<td>• Cockroaches</td>
<td>• Clothes Moths</td>
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<td>• Cockroaches</td>
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An Introduction to Various Household Pests

Thomas J. Weissling
Assistant Professor of Entomology
University of Florida
Fort Lauderdale Research

Indoor Insects, Spiders and Creepy, Crawly Things
• Weed ID and Control
  Is that a weed or a wildflower?
  • What is a weed?
  • How to ID and control when and where they are not wanted
There was a “catch”...

- Prerequisite of at least 8 hours of plant clinic time every month to participate, or
- Commitment to 8 hours+, in order to:
  - Increase plant clinic volunteers
  - Ensure info used in plant clinic, not just for personal info
Results

• Very positive response from all- 21 completed the series
• Horticulture program assistants reporting less dependence on them for the answers
• MGs are looking it up before giving up!
• Average of 60% increase in knowledge gain according to evaluations

• MG volunteers report feeling more confident at the help desk!
Conclusions

- Alternating years- one year a new MG class, the next year an advanced MG class
- Incorporate into monthly training rotation
- Identify new topics for future-reporting contacts and other admin, customer service
- Separate “track” for new MGs or new help desk volunteers
- Rely on program assistants to carry on

• Sharing info with other MG Coordinators!
Thank you! Any questions? tbadurek@pinellascounty.org