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## Online Training Available

<https://pmu.ifas.ufl.edu/>

<https://eces.ifas.ufl.edu/>

## Additional Resources

University of Florida  
Extension Publications

<http://edis.ifas.ufl.edu/>

Pest Management in and  
Around Structures

<http://www.eXtension.org/>

## PMU Focus - Stinging Insects

By Mike Bentley

Although insects are present year round in Florida, summertime is when insect activity is usually at its peak. Late summer and fall are when stinging insect populations are most active, and when stings are most likely to occur. To prepare you for stinging-insect season, this newsletter will be the first of a three-part series on stinging insects. In this issue we will focus on the identification and management of bees.



Fig 1. A honey bee collecting pollen. Photo: UF, J. Castner.

We will not cover honey bee health in this issue, but more information can be found at:

Honey Bees and Colony Collapse Disorder,  
<http://www.ars.usda.gov/News/docs.htm?docid=15572>

Minimizing Honey Bee Exposure to Pesticides,  
<http://edis.ifas.ufl.edu/in1027>

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## Pest ID: Bees

Most bees are considered beneficial because they serve as essential pollinators for agriculture worldwide. Therefore, bees should be preserved, if they do not pose a direct hazard to humans. European (Western) honey bees (*Apis mellifera mellifera*) have been bred for hundreds of years to be docile. The male (drone) does not possess a stinger. Stingers are modified ovipositors (egg-laying structure), so only females, generally only the workers, sting.

### *Honey Bees*

- [Eusocial](#) bees with colonies range from 20,000 to 80,000 individuals.

- Nest in pre-existing enclosed spaces such as tree-holes or wall voids.



Fig 2. Honey bee comb in cement block wall. Comb removal is an important step in honey bee management in order to avoid secondary pests such as the wax moth and the small hive beetle.

- Colonies divide by swarming (Fig. 3b) in spring and early summer.
- African honey bees are a nearly identical subspecies of the European honey bee that occur in Florida. Their heightened defensive behavior make the African honey bee is a major public health concern. For more information regarding the African honey bee, click [here](#).

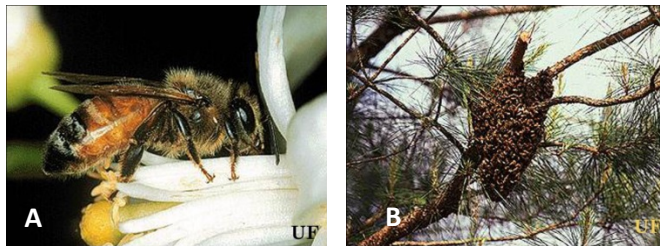


Fig 3. A.) Honey bee. B.) Honey bee swarm. Photos: UF, J. Castner.

When the application of pest control products on or near bee-frequented habitats is necessary, be sure to select products that meet the EPA's "[pollinator risk assessment](#)" guidelines. Look for the bee icon within the "application restrictions" section of the product label to ensure your products meet these guidelines (Fig. 2).

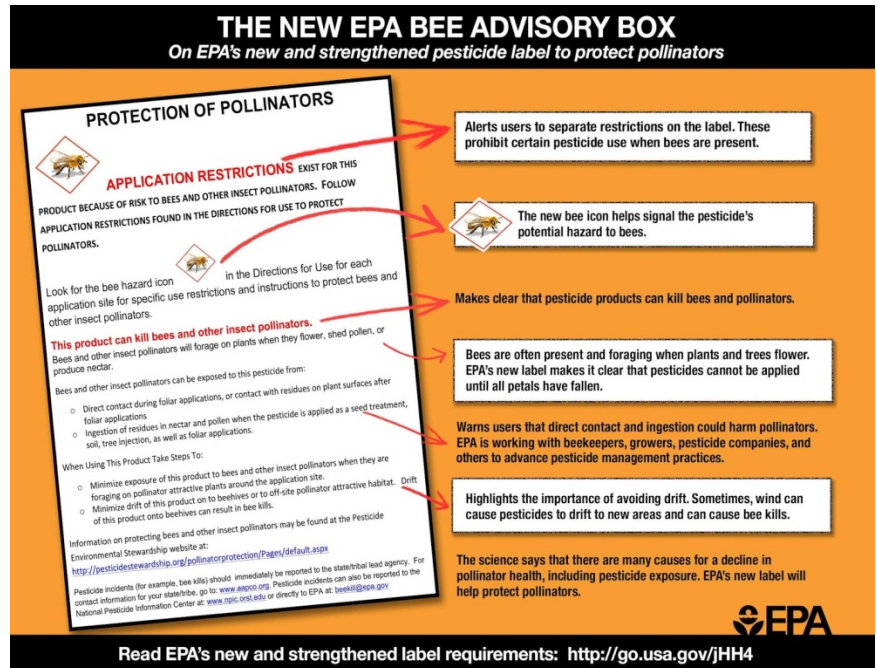


Fig 2. The EPA Bee Advisory Box located in the "application restrictions" section of new product labels.

Never attempt bee removal without proper training and personal protection equipment. If you need to refer a customer for honey bee removal, check [FDACS Bee Removal and Eradication List](#).

## Upcoming Training Opportunities:

If you plan on taking the [State Certified Operator examination](#) through PMU, please submit your applications by:

Sept 1 for the Oct 17 PMU [State Exam](#) for Termite and WDO  
(Write "**PMU NOV WDO**" on the top line of the state application)

Sept 1 for the Nov 7 PMU [State Exam](#) for GHP  
(Write "**PMU OCT GHP**" on the top line of the state application)

**Must have taken both Foundations and Masters through PMU to qualify for these PMU state exam seatings.**

### September Offerings

**Foundations of Termite Management (Only one seat left!)**

**Date:** September 17-19, 2014; Wed-Fri

**Time:** 8 AM-5 PM (W, TH); 8 AM-12 PM (F)

**Place:** UF/IFAS Apopka MREC, 2725 S. Binion Rd, Apopka, FL 32703-8504

**Registration fee:** \$375

Learn how termites exploit over 50 building construction elements and how to treat them in a hands-on environment in 2-days

instead of 2 years.

- Practice doing a DACS vehicle inspection and spill drill with Paul Mitola from DACS before a crisis occurs.
- Hear about the top 10 reasons technicians get in trouble and how to avoid them from Mark Ruff, industry attorney.
- Get more in-depth information on termite biology and behavior as well as product label navigation.

[Register here](#)

### **Foundations of Turf Management**

**Date:** September 24-26, 2014; Wed-Fri

**Time:** 8 AM-5 PM (W, TH); 8 AM-12 PM (F)

**Place:** UF/IFAS Apopka MREC, 2725 S. Binion Rd, Apopka, FL 32703-8504

**Registration fee:** \$375

Learn about common turf varieties, turf diseases, IPM of turf pests, methods of sampling, equipment calibration, turf maintenance requirements and more!

[Register here](#)

### **October Offerings**

#### **Foundations of General Household Pest Management**

**Date:** October 1-3, 2014; Wed-Fri

**Time:** 8 AM-5 PM (W, TH); 8 AM-12 PM (F)

**Place:** UF/IFAS Apopka MREC, 2725 S. Binion Rd, Apopka, FL 32703-8504

**Registration fee:** \$375

Pest control matters. Cockroach allergen mitigation can be achieved with IPM.

- Study domestic and peridomestic cockroach species and how to control them as well as rodent, small fly, filth fly, fire ant and nuisance ant management.
- Review the labels of commonly used GHP products, practice pest inspections at PMU's house and develop treatment strategies focused on IPM.
- Do a vehicle inspection and spill drill with Paul Mitola from DACS.

[Register here](#)

## **Foundations of Ornamental Plant Pest Management 101**

**Date:** October 8-10, 2014; Wed-Fri

**Time:** 8 AM-5 PM (W, TH); 8 AM-12 PM (F)

**Place:** UF/IFAS Apopka MREC, 2725 S. Binion Rd, Apopka, FL  
32703-8504

**Registration fee:** \$375

Learn how to properly ID common southern trees and shrubs, monitor and diagnose pest and maintenance problems, ID beneficials, calibrate and operate different pesticide application equipment, and impress your instructors with your landscape IPM expertise.

[Register here](#)

## **Master of Termite Management (Only 4 seats left!)**

**Date:** October 15-17, 2014; Wed-Fri

**Time:** 8 AM-5 PM (W, TH); 8 AM-12 PM (F)

**Place:** UF/IFAS Apopka MREC, 2725 S. Binion Rd, Apopka, FL  
32703-8504

**Registration fee:** \$375

This fast-paced class is only offered once a year. **Must have completed Foundations in order to advance.**

- Review termite identification, biology and control and learn about wood-destroying beetles and wood-decaying fungi.
- Learn how to do a proper borate application
- Do baits work?
- Use foam and application techniques to optimize the distribution of liquid termiticides in soil with the Bayer University toys
- Hear about the top 10 reasons that certified operators get in trouble and how to avoid them from Mark Ruff, industry attorney.
- Do an inspection for WDOs at PMU's house designed to challenge even experienced inspectors.
- Practice a licensee inspection with a DACS inspector and learn about the duties of a certified operator.

[Register here](#)

## **ADDITIONAL COURSES**

**PMU Courses**

**WDO Category**

Dec 3-5, 2014, [Termite Expert](#), **must** have taken Foundations and Masters

### **GHP Category**

Nov 5-7, 2014, [GHP Masters](#), **must** have taken Foundations

### **L&O Category**

Please contact Dr. Eileen Buss (eabuss@ufl.edu, (352) 273-3976) directly with questions concerning these courses.

Dec 10-12, 2014, [Ornamental and Turfgrass Masters](#)

Click on links for course descriptions or go to [http://pmu.ifas.ufl.edu/courses\\_for\\_more\\_information](http://pmu.ifas.ufl.edu/courses_for_more_information)

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## Learn more from IFAS



- UF/IFAS has Extension Offices in each of Florida's sixty-seven counties. We also have twelve Research and Education Centers (RECs) and Research and Demonstration Sites (RDSs).
- If you need help a great place to start is your local County Extension Office. With an office located in every county it has never been easier to partner with the University of Florida and your local County Government. To find an office near you please visit: <http://solutionsforyourlife.ufl.edu/map/>