

## In This Issue

- [PMU Focus](#)
- [Upcoming Training Opportunities](#)
- [Learn More From IFAS](#)

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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 - Insecticide Basics

By [Michael Bentley and Faith Oi](#)

There is a lot of responsibility, accountability and education that must accompany the use of pest control products. The purpose of the following series of articles is to discuss the modes of action of pest control products so that they can be applied effectively, either alone or in combination with other products, when needed.

The US EPA defines a **pesticide** as "any substance or mixture of substances intended for preventing, destroying, repelling or mitigating any pest." Pesticides are a broad category of chemicals that includes herbicides, rodenticides, acaricides, fungicides and insecticides. An **insecticide** is a type of pesticide designed to kill insects.

### *Mode of Action*

Insecticides are grouped together into different "classes" based on the chemical structure of their active ingredients. The way active ingredients affect pests is known as the "mode of action." Insecticides can be grouped into several different categories: those that affect the nervous system, are metabolic inhibitors, insect growth regulators (IGR), and those that affect water balance. Genetic methods of control are currently a hot topic of research, but none are registered for use in structural pest control.

Knowing product modes of action are important in developing product rotation and combination strategies as part of an integrated pest management program and delaying the onset of pesticide resistance. To learn more about these strategies, see our course offerings, below.

### *Examples of Common Classes of Pesticides and Their Modes of Action*

Mode of Action	Chemical Class	Active Ingredient	Trade Name
Nervous system	Pyrethroid	Bifenthrin	Talstar®
Metabolic inhibitor	Amidinohydrazone	Hydramethylnon	Amdro®
Water balance	Borates	Disodium Octaborate	Niban®

		Tetrahydrate	
IGR	Chitin Synthesis Inhibitor	Noviflumuron	Recruit <sup>®</sup> , Sentricon

## Upcoming Training Opportunities:

We are in the final offerings of PMU for the year. Sign up early before classes are full! Basics courses are only one day and a great way to meet part of the Florida Statute 482 requirement for 40 hours of training for new technicians!

Classes cap at 20 participants, including Masters and Expert levels. Master level classes are only offered once a year. Expert level classes are offered every other year. If you plan on taking the [State Certified Operator examination](#) through PMU, please submit your applications by:

Sept 16 for the Oct 18 PMU [State Exam](#) for GHP

(Write "**PMU OCT GHP**" on the top line of the state application)

Oct 13 for the Nov 15 PMU [State Exam](#) for Termite and WDO

(Write "**PMU NOV WDO**" on the top line of the state application)

### Summary

Click on highlighted course titles for more information or to register.

July 11, [GHP Basics](#), registration deadline is July 9

Sept 4-6, [Termite Foundations](#) (last one for 2013)

Sept 18-20, [Foundations of Turfgrass Pest Management](#)

Sept 25-27, [GHP Foundations](#) (last one for 2013)

Oct 2-4, [Foundations of Tree and Shrub Pest Management](#)

Nov 6-8, [Foundations of Turfgrass Pest Management](#)

### Must advance through Foundations to qualify for these courses:

Oct 16-18; [GHP Masters](#)

Oct 18; 1 pm; GHP state exam (must also meet state requirement, write "PMU" on application)

Nov 13-15; [Termite Masters](#)

Nov 15; Termite and WDO exam (must also meet state requirement; write "PMU" on application)

Dec 18-20, [Master of Turfgrass Pest Management](#)

### Must advance through Foundations and Masters for qualify for this course

Dec 4-6; GHP Expert

## JULY OFFERINGS

**GHP Basics 100**

This one-day class is geared for the new technician, sales or office staff. ***Counts as part of the 40 hour training requirement for new technicians listed in Florida Statute 482!***

- Learn about the general Florida Statute 482 requirements for technicians and sales
- Learn the basics concepts Integrated Pest Management
- Learn how to monitor and make decisions about treatment

Learn how food sources, harborage, and water sources play a role in infestation and management using ants and cockroaches as examples.

**Date: July 11, 2013; Thursday**

**Registration Deadline: July 9, Tuesday**

**Place: UF/IFAS Apopka MREC**

**Time: 8 AM-5 PM**

**Cost: \$150**

[Register here](#)

## **SEPTEMBER OFFERINGS**

### **Foundations of Termite Management 101**

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. Class duration: 2.5 days.

**Date: Sept 4-6, 2013; W-F**

**Registration deadline: Aug 30, 2013; Friday**

**Place: UF/IFAS Apopka MREC**

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

**Cost: \$350**

[Register here](#)

### **Foundations of General Household Pest Management 101**

Pest control matters. Cockroach allergen mitigation can be achieved with IPM. Class duration: 2.5 days.

- 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.

**Date: Sept 25-27, 2013; W-F**

**Registration Deadline: Sept 20, 2013; Friday**

**Place: UF/IFAS Apopka MREC**

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

**Cost: \$350**

[Register here](#)

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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 Demonstration Sites (RDSs).
- If you need help a great place to start is your 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 Government. To find an office near you please visit <http://solutionsforyourlife.ufl.edu/m>