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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 - Avoiding Damage to Ornamentals and Turf from Herbicide Applications

By: Chris Marble

Proper use of herbicides is one of the cornerstones of a good weed control program – but bad things can happen when they are not used correctly. Compared to insecticides or fungicides, herbicides have a much greater potential to damage valuable ornamentals or turf, in some cases even when small mistakes are made. Luckily, if you follow a few key principles damage can be avoided and you will provide your customers with the best results possible.

- **Calibrate.** Applying the wrong amount of herbicide is the number 1 reason for causing damage to turf or ornamentals and the number 1 cause of weed control failures. Herbicides are designed to work within a narrow range – apply too much and damage can



Figure 1. Herbicide drift damage on 'Emily Bruner' holly from a contact herbicide.

occur. Apply too little and weeds will not be controlled.

The best way to prevent causing damage (also called

phytotoxicity) is to properly calibrate equipment and use herbicides only in sites where they are labeled.

- **Identify the weed species.** Properly identifying the pest you are trying to control is the first step in an Integrated Pest Management Program (IPM). Herbicide labels will contain tables showing the rates needed for a particular weed species or for a particular size of the weed. The lowest rate should be chosen for the weed species you are trying to control to improve the safety profile of that herbicide.
- **Know how far tree (and shrub) roots can extend.**

Many herbicides that are commonly used in turf areas contain warnings such as “Do not apply in areas that contain roots of desirable trees or ornamentals.” How far do tree roots extend? On average they extend close to three times the spread of the drip line (tree canopy) - which in some cases means well into turf areas. In these situations, choose herbicides that are not as prone to leaching or being absorbed by tree roots. Many turf herbicides are also prone to causing damage to nearby ornamentals through drift or volatility (i.e. 2,4-D and others) and should only be used in recommended areas.

- **Know how long it takes the herbicide to work.** Damage can occur due to multiple applications being made in a short period of time. This is sometimes done because the herbicide seems to not be working, and the applicator thinks a repeated application is needed. For some herbicides, symptoms may not be noticeable for a week or longer depending upon environmental conditions. Know how long it will take the herbicide to work and then re-apply as needed. Note that some weed species will almost always required repeat applications for 100% control – each application should be made at the proper rate. Never apply higher than the labeled rate to try and achieve better or faster results. Following label recommended split applications (applying a lower rate at multiple timings) has also been shown to improve weed control and reduce phytotoxicity with many different herbicides.
- **Use adjuvants and surfactants carefully.** Adjuvants and surfactants are often needed and/or recommended for use with certain herbicides but they may also increase the risk of temporary phytotoxicity to the turf. Only use the specific types of adjuvants or surfactants recommended on the product label and do not use more than the intended amount.
- **Use contact herbicides if spraying close to ornamentals.** Glyphosate is a great product but if even a little gets on an ornamental it may never recover. Be careful using systemic herbicides around ornamentals (including thin barked trees and plants

with green stems) or try to use contact action herbicides for small and annual weed species. Even if the



Figure 2. Zinnia several days after being treated for insect damage. The sprayer was not properly cleaned after applying an herbicide the day before.

ornamental is contacted by these herbicides, it will not move throughout the plant and is likely to recover.

- **Use good judgement.** It seems obvious but it still happens – avoid herbicide applications in strong winds and use lower pressure to avoid potential herbicide drift damage. Always clean and flush hoses and tanks, especially when applying fungicides, insecticides, and herbicides from the same equipment. Only a small, residual amount of a herbicide such as atrazine left in the bottom of a spray tank can kill many different types of ornamentals. Also note label recommendations pertaining to weather and other environmental conditions. There are many herbicides that can cause unwanted damage to turf at high temperature (above around 90°F) but are safe during cooler times of the year.
- **Always read the label.** We all know we are supposed to read and follow pesticide labels but the time invested reading herbicide labels is the most valuable time you can spend in developing and implementing your weed control program. Reading and following all parts of the label is the best way to ensure applicators are safe, the product performs as it was intended, and that we are protecting the environment.

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## Landscape IPM Course and LMA

Get ready to learn this summer: Enroll in Landscape IPM: Ornamentals and Turf, and take your first steps toward getting a UF Pest Management Certificate or becoming LMA Certified! Classes begin June 27th!

A three credit/six week course will be offered starting June 2016 at the University of Florida (UF). The course is called "Landscape IPM: Ornamentals and Turf" and is course number IPM 4254. This course will be offered for UF credit and will be available for students that are enrolled at UF or for people outside UF that are interested in the material. UF will offer the course next summer (2016) and it will be available 100% online. You must have computer and internet access to take this class. This course is for UF juniors and seniors and landscape and pest management supervisors and owners.

This course will be used as a measure for LMA Certification. The LMA will offer students who pass this class (with an A or a B) the opportunity to become LMA Certified without additional testing since they will be tested as part of the course. This course will also count towards a UF Certificate in Landscape Pest Management.

Learn more about the UF distance program, including costs and

how to register-

<http://entnemdept.ufl.edu/academics-directory/online-learning/>

To register for this course please complete a Nondegree Registration Request at the following website:

<http://www.isis.ufl.edu/cgi-bin/eaglec?MDASTRAN=nda-intro>

Advance Registration: March 21st to May 3rd, then May 5th to June 23rd. Fee payments due July 8!

You will need to fill out some personal information on the form and the following course information:

- Select Year and Term of Registration: 2016 Summer (May)
- College: THE COLLEGE OF AGRICULTURAL AND LIFE SCIENCES – Entomology Undergrad Distance Courses
- Course Information: Prefix- IPM. Number- 4254.

If you have trouble filling out this form and registering for the course please contact Ms. Ruth Brumbaugh, Entomology and Nematology Department Student Services Coordinator. Phone: 352-273-3912 Email: [brumbaugh@ufl.edu](mailto:brumbaugh@ufl.edu) . *Please let Ms. Brumbaugh know you are attempting to register for the course as a Nondegree seeking student so she knows how to help you.*

If you would like more information about the course please contact the course instructor Dr. Jennifer L. Gillett-Kaufman Phone: (352)273-3950 Email: [gillett@ufl.edu](mailto:gillett@ufl.edu) . She cannot help you with registration and will forward all registration requests to Ms. Brumbaugh.

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## Upcoming Training Opportunities:

**We are offering a second round of Spring courses!  
Register now!**

...Did you know that PMU can help you by

- Partially satisfying the 482/5E-14 requirement for initial technician training hours?

Our Oct 12-14 Termite Masters, Oct 26-28 GHP Masters, and Nov 9-11 L&O Masters courses are open! Similar to the Structural Fumigation School

(<http://conference.ifas.ufl.edu/fumigation/> ), the state has graciously allowed us to hold the state certified operator examination at the end of each Masters course. We hold optional reviews in the evenings. To qualify, you must:

- Take the Foundations **and** Masters courses for GHP, WDO, or L&O

- Fill out an application package for the certified operator exam either
  - [Online](#); deadline one week before exam, or
  - [Paper](#); deadline for paper applications **September 1** for the Oct/Nov exams

**June 2016 Offerings:**

**General Household Pests Basics 100**

**Date:** June 30, 2016

**Time:** 8 AM-5 PM (TH)

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

**Registration fee:** \$175

This one-day class is geared for the new technician, sales, or office staff. Additionally, this class will help fulfill the 40 hour training requirement for new ID card holders.

- 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.

[Register here](#)

**Termite Basics 100**

**Date:** July 1, 2016

**Time:** 8 AM-5 PM (F)

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

**Registration fee:** \$175

This one-day class is geared for the new technician, sales or office staff. Will help fulfill 40 hour training requirement for new ID card holders.

- Learn about the general Florida Statute 482 requirements for technicians and sales staff.
- Be introduced to basic termite biology and behavior in the context of structural infestations.
- Learn to determine different slab types in the field and the common ways termites enter structures
- Practice basic methods for treatment

[Register here](#)

Click on "Register here" for course descriptions or go to <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/>**