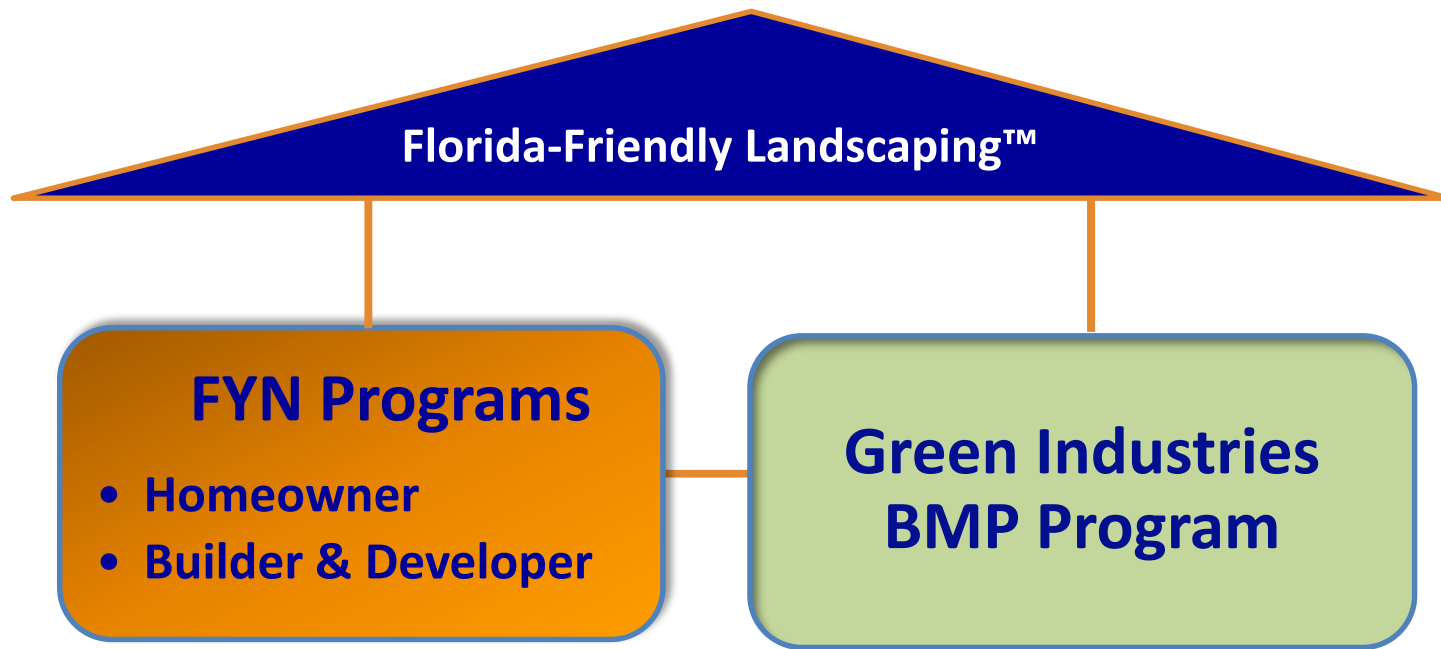




Florida-Friendly Landscaping™ Program Update

Esen Momol, Don Rainey, Claire Lewis, CJ Bain, John Bossart,
Jen Marvin, Kelly Perez, Elisha Cash, Marilyn Liebsch, Diana
Juarez, and Lyn Ward

Florida-Friendly Landscaping™ Program





Florida-Friendly Landscaping™

LEGISLATURE

◆ **Mandatory-** Chapter 482.1562, F.S. **GI-BMP**

◆ **Voluntary-** Chapters 373.185, 720.3075, F.S. **FYN**

SAVING FLORIDA'S WATER SUPPLY, DROP BY DROP

UF/IFAS Extension's
Florida-Friendly
Landscaping™ (FFL)
program and the
Center for Landscape
Conservation & Ecology
(CLCE) partner with
state agencies, local
governments, and
nonprofit
organizations to
safeguard our water for
future generations.

Florida-Friendly
Landscaping™ PROGRAM



*Water 2070 project (FDACS, UF Geoplan
Center, 1000 Friends of Florida)

**U.S. Environmental Protection Agency
(EPA), 2015

***Borisova et al. February 2017. *Estimating
Benefits of Residential Outdoor Water
Conservation: A Step-by-Step Guide.*
<http://edis.ifas.ufl.edu/16-1009>

WATER DEMAND

Water demand already exceeds supply in some parts of Florida, and projections show the state could double its current water usage by 2070 if population growth, water-use habits, and irrigation practices do not change.*



At least

50%

of Florida household water usage
is for landscape irrigation.



The average U.S. household
spends more than

\$1,000

per year on water.**

WATER CONSERVATION

In 2016,
87,000 residents participated in water
conservation programs, taught by
76 UF/IFAS Extension
faculty statewide.

Follow-up surveys showed...

- 93%** reduced irrigation to 2 days/week
- 90%** reduced irrigation in winter months
- 87%** reduced irrigation if adequate rainfall
- 69%** switched to low-maintenance plants
- 50%** installed a rain barrel or cistern
- 50%** started using a rain gauge

MAKING AN IMPACT



64,680,236

gallons of water saved... enough water to supply

1,192

households with water for one year.



\$214,092 saved on
utility bills.



\$168,169

saved by utility companies on water
preparation/delivery costs.***



GREEN INDUSTRIES BMPS

Improving Florida's Water and Natural Resources



Florida-Friendly Landscaping™ Green Industries Best Management Practices (GI-BMP) training program is a partnership between the Florida Department of Environmental Protection and UF/IFAS Extension to provide science-based information and techniques to urban landscape maintenance professionals. Classes, offered in English, Spanish, and Haitian-Creole, are taught by 400 certified instructors from UF/IFAS Extension, industry, government agencies and other volunteers.

GI-BMP training promotes behaviors and practices that

conserve water and reduce pollutants

from urban landscapes making their way into Florida's canals, lakes, rivers, springs, aquifers and wetlands

Since 2006, **46,192** green industry professionals have received GI-BMP training, valued at **\$6.9 million***

52,000 CEUs required for FDACS pesticide and fertilizer licenses, valued at **\$1.3 million**

Adopting Best Practices

93-99% of GI-BMP training participants are using best practices for irrigation, maintenance, fertilization, and pesticide application on a regular basis†

26% average increase in **ALWAYS** using the following practices:

- Apply no more than 1/2 - 3/4" water per irrigation event saving an estimated 25-50% of water, according to UF/IFAS research
- Avoid mulching around tree trunks and shrub bases
- Reset irrigation controls/timers seasonally
- Reduce fertilizer application
- Use IPM to determine pest control methods

Adoption of new technologies

72% use soil tests to determine fertilization needs

85% use soil moisture or other sensing devices to ensure effective water use

Leveraging Extension

90-94% of participants share what they learn in GI-BMP training with their clients and coworkers

*Estimated at \$25 value per hour (based on cost per hour of comparable professional training) + 6 hours of GI-BMP training = \$150; 46,192 x \$150 = \$6.9 m

†Note: All behavior change percentages based on participant evaluations conducted six months after training program.

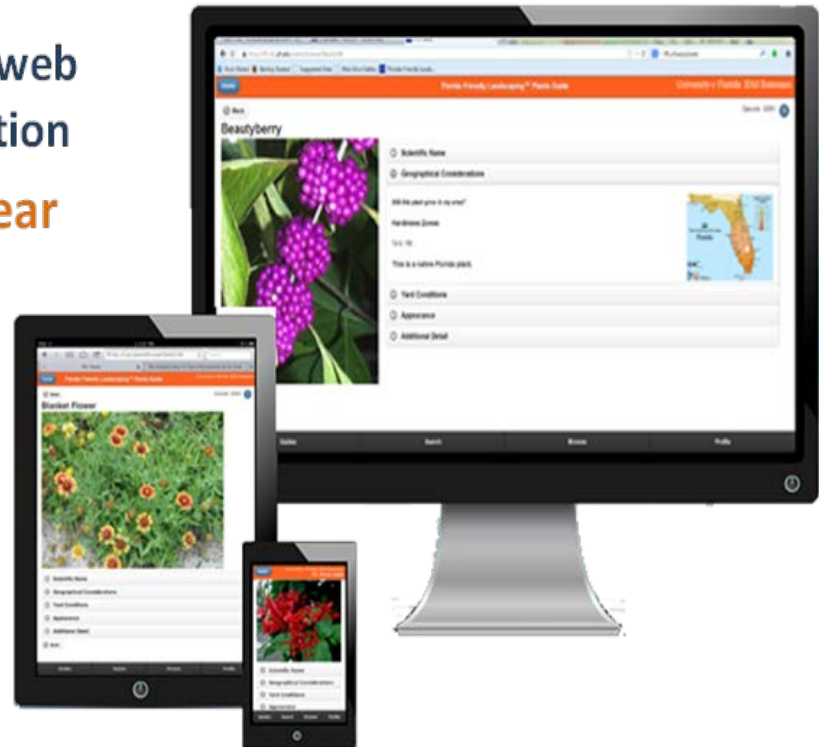
Florida-Friendly Landscaping™ Online Applications

- ◇ FFL Plant Guide Mobile Web App
- ◇ FFL Butterfly Gardens Mobile Web App
- ◇ Florida Fertilizer Mobile Web App
- ◇ FFL Online CEUs

Florida-Friendly Landscaping™ Plant Guide

Find the Right
Plant for the
Right Place
Anytime,
Anywhere

Mobile web
application
1⁹⁹ year



Florida-Friendly Landscaping™ Butterfly Gardens

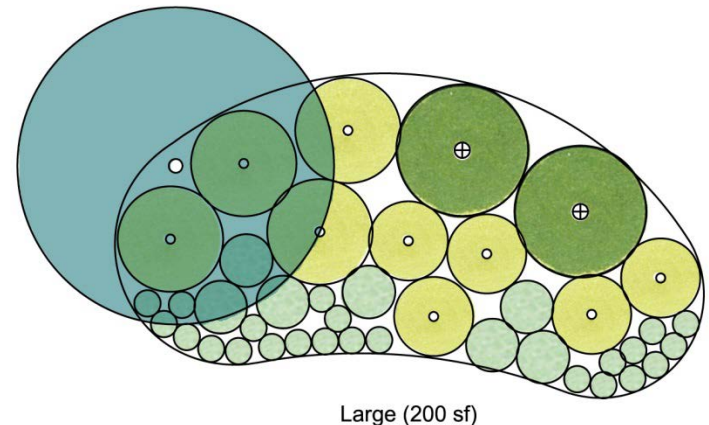
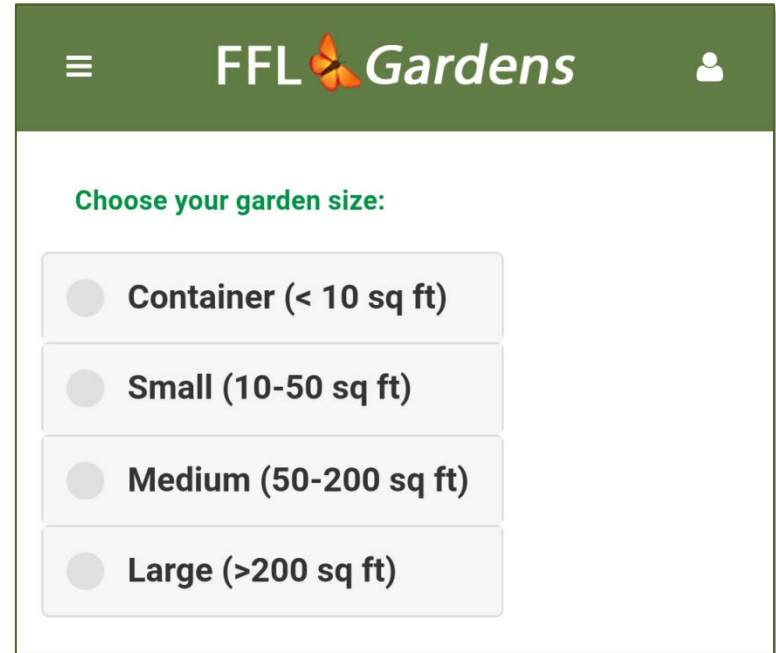
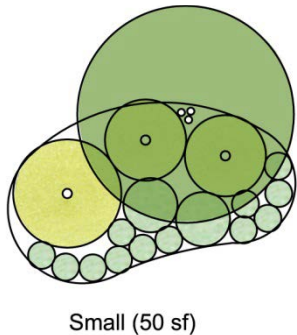
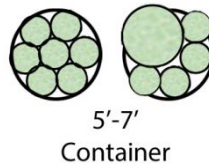
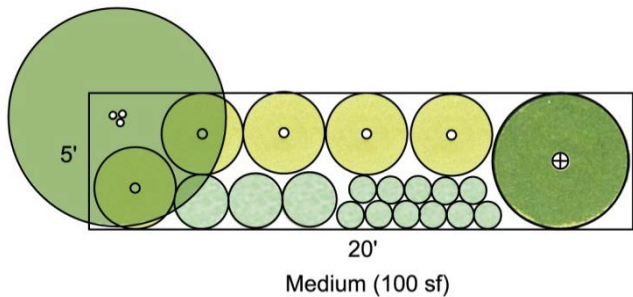
Mobile Web App



Collaborators: Jaret Daniels, Wendy Wilbur, and Kathy Malone



- **Guidance for type and number of plants for garden size**





Tips


Tips for Garden Design


Tips for Selecting Plants

Tips for Buying plants

Tips for Planting

Tips for Maintenance



 Resources

 Contact


- **Includes tips for...**
 - Garden design principles
 - Right Plant/Right Place
 - How to attract butterflies
 - Florida-Friendly planting and maintenance practices
- **Resources link to related EDIS, FFL and other sources**






- 62 Florida butterflies
- Pictures of different life stages for many
- Host plants
- Feeding preferences


FFL  Gardens 

Zebra Swallowtail



— Images







| | | |
|--|--|--|
|  Adult |  Egg |  Larva |
|--|--|--|

UF IFAS Extension UNIVERSITY of FLORIDA Florida-Friendly Landscaping™ PROGRAM 



- **Browse list of 190 plants**
- **Search by name, species or category**

Q Search plants...

| | | |
|---|--|---|
|  | Ageratum Ageratum spp. Floss flower Annuals |  |
|  | American Elm Ulmus americana Trees - Large |  |
|  | American Holly Ilex opaca Trees - Medium |  |

Florida-Friendly Landscaping™ Online Applications

◇ Online CEUs

Landscape Architects and CAMs

Collaborator: Gail Hansen

The screenshot shows a web browser window displaying the University of Florida website. The browser's address bar shows www.ufl.edu. The website's navigation bar includes links for NEWS, CALENDAR, OFFICES & SERVICES, DIRECTORY, GIVING, UF HEALTH, UF/IFAS, and TEXT-ONLY. A secondary navigation bar features links for ABOUT, ACADEMICS, ADMISSIONS, STUDENT LIFE, RESEARCH, ATHLETICS, and ALUMNI. The ADMISSIONS menu is expanded, showing options for Undergraduate, Graduate, International, Online Learning, Professional, and Financial Aid. A red arrow points to the 'Online Learning' link. Below the navigation, there is a banner for 'ALUMNI' with the headline 'GATOR GRADS GO NAT GEO WILD' and a 'READ MORE' link. A secondary link for 'Space Plants' is visible at the bottom of the banner area. The browser's search bar contains the text 'canvas'.

CONTINUING EDUCATION HUB

COURSE SEARCH ENVIRONMENTAL 8 RESULTS



Teaching AP Environmental Science

This course provides the tools, strategies and instructional materials to equip you for teaching this subject, preparing your students for the AP Environmental Science Exam. Topics include the physical environmental, ecosystems and ecology, populations, energy resources, the land, air and water environment, among others. [Learn more.](#)

LEARN MORE

Registration Date(s): 03/14/2017

Fee Range: \$1549 - \$1808

Professional Development

Share 0

Course Registration Options

Keywords: [teaching ap](#) - [ap](#) - [ap environmental science](#) - [environmental science](#) - [teaching ap environmental science](#) - [teaching environmental science](#) - [environmental science exam](#) - [ap environmental science exam](#) -



Introduction to the Florida-Friendly Landscaping™ Program

This one-hour course provides an introduction to the 9 principles of the Florida-Friendly Landscaping™ Program. Upon completion students will: Recognize purpose of the Florida-Friendly Landscaping Program, understand the importance of following the Florida-Friendly principles and recognize the benefits to communities. [Learn more.](#)

Course Registration Options

Keywords: [environmental](#) - [landscaping](#) - [florida-friendly landscaping](#) - [community association manager](#) [ffl](#) [water conservation](#) - [low water landscaping](#) -



Florida-Friendly Landscaping™ Legislative Codes, and Your Community

This one-hour course provides an overview of the legislation

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pd.dce.ufl.edu/course-search/

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UF Professional Development UNIVERSITY of FLORIDA COURSE SEARCH GETTING HELP COURSE LOGIN

UF IFAS Extension
UNIVERSITY of FLORIDA

Florida-Friendly Turfgrass: Selection and Best Management Practices

This one hour course provides an overview of Florida-Friendly turfgrass selection and management practices; explanation of how turfgrass is Florida-Friendly; turfgrass species for home lawns and commercial properties; how to select appropriate turfgrass species; and Best Management Practices for fertilization, shade tolerance, mowing & beyond. [Learn more.](#)

LEARN MORE

Registration Date(s): 03/14/2017

Fee: \$25

Agricultural and Life Sciences/IFAS

Share 0

Course Registration Options

Keywords: [environmental](#) - [landscaping](#) - [florida-friendly landscaping](#) - [lawn maintenance](#) - [fertilization](#) - [turf](#) - [grass](#) - [turfgrass identification](#) - [best management practices](#) - [bmp](#) - [water conservation](#) - [low water landscaping](#) -

Maintenance with Florida-Friendly Landscaping™

LEARN MORE

Registration Date(s): 03/14/2017

Fee: \$25

Agriculture

Questions? We have answers.

Back to top



The Florida-Friendly Landscaping™ Program's

Florida Fertilizer Ordinance Mobile Web Application

Collaborators: Bryan Unruh and Serena Yang

What Is the Florida Fertilizer Ordinance App?

- A quick reference of restrictions for Florida's many county and municipal fertilizer application ordinances
- A geolocating mobile web application for fertilizer applicators, using a map interface for easy access

Ordinance Details

77+ Florida county/municipal ordinances:

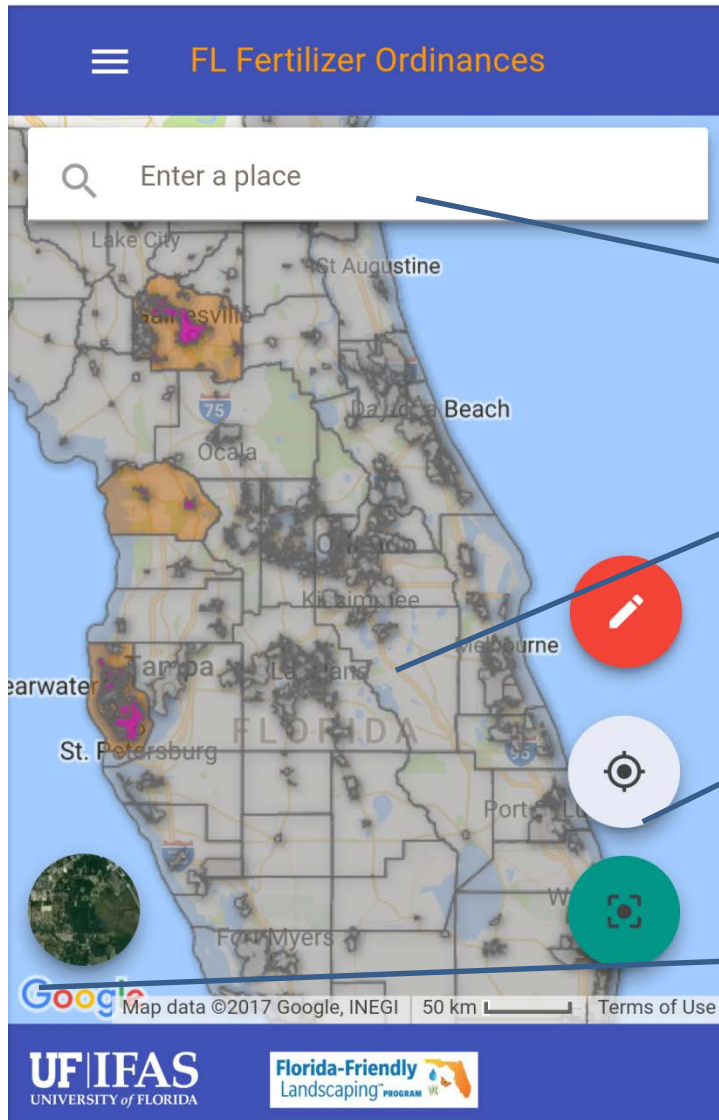
- **Blackout dates, if any**
- **Weather restrictions**
- **Annual N limit**
- **Maximum soluble N per application**

Ordinance Details

77+ Florida county/municipal ordinances:

- **Minimum setback with deflector**
- **Slow release requirement**
- **P₂O₅ content limit**
- **Sales restriction**
- **Date of ordinance adoption/revision**

Map Interface



App uses Google's map engine

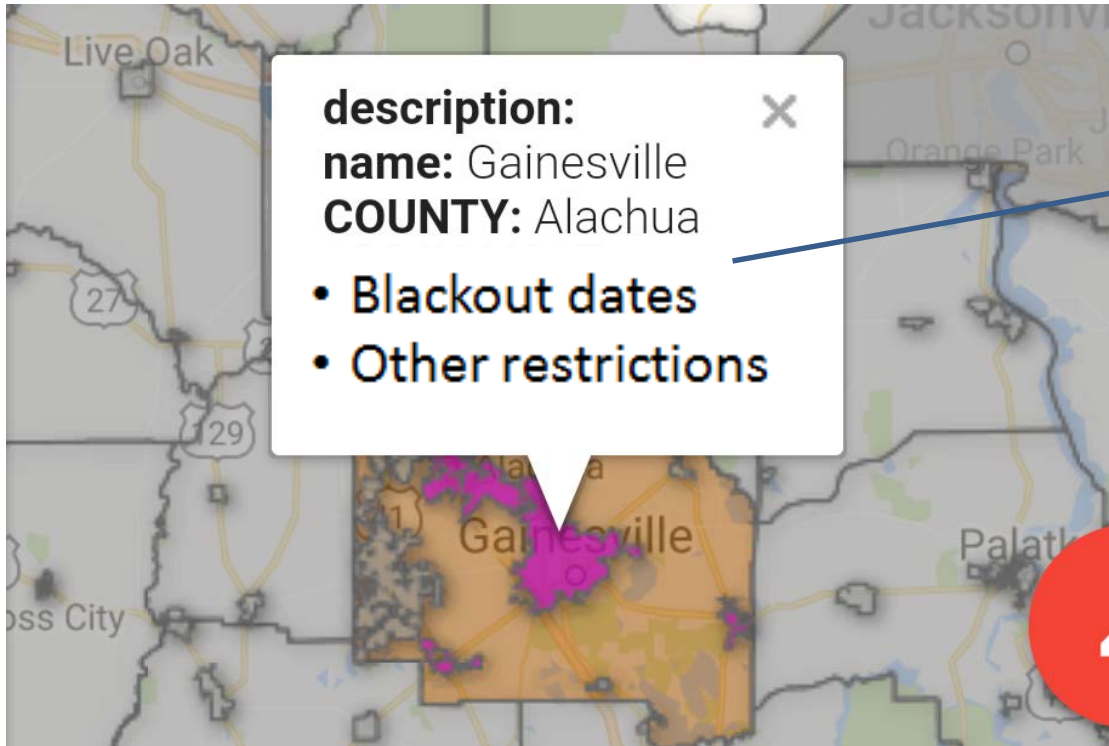
Search by city, county, or address

Or, drag and zoom on map

Or, go to user location

Toggle between map
& satellite view

Ordinance Summary



Tap or click map to display key ordinance restrictions

Includes link to full ordinance (Municode website or PDF)

FFL Certification

- **Collaborators: Whitney Elmore, Lynn Barber, Gail Hansen, and Wendy Wilbur**
- **6 h online modules**
- **2 h classroom (1 h Field and 1 h classroom)**



THANK YOU!