Learning About Your Ecosystem

DR. PAT WILLIAMS
UF/IFAS EXTENSION WAKULLA COUNTY
CED/HORTICULTURE AGENT

Field Trip Visualization

- Exploring the minds interpretations of needs and wants
- Shared destinations
- Landscape design modules and what to take home

What is an Ecosystem?

- A biological community of interacting organisms and their physical environment
- Biotic factors: organisms that are alive
- Abiotic factors: influences not alive

Ecosystem Renovation

- Residential landscaping infers native ecosystem has been or will be altered
- What responsibilities do humans have to restore?

What is Landscaping?

- Customized and functional art
- Living art
- Interactive and dynamic art
- Creating an environment for both people and flora/fauna

Tropical Paradise?

- Zones 9A-10B
- *Sub*tropical
- Sandy soil
- Wet and dry season
- Heat, humidity, insects
- Indigenous wildlife
- Low maintenance?

Comparison of Landscapes

Landscape A

- All native
- No turf
- No water
- No fertilizer
- No pesticides
- Weeds hand pulled
- Composting

Landscape B

- Natives and ornamentals
- Limited water
- Some fertilizer
- Limited pesticides

Landscape C

- Ornamentals
- 50% Turf area
- Fertilizer
- Irrigation
- IPM
- Mulch

Florida-Friendly Landscaping™

- Can take any form, style, theme
- Landscape management is key

Florida-Friendly Landscaping™

- An integrated approach to maintaining an attractive, colorful, and diverse yard
- Friendly to wildlife
- Less work than the traditional landscape
- Created in the mid 1990's
- Goals: Conserve water and protect water quality

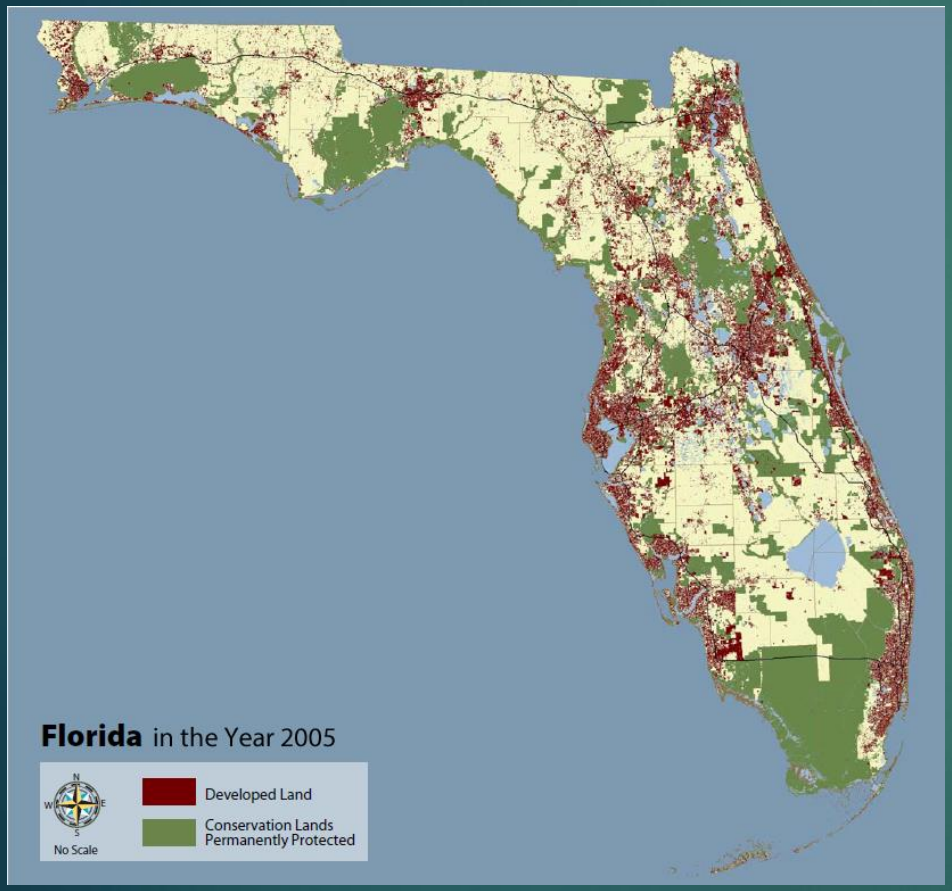
Environmental Concerns

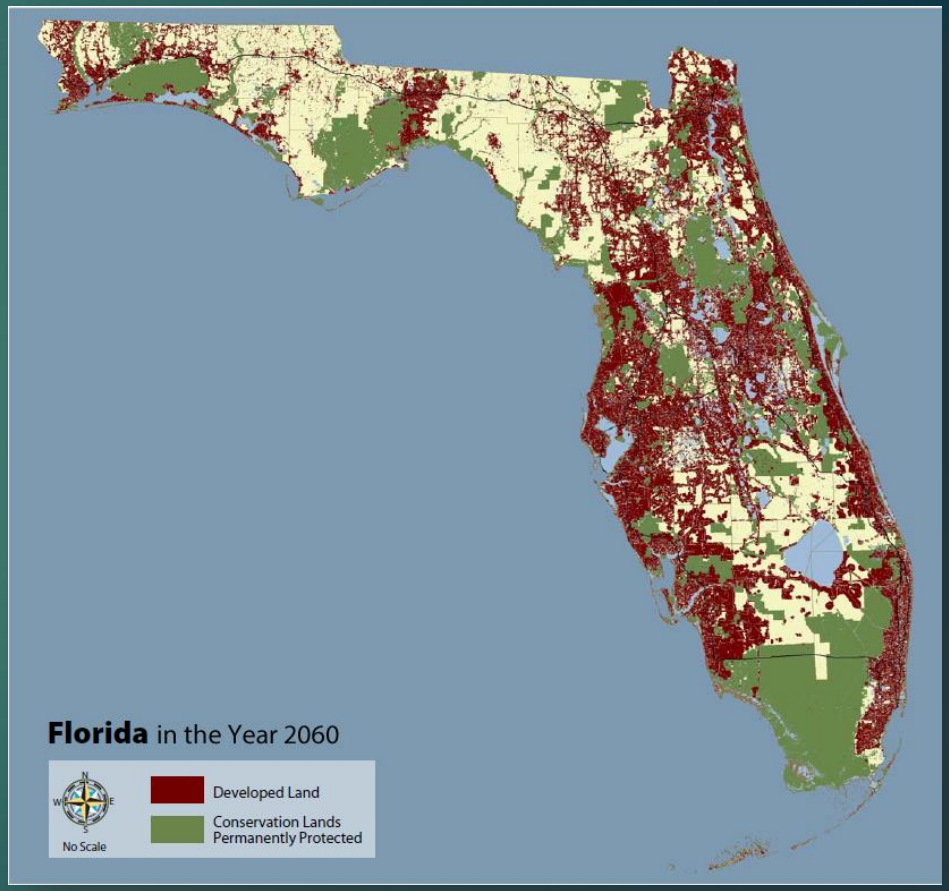
- Water quality
- One of Florida's greatest natural resources is its water
- Misuse of fertilizers and pesticides can contribute to water pollution
- 60% of Florida's fresh water is used on landscape irrigation

Environmental Concerns

- Population Growth
- Florida's population is expected to double by 2060
- Increased demand for water
- Increased pollution
- Decreased habitats that filter polluted run-off before it returns to the aquifer

Population Growth





FFL Program

- Created in the mid 1990's
- Based on 9 principles
- Soil and water quality
- Storm water runoff
- Non-point source pollution
- Yard recognition
- Irrigation evaluations
- Rain barrel programs

Florida-Friendly Landscaping™

1) Right Plant, Right Place
2) Water Efficiently
3) Fertilize Appropriately
4) Mulch
5) Attract Wildlife
6) Manage Yard Pests Responsibly
7) Recycle Yard Waste
8) Reduce Stormwater Runoff
9) Protect the Waterfront

Potential

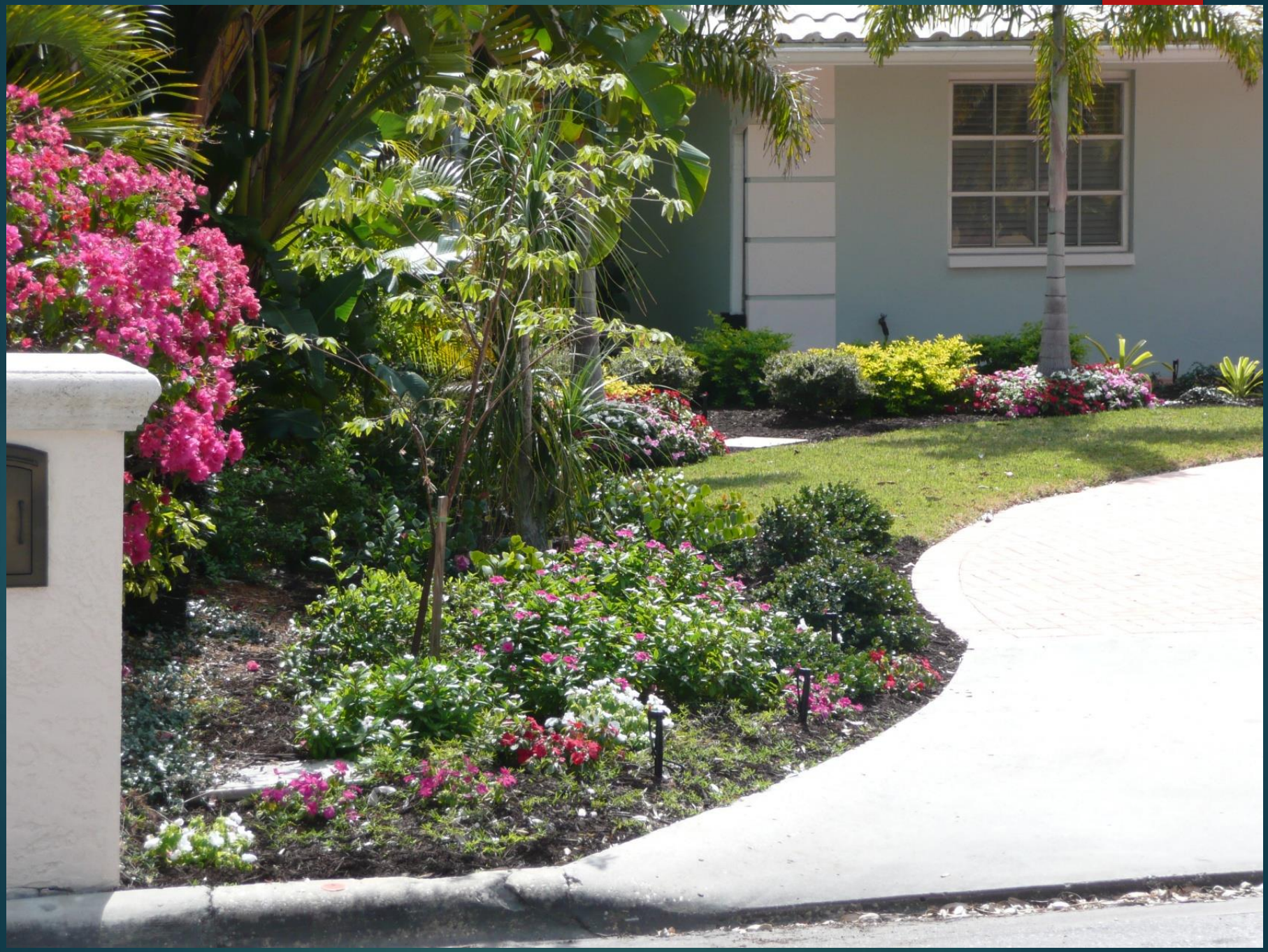
Before

After

Misconceptions

What does this mean for me?

- Opportunity
- There is no one right look
- Many ways to have an attractive, sustainable, landscape
- 9 principles are the framework




STOP
ONLY

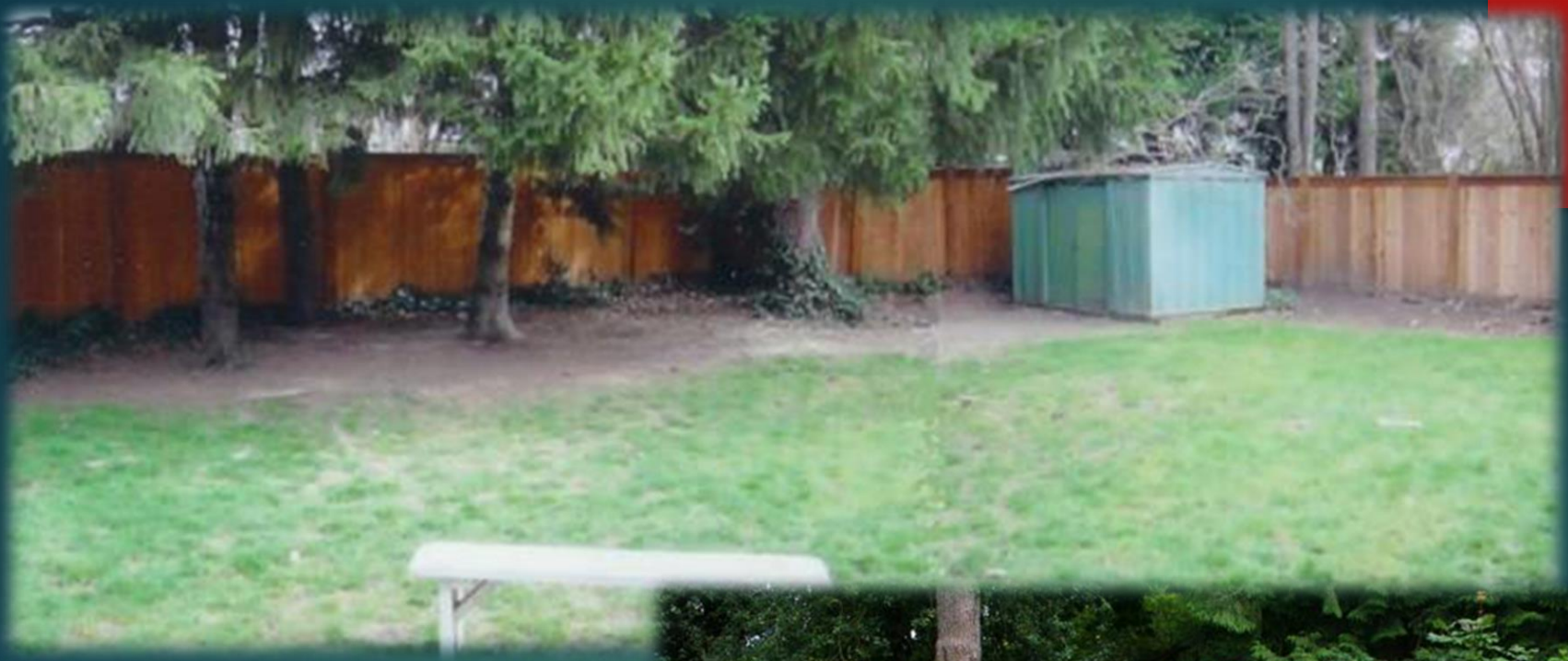
Steps to Success

1. Right Plant, Right Plant

- Select plants based on site conditions
- Consider plant characteristics
  - Mature size
  - Maintenance needs
- Benefits
- Fewer problems
- Longer lifespan
- Saving money


Before


After



Before

After

Steps to Success

2. Water Efficiently

- Water when and where plants need it
- Establishment
- Irrigation audits
  - Free (from Extension)
  - System calibration
- Microirrigation
- Smart technology

https://ufl.qualtrics.com/jfe/form/SV_6tZl9NhvzYOnUvb

Steps to Success

3. Fertilize Appropriately

- > 50% slow-release nitrogen
- Proper scheduling
- Correct amount
- Proper application and disposal
- Avoid water, impervious surfaces
- Give it a rest!
  - No Nitrogen or Phosphorous from 6/1-9/30
  - Slow release fertilizers in spring
  - Iron for green-up

Steps to Success

4. Mulch

- Maintain 2-3” layer of mulch
- Regulates moisture, temperature
- Suppresses weeds
- Natural/organic vs. inorganic

Steps to Success

5. Attract (or just conserve) Wildlife

- Birds, bees, bats, butterflies, beetles
- Frogs, toads
- Snakes
- Provide shelter
- Plant layered and diverse palette
- Avoid pesticides

Steps to Success

6. Manage Yard Pests Responsibly

- Integrated Pest Management

7. Recycle Yard Waste

- Compost or reuse leaves and trimmings

Steps to Success

8. Reduce Stormwater Runoff

- Swales, berms, rain gardens
- Minimum of impervious surfaces

9. Protect the Waterfront

- 10’ maintenance-free zone
- New areas for landscapes


Before


After

Establishment is a Must

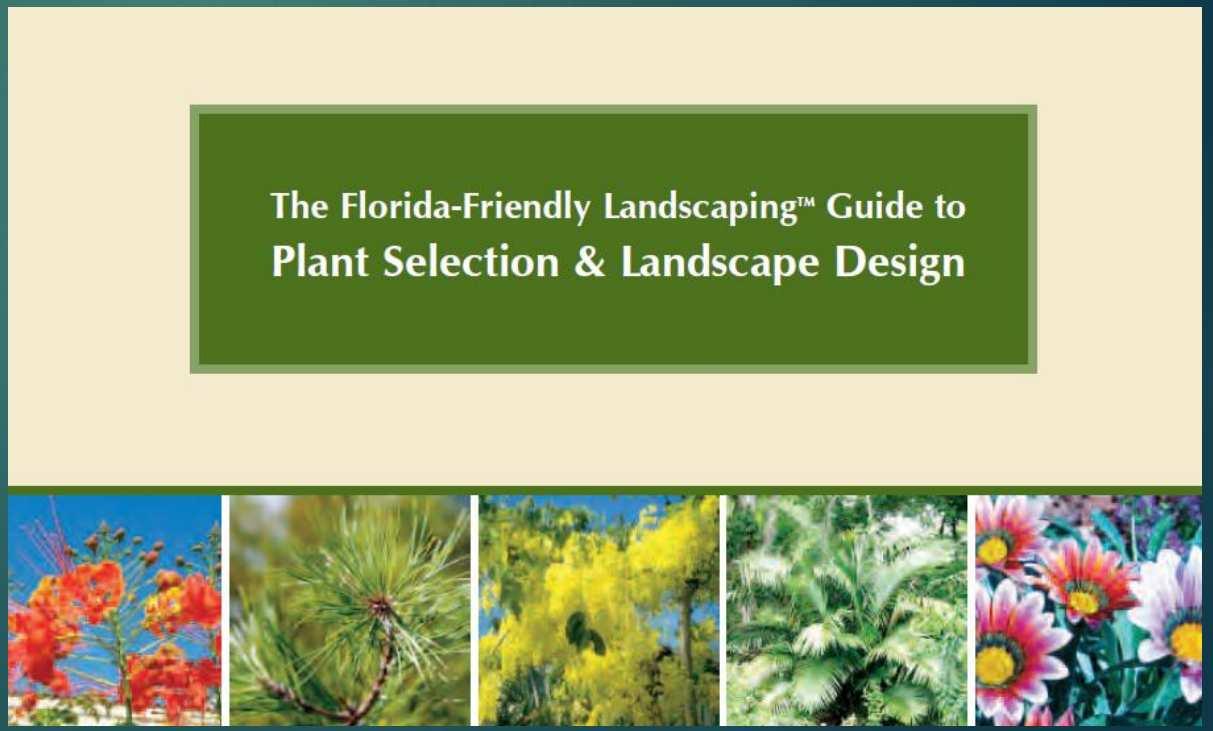
- Right Plant, Right Place
- Low-maintenance ≠ No maintenance
- Planning saves time, $, and frustration
- Ask the experts!


Before


8132
After

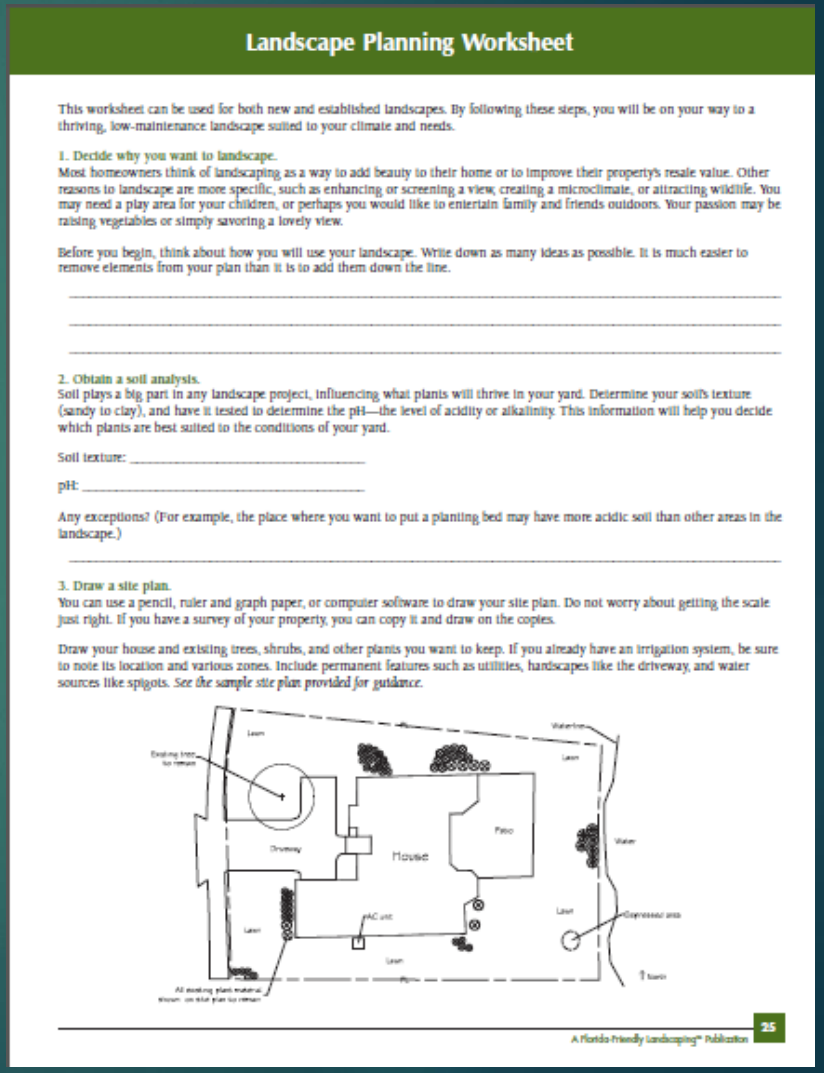
Using the FFL Guide

- Landscape Design Strategies
- Landscape Planning Worksheet
- Planting Zones and Plant Keys
- Plant List



Landscape Planning Worksheet

- To assist with the conversion of your landscape to a FFL landscape
- The Landscape Worksheet walks you through some key steps



Landscape Planning Worksheet

This worksheet can be used for both new and established landscapes. By following these steps, you will be on your way to a thriving, low-maintenance landscape suited to your climate and needs.

1. Decide why you want to landscape.
Most homeowners think of landscaping as a way to add beauty to their home or to improve their property's resale value. Other reasons to landscape are more specific, such as enhancing or screening a view, creating a microclimate, or attracting wildlife. You may need a play area for your children, or perhaps you would like to entertain family and friends outdoors. Your passion may be raising vegetables or simply savoring a lovely view.

Before you begin, think about how you will use your landscape. Write down as many ideas as possible. It is much easier to remove elements from your plan than it is to add them down the line.

_____

_____

_____

2. Obtain a soil analysis.
Soil plays a big part in any landscape project, influencing what plants will thrive in your yard. Determine your soil's texture (sandy to clay), and have it tested to determine the pH—the level of acidity or alkalinity. This information will help you decide which plants are best suited to the conditions of your yard.

Soil texture: _____

pH: _____

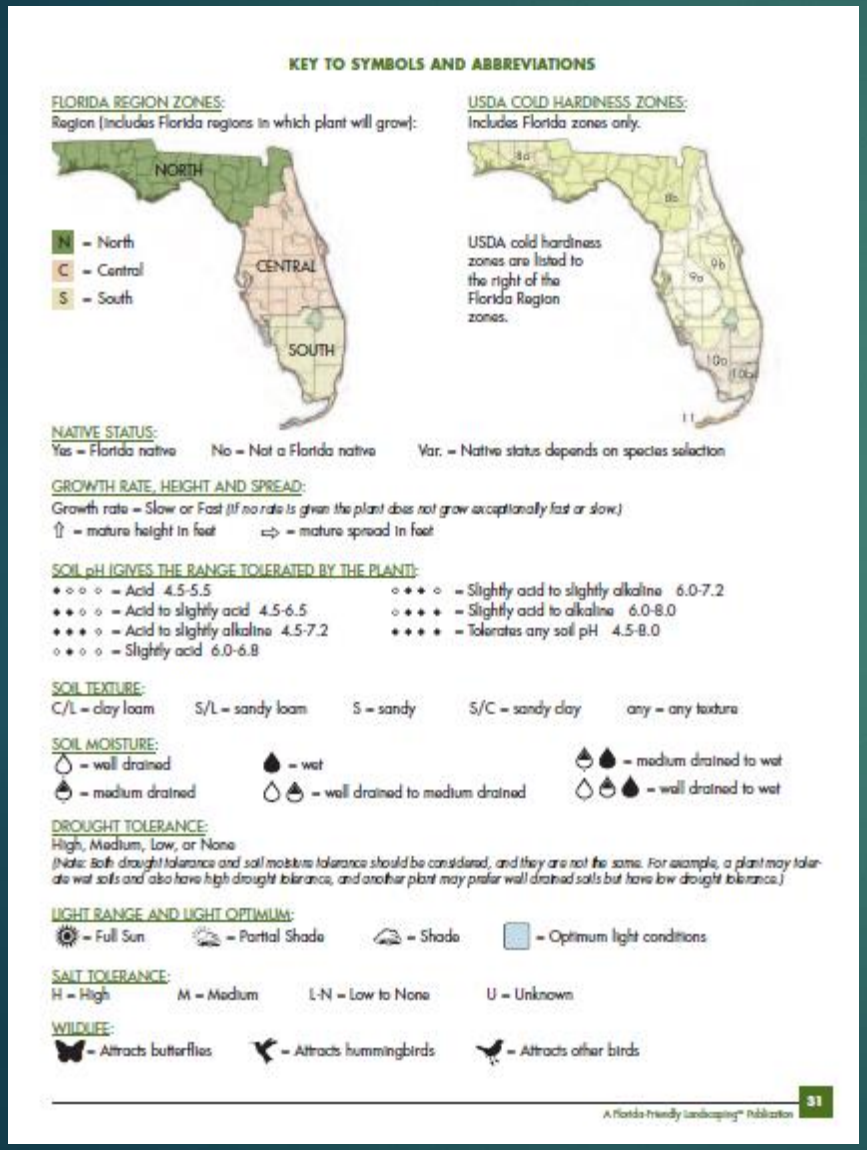
Any exceptions? (For example, the place where you want to put a planting bed may have more acidic soil than other areas in the landscape.)

_____

3. Draw a site plan.
You can use a pencil, ruler and graph paper, or computer software to draw your site plan. Do not worry about getting the scale just right. If you have a survey of your property, you can copy it and draw on the copies.

Draw your house and existing trees, shrubs, and other plants you want to keep. If you already have an irrigation system, be sure to note its location and various zones. Include permanent features such as utilities, hardscapes like the driveway, and water sources like spigots. *See the sample site plan provided for guidance.*

Planting Zones and Keys



KEY TO SYMBOLS AND ABBREVIATIONS

FLORIDA REGION ZONES:
Region (includes Florida regions in which plant will grow):

N = North
C = Central
S = South

USDA COLD HARDINESS ZONES:
Includes Florida zones only.

USDA cold hardiness zones are listed to the right of the Florida Region zones.

NATIVE STATUS:
Yes = Florida native No = Not a Florida native Var. = Native status depends on species selection

GROWTH RATE, HEIGHT AND SPREAD:
Growth rate = Slow or Fast *(If no rate is given the plant does not grow exceptionally fast or slow.)*
⇧ = mature height in feet ⇨ = mature spread in feet

SOIL pH (GIVES THE RANGE TOLERATED BY THE PLANT):
♦ ◇ ◇ ◇ = Acid 4.5-5.5
♦ ♦ ◇ ◇ = Acid to slightly acid 4.5-6.5
♦ ♦ ♦ ◇ = Acid to slightly alkaline 4.5-7.2
◇ ♦ ◇ ◇ = Slightly acid 6.0-6.8
◇ ♦ ♦ ◇ = Slightly acid to slightly alkaline 6.0-7.2
◇ ♦ ♦ ♦ = Slightly acid to alkaline 6.0-8.0
♦ ♦ ♦ ♦ = Tolerates any soil pH 4.5-8.0

SOIL TEXTURE:
C/L = clay loam S/L = sandy loam S = sandy S/C = sandy clay any = any texture

SOIL MOISTURE:
◇ = well drained
♦ = wet
♦ ♦ = medium drained to wet
♦ ◇ = medium drained
◇ ♦ = well drained to medium drained
◇ ♦ ♦ = well drained to wet

DROUGHT TOLERANCE:
High, Medium, Low, or None
(Note: Both drought tolerance and soil moisture tolerance should be considered, and they are not the same. For example, a plant may tolerate wet soils and also have high drought tolerance, and another plant may prefer well drained soils but have low drought tolerance.)

LIGHT RANGE AND LIGHT OPTIMUM:
☼ = Full Sun = Partial Shade = Shade = Optimum light conditions

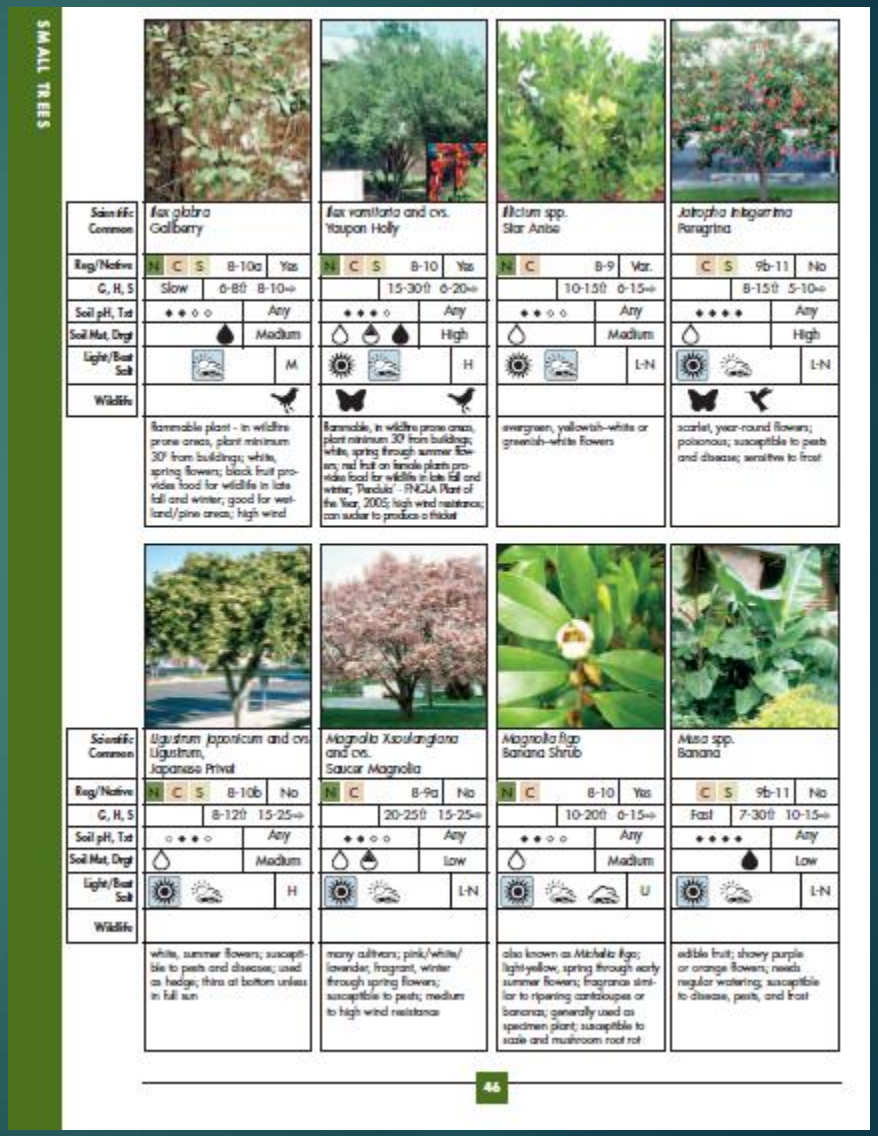
SALT TOLERANCE:
H = High M = Medium L-N = Low to None U = Unknown

WILDLIFE:
= Attracts butterflies = Attracts hummingbirds = Attracts other birds

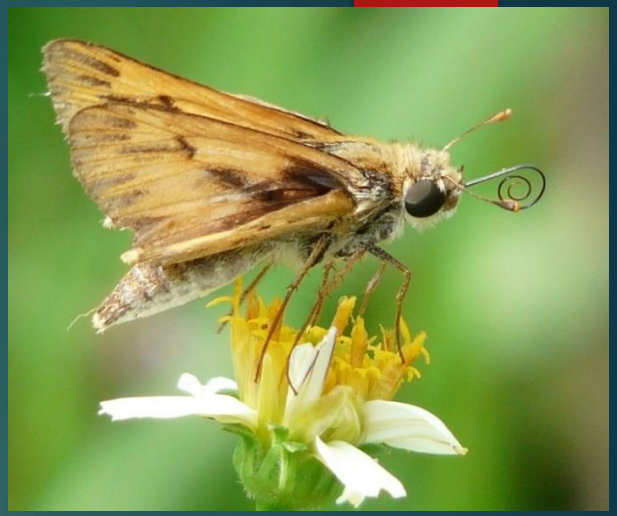
- Identify your zone
- This key will allow you to be site selective with your planting choices

Florida-Friendly Plants

- Organized by plant growth habit
- Remember to use your key



Resources



County Extension Office

http://sfyl.ifas.ufl.edu/sarasota/

www.floridayards.org

http://fyn.ifas.ufl.edu

Local water management district: SWFWMD

FFL Design Guide and Plant List

Questions?

Wilma Holley
wholley@scgov.net
941-861-9812

Dr. Pat Williams
williams.p@ufl.edu
941 861-9826

Master Gardener
Plant Clinics
plantclinic@scgov.net
941-861-9807