

Educating with Extension



By Liz Yongue, Extension Coordinator, and in collaboration with Alicia Betancourt, Shelly Krueger, and Michelle Leonard-Mularz

Volume 18 Issue 9

University of Florida, Institute of Food and Agricultural Sciences (IFAS), Monroe County

September 2019

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SAVE-THE-DATE

General Standards (Core) Pesticide Review and Testing

September 10th
8 a.m. to 2 p.m.
\$20/person

2nd Floor Conference Room
Marathon Government Center
2798 Overseas Hwy, Marathon

Ornamentals & Turf Pesticide Review and Testing

September 11th
8 a.m. to 2 p.m.
\$20/person

2nd Floor Conference Room
Marathon Government Center
2798 Overseas Hwy, Marathon

Florida Friendly Landscaping Program Training

September 24th
Marathon*

September 26th
Key West*

(*see page 2 for more details)

Please contact our office at (305) 292-4501 to sign-up for these events!



By Michelle Leonard-Mularz, Environmental Horticulture Agent

What is killing my trees? This has been a common thread of some calls our office, and other departments within the County, have received recently. Distorted growth, severe stunting, and shoot proliferation have all been reported on mature Gumbo Limbo's and Buttonwoods. Initially, the problem appears to be Witches Broom, though these cases are far worse than normally encountered. Witches broom is an unusually dense and compact cluster of growth within individual shoots, and can be caused by a number of factors including mites, viruses, nematodes, or insects. Typically, it is more of an aesthetic problem and does not cause death to plants; nor is it widespread throughout a landscape.

Herbicide Injury

So what could be other causes of entire landscapes with this distorted growth? Herbicide damage. Many homeowners in the Florida Keys enjoy a landscape comingled with mature trees, landscape beds, and copious amounts of gravel covering otherwise rocky soils. However, this creates a perfect opportunity for weeds to exploit and take advantage of the open, barren space. Since many prefer a weed-free landscape, herbicides are often used. Herbicides are pesticides used to control unwanted vegetation in landscapes, ball fields, rights-of-way, farms, forests, aquatic environments and natural areas. They are very important management tools when used in addition to other types of control mechanisms. However, homeowners in many cases, pay little attention to label instructions, which includes site restrictions and rates. Presumptions are made that if it is available at retail stores, it must be safe to use.

Imidazolinones

Imidazolinone herbicides are a family of herbicides that include Imazapyr, Imazapic, Imazaquin, and others. They are powerful

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September



Monday, September 2nd
Labor Day
County offices will be closed

Wednesday, September 4th
Plant Clinic
9 a.m. to Noon
Suite 244 (2nd Floor)
102050 Overseas Hwy,
Key Largo

Monday, September 16th
Plant Clinic
9 a.m. to Noon
Suite 2-260
1100 Simonton Street,
Key West

Tuesday, September 17th
Monroe County Climate Change Advisory Committee Meeting
12:30 - 4:00 p.m.
Marathon Gov. Center
2798 Overseas Highway,
Marathon

Wednesday, September 18th
Plant Clinic
9 a.m. to Noon
Suite 244 (2nd Floor)
102050 Overseas Hwy,
Key Largo

Saturday, September 21st
Plant Clinic
9 a.m. to Noon
Marathon Home Depot
Garden Center

Thursday, September 26th
Plant Clinic
9 a.m. to Noon
Island Home Nursery
88720 Overseas Hwy
Tavernier

Sea Grant News

Shelly Krueger
UF/IFAS Florida Sea Grant Agent

Shelly recently accomplished the following activities:

- Shelly was invited to present about stony coral tissue loss disease communication strategies and citizen engagement to an international delegation of the Gulf and Caribbean Fisheries Institute at the Florida Keys National Marine Sanctuary.
- Shelly was invited to present to 54 Sea Camp students about horseshoe crabs, sponges, and the stony coral tissue loss disease at their Science Night.



- Shelly was invited to present at the Extension Professional Associations of Florida for two oral sessions and one poster session.
- Shelly was re-elected treasurer of Florida Association of Natural Resource Extension Professionals.

Spiny Lobster Season August 6th—March 31st!

Bag Limit:
6 lobster per person, per day.

Minimum Size Limit:
Carapace must be larger than 3", measured in the water.

Egg-bearing Lobster MUST be released!

For more information:
<https://myfwc.com/fishing/saltwater/recreation/lobster/>



Plant Clinics

The Monroe County Master Gardener Volunteers will help you with plant problems or insect identification at the following locations throughout the Summer and Fall:

KEY WEST
Gato Building
Extension Office
1100 Simonton Street, #2-260
9:00 a.m. to 12 noon

September 16th
October 7th and 21st
November 4th and 18th

MARATHON
Marathon Home Depot
4555 Overseas Highway
(at the Garden Center)
9:00 a.m. to 12 noon

September 21st
October 19th
November 16th

ISLAMORADA
Island Home Nursery
88720 Overseas Highway
(Mile Marker 88)
9:00 a.m. to 12 noon

September 26th
October 24th
November 21st

KEY LARGO
Murray E. Nelson Government
& Cultural Center
102050 Overseas Hwy., #244
9:00 a.m. to 12 noon

September 4th and 18th
October 2nd and 16th
November 6th and 20th

Horticulture News

Michelle Leonard-Mularz
UF/IFAS Environmental Horticulture Agent

Michelle recently accomplished the following activities:

- Master Gardener volunteers recognized 4 landscapes as Florida Friendly. Florida Friendly landscapes utilize sustainable practices for the protection of our water resources while integrating low-maintenance plants in the landscape.

The guiding principles of a Florida Friendly landscape include using proper plants and planting practices, reducing water use, utilizing proper

fertilization, using mulch, creating a diversified landscape to attract wildlife, managing pests responsibly, recycling yard waste, reducing storm water runoff, and protecting waterways from pollution.



Learn more about the Florida Friendly Landscaping Program at their website:
<https://ffl.ifas.ufl.edu/>

If you would like to learn more about these practices and how to get your landscape recognized, attend one of our upcoming programs:

September 24th
1 p.m. to 5 p.m.

2nd Floor Conference Room
Marathon Government Center
2798 Overseas Hwy, Marathon

September 26th
1 p.m. to 5 p.m.

2nd Floor Conference Room
Harvey Government Center
1200 Truman Avenue, Key West

Extension Director's News

Alicia Betancourt

UF/IFAS Family and Community Development Agent and
Monroe County Extension Director

Alicia recently accomplished the following activities:

- Alicia received the Wells Fargo Professional Development Award. This is given to an agent who excels in their field and comes with a one-time \$3,000.00 salary support and \$10,000 for program support. She will be using the funds to complete a Handbook for Municipal Action on Climate Change which will help small municipal partners with easy-to-use tools to begin the process of assessment and adoption of climate resilient strategies.



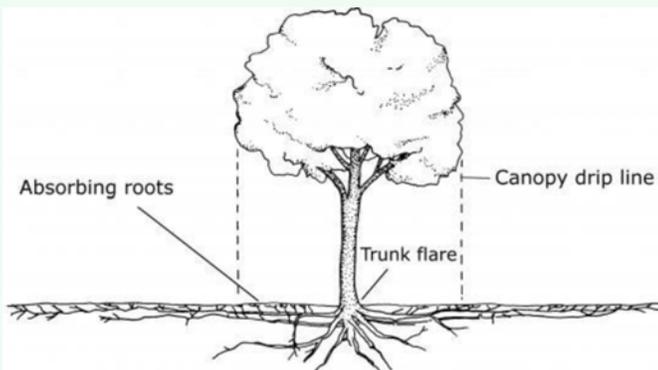
- Alicia is a co-researcher on a "CIVIC Partnership Paper" which is looking at faculty assumptions, barriers and opportunities for University of Florida and Florida Agricultural & Mechanical (A&M) University Extension collaboration.
- Alicia presented a "Roadmap to Sustainability" at the Sustainability 101 in service training to 22 Extension professionals.
- Alicia chaired a meeting of the National Network for Sustainable Living Education where they set initiative teams a priority for 2020.
- Alicia participated in the Transportation Improvement Group, which is not a formal Monroe County committee, where she will participate as staff.



- Alicia participated in the SEFL Climate Compact GHG technical team. They met to determine structure and goals of the SEEA grant award of \$200,000.

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herbicides that inhibit the enzyme acetolactate synthase (ALS), which is critical in plants. Products found locally in retail stores containing one of these active ingredients include GroundClear, RoundUp 365, and RoundUp Extended Control. In almost all cases brought to our office, homeowners confirmed use of herbicides containing Imazapyr. Imazapyr is a non-selective herbicide used to control a broad range of weeds in aquatic and terrestrial environments and has great potential to damage and kill non-target plants. It is quickly absorbed through plant tissue and taken up by any roots that come into contact. Even though these products contain very little amounts of Imazapyr, the chemical can persist (stay active) in the soil for over a year and even longer in drought conditions. A common method for measuring soil persistence is half-life, the length of time for half the amount of a pesticide to breakdown or no longer be present in the soil. In aquatic



(above) graphic showing the "drip line" of a typical tree.
Image courtesy North Carolina State Extension

environments, Imazapyr is quickly degraded by sunlight (within several days). However, in soils, the primary mechanism for degradation is through microbes and the half-life ranges from one to seven months, with soil type, temperature, and soil moisture all playing a role. Imazapyr is a weak acid and its chemical structure and adsorption capacity is affected by the pH of the soil. The higher the pH, the longer it can be available for plant uptake since it doesn't bind strongly to soil particles in high pH environments. This also means a potential for leaching through soil into groundwater.

Read the Label

These products are labeled for use on driveways, sidewalks, fence lines, and paver patios, and are not intended to be used in areas comingled with plant roots such as in landscapes. Some products mention use on gravel areas, which could be confusing as that would include many landscapes in the Keys. However, not only is it the law, but it's very important to pay attention to any restrictions listed on the label. For instance, restrictions mentioned in the GroundClear label clearly state:

DO NOT use on lawns, on or around fruits, vegetables, flowers, shrubs, trees or over the root zone of shrubs or trees.

Do not apply over their root systems. For shrubs and trees, do not apply closer than twice the distance from the trunk to the drip line as roots may be within this area.

Pesticide product labels are legal documents. This statement is on all registered pesticide product labels, "It is a violation of federal law to use this product in a

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UF/IFAS/MONROE COUNTY EXTENSION

1100 Simonton Street, Suite 2-260, Key West, FL 33040
 102050 Overseas Hwy., Suite 244, Key Largo, FL 33037

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 County Extension Director: Alicia Betancourt
 Newsletter Editor: Liz Yongue, Extension Coordinator

This newsletter can be accessed online at:
<http://monroe.ifas.ufl.edu/newsletter.shtml>

We're on the Web at: <http://monroe.ifas.ufl.edu>



University of Florida (UF)
<http://SolutionsForYourLife.ufl.edu>
<http://ufl.edu>
 Electronic Data Information Source (EDIS)
<http://edis.ifas.ufl.edu>

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manner inconsistent with its labeling.” Violating this law could result in fines.

Plant Recovery

Dr. Chris Marble, an assistant professor in ornamental and landscape weed management at the University of Florida, IFAS said, “I have had at least 50 instances (conservative estimate) over the past 5 years where either GroundClear with imazapyr or RoundUp 365 with imazapic caused damage or killed ornamentals. These can be useful herbicides if the label directions are followed, but they can cause serious damage if people do not use them properly.”

It is recommended to immediately stop using products containing any of the active ingredients listed in areas where plant roots may come into contact. Depending on the extent of the damage,

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plant recovery could take up to a year or longer.

For more information on homeowner herbicide use and considerations visit the EDIS publication *Florida Homeowner Herbicide Guide: Considerations, Applications, and Selection*, by Chris Marble

<http://edis.ifas.ufl.edu/pdf/EP/EP57500>

or contact the Monroe County Extension Service at monroe@ifas.ufl.edu!



Silver buttonwood



Damaged Buttonwood

Courtesy Michelle Leonard-Mularz

UF/IFAS/MCES QUARTERLY CONTACTS

	June	July	Aug	Totals
Phone calls	46	43	44	133
Office visitors	8	10	9	27
Visits to clients	17	11	14	42
Learning events	24	24	30	78
Participants	713	269	343	1,325
Media submissions	5	5	10	20
Publications distributed	297	167	103	567
TOTAL contacts	1,110	529	553	1,605