

Educating with Extension



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

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Inside this issue:

Sea Grant News from Shelly Krueger	2
Horticultural News from	2
Master Gardener Volunteers can Help!	2
Extension Director News	3
Page 1 story continued	3
Peanut Butter Challenge	4
Contact us!	4

NOVEMBER HAPPENINGS



November 15th
National Recycling Day!



November 19th & 20th
Key West Garden Club Annual Plant Sale 10AM-3PM



November 20th
Native Plant Sale 9AM-12PM
Key West Tropical Forest and Botanical Garden



November 25th & 26th
County Offices Closed for Thanksgiving. Have a wonderful Holiday!!!



November 27th 9AM-3PM
Marathon Garden Club Holiday Bazaar



What is Witch's Broom?

By Michelle Leonard-Mularz,
Environmental Horticulture Agent

Witch's broom is a symptom of stress in woody plants that causes deformed or stunted growth on newly expanding buds and leaves. This stress causes the disruption of stem elongation, leaf development and expansion and can cause a broom-like appearance from the rapid increase in the number of buds erupting, hence the name.

Across the state, this is becoming more of a common problem in the landscape and can be challenging to diagnose. Likewise, here in the Keys, we have seen a steady increase with similar damage to woody plants since 2019. While there are several different environmental stresses that can cause witch's broom, such as eriophyid mites and certain plant pathogens, overwhelmingly, the damage we see in the Keys is caused by a misuse of herbicides in the chemical class imadizolinone. These herbicides are known as ALS (acetolactase synthase) inhibitors. ALS enzymes are important for plant growth and ALS inhibitor herbicides are taken up through plants roots, where they move through the xylem and phloem, and essentially halt cell growth and division. Minute amounts of these herbicides can have negative effects on our tropical hardwood trees such as gumbo limbo and buttonwoods. This is because they do not break down quickly in our soil and remain available for uptake by plant roots for several months or longer.



Completely defoliated gumbo limbo due to herbicide damage (photo was taken in July).
Credit: Michelle Mularz

Plant Clinics

Monday, November 1st

Plant Clinic

11 a.m. to 2 p.m.

Key West Garden Club
1100 Atlantic Blvd.
Key West

Wednesday, November 3rd

Plant Clinic

9 a.m. to Noon

Murray Nelson Govt. Center
102050 O/S Hwy. #244
Key Largo

Tuesday, November 9th
Virtual Plant Clinic

10 a.m. to 11 a.m.

Papaya Fruit Fly

Call to Register (305) 292-4501

Wednesday, November 17th

Plant Clinic

9 a.m. to Noon

Garden Club of Upper Keys
94040 O/S Hwy.
Tavernier

Saturday, November 20th

Plant Clinic

9 a.m. to Noon

Marathon Home Depot
4555 O/S Hwy,
Marathon

Saturday, November 20th

Plant Clinic

9 a.m. to Noon

KW Botanical Garden Nursery
5210 College Rd.
Stock Island

Wednesday, November 24th

Plant Clinic

10 a.m. to 1 p.m.

Island Home Nursery
88720 O/S Hwy,
Islamorada

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 was invited to co-present at the 50th Annual North American Association of Environmental Educators. She shared how increased community capacity can grow from deliberative discussion forums.



- Alicia virtually hosted the UF-IFAS South East Extension District meeting for 60 Extension agents, state specialists and researchers.



- Alicia worked with The Alliance of Natural Resource Outreach and Service Programs (ANSROP) to model the Climate Smart Florida program growth in line with the California Climate Stewards Program. ANROP is a national network of natural resource education and service programs which provides leadership, information, and resources to support the establishment and expansion of its member programs.

- Alicia is co-teaching the National Sustainable Living and Leadership Series to 18 participants, including a Southeast Florida optional add on which further explores local sustainability issues, challenges participants to get involved in their community and provides virtual and in-person field trips. The series lasts 7 weeks, meeting twice a week to look at sustainability frameworks, consumerism, water, energy, food systems and leadership.
- Alicia spoke on the radio about holiday budgeting and how to have a green holiday. Find out more [here](#) or find all of our blogs at <https://sfl.ifas.ufl.edu/monroe/>

Continued from page 1

Products that are available for homeowners to purchase at big-box retail stores include RoundUp™ 365, Ortho Groundclear™, and RoundUp™ Extended Control. Some commercial landscape products include Scepter™ T&O and Image™. The active ingredients in this chemical class include imazapyr, imazapic, imazaquin, imazamox, and imazethapyr. The active ingredient in RoundUp™ is glyphosate. Glyphosate is a contact herbicide and is not causing this damage. Damage occurs when these other chemicals are added to RoundUp™ for longer-lasting control and used around plants. The active ingredient of a pesticide is normally required to appear on the front panel of the label (front of package), and this can help homeowners and commercial applicators easily distinguish if one of these active ingredients is included in the herbicide they are purchasing. Although, at first glance, it may seem like the herbicide is being correctly applied since many of these products are labeled for use in graveled areas, driveways, and sidewalks; the label also states they should not be applied within the root zone of desirable plants. Plant roots extend well beyond the canopy of trees. We have even seen damage to trees when herbicide applications are made to adjoining yards or businesses.

If you have a plant or multiple plants that are exhibiting symptoms of witch's broom, immediately stop using any herbicide products with the active ingredients listed. Repeated use could cause plant death. Plant recovery can take up to a year or longer. In fact, your tree may stop producing new foliage all together. Check to make sure there is still living (green) tissue under the bark by a simple scratch test with your fingernail. If you see green tissue once you scratch some of the bark away, the plant

is still alive. Only time will help these trees recover. Do not add any more pesticide products or fertilizers. Keeping detailed records of any pesticides used can help accurately identify problems when they occur.

If you have not applied any herbicide products and still have plants in the landscape exhibiting witch's broom symptoms, collect a plant sample and contact the Monroe County Extension office for plant analysis. When individual branches or small sections of the plants are exhibiting symptoms, prune the damaged parts of the plant and dispose of the material.



Healthy buttonwood (*Conocarpus erectus*) foliage (left)
credit: Michelle Mularz

stunted leaf growth due to herbicide damage (right). Credit: Jim Duquesnel, Monroe County Assistant Land Steward

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Sea Grant News



Shelly Krueger
UF/IFAS Florida Sea Grant Agent

Shelly recently accomplished the following activities:



- Shelly was awarded the *Florida Sea Grant 2021 Outstanding Outreach Award* for her course on Stony Coral Tissue Loss Disease Underwater Observer Training. More than 239 Boy and Girl Scouts were taught the course at the Boy Scouts of America Sea Base on Summerland Key this summer.

- Shelly co-led the Shorelines, Estuaries, and Aquatic Systems Work Action Group (SEAS WAG) bi-annual meeting and the Restoration Aquaculture breakout group. Florida Sea Grant agents and specialists identified state-wide initiatives to develop the Florida Friendly Visitors Guide, expanding sponge restoration aquaculture, Spanish-language mangrove trimming videos, and CEU credits for living shorelines contractors' courses.

- Shelly taught a Zoom webinar about stony coral tissue loss disease to the Fort Lauderdale/ Miami chapters of the Climate Reality Project.
- Quote from Sea Base STEM Team: "Stony coral tissue loss disease, is a wake up call for any coral enthusiast or marine biologist. The rate at which we're losing the 3rd largest reef tract in the world is alarming at best and catastrophic at worst. Each student that takes part in our program is flabbergasted at the mountains of dead coral, but they walk away with a hope that they can be part of the solution".



The Environmental Horticulture Program and Master Gardener Volunteers remain dedicated to helping you with your plant related questions.



CALL OUR OFFICE:
(305)292-4501

We have many different ways we can assist!

VISIT OUR OFFICE:

Email Monroe@ifas.ufl.edu or
Call (305)292-4501 to schedule an appointment

EMAIL YOUR QUESTIONS TO:
mastergardener@monroecounty-fl.gov



Please include a detailed description of the problem and photos if available

FACEBOOK PAGE:

Visit our Facebook page for updates, requests, information and so much more!

<https://www.facebook.com/MonroeCountyExtension>



Horticulture News



Michelle Leonard-Mularz
UF/IFAS Environmental Horticulture Agent

Michelle recently accomplished the following activities:

- 8 Monroe County Master Gardener volunteers attended the Statewide Master Gardener Conference for advanced training covering a wide array of horticultural topics to better assist residents.

- Over 75 youth from Monroe County have learned about the pollinators in the Florida Keys through our partnership with Key West Garden Club. Local youth tour the garden and learn to recognize different pollinators with our Pollinator Scavenger Hunt. Once completed, they receive a free pack of wildflower seeds native to Monroe County. Building awareness of these organisms helps conserve the insects we rely on to pollinate our plants and ultimately helps support larger organisms, as a food source, like birds, which are declining worldwide.

- This year, over 300 residents attended our Florida Friendly Landscaping Lunch-and-Learn virtual programs. As a result, over 75% of participants said they have adopted one or more of the sustainable principles discussed during the monthly sessions. The overall goal of the Florida Friendly Landscaping program is to reduce water consumption in the landscape and also reduce runoff to our nearshore waters that contribute to non-point source pollution through fertilizer and pesticide use.



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 Newsletter Editor: Brynn Morey, 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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<https://ics.ifas.ufl.edu/ufifas-diversity-and-legaleeo-statements/>

UF/IFAS EXTENSION CELEBRATES HALLOWEEN!



Environmental Horticulture Agent, Michelle Mularz and Extension Coordinator, Brynn Morey, have fun dressing up as native pollinators and passing out candy to children at the Historic Gato Building.

UF/IFAS/MCES QUARTERLY CONTACTS

	Aug	Sept	Oct	Totals
Phone calls	32	24	16	72
Office visitors	27	47	41	115
Email Consultations	135	142	98	375
Learning events	22	23	31	76
Participants	409	419	426	1,254
Media submissions	14	6	4	24
Publications distributed	268	263	273	804
TOTAL contacts	907	924	889	2,720

2021 PEANUT BUTTER CHALLENGE

Donate unopened jars of peanut butter to the locations listed below from now until Nov. 24th.



All peanut butter donations will go to our local food pantries to help feed families in need.

DROP OFF LOCATIONS

Key West Gato Building	Suite 2-260
Marathon Govt. Center	Suite 400
Murray Nelson Govt. Center	Suite 244