THE DIRT

UF IFAS Extension UNIVERSITY of FLORIDA

FLORIDA MASTER GARDENER VOLUNTEER

October 2021, Issue 27

A quarterly online magazine published for Master Gardeners in support of the educational mission of UF/IFAS Extension Service.

PINELLAS MASTER GARDENER MAGAZINE

Contents

October 2021 Issue

Happy fall, everyone! Though it still feels like summer, we are approaching the seasons when working outdoors is not such a chore. We hope you all had a productive, healthy summer and are looking forward to fall gardening. In this issue of *The Dirt*, we welcome two new Pinellas County Extension Service staff members and recognize the contributions of another staff member. Other articles offer a variety of information from Master Gardeners. And see the last page for some links to other resources for Master Gardeners.

Susan Ladwig and Ellen, The Dirt co-editors

How Do I love trees? Let Me Count the Ways!

By Rebekah Heppner, Master Gardener Volunteer Trainee

How many trees are there in the City of St. Petersburg? No, this isn't a trick question -- it is possible to find an answer. In May, I attended a training session to learn how to count trees. Many other Saint Petersburg residents are helping me count our shared trees.

The St. Petersburg Urban Forestry Committee, a part of the City Beautiful Commission, is undertaking a tree inventory. There are many reasons to encourage establishing and

maintaining urban trees. They provide shade to help keep our electric bills down. They provide habitat for birds and squirrels. But they also perform "carbon sequestration" -- they store CO_2. According to Penn State University's extension office, "Trees are without a doubt the best carbon capture technology in the world. When they perform photosynthesis, they pull carbon dioxide out of the air, bind it up in sugar, and release oxygen. Trees use sugar to build wood, branches, and roots. "

There's a lot of talk about reducing our CO_2 emissions, but not much on increasing sequestration. The more trees we have, the less CO_2 in the atmosphere. We should protect the ones we have. We should plant more. But how will we know 10, 50, 100 years from now if we have more or fewer trees if we don't know how many we have now?

Of course, we have all kinds of high-tech tools to measure the "tree canopy" in St. Petersburg and that has been done. The city can use that data to measure the overall increase or decrease over time. One of the goals of the tree inventory will provide details such as the number of long-lived Live Oaks versus relatively shorter-lived Laurel Oaks and how many pines are left in Pine-ellas. How many of our trees are invasive non-natives that should be eliminated.

The Urban Forestry Committee is undertaking a citizen science project to create a tree map of the City of St. Petersburg. There is a cool website where you can watch our progress.

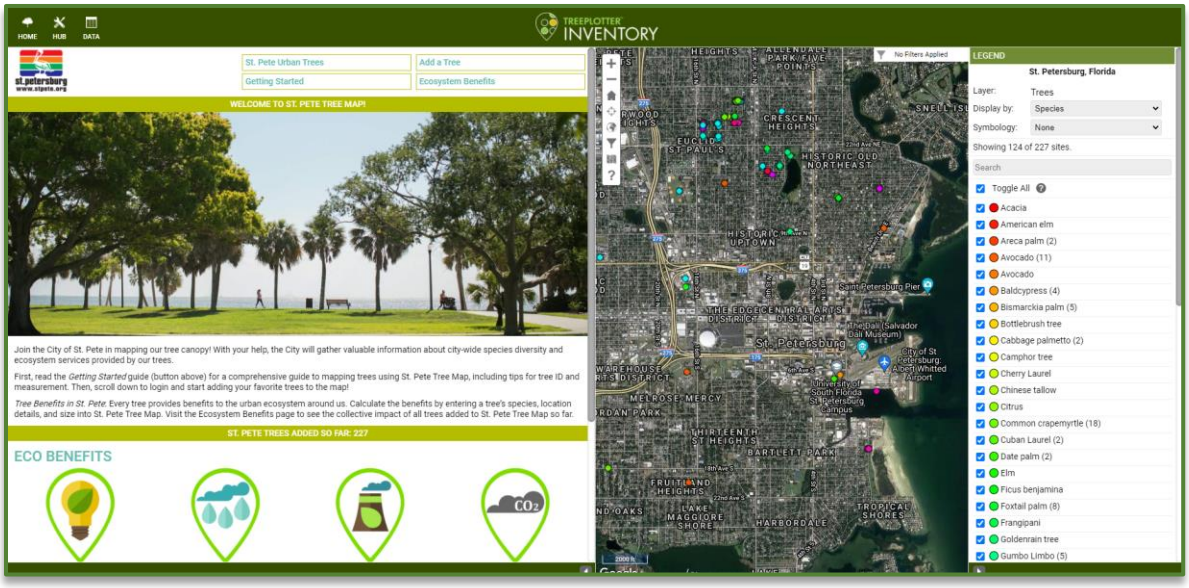


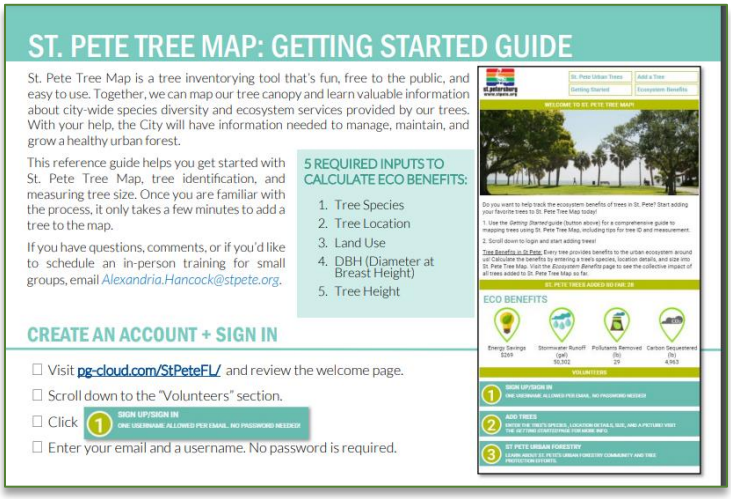
*Image from the St. Petersburg **Treeplotter** Inventory website*

You can also log in and get your own trees on the map, or the trees on your favorite walking path, or in your favorite park. In addition to gathering important data, the tree inventory seeks to engage citizens in learning about tree species and their value. Once a tree is identified (common name or genus and species) and measured (height and diameter) it can be entered in the appropriate spot on the tree map, then the mapping software not only shows you the google street view of your tree, it calculates its economic value. You can thank the folks at i-Tree for

that nifty feature. They break the value down into stormwater management, property value, energy conservation, air quality and, of course, carbon sequestration.

If you don't think you are proficient at tree identification or determining tree diameter, the Urban Forestry Committee will provide training and tools that will make the identification and measurement easy and fun. If you use an electronic device on your tree counting trips, the website will use GPS to "plant" your tree on the map.

This is a great project for families, neighborhoods, civic clubs, and youth groups. You can start by reading the handy Getting Started Guide. Then, if you want to learn more or schedule an in-person training for a small group, contact Cathy Harrelson, Chair, St. Petersburg Urban Forestry Committee (CathyHarrelson@gmail.com). The hours you spend working on the tree count can be used as Master Gardener volunteer hours.


ST. PETE TREE MAP: GETTING STARTED GUIDE

St. Pete Tree Map is a tree inventorying tool that's fun, free to the public, and easy to use. Together, we can map our tree canopy and learn valuable information about city-wide species diversity and ecosystem services provided by our trees. With your help, the City will have information needed to manage, maintain, and grow a healthy urban forest.

This reference guide helps you get started with St. Pete Tree Map, tree identification, and measuring tree size. Once you are familiar with the process, it only takes a few minutes to add a tree to the map.

If you have questions, comments, or if you'd like to schedule an in-person training for small groups, email Alexandria.Hancock@stpete.org.

5 REQUIRED INPUTS TO CALCULATE ECO BENEFITS:
1. Tree Species
2. Tree Location
3. Land Use
4. DBH (Diameter at Breast Height)
5. Tree Height

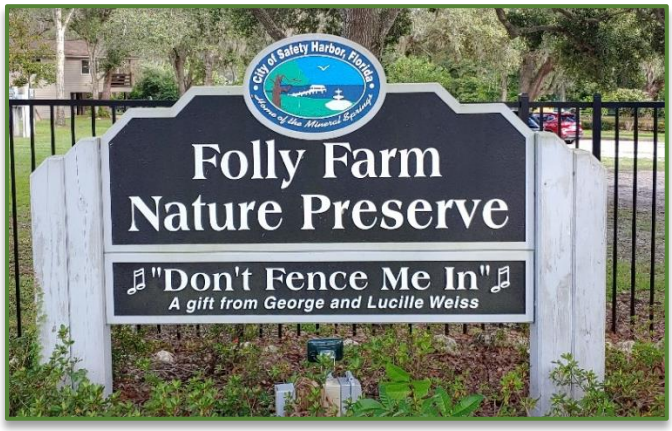
CREATE AN ACCOUNT + SIGN IN
- Visit pg-cloud.com/StPeteFL/ and review the welcome page.
- Scroll down to the "Volunteers" section.
- Click 1 SIGN UP/SIGN IN
- Enter your email and a username. No password is required.

Hope to see you hugging a tree soon!

Summer Gardening Camp at Folly Farm

by Carol Zieres, Master Gardener Volunteer Trainee
All photos by Carol Zieres

There's a special place in Safety Harbor where the garden gnomes hang out; that parcel of precious green space is Folly Farm. You'll usually find them tirelessly working in the flower beds on Monday and Tuesday mornings all summer long planting, weeding and watering what is planned to become the largest native butterfly garden in the County!



Previously a privately-owned horse farm, the 8.5-acre Folly Farm is now a beautiful city park, generously gifted to the City of Safety Harbor by philanthropist, George Weiss. His vision to preserve this green space for future generations' enjoyment is coming to fruition. He and his dog Max are often spotted walking through the gardens overseeing this beautiful transformation in progress.

Folly farm is also now the permanent home for the Safety Harbor Garden Club. Here members and Master Gardeners alike practice their gardening skills. The city even built a mini greenhouse on site for our use! Folly Farm is also home to many creatures great and small, from birds like pileated woodpeckers, screech owls and red- shouldered hawks to a variety of pollinators such as bees and butterflies that may be found fluttering among the host plants in both the Florida-Friendly and native flower beds.

Other features of the park include a gazebo with picnic tables, a labyrinth, a fire pit for campfires, hiking trails and a butterfly screen house. Several demonstration gardens include a wind garden, rain garden, butterfly and wildflower garden bed. These features provide the perfect venue for the city-sponsored children's summer camp programs.

Wooden art sculptures like the gnome house, created by Chris Dotson, artist and garden club member, dot the landscape. With the help of the city, he recently designed and installed a wind phone, a concept that originated from a garden designer named Itaru Sasaki in Japan for people grieving for loved ones they miss.

The president of the Safety Harbor Garden Club and Master Gardener, Gary Sawtelle, asked me if I'd be interested in teaching a children's educational summer camp program as a way of getting more volunteer hours to satisfy my Master Gardener certification requirement. Over the past several years, I'd been employed as an independent contractor for the City of Safety Harbor teaching art classes to adult students but had never had the opportunity to work with the little ones.

In July, I had the privilege to participate in a gardening day camp at Folly Farm, How Does Your Garden Grow, as an assisting instructor to Autumn Reich. Twelve children, ages 5 to 8, enjoyed a full week of activities that not only taught them the basics of gardening, but also gave them an appreciation for nature.

It was a thrill for me to see how excited the kids were at the sight of a fluttering butterfly when we toured the new Butterfly Screen House. One butterfly in particular quite rare to Folly Farm, the malachite butterfly (*Siproeta stelenes*), was first spotted by garden club members in June. Since then, eight adult malachite butterflies have

been found on site and placed in the screen house. They are now thriving on their host plant, the green shrimp plant (*Ruellia blechum*), and will hopefully reproduce to the extent that we can schedule a butterfly release into the pollinator gardens.

It was fun getting to know the campers, cooped up at home during the past 18 months due to Covid restrictions. The timing could not have been better to release children into the gardens to explore Mother Nature's magic. They actually got to plant black-eyed peas in a raised garden bed and pot coleus cuttings and mixed herb seeds in flowerpots they decorated. They learned plant ID and earthworm cultivation in a worm box, made homemade rain sticks and conducted an experiment using food coloring to demonstrate the uptake of water and nutrients in a cut flower stem.

I think the highlight for me as a Master Gardener was the docent tour, when I took the kids on a stroll through the garden Labyrinth while playing a few folk songs on my Native American flute. It was like something out of a story book fairytale with the children quietly tiptoeing behind the "Pied Piper!"

I would encourage more Master Gardener involvement in children's summer camp programs as the experience is very rewarding.

I, Butterfly

By Linda Smock, Master Gardener Volunteer

Dear Master Gardeners, let me introduce myself. I am a butterfly known as the white peacock (*Anartia jatrophe)*, one of the brush-footed butterflies of the *Nymphalidae* family.

I'm mostly white, and my wavy brown-and-orange lines and bands add to my beauty. Protective eye-spots on my wings protect me from my predators. My male partner and I look the same. We are smaller and darker during the wet summer months and larger and lighter during the winter months. You can see me year-round but will observe me much more frequently during the warmest months of the year.

I love sipping nectar from the low-growing wildflowers and weeds in natural areas and butterfly gardens. I lay tiny green eggs on water hyssop (*Bacopa monnier*i), a submerged water plant, wild petunia *(Ruellia caroliniensis)* and frogfruit or matchweed (*Phylla nodiflora)*. Sometimes I even lay them on beggar ticks *(Bidens alba)*. These host plants are increasingly difficult for me to find!

Water Hyssop Photo by the Univ. of Florida

Frogfruit Photo by the Univ. of Florida

My eggs hatch into tiny caterpillars in three-to-ten days. They are brown or black, with red-spotted black spines. Their black heads have two long clublike antennae. I remember when I was a caterpillar eating leaves and flowers and growing through my instar stages. I shed my skin or exoskeleton each time to grow to an inch-and-a quarter in length.

I was ready to enter the chrysalis stage, a complicated process. First, I crawled off to a taller plant, still close to the ground. I selected a place on the undersurface of a twig. Then, I spun a tiny, button-size silk pad securely around the twig to attach my cremaster, a modified larval hook-like anchorage created from my pair of anal feet. I twisted this Velcro-like device firmly around the twig (Cremaster, Nature's Velcro) I dropped my head and curled into an upside-down J.Finally, my body convulsed as my skin rapidly peeled off to reveal the hard- skinned chrysalis. I began a transformation that took two weeks. During this stationary period, I became easy prey for lizards, wasps, and birds.

When I was ready to eclose, I struggled to emerge from my chrysalis. I gradually began to spread my wings and let them dry. For more than an hour I was extremely vulnerable to my predators because I could barely move. Now, as an adult, I receive protection through my fast, erratic flight. I spend my time mating, laying eggs, and sipping nectar.

Thank you, Master Gardeners, for providing essential butterfly plants and for leaving some weeds in place in your lovely gardens. We know you appreciate all butterflies. We add beauty to your world. Our presence indicates a healthy environment. We also pollinate fruit and vegetables. Please continue to persuade others how essential we are, so that someday we may thrive again.

White Peacock Photo by Jaret C. Daniels

New Senior Horticulturist Is Here to Help

By Ellen Mahany, Master Gardener Volunteer

Bonnie Desmond, the new Senior Horticulturalist Specialist for the Pinellas County Extension Service, has a full range of credentials, including experiences dating back to her childhood.

Bonnie aids client at the help desk with a wide range of problems in person, on the telephone or by e-mail. She also provides support for extension agents and helps at Chester Ochs 4-H Education Center. There her primary responsibilities include assisting gardeners with questions, identifying needs for the site and programs, procuring supplies and selecting educational workshops/seminars.

With these duties she will be putting her rich background to good use. She has earned a bachelor's degree in business and marketing. She is a member of the Florida Nursery Growers and Landscape Association (FNGLA), and a certified horticultural professional landscape designer and training specialist. Additionally, she is an International Society of Arboriculture Certified Arborist (ISA) and a Florida Department of Agriculture and Consumer/services certified pesticide applicator (FDACS).

But she learned horticulture from the ground up, literally and figuratively. Bonnie says, "My mom had a huge garden in Connecticut. I remember picking strawberries on the side of a big hill. I remember my mother teaching me to spread marigolds by picking the dry flowers out and releasing the seed."

Then, Bonnie's family moved to Florida and her father established a landscape maintenance business. She reminisces, "As his children we were cheap labor. My dad eventually found a passion for sprinklers and after getting wet in cold weather for too many months, I moved on to nursery work and discovered my own passion for landscape design."

After working at a nursery, she became an employee with Pinellas County, moving from maintenance worker to park ranger to horticultural field inspector and now to her present position.

Of course, Bonnie enjoys her own garden. She comments, “My plants must be tough and carefree.” She likes bougainvillea and plumeria. At the top of her list are herbs, including rosemary (*Rosmarinus officinalis*), basil (*Cocinum basilicum*) and parsley (*Petroselinum crispum*). She adds, “Annuals are great because of the pop of color. Gerbera daisies (*Gerbera jamesonii)* and tuberose begonia (*Begonia tuberhybrida)* are my favorites.”

Bonnie has advice for anyone establishing or maintaining a lawn and garden in Pinellas County: “Get a soil test for pH. Know how you plan to water or not. Use the Florida Yards and Neighborhoods principles. Less grass. Design with maintenance in mind.” A reminder here is that UF/IFAS Extension Soil Testing Laboratory can test soil and provide a detailed analysis. Soil Testing-UF/IFAS Extension (ufl.edu)

Help is now available without restrictions at the Pinellas County Extension Desk. Bonnie cautions, “We prefer that the public wear a mask. Bring samples in or leave them for review if we are out to lunch or in training. Email us pictures. Call us on Monday, Tuesday or Thursday. We are typically here Monday thru Friday, 8 a.m.to 5 p.m.” In the event the help desk is closed due to training or a meeting, clients can fill out information forms and leave samples at the desk.

Her news from the help desk is that “the most frequent problem right now is Take All Root Rot (TAR), the most common lawn disease. The most unusual is “the mystery itch that people believe is caused by insects.” Bonnie muses, “They bring in samples that are everything but insects.”

When conditions return to normal, Master Gardeners will again have to opportunity to volunteer at the help desk and finally meet Bonnie Desmond. We welcome her and are thankful for her services, previous and present.

Welcome to a Conscientious Environmentalist

By Ellen Mahany, Master Gardener Volunteer

This is a good year for the Pinellas County Extension Service, as yet another environmentalist is named to an important new position. Welcome **to Melissa West**, Florida Friendly Landscaping Public Education Program Coordinator.

In her past position as administrative assistant to J. P. Gellermann, our Pinellas County Extension Service’s director, she gained an overview of the extension service’s operations. In her current position she will be teaching classes in rainwater harvesting, composting, micro-irrigation and other Florida Friendly Landscaping classes. In general, she will be helping homeowners reduce water usage.

Special credentials provide Melissa with the knowledge needed as this coordinator. She has a BA degree in Sustainability Management and Conservation from St. Petersburg College. She is a certified Stormwater Management Inspector-Florida Department of Environmental Protection. She recently earned a Green Management Best Management Practices Certificate (GI-BMP). She is enrolled for the Florida Water Star certification, and she has plans to attain two more certifications related to her position.

Melissa suggests several ways homeowners can conserve water and reduce the water bill, as well:

1. Check inside faucets and any water-using appliances for leaks.
2. Check outside faucets and hoses for leaks and other repairs.
3. Check the water-gauge after rain or sprinkler use. A measurement of 3/4th an inch is ample.
4. Use a soil-moisture sensor with the sprinkler system to prevent over-watering.
5. Use rain barrels to reduce further the need for city water.
6. Water only when the landscape needs moisture.

Her gardening preferences also save water. Low maintenance native plants require less water and no fertilizer. Her husband and young daughter also enjoy gardening. Her pollinator garden, located in front of the house, allows them "to see all of the action from our couch through the windows. We currently have spotted horsemint (*Monarda punctata*), shrimp plants (*Justicia brandegeana)*, white and red salvia (*Salvia coccinea*), and a butterfly plant (*Buddleia spp.*), to name a few. My milkweed (*Asclepias lancelata*) is my favorite host plant; it gets so much action from females laying eggs. My favorite nectar plant is the firebush (*Hamelia patens*), so popular with butterflies."

Of her favorite pollinator, she comments, "I don't feel moths get the attention and recognition they deserve in comparison to their daytime counterparts. I think their beauty is often overlooked." Her second favorite is bees, and she has plans to become a beekeeper.

Melissa admits to "a lifetime passion for the environment. Even as a kid I was taking special steps to reduce my carbon footprint. I mean, how many third graders choose on their own to become a vegetarian. I am a Florida native, so conservation and protection of biodiversity throughout the state are close to my heart. I knew I had to have a job that could incorporate that passion and allow me to make a real difference."

She believes that one of our most serious problems is "getting people to acknowledge that our environment is in a poor state and that they have the ability to make a positive change." The solution she advocates is increased awareness through education. And Melissa is doing just that for homeowners. She emphasizes that through the Pinellas County Extension Services her help is free throughout the county. She can be reached at (727) 582-2517 or by email: mwest@pinellascounty.org (Photos provided by Melissa West)

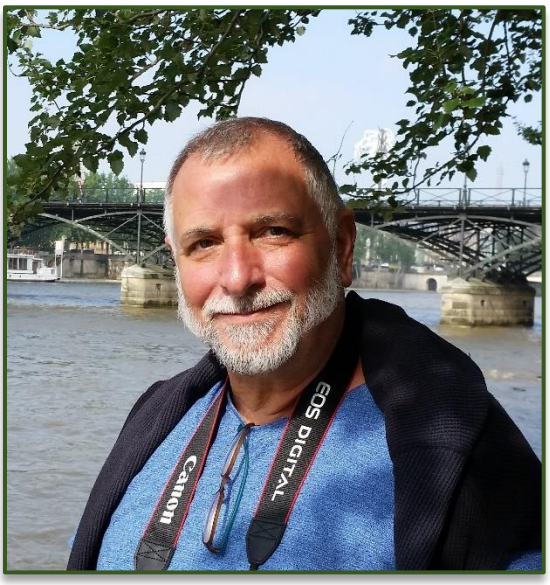
Melissa West displays a compost barrel.

A rain barrel is a gardening essential.

Tribute to a Horticulturalist

By Ellen Mahany, Master Gardener Volunteer

Bob Albanese is well into his 27th year of service at the Pinellas County Extension Service. Unless you became a Master Gardener during the time of Covid, you are familiar with Bob at the extension help desk. His official title is" Extension Specialist," but he refers to himself as "horticulturalist."



And that he certainly is, in both his professional and private life. Bob's duties and positions have varied throughout the years. He was originally hired as a program assistant, but over time his positions changed, and his duties grew. In past years he spoke at garden clubs and businesses. He taught Master Gardener and commercial horticultural classes. He became a Master Naturalist and helped Jeanne Murphey along with the other horticulturists teach the early Florida Naturalist Programs here in Pinellas County Extension. He supervised volunteers "both in the greenhouse and in the landscape." In the 1990s Bob rounded up black racers and coral snakes which mistakenly found their way into the building.

A most significant responsibility was being involved in the early planning stages of the Florida Botanical Gardens (FBG). Bob recollects, "I worked with many volunteer groups, both MGs and others, interacting with my brilliant and wonderful co-workers as needed. The team of problem-solvers was a wonderful compilation of personalities with the most expertise and brain power that I have ever had the luck and pleasure to work with and learn from."

Then, Bob escaped the major staff layoff in the early 2000s by filling a position as assistant to Jane Morse, the commercial horticulturalist at the time, while continuing to provide information for the public at the extension help desk.

Bob has so many memories to share. He remembers when Andy Wilson and he were intrigued with an oak tree branch with spittle brought into the desk sometime in the fall of 2012.They enlisted the help of a Master Gardener to collect samples and sent them to Distance Diagnostics for ID. There, scientists grew the immature critters to the adult stage to discover the Florida oak spittle bug and sent out samples globally. Bob comments, "As far as I am aware to this day we do not know where this insect came from, but Pinellas County Extension was the first to submit samples leading to identification, which took well over a year." Meanwhile, Bob cleaned spittle off his car in the parking lot, "cursing the new discovery each time."

Some mysteries remained unsolved. For instance, the experts at the extension desk were unable to determine the critter that produced a basket-shaped scat 1/8th inch across. Bob quips, "Sometimes you really need a good scat reference."

There was the infamous major catastrophe when "someone from on high" removed a flag Bob had placed above a fiber optic communication cable during a tree planting. The result was an electric outage at Heritage Village, Animal Services, Extension, EMS, and the sheriff's office that took several hours and several hundred thousand dollars to fix.

He reminisces about high-spirited fun at a state MG convention "long ago when things were very different." He joined a group of Pinellas County MGs in an annual nighttime competition to

see which team could collect the most geckos: ”It was very involved with several teams of four-to-six Master Gardeners working like pros to win the title.” The geckos were not harmed, although they were sprayed with hand-made water cannons.

No doubt, Bob became rooted as a lifetime horticulturalist as a young child when he helped his Aunt Fran in her New York state garden. His parents and grandmother were also avid gardeners.

He describes his own garden: “An ever-evolving monster, it has been award-winning, high-maintenance, moderate-maintenance, ignored and reclaimed, and currently still a work in progress, and best of all, VERY LOW MAINTENANCE.” (Bob insisted on all caps for emphasis.) He happily adds,” I have not had turf grass in my yard since 1987, and don’t even miss it a little bit.” Being aware of the declining bird population, he is currently making his garden more bird friendly.

Bob Albanese remembers fondly many experiences at the extension service and with his co-workers. In turn, all of us who know him are grateful for what Bob has done, and what he continues to do, as an indispensable horticulturalist.

Nematode Suppression – What Worked for Me

By Jay Gould, Master Gardener Volunteer

When I pulled up these wax beans and looked at the roots, what did I see -- this?

Or this?

I saw both of these root balls pulled from the SAME four-by-eight foot raised bed! What suppressed the nematodes in one section of the bed (bottom picture) and had no effect in the other sections?

At the end of my spring harvest, I knew I had a significant nematode problem in my beds when not only my wax beans failed to thrive, but my carrots were twisted, and my tomato root balls were a mass of nodules.

What could I do? Other gardeners and IFAS suggested solarizing with plastic, planting marigolds (*Tagetes*) or planting Sunn Hemp (*Crotalaria juncea*). (See the following IFAS publications: “Marigolds (Tagetes spp.) for Nematode Management” ENY-056. “Nematode Management in the Vegetable Garden” ENY-012, “Nematode Management in Residential Lawns” ENY-006, and “Sunn Hemp – A Promising Cover Crop in Florida” SI-306.)

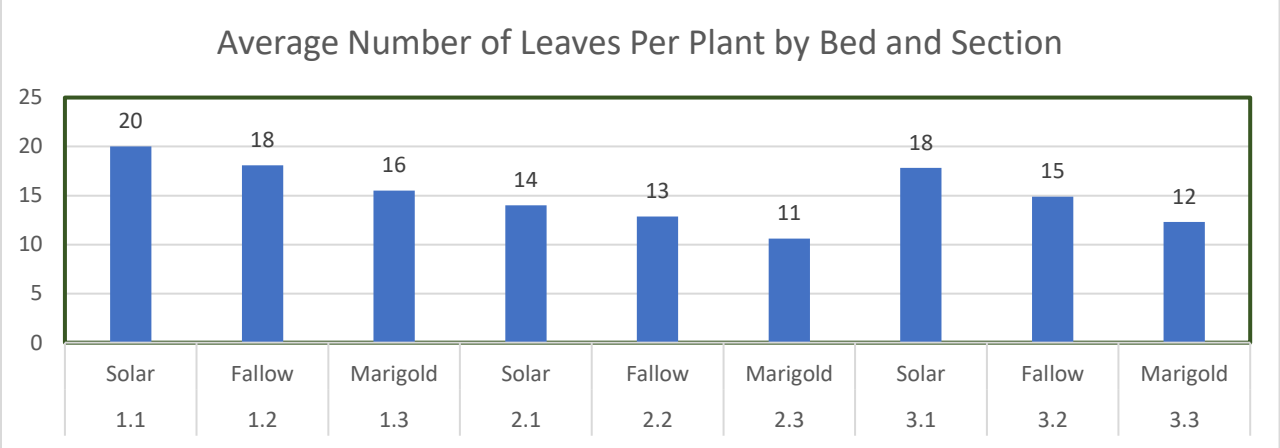
Thus, my experiment was born. First, I divided three beds into three sections. I covered Section A with transparent plastic sheeting, I left Section B fallow – no experimental intervention, and I planted Section C with marigolds. Then, I tested multiple beds because I assumed soil fertility varied among the beds. The sections in Bed 1 were coded 1.1, 1.2, 1.3. Bed 2 were coded as 2.1, 2.2, 2.3. and Bed 3 was coded as 3.1, 3.2, and 3.3. The Sunn Hemp test sections are still growing and will be analyzed in a future article.

I left the sections to solarize, to grow weeds, or to grow marigolds for two months.

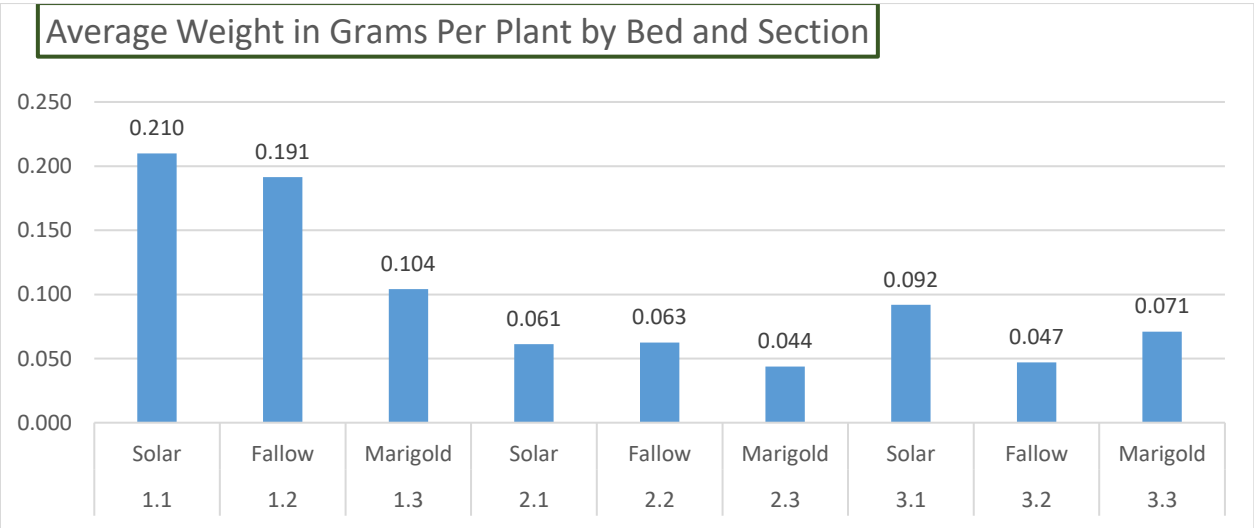
Finally, I sowed two rows of Cherokee wax beans (yellow wax beans) in the center of each of the three sections. I knew nematodes love the roots of beans, so they would be the test canary.

To measure nematode presence and impact, I collected three data points to test the following hypotheses:

1. The average weight of plants in the solarized and marigold sections would be higher than the plants in the fallow section. The infected plants would be smaller, stunted, etc.
2. The average number of leaves per plant at 21 days post-sowing would be higher for plants that were in the solarized or marigold sections.
3. The percentage of root balls with nematode root nodules present would be lower in the solarized and marigold sections. The fallow section would have the highest percent of infected root balls. The charts below show the results.

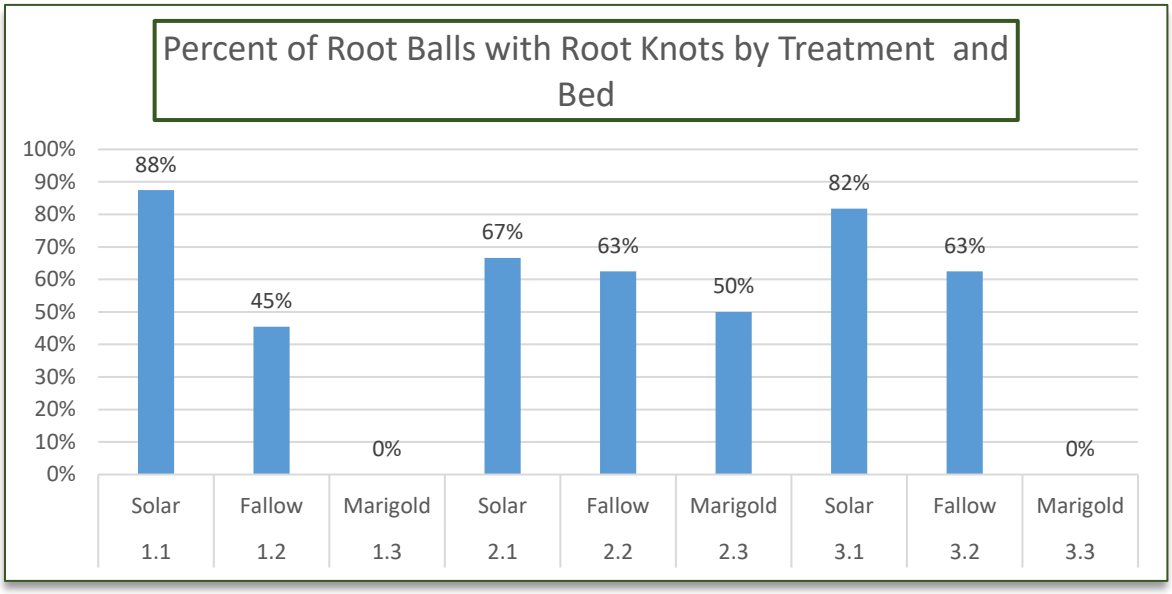


Plants were most leafy in the solarized sections and least leafy in the marigold sections. No clear conclusions.



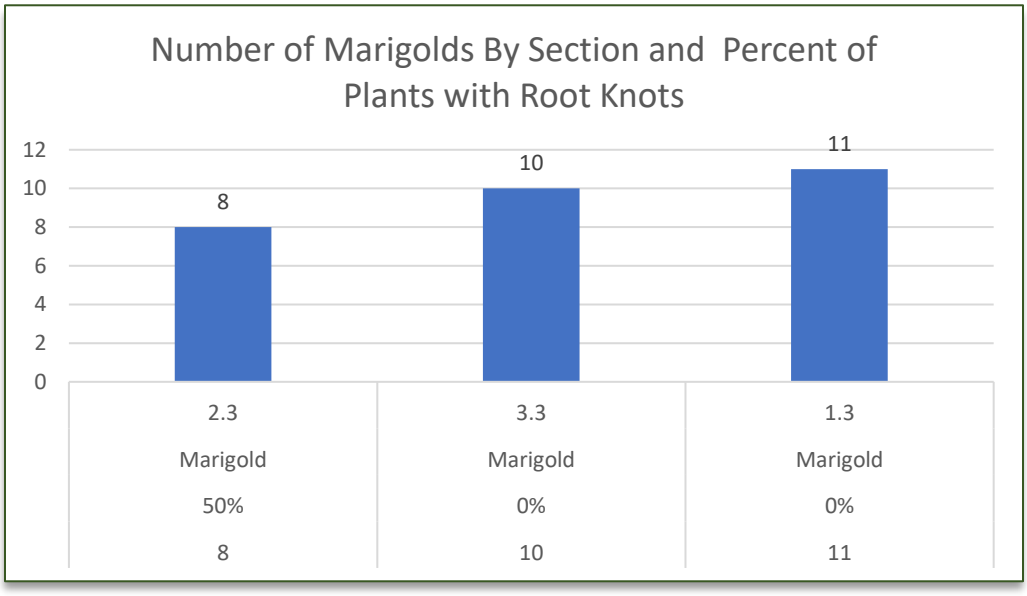
To measure weight, I cut the plants one inch above the bed surface. Average plant weight was greatest in the solarized sections. Plants in the fallow sections were heavier than the plants in the marigold sections in two of the three beds. Did the marigolds remove nutrients while the fallow and solarized sections were plant-free?

Now, for the critical question: did any of these treatments slow down or stop nematode root-knot attack? To find the answer, I removed each plant root ball, shook off the soil and visually inspected for the presence of root-knots.



The two photos of the same bed 1 at the beginning of the article show what I found. In each of the test beds, marigolds suppressed root infestation and in two of the three beds all plants were nematode free!

However, in Bed 2 in the Marigold section, 50% of the root balls showed nematode attack. Digging deeper, the next chart shows that the Bed 2 marigold section contained 25% fewer plants than in Bed 3 and 37.5% fewer plants than in Bed 1. Maybe to achieve 100% nematode suppression there is a required minimum plant density? This is a nice topic for a future experiment.



Interestingly, the roots in test sections 1.3 and 3.3 were nematode free, but the plants were not the leafiest nor the heaviest. Did the marigolds deplete some of the soil nutrients? Perhaps there is a tradeoff of suppressing nematodes and plant vitality? Here are my conclusions:

1. Solarization had no effect on nematodes but did control weeds and preserved fertility for future plants.
2. Dense planting marigolds had a dramatic effect on suppressing nematode root attack.
3. Next summer my beds will be full of marigolds!

Tell us About your Project!

We the editors of The Dirt want to spotlight Master Gardener projects so everyone can hear about them. If you are working on a project you would like to share, please let us know. We can help write an article through an interview process. The goal is to highlight the great work our volunteers are doing in the community. Reach out to us using the email below. Thank you!

Submit Your Articles and Pictures to The Dirt

The Dirt is published January, April, June, and October for Master Gardeners by Master Gardeners. The deadline for the next issue is January 7, 2022. If you would like to submit an article or photo feature, see the following guidelines:

- Articles should be 250 to 300 words.
- The topic can be anything you would like to share to educate your fellow gardeners.
- You may send pictures, poetry, or garden-related articles.
- Submit only Word documents, not PDF, so that edits are possible.
- Send tips or information about a community or Master Gardener project for a potential article.
- Send photos as attachments and include proper attribution.
- Send submissions to Susan Ladwig at ladwig.susan@gmail.com

Editors: Susan Ladwig and Ellen Mahany

Graphics: Paula MacDonald

Advisor: Theresa Badurek, Master Gardener Coordinator and Urban Horticulture Extension Agent. The advisor reviews and approves all submissions prior to publication.