

Contents	
Pollination	1
December MGV Meeting Revels in ‘Biophilia’	2
Master Gardeners Celebrate Years of Service Award Recipients	4
What the Heck is El Niño and Why am I Wearing this Jacket?!	7
Submit Your Articles and Pictures to The Dirt	8

January 2024 Issue

Happy New Year, fellow Master Gardeners! It’s been an interesting year so far weather-wise. I hope you’re all staying warm and dry despite the rain! Thank you as always to our contributors to The Dirt. Enjoy this issue!

Pollination

By Linda Smock, Master Gardener Volunteer

A walk through a garden or patch of wildflowers allows observers to see several kinds of pollinators in addition to the two most well-known, the honey bee and the butterfly. All of the pollinators are very important to society. Without them, our food source would be reduced greatly, with fewer fruits, vegetables, and seeds. In addition, these foods, and thus the insects that pollinate them, impact our economy. Pollination also provides new plants essential for clean air and a healthy environment.

What is a pollinator? It is anything that assists in transferring the pollen from the stamen to the pistil of plants. This is essential for plants to produce fruits and seeds and for most plants to produce new plants.

Wind is one method of pollination; it carries the pollen from the male flowers to the female flowers of a few plants. Corn is a good example of this, and it always needs to be planted in parallel rows. The plants are close together, and even a gentle wind can loosen the pollen from the tassel that has the stamen so that it falls from the top of the plants to the silks or pistils.

Self-pollination is the second method. Tomatoes, for example, produce blooms that are able to self-pollinate because they have both the stamen and the pistil. They still benefit from insects that shake the pollen loose from the stamen so it can fall onto the pistil, however.



Seventy-five percent of plants need more than wind or themselves for pollination. Insects are the most common method, although birds and bats can also provide the service. Some of the insects that provide pollination services include native and non-native bees, moths and butterflies, wasps, ants, male mosquitos, and flies.

When assistance is needed to pollinate plants, a small paintbrush can be used. Touch the paintbrush to the pollen on the stamen and transfer the pollen to the pistil of the female flower by gently brushing it on. Watch the plant for a few days to check to see that the plant is preparing to produce fruit. If not, you may repeat the process.

Protection of pollinators is becoming an important issue as more and more herbicides and pesticides are used. Herbicides may kill the plants that insects need to survive when vegetables and fruits are not available, thus causing them to die. Pesticides will kill the insects. So how can we protect them?

Avoid pesticides altogether if possible. Rely on neem oil first if a pesticide seems unavoidable, but you should identify the pest first and treat accordingly.

Avoid using powder pesticides and select sprays instead. Powders are more likely to stick to the hairs on the insect's body and be transferred to their nest or hive.

If pesticides are essential, use them only in the late evening when honey bees and many other insects are less active. Realize that moths and some other beneficial insects may be endangered.

Avoid spraying flowers; skip the blooming time because this is when the most beneficial insects will be visiting your plants.

Insects, birds, and small mammals such as bats are important to the continuation of many plants. As master gardeners, we can help others understand the important role of these creatures so that they become more valued by our society.

December MGV Meeting Revels in 'Biophilia'

By Ellen Mahany, Master Gardener Volunteer. Photos by Amy George, Master Gardener Volunteer

Some 50 master gardener volunteers attending the December 2023 MGV meeting were immersed in **biophilia** at our annual celebration.

The meeting opened with greetings from Theresa Badurek, Pinellas County Extension Agent and Master Gardener Program Leader, and Special Guest, Wendy Wilber, Statewide Master Gardener Volunteer Program Coordinator.

Theresa opened the meeting with an educational PowerPoint presentation to explain the term biophilia, which refers to human beings' love of and need for nature. Exposure to the natural world fulfills us. It creates endorphins, improving our mood. The large roomful of gardeners easily understood this connection with nature.



Biophilia also results from bringing nature indoors. This was visible in the attractive Christmas tree and the centerpieces composed of blooming potted plants, and bark and moss mixed with ornaments atop the runners on each long dining table.

Biophilia made its presence felt through carefully planned nature-centered activities. As guests arrived, we checked in with and donated packets of seeds in exchange for raffle tickets for several desirable door prize drawings.

After that, we played a game to guess the name of an unknown gardening item taped on our backs (examples: rubber boots, green snap peas, dirt, mushrooms, etc.). To discover the names, we asked fellow MGVs yes or no questions to discover the answer. The first few successful competitors received prizes.

Then, MGV Marva Perry gave us directions for turning a small aloe plant, dirt, sphagnum moss, twine, and a wire into a nifty plant in a hanging basket. We sat at tables furnished with all necessary supplies while Mara Johnson and Marva circulated among us offering help and encouragement.

Theresa and Wendy then presented years-of-service awards to several members. (See details in the separate article.) Guests were then treated to a tempting catered buffet.

The meeting culminated with a delicious luncheon and engaging conversations. Finally, each of us left with biophilia in the form of our garden craft and individual selections from the centerpieces as well as a large recyclable bag packed with goodies to help our gardens grow.



Spreading biophilia: (Left) MGV Marva Perry directs fellow master gardeners through creating a hanging container for a succulent. (Right) Robert Burns prepares his craft project.



(Left) Table decorations of take-home flowers and other living. (Right) Kelly Matizia shows off her finished project.

Master Gardeners Celebrate Years of Service Award Recipients

By Ellen Mahany, Master Gardener Volunteer. Photos by Amy George, Master Gardener Volunteer

At the final 2023 meeting in December, several master gardener volunteers were recognized for years of service: Susan Edwards and Brenda Payne for 25 years; Sandy Huff and John Kingsbury, 20 years; Mary Chernesky, Emma Eshbaugh, Ellen Mahany, Ray Marshall and Carolyn Piper, 15 years, and Andrea Nelson, 10 years.

Special guest Wendy Wilber, Statewide Master Gardener Program Coordinator, and Theresa Badurek, Pinellas County Extension Agent and Master Gardener Program Leader presented these awards to the recipients attending.

When some of these volunteers were asked what being an MGV means to them, not surprisingly their responses centered around the camaraderie resulting in close friendships with fellow MGVs developed through the years, the joy of educating others, especially visitors to the Florida Botanical gardens, and the feelings of calmness and satisfaction created by nurturing gardens.

Susan and Brenda developed their friendship through a long list of activities. Susan's specialty is growing orchids, but she has served in many capacities: volunteering at the extension desk as well as at on-and-off site activities, growing vegetables in raised demonstration beds, cultivating vermiculture, and guiding tours.

Brenda worked with Susan propagating plants in the greenhouse for plant sales and maintaining landscaping at the Extension Center. She helped the master gardener coordinator with office work. For an entire year, she worked daily to compile a cookbook with recipes from master gardeners and Pinellas County Extension Service staff. Past projects extend to volunteering for



Garden Fest, Herb Fest, and Bridal Shows Home and Gardens. Now Brenda joins Susan in maintaining raised vegetable beds at Ochs Garden.

Since completing their MGV training, Emma and Ray have regularly volunteered in numerous ways at the Florida Botanical Gardens. Emma remarks, "I get the opportunity to learn continuously through hands-on trimming, planting, propagating and many other activities." She enjoys sharing her knowledge with "so many visitors full of questions about the plants and taking the time to provide pertinent information." This is advice that she also extends to family and friends from her own garden.

Ray too has been an indispensable volunteer at the Florida Botanical Gardens, participating in many projects during his tenure. Currently, his favorite is the tropical fruit garden. He reflects, "It is always rewarding to see visitors discovering growing bananas, a huge jackfruit on a high perch, or papayas."

Carolyn's favorite spot is the native garden: "I love to make this garden a beautiful, peaceful place for all to come to and enjoy. Working in the natives is healing to my mind and gives me a wonderful break from the busy world." Mary not only has served as a gardener in the Florida Botanical Gardens but also has taken on major garden tasks in Pioneer Village.

Unlike my fellow gardeners, my contributions have been primarily outside the garden. First, I was privileged to serve both Bob Albanese and Andy Wilson at the Extension Desk; I was so in awe of their knowledge. I also wrote for newsletters preceding *The Dirt*, for which I am currently a contributor. Most of all, I have discovered the magical world of pollinators, with a considerable variety gracing my own garden. I have compiled *Stars of the Garden*, 72 pages of information about resident butterflies of Pinellas County. Currently, I am completing a PowerPoint on native bees of Florida.

Finally, these volunteers express gratitude for the education they have acquired over the years. Susan says being an MGV has added a master's degree to her bachelor's degree. Brenda remarks, "The list is so long of all the people who taught me about Florida gardening and plants. So now I cringe at the sight of Brazilian pepper and carrotwood. But I thank them all."

Ray sums up this gratitude: "Through the master gardener program, I have been able to learn, practice, and share principles of Florida Friendly Gardening. IFAS fact sheets, webinars, MG Updates, and field trips have been invaluable learning tools. These resources have helped me keep up to date on, among other things, the latest diseases and insects. The wealth of knowledge I have gained from the master gardening program and The University of Florida give me the confidence to share advice on many garden topics."



Flanked by Theresa Badurek (left) and Wendy Wilber (right), Brenda Payne (center left) and Susan Edwards (center right) were honored for 25 years of volunteer service.



Theresa Badurek (left) and Wendy Wilber (right) presented awards for 15 years of service to (center left to center right) Ellen Mahany, Mary Chernesky, Ray Marshall, Emma Eshbaugh and Caroline Piper.



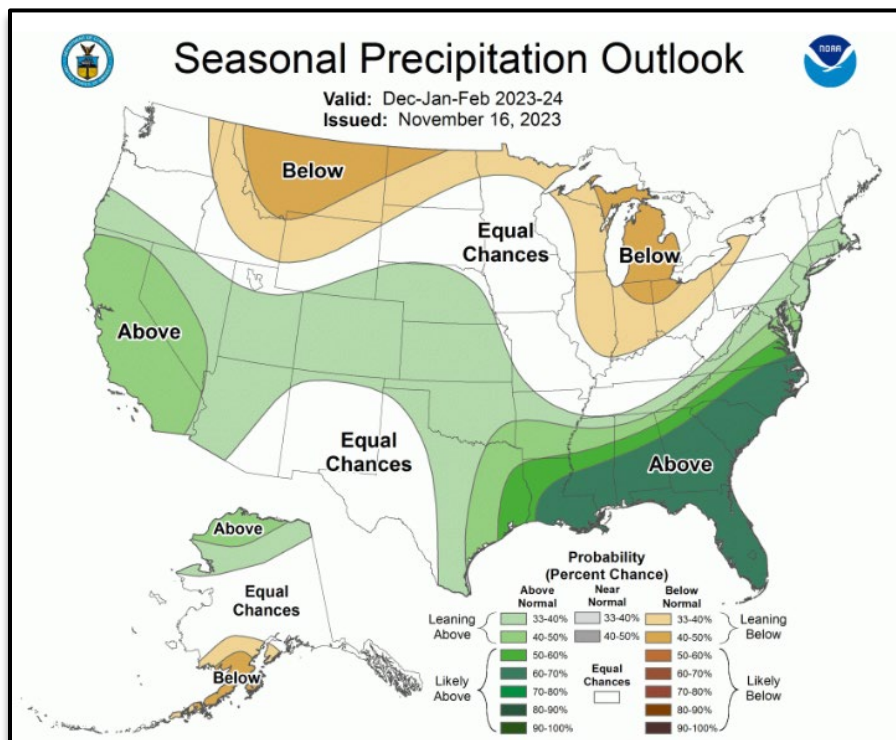
What the Heck is El Niño and Why am I Wearing this Jacket?!

By Susan Ladwig, Master Gardener Volunteer

I am wearing three layers while typing this article. I was going to go pull some oxalis (*Oxalis triangularis*) from the garden but my fingers were freezing. So what is going on with the weather and why is it so cold and rainy? I decided I should learn more about the El Niño pattern, while I'm heating up some hot chocolate.

El Niño is part of the Southern Oscillation pattern, which is a "large-scale change in the atmospheric mass between the Pacific and Indian Oceans." El Niño – Southern Oscillation (ENSO) is a change in winds and sea surface temperatures over the tropical eastern Pacific Ocean. The changes affect the climate of the tropics and subtropics. The sea temperature warming phase is known as El Niño, and the cooling phase is known as La Niña. The Southern Oscillation circulation is caused by a pressure gradient, with high-pressure over the eastern Pacific and low pressure over Indonesia. A weakening or reversal of the circulation (called the Walker circulation after the scientist Gilbert Walker who discovered it) decreases or eliminates upwelling of cold deep-sea water, allowing the ocean surface temperatures to increase. When there is a strong Walker circulation, La Niña occurs, resulting in cooler ocean temperatures due to increased upwelling.

Low pressure systems form in the Gulf, feeding off the warm Gulf water. El Niño is accompanied by an active subtropical jet stream. All of that means we get a wetter, cooler winter with frequent fronts and storms.



National Oceanic and Atmospheric Administration (NOAA) map of long term precipitation outlook



The increased precipitation will be helpful given the drought conditions in the area. The regional December rainfall total according to the Tampa Bay times was 4.59 inches, compared to an average of 2.56 inches. As of January 22, we have received 3.04 inches this month, compared to an average of 1.69 inches for the month to date, about 80% more than normal.

The El Niño pattern results in a less active hurricane season, which is a plus. The pattern does affect your garden, however. Possible impacts include drowning of lowland plantings, slower plant development, increased likelihood of disease, reduced crop yields, increased soil-borne pathogens, and fruit quality problems on tomato and green pepper plants.

When will we be able to hang up our coats? NOAA predicts that the 2023/2024 El Niño event will continue through April. They are even predicting that this will be a “historically strong” El Niño, and possibly rank in the top five such events on record. Keep your hot chocolate and your umbrellas handy!

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 **April 8**. 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

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