BLOOMING BROMELIADS

By Gretchen Lindelof, Master Gardener Volunteer 2018

While often grown for their vibrant and unusual foliage, bromeliads also have beautiful blooms. Bromeliads have been grown for profit on the Azores and elsewhere in the world, including Florida, for many years.

The climate in the Azores is not conducive to growing outside, so greenhouses are used. In 1874, a bromeliad enthusiast was cultivating his plants in a greenhouse heated by a wood burning stove. One night, the stove became stuck and filled the greenhouse with wood smoke. The mishap was not discovered right away. Several weeks later there was a profuse blooming of bromeliads.

This accident led to the discovery that pineapple plants could be brought to bloom in 6 weeks with smoke, which contained ethylene gas. The commercial horticulture industry now uses ethylene and other gasses to force desirable blooms and fruits.

Forcing a bloom by the hobbyist is possible by following this simple method:

- Place the bromeliad in a clear plastic bag with a plain apple.
- Use a clear trash bag and tape it closed so no gas can enter or exit.
- Leave it alone for a week (out of direct sunlight) then remove the bag and apple.
- Within a couple of months, the plant should produce a bloom as mine did (shown in the photograph). This bloom is still going strong after two months.

This process will vary depending on environmental conditions, etc., and there is no guarantee it will produce an earlier bloom.

For more information: https://edis.ifas.ufl.edu/pi139; Plant Growth Regulators by Frederick M. Fishel; https://edis.ifas.ufl.edu/ep447; Using gibberellic acid and ethephon to induce flowers on tropical foliage plants by R.J. Henry and J. Chen.
Dear Master Gardener Volunteer:

Can you tell me what might cause this on my citrus fruit?

Best regards, S.D., Bradenton

Dear S.D.:

There is a possibility that the rind splitting on your fruit is a potassium or copper deficiency. However, maintaining a regular fertilizing schedule doesn't necessarily stave off this citrus problem that happens like clockwork in the late summer to early fall.

The consensus is that as the fruit nears full maturity, the rind becomes less expansive. A rapid uptake of water in wet summer months followed by periods of drought conditions - as would be the case in late September and October - can result in rind splitting. The experts advise a regular fertilizer schedule and maintaining irrigation into fall as our weather becomes drier.

I am including two links to publications for you. One is about fruit splitting the other is a citrus care calendar that has steps on a month-by-month basis to help keep your citrus in good health.


Master Gardener Volunteer Karen Holleran answers your email questions and looks at photographs for identification of problems at ManateeMG@gmail.com.

Gifts for Gardeners

By Amy Stripe, Master Gardener Volunteer 2008

Stumped for gift ideas for the gardener in your life? Or, wanting to drop a hint for gifts for yourself?

Gift cards are always welcome: local nurseries such as Mariposa, Sweet Bay, Crowley’s and others offer gift certificates. Consider mail order sources including Arbico Organics (for beneficial insects and other gardening helpers, Lee Valley for garden tools, and seed catalogs such as Burpees and Territorial Seed Company. Let your fingers do the “Googling” for contact information on these and other vendors.

Gift cards are also available to local attractions of botanical interest, including Bok Tower and Marie Selby Botanical gardens.

Magazine subscriptions are inexpensive and keep on giving with each new issue. Florida Gardening Magazine (http://statebystategardening.com/) is an excellent gift for the Florida gardener.

Gardening and naturalist books are always highly appreciated, in particular for the “armchair” gardener. My favorite this Christmas is Flora: Inside the Secret World of Plants, a joint effort by Kew Botanical Gardens and the Smithsonian; this is the botanist’s coffee table book and available at Amazon.com.

Closer to home – that is, to Manatee County Master Gardener volunteers – are gifts that give back to our program. Excellent gardening gloves at $8 (for sale at our Plant Clinic) make a modest, yet welcome, contribution to our community outreach efforts. At a broader level, you can show your support for the Florida Master Gardener Volunteer Program – celebrating its 40th year – with a cash contribution in your or someone else’s name to the Master Gardener Legacy Fund (www.uff.ufl.edu/giv/FLMG40).
There is considerable confusion out there about bamboo. Mention bamboo to some Florida homeowners, and the dire warnings begin: “Don’t plant bamboo!” “It will spread to the neighbors’ yards.” “It is impossible to get rid of!” There is some truth these statements, but only in the case of the appropriately named “running” bamboo.

One example is golden bamboo (*Phyllostachys aurea*) a native of Southeast China and a Category 2 invasive on the Florida Exotic Pest Plant Council’s (FLEPPC) list of invasive plant species. Unfortunately, this invasive running bamboo is still available in some nurseries.

A much better-behaved bamboo is “clumping” bamboo that spreads by only a few inches each year. As it has a tight growing habit, clumping bamboo can be an attractive privacy and noise screen without threatening your neighborhood.

One example of a clumping bamboo that works well in zones 9-10 for privacy, or as a specimen plant, is Alphonse Karr bamboo (*Bambusa multiplex* ‘Alphone Karr’). According to the University of Florida/IFAS Extension office in Nassau County, the culms (stems) are an attractive yellow with a bright green stripe and may grow to a height of 20-35 feet.

Susan Griffith, Manatee County’s UF/IFAS Florida-Friendly Landscaping™ Coordinator, gave me examples of several additional clumping bamboos: *B. multiplex* ‘Golden Goddess’ (zones 8-10) makes a nice 12-foot high fluffy privacy hedge, and *B. vulgaris* ‘Wamin’ (zones 9b-11) is the very slow clumping dwarf Buddha belly reaching to 10 feet.

For the ultimate “zen” experience, she recommends the 60-foot deciduous *B. oldhamii* sporting very large culms that make “hollow clonking sounds in the wind.”
Running and clumping bamboos are sometimes thought of as trees or shrubs but are actually fast-growing perennial grasses that can grow from one to seventy feet in height. Bamboo spreads from underground stems called rhizomes. Running bamboo rhizomes can spread more than 100 feet, whereas clumping bamboo generally spreads several inches per year. Bamboo is a much-used renewable resource for flooring, fencing, fabric, paper, food, and of course fishing poles!

Young sprouts of some bamboo, resembling ears of corn, are edible. They are crunchy, with a mild taste, and can be incorporated into many dishes. Shoots should be harvested shortly after emerging from the soil, before they become woody. Information on preparing edible bamboo can be found at [https://edis.ifas.ufl.edu/mv015](https://edis.ifas.ufl.edu/mv015).

In response to struggles with citrus greening in Florida, some citrus growers are turning over some of their acreage to asper edible bamboo. *Dendrocalamus asper* bamboo is a running species, so not ideal for homeowner use. However, *B. oldhamii* is a clumping bamboo with edible shoots.)

A recent report on the Mixon family of Bradenton’s Mixon Fruit Farms on Spectrum Bay News 9 states: “They’re the first farm in the United States to grow edible organic bamboo. They are expecting their first large harvest this fall. They’ve had dozens of farmers from all over the country come by their location to check out the crops. (Co-owner) Janet is happy to be paving the way for others.”

Bamboo lends an exotic, tropical appeal to the Florida landscape. With some research and advice from a knowledgeable grower, you can find an ideal clumping bamboo for your landscape or patio container – that won’t take over the neighborhood!
Imagine you have a beautiful garden, and you’ve just planted some amazing shrubs and plants. Your plants are doing well, but within a few months, they stop growing. Their leaves begin to yellow and wilt (chlorosis), and some eventually die (necrosis). What happened? The culprit may be salt!

The concentration of dissolved salts in water or soil is called salinity. Salts in soils draw moisture away from the roots of plants, creating a drought-like environment where the plant is unable to absorb water. If the salt concentration is high enough, the plants may wilt and die, no matter how much you water them.

High soil salinity occurs naturally in some areas of Florida. However, an increase in soil salinity may also be a result of human error. For example, salts can accumulate in the soil when irrigating plants with water that is high in salt. Saltwater intrusion in well water is common in coastal areas but is also found in many inland areas of Manatee County. Another source of salt increase can be fertilizers applied inappropriately or excessively. Some fertilizers contain high levels of potentially harmful nutritional salts, so it’s important to follow the application instructions on the label.

How do you know if you have a soil salinity problem? The first sign may be stunted growth of the plant. If left untreated, the leaves may begin to turn a bluish-green color. If the salt in the soil increases to a more toxic level, the tips of older leaves may appear scorched, and eventually, those leaves will die and fall off. Finally, the entire plant will die.

One way to determine if salinity could be the culprit is to have your soil tested. At the UF/IFAS Extension Manatee County soil lab, we test your soil for electrical conductivity (EC), which measures the concentration of salt in a soil or water sample. For an electrical current to pass from one electrode to another, there must be enough dissolved salts (ions) in the sample as salty water is a good conductor of electricity.

If soil test results show high levels of soluble salts present, the University of Florida recommends leaching the soil by using large amounts of good quality irrigation water. Leaching also occurs naturally during the rainy summer months. At the Master Gardener Plant Diagnostic Clinic, we recommend having your both your soil and irrigation water tested (if on well or reclaimed) if you suspect a problem. The cost is $5 per sample for both tests. Planting salt-tolerant plants, which can tolerate higher than average amounts of soluble salts in the soil, is also a great way to ensure a healthy yard and garden.


Photo: Duncen, et al Colorado State University
Effect of saline irrigation water on foliage

Photo: Water Reuse Foundation
Effects of salinity build-up in soil
The Children’s Garden Program has become a well-attended and popular program. The program began in 2017 under the guidance of Master Gardener Volunteer Lois Panner. The goals of the program are to encourage children to visit our Educational Gardens and learn about a variety of garden and nature topics. In addition to enhancing the children’s area of our Educational Gardens with lots of colorful and fun elements, the program continues to expand and add new activities and classes developed and led by a team of Master Gardener Volunteers.

The program targets children ages 4-12 years and can be tailored for a specific age group. Private groups of 5 to 15 children and their chaperones may be scheduled Monday through Friday between 10 A.M. and 3 P.M. Saturday morning classes may also be scheduled, but with more limited availability. Activities are suitable for schools, families, church groups, home school groups, clubs, preschools, scouts, and other organizations serving children.

Several times a year we also offer Saturday programs that are open to the public and advertised through our Master Gardener Volunteer newsletter, the University of Florida IFAS Extension Manatee County calendar of events, and the Extension Facebook page. Participants for the public classes must sign up online and are usually limited to 15 children.

Each program usually lasts 1 ½ hours and includes fun instructional activities, crafts that reinforce the lessons, and time exploring our Educational Gardens. Most of the classes are free except for a few with a small fee to cover supplies for a take-home project.

Some of the popular activities include our Butterfly class where children learn how to support butterflies and other pollinators in the garden, learn the butterfly life cycle, and enjoy butterfly-related crafts. When available, caterpillars, chrysalides, and butterflies are displayed for the children to examine. If the timing is just right, the children especially enjoy the opportunity to release newborn butterflies into the garden.

Mini Container Gardens, sometimes called fairy gardens, introduce children to the parts of a plant, the importance of plants to the environment, and plant care. In this popular class children create a small container garden filled with plants and many fun embellishments to take home.

Bug Out introduces children to bug morphology (body parts), fun facts about bugs, bug habitats, and the role of bugs in nature. The children enjoy examining live bugs, a fun craft, and a bug hunt in the gardens.

One of our newer topics is Herbs. This class familiarizes children with a variety of herbs, teaching them how to grow and care for their plants and how they can propagate certain herbs to get more plants. The class also demonstrates ways they can dry herbs, as well as how to use them in food and craft projects.

Worm Composting teaches children how red wiggler worms turn food scraps into compost (worm castings) and how the compost can be used in our gardens. In this class the children build a small take-home worm bin. This project teaches them how to care for their worms, including what materials can be used for bedding, what types of food scraps they should feed their worms, and how to remove compost from the bins. All of these and several other classes are available now. New topics are always being considered for future classes. For more information and to schedule your group, please telephone (941) 722-4524 and ask for Kathy Oliver, Program Assistant, Residential Horticulture.
Stink Bugs Good and Bad
By Nancy O. Porter, Master Gardener Volunteer 2014

The Good: The most common stink bug is the spined soldier bug (*Podisus maculiventris*). It is predatory, attacking about ninety pest insect species, and has been used in classical biological control programs in other countries. A tell-tale identifier: its shoulders display prominent spines (see photograph to the left.)

Spined soldier bug eggs are about 1 mm in diameter and laid in very neat rows. Females lay seventeen to seventy eggs in straight lines or in loose oval masses.

Prey of this beneficial insect include the Mexican bean beetle, European corn borer, diamondback moth, corn earworm, beet armyworm, fall armyworm, cabbage looper imported, cabbageworm, Colorado potato beetle, velvetbean caterpillar, and flea beetles. If this prey is not around, the spined soldier bug might feed on plant juices, but the good news is that this does not cause plant damage.

The Bad: The brown marmorated stink bug (*Halyomorpha halys* Stal) was introduced to the U.S. from Asia and has spread rapidly across our country to become a pest of agriculture and home gardens alike. The shoulders of the plant-eating bugs are more rounded (bottom left) and not as distinctly pointy as the predatory bugs.

Another way to tell the difference between a good and bad stink bug is the size of its proboscis (mouthpart on the underside of the bug). The predatory stink bug has a thicker proboscis to kill its prey, similar to assassin bugs. The plant eater mouthparts are thinner for piercing plant tissue. So, you need to get up close and personal if you want to determine the difference!

The southern green stink bug (*Nezara viridula*) is one that attacks blossom and fruit, causing fruit drop as well as fruit deformity.

The Ugly: Stink bugs do stink, just so you know. If they happen to get into your house, it is advisable to NOT vacuum them, as they will cause your vacuum to stink as well. More information is available at:

## December CALENDAR OF EVENTS

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<thead>
<tr>
<th>Date</th>
<th>Time</th>
<th>Event</th>
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<tbody>
<tr>
<td>1st Saturday</td>
<td>10:00 a.m.-1:00 p.m.</td>
<td>Ask a Master Gardener Volunteer – Island Library – 5701 Marina Drive, Holmes Beach. Visit the Extension Master Gardener information table and get answers to your gardening questions.</td>
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<tr>
<td>2nd &amp; 4th Saturday</td>
<td>10:00 a.m.-1:00 p.m.</td>
<td>Ask a Master Gardener Volunteer – Rocky Bluff Library – 6750 US Highway 301 N., Ellenton. Visit the Extension Master Gardener information table and get answers to your gardening questions.</td>
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<tr>
<td>2nd Saturday</td>
<td>10:00 a.m.-1:00 p.m.</td>
<td>Ask a Master Gardener Volunteer – South Manatee Library – 6081 26th Street West, Bradenton. Visit the Extension Master Gardener information table and get answers to your gardening questions.</td>
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<td>3rd Saturday</td>
<td>11:30 a.m.-2:30 p.m.</td>
<td>Ask a Master Gardener Volunteer – Central Library – 1301 Barcarrota Blvd. W., Bradenton. Visit the Extension Master Gardener information table and get answers to your gardening questions</td>
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<tr>
<td>Tuesday December 3</td>
<td>10:00 a.m.-12:00 p.m.</td>
<td>Design Your Landscape to Your Site Conditions – Learn about how your soil type, sun exposures, location, drainage, proximity to saltwater and soil pH, among other factors affect which plants would be suited for your landscape. Register online at <a href="http://uf-ias-extension-manatee.eventbrite.com">http://uf-ias-extension-manatee.eventbrite.com</a> or call (941) 722-4524, ext. 1828.</td>
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<tr>
<td>Thursday December 5</td>
<td>10:00 a.m.-12:00 p.m.</td>
<td>Irrigation with Water Conservation in Mind – Don Adkins, Irrigation Program Assistant, will focus on how to adjust your in-ground sprinkler system to conserve water, how you can repair parts, and the benefits of installing smart irrigation devices. We will have a brief discussion on Florida-Friendly Landscaping™ tips. Register online at <a href="http://uf-ias-extension-manatee.eventbrite.com">http://uf-ias-extension-manatee.eventbrite.com</a> or call (941) 722-4524, ext. 1828.</td>
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<td>Saturday November 16 December 14</td>
<td>9:00-11:00 a.m.</td>
<td>Extension Master Gardener Plant ID Tour – Emerson Point Preserve - Stroll through Emerson Point Preserve to learn more about Florida’s native plants and inhabitants of a coastal habitat. Suitable for all ages. Call the Extension Master Gardener Volunteers to register (941) 722-4524.</td>
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<tr>
<td>Saturday November 16 December 21</td>
<td>9:00-11:00 a.m.</td>
<td>Extension Master Gardener Plant ID Tour – Rye Preserve - Take a hike through upland habitats along Rye Branch and learn about Florida native plants, natural history, and early settlement of the area. Drinking water, sturdy shoes, and hiking sticks are recommended. Visitor Center open 9am-noon and 1-4pm. Call the Extension Master Gardener Volunteers to register (941) 722-4524.</td>
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<tr>
<td>Sunday November 17 December 15</td>
<td>9:00-11:00 a.m.</td>
<td>Extension Master Gardener Plant ID Tour – Robinson Preserve - Stroll through the Robinson Preserve’s salt marshes to learn more about Florida’s native plants and inhabitants of a coastal habitat. Suitable for all ages. Trail consists of shell paths with little shade. Good walking shoes, drinking water, hat, and sunscreen are recommended. Call the Extension Master Gardener Volunteers to register (941) 722-4524.</td>
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<tr>
<td>Saturday November 23</td>
<td>12:30 p.m.-2:00 p.m.</td>
<td>Backyard Composting – Compost Happens - Composting is easier than you might think, happens very naturally, and creates a useful soil amendment for your landscape plants and vegetable gardens. Municipal program Earth Machine compost bins will be available for sale after the class for $60.00 plus 7% tax. $5 advance registration fee or $8 at the door. Register online at <a href="http://uf-ias-extension-manatee.eventbrite.com">http://uf-ias-extension-manatee.eventbrite.com</a> or call the Extension Master Gardener Volunteers (941) 722-4524.</td>
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<td>Saturday December 14</td>
<td>9:00-11:00 a.m.</td>
<td>Extension Master Gardener Plant ID Tour – Riverview Pointe Preserve – DeSoto National Memorial – Stroll through Riverview Pointe Preserve to learn more about Florida’s native plants and inhabitants of a coastal habitat. Suitable for all ages. The hike begins in the parking area of the DeSoto National Memorial Park and enters into the Riverview Preserve at 8250 DeSoto Memorial Highway, Bradenton. To register call the Extension Master Gardener Volunteers at (941) 722-4524.</td>
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<tr>
<td>Saturday December 14</td>
<td>10:00-11:30 a.m.</td>
<td>Holiday Decorations – Back to Nature – Holiday creations are waiting just outside your door! Learn tips and techniques for working with plants and other materials to create beautiful natural displays and ornaments. Class size limited. $5 advance registration fee or $8 at the door. Register online at <a href="http://uf-ias-extension-manatee.eventbrite.com">http://uf-ias-extension-manatee.eventbrite.com</a> or call the Extension Master Gardener Volunteers (941) 722-4524.</td>
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