

THE PROPAGATION ISSUE

GULF COAST *Gardening*

ISSUE 257 • SEPTEMBER/OCTOBER 2026

TEXAS A&M
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Galveston County

WRITTEN BY GALVESTON COUNTY MASTER GARDENERS
IN COOPERATION WITH THE GALVESTON COUNTY OFFICE
OF TEXAS A&M AGRILIFE EXTENSION SERVICE



MG Kevin Lancon
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Fall is Near

As I write this article, today is the first day that sunset will occur before 8 pm, which means, fall is near and the long days of stifling heat and humidity are almost over. Soon our Discovery Garden will be filled with new crops of fall vegetables, herbs and flowers, as well as a fall calendar full of free educational seminars and of course our Fall Festival, which will be held on Saturday, October 3.

This will be our 5th Annual Fall Festival, and it will be held in the Discovery Garden in Carbine Park. This Festival showcases Galveston County's AgriLife Extension Services, which includes, Family & Community Health, 4H & Youth Development, Agriculture & Natural Resources, Coastal & Marine Resources and of course Horticulture. For more information on these services, we invite you to visit the Galveston County Extension website at <https://galveston.agrilife.org/>.

In addition to Extension's educational booths, we will have a plethora of youth activities, garden tours, crafts, BBQ, and of course a large plant sale, supported by the Galveston County Master Gardeners. Our plant sale will feature a huge selection of fall vegetables, fruit trees, fall flowers (snapinis), garden supplies and a huge selection of unique Master Gardener grown plants. We hope that you can come enjoy a great day of family fun and kick off the fall season with us.

I hope you enjoy this issue of our newsletter, and invite you visit our web site at <https://txmg.org/galveston>, our Facebook page at <https://www.facebook.com/galvcountymg/> and also our new Instagram page at <https://www.instagram.com/galvcomastergardeners/> for more information on upcoming events and activities.

As always, thank you for supporting the Galveston County Master Gardeners and hope to see you soon in our Discovery Garden or at one of our public events.

Kevin Lancon



Fall Festival MG Debby Brady



MG Karolyn Gephart
Editor,
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The World of Propagation

So many ways exist to propagate plants and each is unique in creating new clones of parent plants. This issue is full of how to's written by Master Gardeners who use the methods and enjoy sharing them with readers. Also inside is Gardening 101 where gardening is compared to sports and writer Carol Hairfield is cleverly keeping the creativity flowing. She also shared her joy of successfully growing watermelon. Two research projects are discussed and photos help tell their stories. One is about two years of research on sunflowers and the other is about helping determine if six varieties of roses can meet the standards of the Earth-Kind® program. The Gardening Help Desk can assist with removing pests such as scale and mealybugs and Seasonal Bites introduces and instructs ways to grow microgreens.

This issue also offers great photos of events such as Insect Night and fabulous gingers blooming in MG Jamie Hart's garden. This issue has something for every gardener to enjoy including travelling vicariously to England for a rose show and to the Santa Fe Botanical Garden. Enjoy!

Karolyn Gephart



Propagation in water
Courtesy of Jennifer Ramirez

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Maroon bluebonnet
Texas A&M Foundation Spirit Magazine



Sunflower in Discovery Garden MG Roxann Kriticos



African violet Pixabay.com



Cover photo
Candy Pink Plumeria by
MG Robin Collins



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Getting to the Root of Plant Propagation



Amaris Wendelburg
GCMG 2024

What is Plant Propagation?

By definition, plant propagation refers to the creation of new plants from existing plants. This can be done in one of two ways: sexual or asexual propagation. Sexual propagation is the most common method since it's also nature's way of plant reproduction. Seeds are formed as a result of a plant being pollinated, then fertilized. A viable seed (given all the perfect conditions) will produce a plant that is similar to its parent plants, not identical. Sometimes, in an uncontrolled environment (nature), this will generate entirely new plant varieties. Alternatively, asexual propagation will produce an offspring that is identical to its parent plant. Asexual propagation is a deliberate directed reproduction of plants utilizing cells, tissues, or organs like stems, leaves, or roots. A benefit here is that every desirable quality of the original plant will be present in the new plant.



Pothos in water for rooting MG Amaris Wendelburg

Benefits of Propagation

The most immediate benefit is financial. Trips to plant nurseries every growing season can add up quickly, especially for hard-to-find varieties or specialty plants. By propagating your own plants at home, you can eliminate much of those costs. This is true for both types of propagation. Seeds can be stored for an extended period of time, making one purchase go a long way.

Propagation is also a preservation measure. Plants can be passed down and shared with family members and friends. Heirloom varieties can continue to thrive for generations to come.

Additionally, propagation allows you control. By selecting only strong and vigorous varieties, you ensure offspring maintain those same qualities.

Ways to Propagate

Throughout this publication we will walk readers through a full range of propagation methods, from both beginner-friendly to advanced techniques.

Growing from seeds is where most gardeners begin their journey. Seeds are widely available, usually inexpensive, and productive. Seed packets will have expiration dates printed on them. We have found that sometimes even these expired



Propagation supplies Jennifer Ramirez

“...deepens understanding of plant growth”

packets can produce viable plants. It's worth a try. Most important with seed productivity is the environment and soil quality. Great soil and prime conditions (water, spacing, fertilizing, etc.) will yield better plant production than just tossing some seeds into the ground, although I have also seen that work, especially with leftover jack-o-lanterns.

Stool propagation - also known as mound layering - is a technique used with woody shrubs. Here the plant is cut back to almost ground level. The soil is then mounded around the base of new shoots to encourage rooting. Those shoots or rooted layers will then be separated from the parent plant, producing a new plant complete with root system and ready to be transplanted.

Propagating African violets (*Streptocarpus ionanthus*) is a great introduction to leaf cuttings. All that is needed here is a healthy leaf and about an inch of its stem (petiole). These cuttings placed in the proper medium, watered, covered with a plastic bag, and put in bright location will see roots form in a few weeks with new plant leaves forming within a month and a half to two months.

Water propagation turns propagation into something you can watch unfold on your windowsill. There are a few things required in order to ensure the success of the new plant. Clean



View of plant nodes *MG Amaris Wendelburg*

water that is changed regularly, rainwater, or filtered water work best as does a bright location, but out of direct sunlight. Plants that root readily in water include African violets, begonia (*Begonia* spp.), Swedish ivy (*Plectranthus verticillatus*), pothos (*Epipremnum aureum*), Christmas cactus (*Schlumbergera* × *buckleyi*) to name a few. Depending on the plant, either a stem or tip cutting can be used. This is also a fun option for kids to do as they can see root formation happen rather quickly.

Stem and leaf cuttings

are a tried-and-true method of plant propagation. Stem cuttings include three main types - hardwood, semi-hardwood, and herbaceous. Leaf cuttings offer a high success rate, are easy to learn, and allow you to start many new plants all from a single parent specimen.

Bulbs and offsets are often naturally occurring. Many bulbing plants produce offsets - small plants that emerge from the roots of the mother plant. These offsets can be gently separated and replanted.

Creating an herb garden allows propagation to be put to a delicious and practical use. Many herbs used for culinary purposes can be propagated through seed, cuttings, and/or division.

Ferns (*Polypodiopsida*) reproduce either by division or spores. Division involves digging up (or unpotting) a mature, multi-crowned fern. Using a clean, sharp knife, the root mass can be divided or cut into smaller sections. Verify that each new piece has healthy fronds and roots and then it can be replanted. Spore propagation is a more advanced method of propagating ferns. Microscopic single celled spores are collected from the plant. This can either be done by ordering from a fern growing organization or collecting from your own plant.

Plumeria (*Plumeria rubra*) propagation is a common method used in our area and yields many beautiful new plumeria plants. This issue will cover both plumeria and propagating tropical specialty species (TSS). In addition, it will dive further into the above-mentioned methods.

Plant propagation is something that will deepen your understanding of plant growth, stretch your gardening budget, and allow you to share plants with those near and dear.

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Seed Propagation: Texas Aggie Bluebonnets Say Howdy



Norma Torok
GCMG 2022

The Texas Maroon bluebonnet, known as Texas Superstar® ‘Alamo Fire’ as well as the Aggie Bluebonnet (*Lupinus texensis*), is a seed-grown cultivar developed by Texas A&M by Dr. Jerry Parsons and Greg Grant. These two gentlemen worked on seed colorization of Texas bluebonnets for a design to be installed at the San Antonio Botanical Garden to commemorate the Lone Star State’s sesquicentennial. The design called for a flag made of red, white, and blue bluebonnets.

The original bluebonnet and white bluebonnets proved easy enough to gather, but the red was elusive. The red bluebonnets were not timely for the flag project; red petunias had to be used for the flag. However, after years of work, the red bluebonnet was accomplished. From this point, Dr. Parsons endeavored to cultivate the maroon bluebonnet.

The process of growing maroon bluebonnets took almost twenty years. The research first started by finding pink bluebonnets and working toward finding darker pink colored bluebonnets. Continuous isolation of the dark pink seeds over several planting seasons would evolve to red bluebonnets. Somewhere in the process, Grant noted that there were pink bluebonnets that had a hint of blue. Knowing blue and pink make maroon, he took this direction in his seed isolation. By 2020, the Texas maroon bluebonnet was released to the public.

The Aggie bluebonnet seed could only survive by sustaining growth of the seed. If not done immediately the seed would be lost. John Thomas of Wildseed Farms in Fredericksburg, Tex-

as, wanted that opportunity. The maroon bluebonnet seed has been farmed by Wildseed Farms for several years. However, this seed availability has become less abundant in the last couple of years. The fields in the Brazos riverside area where the grower farms the bluebonnet seeds have flooded and have been washed out by hard rains.

Galveston County Extension Agent Boone Holladay endeavored to do his part in contributing to the production of the maroon bluebonnet in the area by having Master Gardeners start a Maroon Bluebonnet Seeding Project. To include the community, Chris Augsten of Mary Queen Church in Friendswood was invited to join this project by sharing a raised bed for planting the seeds. The Galveston Master Gardeners often provide some of the vegetables grown in the Discovery Garden to the Mary Queen Food Pantry. Having this connection, Augsten eagerly accepted the proposed seed project to be hosted at Mary’s Garden, the church’s community garden.

Mary’s Garden was created for the parish community to grow vegetables for their food pantry. To enhance the beauty of the garden, various flowers and architectural elements were added. The bluebonnet project was realized as a win-win project. The maroon bluebonnets added a lovely focal point for the spring garden, and the flowers were held in the bed until seeds were harvested for Galveston County AgriLife Extension.

The bluebonnet seeds planted in Mary’s Garden were sold by Douglass King Seeds and named Texas Maroon Bluebonnets. The seeds were previously stratified by the seed grower, so no other treatment was needed. A pre-planting treatment of the



Closeup of bloom Texas A&M Foundation Spirit Magazine

“...process took almost 20 years...”

seeds included aligning them in a row on a warm, wet paper towel, then placing the wet paper towel flat in a plastic bag overnight for planting the next day.

A 4x20-foot bed was cleaned and cultivated for planting the seeds at Mary's Garden on October 4, 2025. October is the planting season for bluebonnets in USDA Plant Hardiness Zone 9b.

Four rows were prepared with trenches $\frac{1}{4}$ to $\frac{1}{2}$ inch deep for planting. The seeds were planted six to eight inches apart with rows one foot apart. Once seeds were dropped in place, the row was backfilled with crushed granite and watered well. The seeds were kept moist, watered every other day the first week, then once a week until well established, and then they were left to nature's care.

Surprisingly, a few seeds sprouted within a week of being planted, with first true leaves growing two weeks later. Out of 98 plants, 32 healthy and strong plants sprouted, resulting in a 32 percent germination rate.

A particular task of utmost importance for a pure colorization harvest is to pull a plant when it does not bloom in the desired color. On the contrary, exclusive maroon bluebonnets seeds cannot be secured. In this project, two plants bloomed blue and were pulled immediately.

By February 17, 2026, the first maroon bluebonnets were blooming, and by March 10, a beautiful sea of maroon ensued. The flowers remained in place past their bloom until seeds were produced and naturally dried. The seeds were har-

vested at two different times within two weeks of each other. The weight of maroon bluebonnet seeds harvested totaled 14.7 ounces.

All propagation and cultural maintenance are not only important but critical to the success of this seeding project; the following propagation techniques are:

- (1) Moistening the seeds with warm water and placing them in a paper towel enveloped in a plastic bag helps to soften seeds,
- (2) Scarification of the seeds is necessary. Scarification will increase the germination rate. These particular seeds were chemically scarified by the seed grower.
- (3) The seeds were not covered with soil but with crushed granite which mimics the natural growing environment.

What next? What happens with the seed that was produced? How will the community benefit from this seeding project? Stay tuned and stay connected for the next stage of this strategic seeding project. Word has it that a follow-up plan is brewing!

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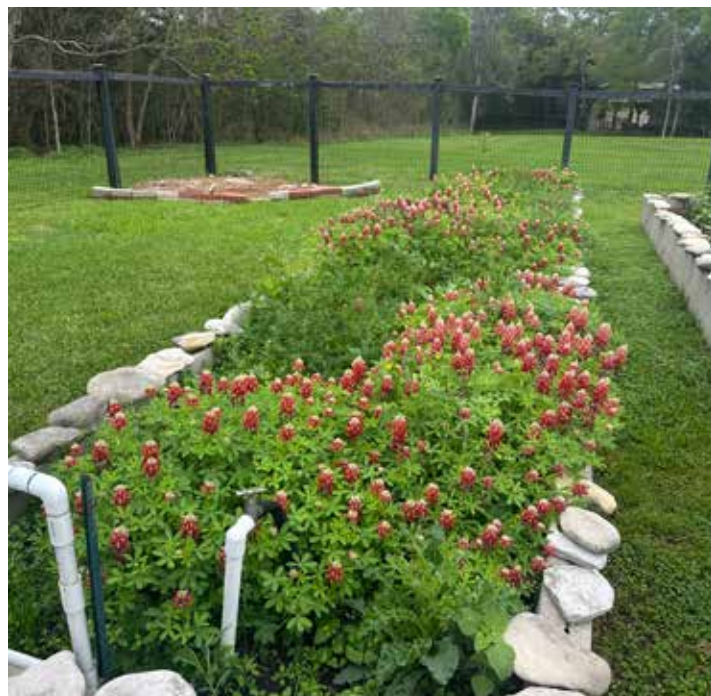
[Department History - Department of Horticultural Sciences - Texas A&M University](#)

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Texas Maroon Bluebonnets Texas A&M Foundation Spirit Magazine



Bluebonnet bed in Friendswood at Mary Queen Church MG Norma Torok

Propagation by Stooling



Herman Auer
GCMG 1983

Stooling, mounding, or containerized layering, is creating an environment in which some trees and plants can develop roots on the bark or stems.

Suckers and woody stems on low-spreading branches can in many cases be propagated by stooling. The lower upright stems are supported by moist soil so the buds can produce roots. Some plants may be rooted in as little as 60 days. Once rooted, they can be separated and transplanted. This is like stem cutting, but you don't cut the stem till it has developed roots.

As a Master Gardener raising fruit trees and wanting more rootstock, and having the time to wait, I stooled Nemaguard peach (*Prunus persica* 'Nemaguard'), a desirable rootstock for most stone fruit. Having about 150 stone fruit trees, mainly peaches, I wanted to produce more fruit on fewer trees, so I cut some trees down at the soil line. The rootstock produced suckers that I placed a retaining wall around and filled it with soil, grafted the top of the suckers, and the next spring, washed the soil away, cut the bottom of the sucker at the soil line, gave some to MG's, and transplanted some that lived for many years. I still use this method and other forms of propagation like serpentine layering of quince (*Cydonia oblonga*) because upright limbs are very flexible. The rootstocks started this spring can be grafted this fall (T-Bud or Chip-Bud) by Hazel Lampton and/or Steve Wright. This rootstock can also be grafted by wedge or other methods in the coming spring.

To get the rootstock that I want, I must reproduce it to be sure. I can collect and use graft wood from a tree that has done well for me. Now I have an identical tree, top and bottom, leaving nothing to chance.

The quick method: First year with suckers about two feet tall, in early summer, apply a retaining wall around the suckers, add soil to about 10 or 12 inches high, and keep moist. T-Bud in September; in the spring, wash soil from roots, cut at the normal soil line, and transplant.

The two-year method: Start suckers in spring and grow all year. Second spring apply a retaining wall around suckers, add soil to about 10 or 12 inches high. Now wedge graft the suckers and then the next spring, wash the roots, cut off at the tree's normal soil line, and transplant.



MGs Steve Wright, Hazel Lampton and Herman Auer worked together on this article
MGs Herman Auer and Steve Wright



First year quick method: peach suckers growing
MGs Herman Auer and Steve Wright



Quick method June: emplaced soil retainer
MGs Herman Auer and Steve Wright



Quick method: fill retainer with soil. Graft in September, in January cut and transplant
MGs Herman Auer and Steve Wright

“....environment to develop roots”



Two-year method: in the spring, emplace soil retainer then graft
MGs Herman Auer and Steve Wright



End of second year
MGs Herman Auer and Steve Wright



Cut back to handle. Remove soil retainer
MGs Herman Auer and Steve Wright



Wash soil, cut at base of normal soil level
MGs Herman Auer and Steve Wright



New trees heeled in. Ready to plant
MGs Herman Auer and Steve Wright



You can also stool citrus and many others using this method. Here is trifoliata (*Poncirus trifoliata*) MGs Herman Auer and Steve Wright

African Violets: Leaf Propagation and Water Wicking



Jamie Hart
GCMG 2023

African violets (*Streptocarpus ionanthus*) have been grown and enjoyed since they were introduced in 1892. They can be propagated easily with a mature leaf to usually produce a clone of the parent.

To do this, select a healthy leaf from the middle of the plant. With 1-1.5 inches of stem attached make a clean cut at a 45-degree angle into the stem.

Prepare soil by mixing 30 percent of African violet potting soil with 70 percent coarse perlite. I like to wick my plants at this time even though they will not use the wick for watering with capillary action until they have roots and leaves of their own. Doing it now makes it easy to transfer to a reservoir to continue growing. Put a hole in the bottom of the potting cup. Put a 3-5 inch piece of acrylic yarn halfway through the hole. Place a layer of perlite in the cup and lay the yarn on top of it. Fill the cup with the potting mix that has been dampened.

Using a dibble (or a pencil) make a hole in the potting soil at a slant and slide the stem into it but no more than an inch. The fuzzy surface of the leaf should be facing upwards. Label your cup with the name of the plant on tape in permanent marker.

Now it is ready to be placed into a domed environment: a zippered plastic bag works well (puff it up so that the bag does not touch the leaf) as does a large domed container that would fit more cups in it. Place the little containers in bright but not direct sunlight. You do not have to move them from this location until ready to put the new plant in its own container.

Roots with leaves above the soil will take possibly a month to develop. When ready, remove the plastic or dome and place in a reservoir (I like to put felt down to help hold moisture evenly) When the plant has reached a size that is ready for its own pot, set up a plastic container for water with a cover with two holes (one for the wick and one to add more water) and place the repotted plant on this. Be sure to transfer the name of the violet on its new container. Use one-eighth strength fertilizer to be used with the wicked plant.

Once a successful plant is grown from a leaf, don't be surprised if you are ready to do it again and again. You can share plants with friends with just leaves being exchanged. Happily, this propagation procedure can be done any time of the year.

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Edited March 2020 by J. Stork. [Starting Violets from Leaves - African Violet Society of America](#)



1. Wick a small container and fill with moistened soil MG Jamie Hart



2. Leave enough stem on the leaf to help it grow roots MG Jamie Hart



3. Slide stem about one inch into prepared hold MG Jamie Hart



4. More leaves can be put into a larger domed container MG Jamie Hart

“...can be done any time of year”



5. Single containers fit into zippered plastic bags
MG Jamie Hart



6. Planted leaves ready to go into containers
MG Jamie Hart



7. Domed containers under grow lights MG Jamie Hart



8. Plants in new containers in reservoir MG Jamie Hart



9. A planted leaf can create many new plants MG Jamie Hart

Rooting Cuttings in Water



Karyl Norcross
Mehlman
GCMG 2022

Cuttings of plants, herbs, and flowers are like babies. They have tremendous potential but need a great deal of nurturing and support to flourish. Their primary need is water. They can live for quite a long time without food, and water can be provided directly. Many flowers, herbs, and other plants can be propagated in water. Plants that can be rooted easily in water include the following:^{1,2}

African violet (*Streptocarpus ionanthus*)

Begonia (*Begonia* spp.)

Grape ivy (*Cissus alata*)

Coleus (*Plectranthus scutellarioides*)

Ti plant (*Cordyline terminalis*)

Creeping fig (*Ficus pumila*)

Golden pothos (*Epipremnum aureum*)

English ivy (*Hedera helix*)

Baby's tears (*Helxine soleiroliae*)

Impatiens (*Impatiens walleriana*)

Heartleaf philodendron (*Philodendron oxycardium*)

Fiddleleaf philodendron (*Philodendron bipennifolium*)

Swedish ivy (*Plectranthus australis*)

Satin pothos (*Scindapsus pictus*)

Trileaf wonder (*Syngonium podophyllum*)

Wandering dude (*Tradescantia zebrina*)

Christmas cactus (*Schlumbergera truncata*)

Some say that plants so treated will develop mainly thin, unreliable root systems and are difficult to move to soil. This is only partially true. The trick is to allow the cutting to develop a sturdy root system (Figure 1) before trying to replant. Patience and changing water at least once a week are helpful. It is best to root cuttings in water that you know is clean. Tap water may do, but if you are not sure if your tap water is contaminated, try rooting two or three cuttings of an easy plant, such as basil (*Oscimum basilicum*), in tap water and some in filtered water from your refrigerator. If the question is not answered, try a more difficult plant like pothos (*Epipremnum aureum*). If results are the same, go with the tap water.

The next trick is taking the appropriate plant cutting and then



Figure 1. Rooted cutting more than ready for planting MG Karyl Mehlman

changing it to make it ideal for rooting in water. Plants with thinner stems root better than those with thick, woody stems. The latter will root, but may take more time and usually do best when treated with rooting hormone and planted in moist soil.

The plant cutting should be taken from new growth just below a node (Figure 2) with clean clippers or scissors. Leaves at or near the node should be removed such that only the stem remains in the water. Cuttings should be short, and leaves on the stem should be removed leaving only four to six top leaves. More leaves stress the cutting and are difficult for the cutting to support. The top leaves should not be in water and should be supported by the container edge or by inserting stems into holes in plastic or foil placed over the container to support the stem. This may be necessary if the container is deep or the cuttings are very short.

Cuttings from different plants can be placed in the same container if you are short of containers or space. Separate the cuttings if roots begin to tangle. Ideally, the container should be clear so that root development can be seen easily. Watch for browning of roots that can indicate mold or rot. Discard or trim the cutting to a clean spot on the stem, discard the root, and try again or afresh. Decide what the problem was; often it is merely neglect.

Plant cuttings should be placed in moderate temperature locations where they will receive good light but not direct sunlight.

Some plants can even be rooted in water from leaf cuttings.

“...develop a sturdy root system before replanting”

African violets and snake plant (*Dracaena trifasciata*) can be easily and rapidly rooted from leaf cuttings. Cuttings are made from healthy leaves alone or attached to a short piece of the stem and placed in a small container, of water and treated as stem cuttings. Transplant when a branching root system develops, usually less than a week.

Cuttings may root in as little as two days (Figure 3), and plantable cuttings with root systems may be formed in a week (Figure 4). Be patient as long as the cutting looks healthy. Do change the water at least weekly.

Plan ahead and think about how and where you want to plant the cutting once rooted. Cuttings may do well in potting soil, but will do better in potting soil enriched with perlite for drainage or vermiculite to hold moisture with added organic material like peat moss. If roots and stems are small, choose a 2x2 pot. I prefer square pots because they save space and allow for more pots in the same runoff container. It is best to take multiple cuttings from the same plant, root them in the same water container, and plant them at the same time either in individual pots or together in a larger pot to make a thick, pleasant arrangement that can be saved indoors during winter or to serve as bedding plants or single bunches in the garden.

Rooting cuttings in water can be fun and rewarding. Multiplying and pruning your plants by taking cuttings can provide new plants, plants for plant swaps and sales, and added greenery for your garden or home.

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<https://www.umv.edu/extension/news/propagating-perennials>



Figure 3. Basil cutting after two days in water with curious kitten, Matti Mehlman
MG Karyl Mehlman



Figure 4. Basil cutting after one week in water with resting kitten MG Karyl Mehlman

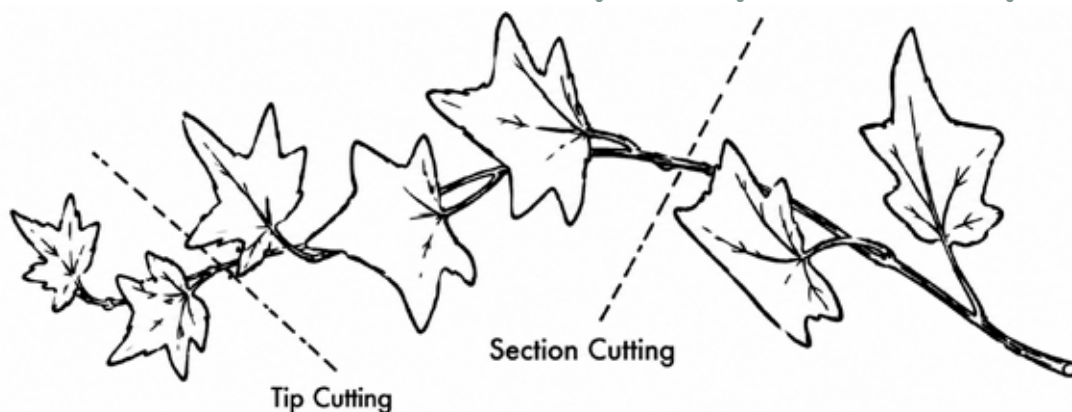


Figure 2. Cutting strategy Texas A&M AgriLife Extension

Softwood Stem and Leaf Propagation



Bronia Michejenko
GCMG 2015

Many plants can be reproduced using different parts of a plant such as stems, leaves and roots. Both stem and leaf propagation are processes of cloning that result in an exact replica of the original plant. Softwood cuttings are more successful when taken from young actively growing shoots as they contain different hormones. Once the flowering phase begins there is competition for nutrients, and the plant makes root-inhibiting substances. A mature plant will root if it is from an easy to root species and the flowers and buds are removed. The advantage of propagating from cuttings is that cuttings tend to grow faster and quicker than seeds, which saves money and increases plant numbers. Not all plants can be grown from cuttings, and some are easier than others. Before a freeze, I take coleus and salvia cuttings inside and put them in water. I transplant them into pots, when roots are about an inch long, and keep inside until safe to place them in the garden.

Many plants such as coleus, petunias, salvia, lavender (*Lavandula* spp.), calibrachoa and geraniums can be propagated by soft stem cuttings. Many herbs such as basil (*Ocimum basilicum*), thyme (*Thymus vulgaris*), and rosemary (*Salvia rosmarinus*), houseplants, succulents, shrubs, and trees such as hydrangeas and fruit trees can also be propagated this way. (D. Reif, 2025)

Most stem cuttings are taken in spring and early summer, from tender new growth. Sterilize pots with a 1:10 bleach solution. Potting medium should drain well and be sterile. A commercial mixture usually has a composition of perlite, peat, and sand. Compost can be used. Stem cuttings have no roots making it difficult to keep the plant hydrated. Minimizing water loss helps with successful cuttings. Water your plant the day before you take your cutting. Collect nonflowering stems early in the day. Always use clean, sharp tools to avoid damaging plants and introducing disease.

Steps of Cutting Process

Cut a four-to-six-inch stem tip with a clean, sharp knife at a 45-degree angle about a quarter inch below a node. Gently remove the leaves from the lower stem but retain a few at the tip of the plant to help the plant survive and develop roots by way of photosynthesis. This process provides the cutting with the energy and sugars to grow new roots and also triggers a natural root hormone, auxin, which stimulates root formation. Cuttings can be in water to form roots. Once roots are one to

two inches long, plant in a growing medium. Roots in water are different from those grown in soil and can be fibrous and stringy. In soil they will develop new roots. For cuttings grown in medium, you can use rooting hormone. Dip a stem cutting in water and then in the growth hormone. Some authors state that there is a better outcome with use of rooting hormone. (B. Cregg 2006). Carefully, insert the cut end into a container filled with moist well drained medium. Water lightly. Some plants will benefit from being covered with a clear plastic bag creating a tent to create a moist environment. Otherwise mist cuttings once or twice a day. Keep cuttings in a warm environment of at least 65-75 degrees in bright indirect light. Observe frequently and remove any dead or diseased material. Be patient. Some plants take a week to show roots, while others several months.

Leaf Propagation

Only a limited number of plants can produce new roots and shoots from just a leaf. Leaf cuttings can be propagated by rooting leaf blades or sections of a leaf. Leaves that are thick and fleshy tend to propagate best. The leaf generates new roots and a shoot. The leaf disintegrates after the new plant is formed. Plants that can be grown from leaf cuttings include African violets (*Streptocarpus ionanthus*), peperomia, ZZ plant (*Zamioculcas zamiifolia*) and wax begonias (*Begonia x semperflorens-cultorum*). Use the whole leaf with a piece of



Place the stem with two nodes under the moist medium
MG Bronia Michejenko

“...cuttings grow faster and quicker than seeds”

the stem (petiole) attached. Many succulents can be propagated from a single leaf without the petiole. Succulent varieties like echeveria and sedum drop their leaves easily in response to rough handling and are prime candidates for leaf propagation. Allow the leaf to callous for a day or two to prevent rotting before propagating in a growing medium. Young, vibrant leaves will root faster and more reliably.

Cuttings are an easy and widely used method to start a new plant. Start with coleus (*Coleus scutellarioides*) or a plumeria (*Plumeria rubra*) which are both easy. Leaf cuttings can be started with a succulent. It is delightful to watch this process as the cutting begins to grow. Once you have mastered an easy plant, try a different one. Research each variety you want to propagate as each plant is different.

For references see Softwood Stem and Leaf Propagation page 50



Six weeks of growth on a graptopetalum starting with a leaf
MG Bronia Michejenko



Gently twist leaf off stem, getting all leaf tissue
MG Bronia Michejenko



Some plants do best with a plastic tent (zippered bag) over them to promote rooting
MG Bronia Michejenko



Place the calloused succulent leaf on the medium
MG Bronia Michejenko



Christmas cactus leaves at different stages
MG Bronia Michejenko

The Joy of Bulb Propagation



Fran Brockington
GCMG 2018

Several methods work for successful bulb propagation. “Bulb” is the name given to true bulbs, corms, tuberous roots, tubers, and rhizomes. Three easy methods of bulb propagation to produce new flowers within a year or two are seed dispersal, offset (or bulblets), and division. Other methods include bulbils, scaling, and chipping.

Most bulbs do not need to be divided often. Consider propagation when blooms are not as beautiful, are getting smaller, appear weak or when the grouping has become too large. This can be as often as every three years but sometimes five years or more.

The best time for propagating spring flowering bulbs is fall. The weather is cooler and the plant has finished “feeding” the bulb after flowering. As the foliage dies and turns yellow and brown, it uses the sunlight to replenish the nutrients for the following year.

The best time for propagating summer and fall flowering plants is during late winter and early spring in our USDA Plant Hardiness Zone 9b.

Propagation by Seed Dispersal

Rain lilies (*Zephyranthes* spp.) and Oxalis (*Oxalis stricta*) are known for “throwing” their seeds through the air. After the flowers have died, a seed pod will grow. The seeds darken as they mature. When ripe, the pod will burst scattering the seeds. Collecting and bagging the seeds prior to this burst is preferred.

Propagation by Offsets and Bulblets

Many bulbs will produce offsets or bulblets at the base of the plant. True bulbs or tunicate bulbs (like an onion) have dry “tunic” leaves on the outside, the inner layers or “leaf scales” are fleshy or soft. In the center is the developing flower bud. On the bottom is the “basal plate” or stem of the bulb. The roots grow from the basal plate. “Bulblets” develop from the basal plate. These new plants are clones of the mother plant and can be removed with a sharp knife. Always make sure to have some basal plate and developing roots. Amaryllis (*Hippeastrum hybridum*), lilies (*Lilium candidum*), crinums (*Crinum americanum*), daffodils (*Narcissus pseudonarcissus*), and many other true bulbs will produce offsets or bulblets.

Propagation by Division

Digging up individual bulbs or clumps of bulbs is an easy

method for division for true bulbs such as rain lilies (*Zephyranthes* spp.), oxblood lilies (*Rhodophiala bifida*), spider lilies (*Hymenocallis littoralis*), amaryllis (*Hippeastrum hybridum*), Asiatic lilies (*Lilium asiaticum*), and daffodils (*Narcissus pseudonarcissus*).

Gladiolas (*Gladiolus hortulanus*), crocosmia (*Crocasmia masoniorum*), crocus (*Crocus sativus*), and freesia (*Freesia refracta*) are good examples of corms that form on top of one another. As the season ends, top corm dries up, and the baby corms begin to produce new foliage.

Remove a root ball clump or a single bulb, being careful not to damage the roots. Pull the root ball apart into smaller clumps or by individual bulbs. Use a knife if necessary. Clean off corms removing dried-up top layers. Remove damaged roots and trim. Replant in good soil, in pots or ground, giving each new start space to grow. Water well to settle the soil.

Division of Tubers and Tuberous Roots

Tubers are swollen underground stems modified for food storage. New plants do not need a basal plate, and come from “eyes.” Irish potatoes (*Solanum tuberosum*) are a good example. Caladiums (*Caladium hortulanum*), gloriosa lily vine (*Gloriosa superba*), and turmeric (*Curcuma longa*) are tuberous rhizomes.

Tuberous roots are swollen roots, rather than stems. They grow in clusters, such as daylilies (*Hemerocallis lilioasphodelus*), dahlias (*Dahlia pinnata*), and tuberous begonias (*Begonia x tuberhybrida*).



Crinum with offset MG Fran Brockington

“...best time for propagating is fall”

Use a sharp knife or razor to divide tubers or tuberous roots into pieces. Make sure each piece has several “eyes.” Let the cuts dry or callus for a few hours before planting. This natural healing process protects against bacteria.

Division of Rhizomes

Rhizomes are horizontal underground stems that sprout roots and shoots from their nodes. German bearded irises (*Iris x germanica*) and cannas (*Canna indica*) are common rhizomatous flowers.

Dig up a clump carefully without breaking the rhizomes if possible. Shake off the loose soil to see the nodes from where the fans are growing. Clip off any old or mushy pieces. Choose sections with fans attached, cut between the nodes and trim to about 6 inches. Plant with the top of their underground stem just showing above the soil.

Propagation by Bulbils

Bulbils form in some lilies in the leaf axils where the leaves are attached to the stem. These bulbils can be pinched off and grown in prepared soil until large enough to plant.

Propagation by Scaling

True bulbs can be propagated by peeling off dry tunic leaves and then separating the fleshy, softer inner layers called scales. These individual leaves or scales can be placed in a bag with moist soil and sealed. Kept in a dark place for several weeks, they will eventually produce bulblets.



Lilies multiplying by offsets MG Fran Brockington

Propagation of True Bulbs by Chipping

Chipping works well with larger true bulbs such as amaryllis and crinums but will also work with smaller bulbs such as oxblood lilies or daffodils.

Determine how many plants you want. Use a sharp knife or razor blade to cut the bulb in half, or quartered, or smaller. Each piece must have a part of the basal plate or stem. Dust with sulfur then insert each section into a pot of perlite. Keep the pot moist for several weeks and eventually you will see little bulblets have started growing off the basal plate. Separate them into their own pot. They may take a year or more before blooming, but they will be multiplying the whole time.

Propagation by any of these methods will bring you joy as you see new bulbs develop and have “passalong” plants for your friends!

Reference:

Plant Propagation Workshop, 2018, Thomas LeRoy, AgriLife Extension Horticulturist Emeritus



Amaryllis with bulblet MG Fran Brockington

Create an Herb Garden: A Guide to Herb Propagation



Briana Etie
GCMG 2017

Whether you are a seasoned gardener or just starting, learning to propagate herbs is a rewarding skill. Propagation is simply the process of creating new plants from existing ones, and it is easier than you might think. From starting seeds indoors or directly in your herb garden to rooting cuttings, there are several methods that any home gardener can try.

Starting from Seed

Growing herbs from seeds, the most common way for propagation by beginners(1) is affordable, easy to store, and a single package can produce multiple plants. Choose a sterile seed-starting mix, moisten it before planting, and sow seeds at the depth recommended on the packet. Most seeds need consistent moisture, the right temperature, and either light or darkness to germinate. Once seedlings develop their first set of true leaves, carefully transplant outdoors after a gradual hardening-off period of seven to ten days.

Propagation from Cuttings

To replicate a favorite herb exactly, cuttings are the way to go. Softwood cuttings, taken from fresh growth in late spring or early summer, work beautifully for herbs like African blue basil (*Ocimum kilimandscharicum* × *basilicum* 'Dark Opal'), Texas tarragon (*Tagetes lucida*) and rosemary (*Salvia Rosmarinus*). Simply snip a stem at an angle below a node, remove lower leaves, dip the cut end in rooting hormone, and place it in moist potting mix. Keep the cutting in a warm, bright spot and mist it regularly. Within a few weeks, new roots will appear.

Layering: Let the Plant Do the Work

Simple layering is one of the easiest propagation techniques. Bend a low-growing stem down to the soil, nick the underside

at a node to expose the cambium layer, and pin it in place with a landscape staple or heavy brick or stone. Cover the wounded section with soil, keep it moist, and within several months the stem will develop its own root system. Then simply cut it free from the parent plant and transplant. Air layering follows a similar principle for upright stems: wound the bark, apply rooting hormone, wrap with damp sphagnum moss and clear plastic, cover the plastic with foil to prevent light and wait for roots to appear.

Propagation by Division

For herbs that spread through underground roots or runners, division is the fastest method. Mint (*Mentha*), oregano (*Origanum vulgare*), marjoram (*Origanum majorana*), lemon balm (*Melissa officinalis*), and chives (*Allium schoenoprasum*) all respond well to being dug up, gently separated at the root mass, and replanted into fresh soil or pots. Division not only gives you new plants to share with friends but also keeps established herbs healthy and productive by preventing overcrowding.

Setting Up for Success

Whichever method is used, the right environment is key. New cuttings and seedlings need bright but indirect light, consistent moisture without waterlogging, and moderate temperatures. A light misting twice a day can help rootless cuttings stay hydrated. Avoid strong direct sun and heavy wind until plants are well established.

Propagation improves with practice. Start with the easiest herbs like basil, mint, or rosemary, and soon you will have many plants. As the Galveston County Master Gardeners say, "Knowledge not shared is knowledge lost." Grow some extras and share with a neighbor.

Reference: Merritt, Donna and Etie, Briana. "Herb Propagation." PowerPoint. 2026.



Simple ground layering MG Briana Etie



Root divisions MG Briana Etie



Water roots MG Briana Etie

Growing History: How to Propagate Ferns from Spores



Briana Etie
GCMG 2017

Ferns are among the oldest plants on Earth. They first appeared over 380 million years ago, long before dinosaurs roamed and were once so abundant that ancient ferns eventually became the coal and natural gas that we rely on today. After the mass extinction that wiped out the dinosaurs, ferns were among the first plants to bounce back and recolonize the planet. It's no exaggeration to call them living fossils.

Today, ferns remain vital to healthy ecosystems. They provide habitat for wildlife, prevent soil erosion, filter water, and even absorb toxins. And for gardeners, they offer striking beauty in shady corners where few other plants thrive.

Unlike most plants in your garden, ferns don't produce seeds or flowers. Instead, they reproduce through tiny spores. Microscopic cells are found in clusters called sori on the undersides of their fronds. If you've ever noticed small brown dots on the back of a fern leaf, you've seen spores at work.

The fern life cycle has two distinct stages. The leafy plant we recognize is the sporophyte, which produces spores. When those spores land on moist ground, they grow into a tiny heart-shaped structure called a prothallus, small enough to fit on your fingernail. This is where fertilization happens, and eventually a new fern frond emerges.

Epiphytic ferns are nonparasitic plants that grow on other trees or structures rather than in the ground. They are highly

adapted to absorb moisture and nutrients directly from the air and surrounding organic debris. Because of their lush foliage, many make stunning, low-maintenance houseplants or terrarium additions. Staghorn ferns (*Platycerium* spp) are the rock-stars of the epiphyte world. Rabbit's foot fern (*Davallia fejeensis*) is a favorite for hanging baskets, known for its delicate, lacy fronds and distinct, furry rhizomes that spill over the pot and need high humidity. Bird's nest fern (*Asplenium nidus*) features long, glossy, unfurling fronds that form a striking nest shape that catches water and debris. Blue star fern (*Phlebodium aureum*) boasts striking blue-green, wavy fronds and thick creeping rhizomes. If growing these ferns indoors, they will thrive in high-humidity environments. Ferns grow well in 50–70 percent humidity and can be misted once or twice a day when less percent is available.

You can propagate ferns from spores with just a few household supplies: a pot, some sterile sphagnum moss, water, and a plastic bag. Simply scrape mature spores from a frond, sow them over moist moss, and place the covered pot in low light. Patience is key, you may wait two to six months before seeing a green mat of growth, and a mature plant can take a year or more to develop. But watching that ancient life cycle unfold on your windowsill is deeply rewarding.

Reference:

"Fern Propagation." PowerPoint presentation by Briana Etie, Advanced Master Gardener – Propagation. Edited 2026.



A new fern emerges MG Debby Brady



Fern spores Pixabay.com

Propagating Plumeria from Cuttings



Mary Jane
Forney
GCMG 2017

The allure of a tropical garden can begin with something as simple as a *Plumeria rubra* cutting. With dozens of varieties, each offering its own unique fragrance and bloom color, plumeria has become a beloved staple in many Gulf Coast landscapes. Propagating plumeria from cuttings is not only straightforward but also highly reliable. In my 43 years of growing plumeria, rooting cuttings has consistently

been my most successful method.

Cuttings produce plants that remain true to the parent in both bloom color and leaf form. I typically take cuttings from May through July, since temperatures reliably stay above **60 degrees**.

Steps for Rooting Plumeria Cuttings

1. Materials

Plumeria cuttings at least **12 inches** long

Fine-tooth handsaw

Anchor support (fivepoint PVC recommended)

One or threegallon nursery pots

Soil mix: **40 percent perlite / 60 percent cactus mix**

Worm castings (optional)

Velcro strips

Hand scissors

Labels

Trowel

Hormone gel for plumeria (Clonex is an example)

Foot-long, three-eighths-inch fiberglass rebar rod

2. Preparing the Cuttings

After cutting, allow the white sap to drip naturally, then dip the cut end into rooting gel.

The cut surface will form a tough, dry callus.

Place cuttings in a shaded, wellventilated area for **7 to 14 days** to fully callus before potting.

3. Potting the Cuttings

Line the nursery pot with mesh or landscape fabric to prevent soil loss through drainage holes.

Mix cactus soil and perlite thoroughly.

Recommended ratio: **40 percent perlite / 60 percent cactus mix**

A fastdraining mix is essential due to heavy rainfall in our region.

Add **1 inch** of potting mix to the bottom of the pot.

Assemble the fivepoint PVC support and secure the cutting using two oneinch Velcro straps.

Position cutting so label sits **two to three inches above** the support system.

Place additional potting mix within two to three inches of the top rim of the pot.

Sprinkle **one-half cup** of worm castings around the base to enrich the soil.

Give minimal water to the planted cutting; half a cup is sufficient.

For extra prevention against tipping over, drill a hole through the center of pot and support device. Place a rebar rod in the ground and place the pot on top of it.



Materials MG Mary Jane Forney



Soil mix and worm castings MG Mary Jane Forney

“...cuttings remain true to the parent...”

4. Care While Rooting

Do **not** water the cutting for the first **one to two weeks**. A light rain shower is acceptable.

Place pots in bright indirect light or gentle morning sun.

Water sparingly once new leaves begin to emerge; plumeria prefer dry soil while rooting.

Increase sun exposure gradually as new growth appears.

5. Rooting Timetable

Depending on the variety, plumeria cuttings typically root within **two to four months**.

Final Notes

There are many ways to root plumeria, but this method has proven reliable for me year after year. One helpful tip: make sure the leaf scars on the cutting are “smiling” at you. This ensures you have the correct end facing upward before planting.

This method of propagating plumeria is also done by homeowners who do not want to remove plumeria annually that are planted in the ground so they propagate to replace established plants if they do not survive any freezes that might occur.

With patience and proper technique, plumeria cuttings can reward gardeners with vigorous plants and spectacular blooms, bringing a touch of the tropics right to your backyard.



Preparing the cuttings MG Mary Jane Forney



PVC anchor support MG Mary Jane Forney



Rooting the cutting MG Mary Jane Forney



Rooting various cuttings MG Mary Jane Forney

Propagation by Air Layering



Briana Etie
GCMG 2017

Air layering allows roots to develop on a stem while it remains attached to the parent plant. The time of year and the type of plant determine how much time it will take. The plant pictured is a rubber tree (*Ficus elastica*), one of the easiest with woody stems to propagate with this method. Fiddle leaf fig (*Ficus lyrata*) can take longer. It is an easy way to propagate if handled correctly. Here are the steps:

Air layering can be used successfully on dieffenbachia, schefflera (*Heptapleurum arboricola*), hibiscus, camellia, croton (*Codiaeum variegatum*), pothos (*Epipremnum aureum*), snake plant (*Dracaena trifasciata*), monstera, gardenia, azalea (*Rhododendron* spp.), rose, citrus trees, and maple trees.



Wound the cambium layer. Cut around the stem and remove the layer
MG Briana Etie



Apply rooting hormone MG Briana Etie



Wrap with moist moss MG Briana Etie



Cover with plastic and then use foil to conceal light for optimum growth
MG Briana Etie



In 6-10 weeks, remove foil to see if a root ball is present
MG Briana Etie



Cut under roots to remove from the mother plant. Notice aerial roots on the stem
MG Briana Etie



Plant with moss to prevent losing any roots
MG Briana Etie

Propagating Texas Superstars Responsibly



Briana Etie
GCMG 2017

Because many Texas Superstar plants are attractive, durable, and sometimes easy to propagate, gardeners may assume they can freely reproduce them. However, propagation is not always unrestricted. Many popular plants are protected by legal safeguards that preserve the rights of plant developers and marketers. In horticulture, these protections most often include trademarks and plant patents, each serving a different purpose.

Trademarks protect a plant's commercial identity, including recognizable names such as Knock Out® roses (*Rosa* 'Knock Out'). If these names are actively used and renewed, they do not expire. For example, a grower may be allowed to propagate a rose after its plant patent has expired, but the grower may not sell it under the Knock Out name without authorization. Similarly, a nursery selling a protected plant must use the trademarked name correctly and avoid presenting that name as a generic plant description. Even when the patent has expired, its trademarked name may still be restricted.

Plant patents protect the plant itself. Issued by the United States Patent and Trademark Office, these patents apply to new and distinct plant varieties that are reproduced asexually through methods such as cuttings, grafting, or tissue culture. Patent protection generally lasts 20 years and gives the patent

holder exclusive control over propagation and sales. During that period, reproducing the plant without permission is considered infringement, regardless of how the plant is labeled, shared, or sold.

These protections are especially relevant when working with Texas Superstar selections, some of which may be protected by a patent, a trademark, or both. Examples include Tidal Wave® petunias, Cora® vinca (*Catharanthus roseus*) varieties, and certain mandarin and satsuma trees. Although these plants may be widely available and commonly planted, propagation without authorization is not permitted while legal protections remain in effect.

The 'Blue Angel'™ althea (*Hibiscus syriacus* 'Greba') provides a useful example of how these protections can work overtime. Originally developed through selective breeding, this variety was placed under patent protection after its introduction. Even after the patent period expired, the plant continued to be marketed under a trademarked name, preserving its identity in the marketplace. Its eventual designation as a Texas Superstar increased its popularity, but the rules surrounding its propagation remained an important consideration for gardeners.

Before taking cuttings or sharing plant material, gardeners should confirm whether a variety is protected. When a plant is not under patent or trademark restrictions, propagation can be both enjoyable and rewarding.

By combining careful propagation practices with an understanding of plant protections, gardeners can expand their landscapes responsibly while enjoying the satisfaction of growing new plants.

www.texassuperstars.com



Cuttings in water MG Briana Etie



Semi-woody stem MG Briana Etie



Propagating Texas Superstars MG Briana Etie

Texas Superstar of the Month: Propagating Butterfly Vine



Briana Etie
GCMG 2017

Gardening in Texas can be rewarding but challenging, with heat, humidity, drought, freezes, and varied soils testing even experienced gardeners. The Texas Superstar® program helps gardeners choose reliable plants by highlighting selections proven to perform well in tough Texas landscapes and available in sufficient numbers to meet consumer demand. Butterfly vine (*Callaeum macropterum*) was named a Texas

Superstar plant in June 2019. Native to Mexico, also known as yellow orchid vine, this fast-growing perennial, twining evergreen vine produces clusters of bright yellow, orchid-like flowers from spring through fall. The flowers are followed by distinctive chartreuse wings on the seed pods, which resemble a swarm of butterflies and give the plant its common name.

In the right location, butterfly vine can reach 10 to 15 feet tall and wide. It grows best in full sun and well-drained, slightly acidic soil. This vigorous vine thrives in intense heat, tolerates drought, and looks fuller with moderate watering. It is evergreen to about 25 degrees; below that, it may lose foliage but quickly regrows in spring. Its heat tolerance, drought resistance, and strong resistance to insects and diseases help explain its Texas Superstar status. Though not always easy to find in nurseries, it is easy to propagate and is not known to be restricted by plant patents or trademarks. Formerly known as *Mascagnia macroptera*, *Callaeum macropterum* should not be confused with golden vine (*Stigmaphyllon ciliatum*) which has heart-shaped leaves.

Semi-woody cuttings are an effective way to propagate yellow butterfly vine in late spring or early fall. Fill a small pot with a moist, sterile, well-draining medium that is damp but not soggy. Choose a healthy, non-flowering stem that is firm but slightly flexible, and use clean pruners to take a six- to eight-inch cutting. Remove the lower leaves, leaving a few at the top, and make a fresh angled cut just below the bottom leaf node. Keep cuttings in water while preparing the rest. Before planting, tap off excess water, dip the cut end lightly in rooting hormone, and insert it into a pre-made hole so the lower nodes are covered. Firm the medium around the stem, place the cutting in bright, indirect light, and keep it evenly moist. Mist as needed, but avoid soggy soil, which can slow rooting or cause rot. When new growth appears and the cutting resists a gentle tug, roots have likely formed. Rooted cuttings may be ready to transplant in just under three months and can then be grown in a one-gallon container before planting in their final location.

Butterfly vine deserves a place in Texas gardens. It performs well in hot western exposures, along walls, and on arbors, fences, mailboxes, and light posts. This fast-growing evergreen vine can quickly fill a space, provide evening shade, or mound as a shrub or groundcover. Easy propagation also makes this reliable, heat-tolerant bloomer simple to share with friends.

References:

Texassuperstar.com/butterfly-vine



Butterfly vine flowers Canva



Seed pod MG Briana Etie

Plants of the Month: Let's Get Fired Up!

Plants that Bring "Fire" in Your Garden



Stacey Phillips
GCMG 2017

Late summer and early fall bring some of our favorite winged friends, hummingbirds, through our region. We are fortunate to be in their migratory path down to Mexico and Central America, their winter home destination. Planning your garden to provide some irresistible food sources that are timed to bloom during this migratory window will ensure these tiny powerhouses will enjoy their time in your yard during their long trip south. Hummingbirds are attracted by blooms that mimic the colors of fire; they also cannot resist long, tubular blooms. The following plants check both boxes, and not so coincidentally, bloom during the peak migration of hummingbirds.

Firespike (*Odontonema strictum*) is an herbaceous perennial that can reach heights of four to six feet with large dark green glossy leaves and three- to four-inch-long blooms of bright red or magenta. This striking beauty likes partial sun but prefers a little late afternoon shade during the hottest part of the day here in Galveston County. Once established, Firespike is moderately drought-tolerant, but be sure to provide sufficient water during dry periods. Firespike is hardy in USDA Hardiness Plant Zones 8-10. When exposed to a hard freeze, firespike will freeze to the ground, but come back from the roots in spring. Firespike can grow a little aggressively so prune it back during the growing season to promote a bushier growth habit. Butterflies and other pollinators also are attracted to this showy plant.

Firebush (*Hamelia patens*) is a highly adapted perennial for Galveston County gardens. It will thrive in full sun, but can tolerate partial shade, and like the previously mentioned firespike, it does prefer some late afternoon shade. Firebush is hardy in zones 8-10. When we experience hard freezes, it will freeze to the ground but comes back vigorously in late spring after a good pruning. Firebush is relatively drought-tolerant once established. This spectacular shrub grows up to five to six feet tall and is covered in long, tubular bronze-red blooms in late summer/early fall. Hummingbirds find its tubular blooms irresistible, and it also attracts butterflies and other pollinators.

Firecracker fern (*Russelia equisetiformis*) is also known as coral plant, firecracker plant and fountain plant. This showstopper is native to Mexico and Guatemala but has adapted to our area. As a Texas Superstar® plant, this is a drought tolerant perennial that thrives in our heat. The fern-like plant is not actually a fern but has fine almost leafless stems which

have adapted to perform photosynthesis. Firecracker fern has a weeping appearance and grows three to four feet tall. Bright red blooms appear in late Spring and continue through to frost and attract both hummingbirds and butterflies. There is a lemon-yellow variety but is not readily available at most nurseries. In milder climates, Firecracker ferns can survive our occasional hard freezes and will freeze to the ground but come back in the spring from the roots. They also make interesting container plants with their weeping growth habit, especially taller pots—just be sure to protect them from freezing temperatures by moving to a sheltered area.

Regardless of which variety you select for your garden, these plants will offer up the perfect treat for your hummingbird visitors this fall. I hope you're fired up to plant one or all three showstopping beauties.

See references at Get Fired Up page 50.



Firespike MG Stacey Phillips



Firebush MG Stacey Phillips



Firecracker fern MG Stacey Phillips

A Composting Interview with MG Roxann Kriticos



Christie McGrath
GCM 2023

Getting Started with Composting

What inspired you to start composting at home?

I was throwing away veggie scraps and I realized that they could benefit my garden efforts through composting.

What type of composting system(s) do you use?

I compost in a very large, old plastic rounded bottom flowerpot. It has a screen over it to keep pests out and is located under a large oak tree, so it is protected from the hot sun.

Composting Process

What kinds of material do you add to your compost?

Veggie scraps, leaves, eggshells and paper egg cartons, coffee grounds and their paper or plant fiber filters, and unbleached paper packing material from boxes.

How do you balance greens and browns?

I use dried oak tree leaves that I rake up from my tree for the brown and I stir the mixture with a pitchfork every other week, making sure to bury the fresh additions from the top. (Note: Chopping oak leaves up before adding will quicken the process. The ratio to work best for microbial activity and decomposition is 2:1: two parts oak leaves to one part nitrogen rich 'green' materials.)

Do you measure your compost temperature?

I have not checked the temperature of the compost. (Note: compost piles work best with an optimal internal temperature of between 130 and 160 degrees.)

How often do you turn or mix your compost?

I can turn the pot on its side to keep it mixed up by rolling it around to help get the bottom area mixed in as well. I occasionally water it if there's been no rain.

Do you have a regular schedule for these compost activities?

I add my kitchen scraps most days and will always turn the barrel then.

Challenges and Solutions

Have you faced any challenges (e.g., pests, smells)? How did you handle them?

I have the pot towards the back section of a tree base away from my house. I keep an olive oil can that has been washed out and a lid on it to put my scraps in before it is added to the

big pot outside in the back of my yard.

Do you change how you manage composting in the winter?

I treat the compost the same in the winter, perhaps with slower additives as leaves have mostly fallen and are added as they pile up in yard, I try to keep enough of a balance of dry to fresh additions.

Results and Benefits

How long does it usually take for your compost to break down into a usable soil amendment?

It takes about three months or so to get a nice texture of the usable compost. I harvest this from the bottom of the pot while it is on its side so I can dig out all the good stuff from the bottom.

How do you use the finished compost in your garden or plants?

I put it in a wheel barrel and mix it up with other bagged soils to introduce it into my vegetable or other garden beds,

Have you noticed any improvements in your plants or garden since you started composting?

I feel like the plants are getting the needed nutrients by mixing compost with other soils I place in garden beds as needed.

Personal Reflection

What do you enjoy most about composting?

I enjoy knowing that I am not wasting away the potential of this valuable material that would otherwise be sitting in a landfill somewhere. It keeps my garbage inside from smelling as it is outside that I place the rich ingredients in my pot for composting to break down.

Would you encourage others to compost? Why?

I suggest to anyone who wants to set up an area for compost to consider any potential hazards as far as wildlife getting into it. It can be built with wooden pallets and chicken wire to keep them out of the pile.

Do you have any tips for beginning composters?

Pick an area that has easy access to it so it won't be such a chore to get it to its resting place as it decomposes. I also suggest a covered holding container for under the counter in the kitchen until you can take it to the pile.

Is there anything else about composting you would like to share?

Once you start it's hard to stop, making sure of course

“...3 months to get a nice texture”

that you are putting in the proper items. Remember no meat, no oil, no cooked food, no dairy, and no weeds.

Texas A&M AgriLife Extension has good resources for composting:

[Easy Gardening: Composting - Texas A&M AgriLife Extension Service](#)

[Easy Gardening: Composting | Publications | AgriLife Learn](#)

Christie McGrath creates an article each month about composting. She shares the many ways people do their own composting as well as organizational composting projects.



Former olive oil container used for kitchen scrap collection
MG Roxann Kriticos



Compost flower pot with screen held down MG Roxann Kriticos



Flower pot with compost ready to turn in garden
MG Roxann Kriticos

Summer Memories: Growing Watermelon



Carol Hairfield
GCMG 2020

What item brings back summer more than watermelon? Now that I'm retired, I have been trying to garden. First thing I wanted to grow was watermelons. Last year was a disappointment, but knock on wood, this year I believe my luck has changed and I will finally get to eat a homegrown watermelon. What changed my luck? I can point to three things. First, I addressed pollination. I brought in some plants that I was told would attract bees.

To be safe, I decided to try self-pollinating. I watched a YouTube video. Morning seems to be the best time for this procedure. I plucked a male flower, and after some hunting, found a female flower.

I rubbed the two together. Then on another one, I got a Q-Tip and rubbed it around the male. Took it to a female and rubbed it around the flower. However, that was only two. I have at least six watermelons growing. Must be bees I'm not seeing.

Next, I have discovered plants really do like fertilizer. I was thinking the soil I had used was enough, but probably not. Texas A&M AgriLife Extension guide, *Easy Gardening: Melons*, was helpful for setting up a proper feeding schedule.

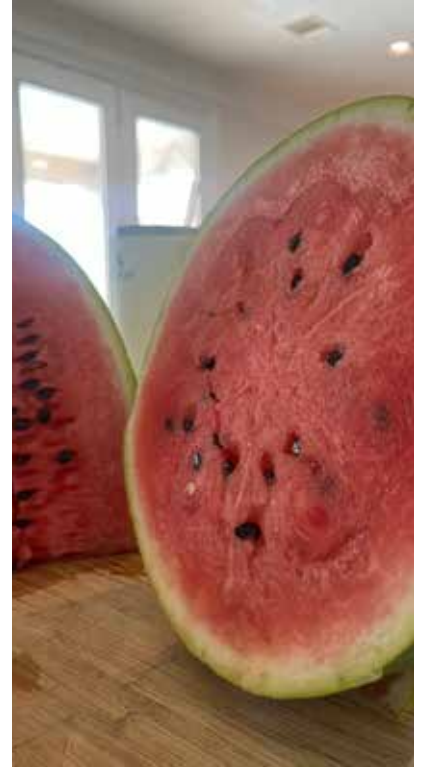
Finally, I corrected my watering. Watermelons are the ducks of the plant world; they love water. I thought I was watering heavily, but apparently not. This year, a three-day downpour seems to have brought the melons to the yard. I've made a note to myself for next year. If watered correctly, you can almost watch these guys grow.

If successful at growing the watermelon, you now must choose which one is ripe. Of course, there's an app for this. The app didn't work for me. It said the picture I took wasn't a watermelon. So, I did a very unscientific survey and found most people are either thumpers or sniffers. My cousin, a retired mechanic who recently admitted to getting watermelons from his neighbor's field when he was a kid, is a thumper. He says in a slow southern drawl, "You know when it has a dull, hollow sound." The sniffers say the melon will have a "fresh, sweet smell." Both ways are hit and miss as far as I'm concerned. Another method that a friend said her aunt swore by; involved a 4-inch piece of straw. Laid widthwise, if ripe, the straw will slowly spin to lay lengthwise. Otherwise, it will stay put. It just stayed still for me. Dr. Kevin Crosby, professor of horticulture at Texas A&M University, offers these suggestions in a YouTube video for choosing a good melon. The rind loses its glossy color. The spot where it rests on the soil takes on

a creamy, streaked color. Finally, a curly tendril that is directly attached to the stem nearest the melon will turn brown and shrivel. This store-bought one was chosen by the thumper and looking-at-the-rind method. Whether the method worked or I was just lucky, this melon was sweet and juicy.

Now that we have chosen the perfect watermelon, the fun begins. To salt or not? But it's not just the eating, there's spitting contests and "teeth" to be made from the rind.

Watermelons make summer memories.



Delicious success MG Carol Hairfield



Excitement in watching it grow MG Carol Hairfield



Tiny fruit appears by female bloom MG Carol Hairfield

Earth-Kind Rose Field Trial



Becky Risinger
GCMG 2025

“What goes to make a rose, ma’am, is breeding... and budding... and horse manure, if you’ll pardon the expression...” (1942 movie, Mrs. Miniver about the difficulty of growing roses)

But what if there is a way to grow beautiful roses that are easy to grow and require little to no maintenance.

Galveston County Master Gardeners are involved in Texas A&M AgriLife Extension research being done in several areas in Texas to see if more rose cultivars (varieties) can be added to the 21 roses that already have the designation of **Earth-Kind®** Roses. These roses require little care once established and are great for those who love and want to grow roses but are not rosarians. This Research Field Test will be over a five-year period.

Project Participants:

Boone Holladay, M.Ed., Galveston County Extension Agent - Horticulture

Robin Collins, Galveston County Master Gardener

Becky Risinger, Galveston County Master Gardener

Kathryn Ketchum, Senior Services Supervisor, Parks and Cultural Services, Galveston County

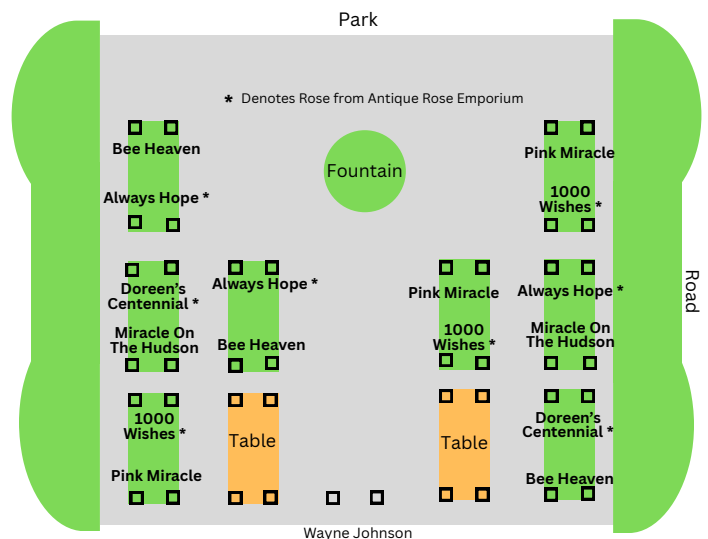
Earth-Kind Roses

What are Earth-Kind roses? This is a special designation given to select rose cultivars by the Texas A&M AgriLife Extension Service.” The Earth-Kind goal is to find plants that are drought tolerant and disease resistant. For roses that are being considered for an Earth-Kind rose designation, extensive research and field trials are done and only those roses with superior pest-tolerance, combined with outstanding landscape performance are awarded the designation. The goal is to provide maximum garden and landscape enjoyment while preserving the environment. These roses do well in a variety of soil types ranging from well-drained acid sands to poorly aerated, highly alkaline clays. Once the plants are established, they have excellent heat and drought tolerance. This results in the ability to enjoy the plants while limiting the use of fertilizers, pesticides and water. It is a great way to help preserve and protect our natural resources and the environment. (www.earth-kind.tamu.edu) The Galveston County Master Gardeners in conjunction with the Wayne Johnson Community Center located in the Carbide Park in La Marque, are collaborating in a field

trial to see if six additional cultivars will meet the criteria for being an Earth-Kind Rose.

Our Project

We were chosen as one of several sites in the state of Texas to test the six varieties to determine their drought tolerance and disease resistance over a five-year period, to see if they can stand up to the strict requirements. Our test area is different from the other sites. The other sites are planting directly into the soil in a rose bed. Our roses were planted in pre-existing raised beds at the community center. The six cultivars are ‘Bee Heaven’, ‘Always Hope’, ‘Doreen’s Centennial’, ‘Miracle on the Hudson’, ‘1000 Wishes’, and ‘Pink Miracle’.



Layout by Kathryn Ketchum, Wayne Johnson Senior Center, Senior Services Supervisor

Method:

The raised beds were filled with soil and compost in late April 2026. The roses were planted the first week of May. Four of the six varieties have three roses each of the type and two varieties have two roses of the type planted for a total of 16 plants. A drip irrigation system was installed on June 18. The plants were hand-watered three times per week in between the rain before the irrigation system was installed. Two inches of compost were placed over the bed after the installation of the drip irrigation.

One of the raised beds was found to have termites and several other beds had fire ants. The beds and perimeter were treated with Taurus® SC to treat both pests. The beds will be monitored to ensure that the pests have not returned.

“We were chosen to test six varieties...”

No measurements will be taken until the second year.

We also have signs that say this is a research project and ask that no one touch the roses. Our tongue-in-cheek signs read “Violators to be composted.”

The Research Cultivars

‘Bee Heaven’, a floribunda rose, has yellow blooms with 30-35 petals and copious amounts of pollen. They bloom continually throughout the season. They have a mild fruity fragrance. Mature height can reach four feet. (www.parransgreenhouse.com/bee-heaven-floribunda-rose-p/beeheaven.htm)



‘Bee Heaven’ MG Becky Risinger

‘Always Hope’ was named in honor of an Antique Rose Emporium employee and cancer survivor. The daily mantra “always hope” brought much comfort during that journey. This is a pink rose that blooms prolifically and bears many rose hips. It is a shrub that has no fragrance. It works well for large containers or as a border. Mature height can reach four feet. (www.antiqueroseemporium.com/products/always-hope-1)



‘Always Hope’ MG Becky Risinger

‘Doreen’s Centennial’ is a medium pink shrub rose. In addition to a pleasant fragrance, it has pom-pom style flowers in clusters that bloom repeatedly throughout the season. It was named in honor of a benefactor of the Hermann Park Garden Restoration in Houston. Mature height can reach four feet. (www.antiqueroseemporium.com/products/doreens-centennial)



‘Doreen’s Centennial’ MG Becky Risinger

‘Miracle on the Hudson’ is a shrub rose named in honor of the miraculous landing of US Airways Flight 1549 on the Hudson River. The rose produces semi-double red flowers from spring to fall. It has a light fragrance and was the winner of the 2014 Biltmore International Rose Trials Competition. It grows to three to five feet. (www.heirloomroses.com/products/miracle-on-the-hudson)



‘Miracle on the Hudson’ MG Becky Risinger

“Will six meet criteria for Earth-Kind roses?”

‘1000 Wishes’ is a large billowing rose with large single coral pink flowers. It works well as a stand-alone rose or in a hedge. It is a shrub rose with repeat blooms and a mature height of five feet. It is exceptionally fragrant. (www.antiqueroseemporium.com/products/1000-wishes)



‘1000 Wishes’ MG Becky Risinger

‘Pink Miracle’ shrub rose is the pink rose partner of ‘Miracle on the Hudson’. It has hot pink three-to-four-inch semi-double flowers that bloom in clusters of 12-14. It has a slight fragrance and reaches a height of three to four feet. (www.parransgreenhouse.com/pink-miracle-shrub-rose-p/pinkmiracle.htm)



‘1000 Wishes’ MG Becky Risinger

Goals of the Project

Determine if the six new cultivars meet the stringent requirements of the Earth-Kind designation and develop an enhanced spirit of collaboration between the Wayne Johnson Community Center and Galveston County Master Gardeners.

Wrap Up

The five-year Earth-Kind Rose Project has started and will help to determine if six cultivars of roses demonstrate drought and disease resistance in the Galveston County area. We hope to demonstrate that these roses are easy to grow, to maintain and to offer aesthetic beauty to our landscapes.

Special thanks to Galveston County Master Gardeners Bob Siml and Carl Lee for helping with the installation of the drip irrigation system.



MG's Bob Siml and Carl Lee working on irrigation MG Becky Risinger



Don't Touch our roses! MG Becky Risinger

Sunflower Project in Discovery Garden Year 1



Hedy Wolpa
GCMG 2018

Last fall's sunflower project delivered a gorgeous crop of branching and single stem varieties just in time for our Fall Festival in October. The sunflower team put much effort into planting and caring for them, and it wasn't hard to decide that we had to replant the bed for another spectacular display for the summer.

Here's how the Sunflower Project came to Discovery Garden and what we learned about these amazing flowers.

Dr. Calvin Trostle, Texas A & M AgriLife Extension Agronomist in Lubbock was studying varieties of ornamental sunflowers (*Helianthus annuus*) for commercial use. These are best described as either single stem flowers (very large flowers on a single stem), or as branching plants (usually sold as a "bunch" in grocery stores). Dr. Trostle received a large batch of branching and single stem commercial sunflower seeds in 2024 from Dr. Tom Heaton, who originally grew sunflowers as a hobby that became a full-time endeavor and then a career. His company, Sunflower Selections, does research, develops seed stock, and grows sunflowers for commercial sale to seed companies and catalogs. The end use is ornamental flowers that are used in the commercial cut flower market.

Dr. Trostle then shared 17 varieties of sunflower seeds from his 2024 ornamental sunflower project with several horticulture agents, including Boone Holladay in Galveston County.

Boone passed these seeds along to an interested team of Galveston County Master Gardeners. The team claimed a 25-foot bed in the Discovery Garden with the goal of having a display of sunflowers to show at Fall Festival, just eight weeks from our planting date!

Sunflowers belong to the Asteraceae, or daisy, family. The common sunflower is *Helianthus annuus*, and there are more than 50 species, mostly native to North America. The team's research on commercial-grade sunflowers was enlightening:

Commercial sunflowers are grown to be "pollenless" so that pollen doesn't drop and stain when flowers are arranged for home use in bouquets.

Professionals harvest pollenless sunflowers when the showy green "ray" petals are flat on the face or are standing perpendicular to the head. They will continue to open, and this extends their life to the floral customer. Even without pollen, they still provide plenty of valuable nectar for bees and butterflies.

Growth is heat driven, but sunflowers can handle the cold. Temperatures to 28 degrees should not cause damage if exposed for less than two hours.

Seed companies suggest planting from March to May, to take advantage of the warmest summer months when growth is rapid. However, you can start as soon as the last frost in spring and as late as early August.

Germination occurs in 7 to 14 days, and flower heads will begin forming at 30-40 days.

We expected the sunflowers to follow the movement of the sun throughout the day, but this is only true for the very first



MG Christie McGrath seed sorting MG Hedy Wolpa



MGs Christie McGrath and Kaye Corey gathering seeds MG Hedy Wolpa

“...sunflowers have a social life.”

green petals, called bracts, that develop on the flower head. The flower head, when fully developed, faces eastward.

The flower heads are simple in appearance, but more complex in actuality. The outer ring of the first petals that appear on a sunflower head is made of sterile yellow “ray flowers.” The next layer of petals is called “disk flowers,” and this is where the seeds are formed into a densely packed spiral arrangement. This spiral arrangement is unique in that the spiral follows a mathematical pattern called Fibonacci sequence, which most, but not all sunflowers follow. Many more seeds are able to develop when set in this spiral pattern.

We learned that sunflower plants have a social life. As they grow in height, they give their “kin” (neighboring sunflowers) preferential treatment by tilting right or left, up or down, to ensure that every plant gets adequate sunlight throughout the day and that the roots don’t compete for space. When grown commercially, this results in high yielding production with many plants thriving close together.

Some varieties of sunflowers are known to be hyper-accumulators. They uptake metals in large quantities through the soil by phytoremediation, storing toxic materials in their leaves and stems. For this reason, sunflower fields were planted near nuclear sites in Russia and Japan in 1994 and 2011, respectively, where they absorbed radioactive materials through phytoremediation.

The varieties we grew in Discovery Garden:

Single Stem

(All ProCut®)

‘Red Lemon Bi-Color’

‘Orange’

‘Plum’

‘Horizon’

‘Red’

‘Bravo’

‘Brilliance’

‘Gold Lite’

‘Lemon’

‘Peach’

‘White Lite’

‘White Nite’

Ornamental Branching

Gold Rush F1

Golden Cheer F1

Gypsy Charmer

Terracotta F1

(an F1 hybrid means it is the first generation of seeds from a controlled cross)

Commercial

Oilseed Farm NuSeed

The team divided our bed into 17 sections to separate each variety and planted seeds about one inch deep. Sunflower seeds need only an occasional light sprinkling of water, as the seeds may mold before germinating. After planting, light watering is recommended. These plants survive in poor soil with very little care. Have you noticed that sunflowers grow along the sides of construction and road work, in dusty, dry soil and at Nature’s mercy? We let the flower heads grow to full size, and we left the seeds alone until they were completely dry. Birds enjoyed most of the seeds, but we were able to harvest, sort, and store the remaining seeds with the intention of replanting them in spring. We were cautioned by Dr. Trostle that we might not get another generation of plants from this harvest.

Our Master Gardener team included Hedy Wolpa (leader), Christie McGrath, Roxann Kriticos, Carol Hairfield, Wendy Oalman, Sue Bain, Tina Woods, and Kaye Corey, with Betty Vogler as our plant label-maker.

For references see Sunflowers page 50



Light centered sunflower MG Christie McGrath

Sunflower Bed Year 2



Christie McGrath
GCMG 2023

Our goals with the sunflower bed in 2026 are to explore the viability and characteristics of the seeds collected from the sunflowers grown in 2025 and to succession plant such that we have blooms throughout the growing season.

After harvesting the dried sunflower heads in late 2025 and removing the stalks for composting, we covered the bed in cardboard to reduce weed growth over the winter.

Sunflowers like warm soil, so we decided to start this year's first succession indoors under grow lights. On March 3, we sowed a 72-cell tray with 18 each of four varieties we had harvested some of the most seeds from: 'Orange', 'Horizon', 'Red' and 'Brilliance' (all from original ProCut® series). We planned to divide the bed into six-foot sections and plant at least 10 of each variety in the center then succession plant on the sides.

Within a few days 'Horizon' and 'Brilliance' had mostly germinated, 'Red' had a few and no 'Orange'. After a week, we sowed another set of 18 'Red' and 18 'Orange', looking for the largest seeds this time. This second sowing was successful.

After hardening off the seedlings to prepare them for the garden, we planted 16 'Red', 11 'Brilliance', 17 'Horizon', and 12 'Orange' on March 19. In the first few days, something was eating some of our 'Brilliance' seedlings. We started another handful of seeds of that variety to replace those missing seedlings.

On April 3, we planted the additional 'Brilliance' and attempted to protect them with the little wire trashcans. Two of the damaged plants were growing new leaves and eventually produced a flower but their growth was stunted.

We started our second succession of seeds in late April again as transplants.

By May 2 'Brilliance' and 'Horizon' were putting out many blooms, 'Orange' was just starting to bloom and 'Red' was budding.

In mid-May, we planted the second succession around the entire border of the existing sunflower bed. We were concerned that the first succession would shade out the transplants, and this did turn out to be an issue. They had to lean out to compete.

All four varieties showed variations not listed originally as a characteristic and, while some looked mostly true to seed, others had branching traits or did not look like the original. The

'Red' variety seeds showed some variation in color, but none looked like the original 'Red' we planted last year.

The original ProCut® seeds are pollen free, so any seeds formed were the result of pollinators bringing pollen from other sunflowers in the area. We did not plan to harvest seeds on these early successions so in June we removed some of the spent stalks, opened the bed for the second succession and direct seeded the third.

In summary, our explorations in the sunflower bed so far are showing that many but not all the seeds we collected from the 2025 flowers to be viable and that they have tended to not retain all the characteristics of the original variety. The seeds that have been viable have all produced beautiful flowers.

We are looking forward to seeing more sunflowers at the Discovery Garden and continuing to learn about them.



Seedhead MG Roxann Kriticos



Sunflower MG Roxann Kriticos

Night Insects at the Discovery Garden



Fran Brockington
GCMG 2018

Curiosity about insects that work after dark brought Junior Master Gardeners, 4-H youth, Junior Master Naturalists, and Cub Scouts, their leaders, parents, and grandparents to the Discovery Garden for a special summer night program. Night Insects in the Discovery Garden was led by MG Hedy Wolpa, who has advanced training in entomology. She told the attendees about predatory insects, pollinator insects, and insect habitats. Display boxes of pinned insects with magnifying glasses were available for the children to get a close look at the most common insects found in Galveston County. MG Fran Brockington spoke about spiders because, even though they are not insects, they also have a particularly important job in the garden, helping us control pests in a natural way

without pesticides. The audience shared how insects and spiders hunt, navigate, and thrive, especially when the sun goes down in the garden. Once outside, the dark garden was illuminated by LED and black (UV) lights hung on sheets that attracted many insects. The Master Gardener insect team also used black light flashlights to locate insects and spiders. Children shared their discoveries with excited voices. "Oh look, there's a grasshopper," "The bugs are getting bigger and bigger," and "Oh, that caterpillar is adorable!" Other voices exclaimed delight and surprise as they found a large variety of spiders in every garden bed. MG Ira Gervais provided four live and very fat hornworms that the children could hold and examine. It was an evening of discovery and education that will long be remembered by our guests.



Finding insects in Discovery Garden MG Stephen Wright



MG Steve Holliday showing insects
MG Stephen Wright



Cucumber spider MG Fran Brockington



Hornworm investigation MG Stephen Wright



Insect Night lights and sheets MG Stephen Wright

Gardening Help Desk: Mealybugs, Scale, and Cycad Scale



Norma Torok
GCMG 2022

Periodically, the Galveston County Help Desk will receive a question regarding identifying mealybugs or scale and ask for the best method to eradicate them. Mealybugs and scale are in the same family (Pseudococcidae) and each of these pests have many species. A look at some key characteristics of mealybugs and scale can help one identify them and find the best way to eradicate or control the pests.

One distinctive characteristic of mealybugs and scale is the texture of their body. The mealybug has a soft body that looks like tiny chenille bits, while scale has a hard shell where the pest lives. A scale looks like a little white growth on a plant. While mealybugs have legs and move about, scale insects may lose their legs as adults and remain in one place, immobile and many times hidden in the plant. Both mealybugs and scale can secrete honeydew, causing sooty mold and attract other invaders such as ants, bees, wasps, and flies.

Identification is key before treatment.

If left untreated, the plant can die from these two pests. Predators if available, such as ladybugs, spiders, and wasps, are a natural way to get rid of both pests. One can also physically wipe or peel off the pests or swab with alcohol if in low numbers. Neem and horticultural oils are another method to eradicate both pests. Mealybugs can be difficult to control. While we all want to take the most natural route, systemic insecticides tailored for scale and mealybug might be necessary, especially when they are crawlers. Severe cases may require pruning out the infected parts or even discarding the plant altogether.

A particular scale has recently become present in Galveston County and bears additional discussion. This is called cycad scale (*Aulacaspis yasumatsui*) and it commonly attacks sago palms, which are common plants in Galveston County.

Cycad scale turns the fronds yellow as the scale sucks the tissue; the fronds can die. If a plant is heavily populated with cycad scale, it can invade the roots of the plant. At minimum, scale can stunt palm growth. Since a sago palm grows slowly by nature, a plant recovering from cycad scale can take a long time to return to normal after an infestation is eradicated.

To control and get rid of cycad scale, high - pressure water spray can knock off the scale. Take particular care to treat the underside of fronds and the palm trunk; the pests are sometimes not visible unless you inspect it closely. The various insecticidal oils can also eradicate it. In all cases, infected fronds

that are removed should be double-bagged and disposed of rather than left to decompose. Persistence is required, so treat weekly until eradicated.

In general, preventative measures can be taken to mitigate mealybugs, scale, and cycad scale infestations. Some preventatives include inspecting plants closely when purchased or brought into your home or landscape to make sure they are free of these pests. Maintain clean tools and clean them again after each use. Another preventative measure is cultural and the overall care of the plants - reducing stress, increasing air movement, etc. Inspect plants for pests weekly. These preventatives will go a long way toward protecting plants from scale and mealybugs and rewarding you with beautiful and healthy plants.

For references, see *HELP DESK* page 50



Scale Metin GULESCI, Leaf Tobacco, Bugwood.org



Mealybug (*Phenacoccus solenopsis*) United States National Collection of Scale Insects Photographs, USDA Agricultural Research Service, Bugwood.org



Cycad scale Texas A&M AgriLife Extension

What's Blooming in My Garden: Gingers



Jamie Hart
GCMG 2023

Gingers are all in bloom! I grow over a dozen varieties. Here are a few showing off now.

These are all in the Zingiberaceae family except the spiral cone ginger. It is in the Costaceae family now, after reclassification. You can tell the difference by their spirally arranged leaves and the lack of aromatic oils compared to true ginger.

All of these varieties appreciate dappled sunlight and thrive in warm, humid climates like ours. Keep them watered regularly

but not soggy. They do great with a well-balanced fertilizer like 10-10-10 at a rate of every 4 to 6 weeks.

Spiral, true ginger and curcuma (which includes culinary turmeric) do not have traditional root systems. Instead, they grow from specialized underground stems called rhizomes. These horizontal stems grow new shoots and store nutrients and moisture. These are great hardy plants to separate and share! One thing to remember is that they are one of the last plants to peak up from our Texas winters. So be careful to mark where you plant them.



Coral butterfly ginger lily (*Hedychium coronarium*) MG Jamie Hart



Spiral cone ginger (*Costus spiralis*) MG Jamie Hart



Curcuma or Siam tulip (*Curcuma alismatifolia*) a relative of ginger and turmeric MG Jamie Hart



Peacock ginger (*Kaempferia pulchra*) MG Jamie Hart

STEM Students Explore Discovery Garden

Participants of the STEM Summer Enrichment Program hosted by Randall's Ministries toured the Discovery Garden at the Galveston County Extension Office in Carbide Park this sum-

mer. In addition to touring the garden, participants learned about insects and how to propagate herbs. A joyful time was had by tour guides as well as those touring



MG Beth Carroll MG Hedy Wolpa



MG Herman Auer MG Linda Crowston



MG Christie McGrath MG Hedy Wolpa



MG Trish McDaniel MG Linda Crowston



MG Nemo Jackson MG Linda Crowston



Group of students with MGs MG Hedy Wolpa

Gardening 101: Fourth Quarter

Scoring Big in Your Late Season Gardening



Carol Hairfield
GCMG 2020

Here it is ladies and gentlemen, the final quarter of the gardening season. This is not the time to throw in the towel. Critical plays are left on the field, and a champion gardener knows that games are won or lost in the final minutes. To secure a victory before winter sets in, your playbook needs to focus on three core strategies: maintaining your current roster, executing precise transplants, and calling a few late-game planting plays.

According to Texas A&M AgriLife Extension, your immediate priority is maintaining what is already growing. Think of this as protecting your lead late in the game. First, you must resume fertilizer routines for your perennial players. Trees and shrubs need their root growth actively encouraged right now so they can survive the coming winter months. Take notes on which plants look sluggish now so you can adjust their nutrients next spring.

Next, adjust your hydration strategy. Although falling temperatures mean evaporation will slow down, you still need to water your plants. Monitor your soil and reduce your irrigation schedule by roughly one-third until the fall rains officially arrive.

Finally, it is time to cut the dead weight from your roster. David Rodriguez, Bexar County Extension Agent, recommends pulling not only stubborn weeds but also mature edible plants—with a few exceptions. Keep your healthy okra, cherry tomatoes, and pole beans on the field. However, bench the rest. Most of these older plants are already diseased and damaged by insects. They have already given you their best performance and keeping them out there only drains your soil's remaining energy.

Transplanting is the ultimate special teams play, requiring perfect timing and execution. Plant new trees and shrubs from November through early spring. This strategic window allows these heavy hitters to establish deep, strong root systems well before the intense, grueling summer heat sets in next year.

Down in the dirt, this is also the exact time to transplant your strawberry run-

ners. Strawberries are the tough utility players of the garden. They are highly tolerant of freezing temperatures and rarely fumble in the cold. They only need a defensive line of hay or a row cover when temperatures drop hard into the teens. Put the work in now, and they will be ready to score a massive harvest from March through May.

Seasoned veterans report it is much easier to garden during the fall because you aren't battling brutal summer heat. If you think the clock has run out on planting new crops, think again. This is your two-minute drill. There are still plenty of fast-maturing crops that can be planted and harvested before the first hard frost hits your zip code.

Before you draft new seeds into the ground, be sure to check the "days to harvest" on your seed packets and match that against the average first frost date in your specific area. Take notes on these dates so you can build a permanent timeline for future seasons. If you need some frost-tolerant athletes that can handle a chill in the air, look no further than this powerhouse lineup: beets, broccoli, Brussels sprouts, cabbage, carrots, cauliflower, chard, collards, garlic, kale, lettuce, mustard, onions, parsley, spinach, and turnips. Lace up your boots, grab your trowel, and finish this season strong.

MG Carol Hairfield has put a sports spin on gardening in her Gardening 101 column in 2026.



MG Carol Hairfield

Meet a Master Gardener: Wendy Oalmann



Trish McDaniel
GCMG 2001

Taking the usual path to the Discovery Garden, it was an adventure to wander just a bit further down Hwy 519 to the elegant home-
stead of Wendy Baldwin Oalmann, MG 2022. Just over Marchand Bayou, running immediately west of Carbide Park, I took a left which brought me alongside the unexpected and stunningly lush grounds of the Galveston

Memorial Cemetery Park. Established in 1925 by several of Galveston's leading families, it strongly beckons for a future walkabout. A short distance further leads to the one-acre property Wendy, and her husband purchased three years ago. The home and expansive surroundings were previously part of the large historic Vogt Ranch, which has been run by the same family for over one hundred years. With much of their property generously shaded, they christened their stately corner Five Oaks. Together with their Australian Labradoodle, Poppy, they enjoy the rural surroundings where they have developed a large and productive garden just a stone's throw from their back patio.

One of three sisters and two brothers, Wendy grew up on six acres in the East Texas Piney Woods of Huntsville. Wendy's father, rising above a bleak childhood in Port Arthur, Texas, became an orthodontist and joined Houston's first orthodontic clinic. Among his patients were the children of the early NASA astronauts. Her mother, a studio oil painter and talented landscape designer, developed their property to feature flower gardens and mass plantings including azaleas and cast-iron plants. With a grin, Wendy remembers many mornings finding her mother hard at work among her flora wearing her preferred gardening uniform, a nightie. Both parents inspired their children in the joys of camping, travel, fine art and literature, which continue to be an important way of life for the whole clan.

After high school, Wendy set course to become a geographer and cartographer. This path took an about-face when, at age 22, she volunteered with Amigos de las Americas, an outfit likened to Junior Peace Corps. Assigned to work in Peru for six weeks at a remote village high above the timberline, Wendy and her team helped the residents construct latrines and introduced and taught methods of dental hygiene. This humble site lacked running water, electricity, phones or toilets. Upon completion, the community was left with their first ever toothbrushes and latrines. Upon completion of the mission, Wendy returned home with profound experiences - "Oh, the stories I could tell you!" - amoebic dysentery, and, a clear calling to teach.



Wendy displays a finished embroidery project. MG Trish McDaniel

“Wendy is active on many fronts...”

Wendy became a ninth-grade public high school teacher at her home in Conroe. While raising her two children, a boy and a girl, she also made the commute to teach at the high schools in Huntsville and Dickinson. Wendy said she loved it when students would ask the inevitable question, “Why does geography matter?”. To demonstrate how the subject is much more than the rote study of maps and capitals, she offered them a challenge, “Name any subject and I’ll prove how it is linked to geography”. This clever invitation opened the door to lively discussions, demonstrating how human cultures and societies evolved in response to their physical and environmental location on the planet.

After her kids graduated and launched their own successful paths, Wendy purchased a home in Hitchcock to be closer to her sister and family. Then after 30 years of teaching, Wendy chose to take retirement after the onset of COVID-19. At last, she focused on her other areas of personal interest. She became an instructional specialist and tutor at a local private school and trained to teach children with dyslexia. She also took a part time job at Jimbo’s nursery propagating tropical plants and soon became known as the “Bromeliad Lady.”

After enjoying 25 years solo, Wendy met and married Ray Oalman. He proposed to her on a sacred rock in Tasmania while on a trip to visit his son, a practicing geologist. In December 2023, their wedding day was celebrated in the company of family and friends, including three of her MG classmates.

As an MG volunteer, Wendy is active on many fronts. In the Discovery Garden, she helps manage six community beds with fellow interns, growing seasonal crops which are distributed to food banks across Galveston County. She is also a member of the MG Speakers Bureau where she presents classes on growing vegetables. In the Extension Office, Wendy helps cover the Gardening Help Desk, fielding gardening questions from the public.

Continuing with a heart for helping others, Wendy is also a Court Appointed Special Advocate (CASA). As a volunteer, Wendy received special training to advocate for children who are abused and neglected and presently in the foster care system. This important process includes court visits, conducting investigative home visits and filing reports to case judges. All working to ensure each child receives a safe and permanent home.

A modern Renaissance woman, Wendy weaves her many skills and passions into the rich structure of her life. Her latest

obsession is embroidering works of intricately painted patterns. A form of meditation she practices in the quiet sanctity of a home studio.

Last July, after logging over 20,000 miles in her camper purchased in 2005, Wendy and crew hit the highways again to visit her son in Chattanooga and to celebrate the nation’s 250th in the Great Smoky Mountains. For this extraordinary lady, life continues to be a wondrous road.



Wendy in her garden MG Trish McDaniel

Roses at the Birmingham Garden Show



John Jones
GCMG 2003

Wherever my travels take me, I make a point of seeking out roses. As both a rose grower and hybridizer, I am always interested in discovering new varieties, meeting breeders, and seeing how roses are presented in different parts of the world. During a trip to England, my visit happened to coincide with one of the country's premier horticultural events, the BBC Gardeners' World Live show in Birmingham.

While the world-famous Chelsea Flower Show often receives the greatest international attention, England hosts many exceptional flower shows throughout the year. Among the largest and longest running is the annual BBC Gardeners' World Live show, held at the National Exhibition Centre (NEC). Sponsored by the BBC and Gardeners' World magazine, the event attracts gardeners from across Britain and beyond.

The NEC is one of Britain's largest exhibition venues, hosting everything from the internationally renowned Crufts dog show to major automobile exhibitions and professional conferences. Located in the heart of England, it offers convenient access by motorway, rail, and air, making it an ideal venue for a national gardening celebration.

The show covered acres of indoor and outdoor exhibition space and was presented alongside the BBC Good Food Show. Visitors could easily spend an entire day exploring the exhibits, lectures, demonstration gardens, and countless vendors.

The heart of the event was the enormous Floral Marquee, described by the organizers as one of the largest in the country. Stepping inside was like entering a living encyclopedia of plants. More than ninety nurseries displayed their finest specimens, showcasing everything from woodland plants and alpine to Mediterranean species and exotic ornamentals. Each exhibit was meticulously designed to inspire gardeners while also allowing visitors to purchase the featured plants directly from the growers and receive expert advice.

Plant societies added another dimension by offering demonstrations on topics ranging from floral arranging to bonsai cultivation, while continuous lectures provided practical gardening advice throughout the day.

Between the Floral Marquee and the exhibition halls were approximately twenty beautifully designed show gardens, each illustrating different design styles and landscaping techniques. Nearby, visitors could stroll through a collection of raised border gardens demonstrating creative planting combinations for narrow garden spaces. One particularly charming display fea-



The event underway MG John Jones



Rose baskets MG John Jones



Rose display MG John Jones

“...roses occupied a place of honor”

tured a series of themed gardens, herb gardens, vegetable gardens, and ornamental plantings, all created inside wheelbarrows, proving that imagination often matters more than size.

Inside the exhibition halls, hundreds of vendors offered everything a gardener could desire, from tools and greenhouses to seeds, fertilizers, garden furniture, and decorative accessories. Five lecture stages featured a continuous schedule of presentations by well-known television personalities, authors, designers, and horticultural experts. Some presentations were even broadcast live by the BBC, allowing visitors to watch television gardening being produced in real time.

Being England, it came as no surprise that roses occupied a place of honor.

Within the Floral Marquee was the aptly named Rose Hut, where visitors found rose displays, educational demonstrations, expert lectures, and plants for sale from several of Britain's leading rose nurseries, including Harkness Roses, Style Roses, Pocock's Roses, Apuldrum Roses, and Beales Roses.

The highlight of my visit was seeing the introduction of a newly released climbing rose from Harkness Roses called 'Gardeners' Gold.' Its rich golden-yellow blooms, lightly fruity fragrance, attractive mid-green foliage, and excellent disease resistance immediately caught my attention. Even more impressive was learning that the variety had undergone seven years of breeding and evaluation without requiring fungicide treatments before its commercial introduction. As someone involved in rose hybridizing, I found that commitment to disease resistance especially encouraging. It is certainly worth watching for should it become available in North America.

One of the most striking differences between British and American rose marketing was the evaluation system used to help gardeners select varieties. In addition to the familiar descriptions of flower color and growth habit, many roses were assigned both fragrance and performance ratings.

Fragrance was scored on a ten-point scale, ranging from 10 for exceptionally strong perfume to 0 for little or no detectable scent. Overall garden performance was rated using a five-star system, with five stars indicating outstanding performance under most garden conditions. Lower ratings reflected reduced vigor or greater cultural challenges, helping gardeners match varieties to their growing conditions and experience level.

Another interesting observation was the remarkable diversity of roses available. I estimated that fewer than five percent of the varieties on display are currently available in the United

States. For American rosarians, the Rose Hut offered a fascinating glimpse into breeding programs and cultivars that may eventually find their way across the Atlantic.

For anyone passionate about roses or gardening in general, the BBC Gardeners' World Live show offers far more than a shopping opportunity. It is a celebration of horticulture, creativity, education, and innovation. Whether admiring award-winning display gardens, attending lectures by Britain's leading gardening personalities, or discovering the latest rose introductions, visitors leave inspired and eager to return home and spend more time in their own gardens.

Sometimes the best souvenir from a trip is not something that fits in a suitcase, but an idea waiting to bloom in your own backyard.

This event is one of those events that is hard to describe, so I took many photos and posted them on YouTube in video called "Roses at the Flower Show" that only features the roses at this garden show.

<https://www.youtube.com/watch?v=hnTvfrLIMAY>

If you would like to see a YouTube video on the overall garden show, it's titled "Birmingham, England Flower Show" - <https://www.youtube.com/watch?v=Eh8ILtPz3y4>



Huge rose displays MG John Jons

Santa Fe Botanical Garden: Native Culture at High Altitude



Barbara Lyons
GCMG 2014

In 2012, 2014, and again in November 2025, my husband and I drove to Santa Fe, New Mexico from Lubbock for mid-week trips between football weekends. On our most recent trip, autumn was holding onto its last leaves, making way for the winter season ahead. We visited **Santa Fe Botanical Garden at Museum Hill, (715 Camino Lejo, Santa Fe, NM 87505 visitsfbg.org)** which was open with seasonal hours. November-February schedule is Wednesday-Sunday, 10-4 and April-October, 7 days a week, 9-5. It is closed on Thanksgiving and Christmas. Parking is free of charge. It is relatively new as a botanical garden, opening in 2013 and is a member of the American Horticulture Society's Reciprocal Admissions Program (RAP). On our 2014 visit, fall was in all its splendor. Our trip demonstrates how different a place can be with the change of seasons, as well as over time. On our first visit the garden was not yet open to the public, the second visit there was only one of the current sections of the garden and now it has three separate areas. Plans to expand include a children's garden, an enhanced entry area, and a new welcome center, beginning in 2026 with room for future expansion.

Santa Fe is in a unique geographical location: an arid steppe in the high desert at an elevation of more than 7,000 ft. The plant collection features varieties which require minimal watering and can withstand the extreme variations in temperatures of the region. The garden serves many purposes, from demonstrating water conservation efforts to its dedication to the stewardship of the land, history, and culture of the former inhabitants, the Tewa Pueblo tribe. The garden interweaves the display of water-wise plants with the background of Native Americans centuries ago.

Upon entering the site, a white modular building currently hosts the garden admis-



Native crop demonstration area next to amphitheater MG Barbara Lyons



Entry sign MG Barbara Lyons



Garden view MG Barbara Lyons

“...a unique geographical location”

sions, gift shop, and administrative offices. The garden is built on a gently sloping hillside and is bisected by the waterway, Arroyo de los Pinos, at the property's lowest topographical point. The two sides are connected by a pedestrian bridge spanning the water. It is currently divided into three parts: The Orchard Garden, an ethnobotany section called Ojos y Manos (Eyes and Hands), and the Piñon-Juniper Woodland.

The first area is a demonstration orchard of various edible fruit-bearing trees, including apples, plums, cherries, and other fruit. Open grassy areas include varieties of muhly grass and a shrub called chamisa, (*Ericameria nauseous*) which, even after being touched by frost, provided an interesting textural element to the area. Other plants I noted include several varieties of cacti, salvia, roses and succulents. There are permanent sculptures worked into the garden spaces, many having Native American themes. Also on display are many artworks for sale, donated by artists, in support of the ongoing needs of the garden.

The second section, Ojos y Manos (Eyes and Hands), highlights ethnobotanical plants that were cultivated by early natives. Just across the bridge is a section dedicated to the life of early-area natives and includes an amphitheater. One can just imagine a few classes of grade school children learning lessons about the early people of the area while observing crops that would have been grown at the time in nearby raised beds. Crops included amaranth, quinoa, and the “Three Sisters” of corn, squash, and beans. The back of the open-air stage is a large mosaic mural highlighting various crops and methods used in their cultivation. Working models of hornos (Native American ovens), one large and one small, are used to demonstrate cooking methods. The ethnobotany area demonstrates the growth of commercial products like indigo, used to dye fabric and also used in trade.

The third area behind the amphitheater is the Piñon-Juniper Woodland that winds uphill and is a relatively immature forest. Trees will fill into the space as the forest matures. Mulch paths through the area eventually return to the main pathway back to the amphitheater. The scent of the area was one of my favorite memories.

When visiting, be sure to wear a hat and sun protection and bring water. Refills can be made at various spots around the garden. On our November visit the daytime temperature was a cool 58 degrees. The air temperature

belied how hot we felt almost immediately while dressed for this temperature. We were more comfortable in short sleeves, so beware of how intense the heat may be during the summer months if it is this hot in November. According to a garden employee, the weather can be mercurial, and snow may occur as late as May. After May, the unbearable temperatures begin. The end of summer is more tolerable, and autumn is the best time for visitors' comfort. Take into consideration that high altitude requires time for acclimation and possibly the assistance of medication.

The garden area is at the bottom of Museum Hill, which holds several different museums in one concentrated area outside downtown Santa Fe. While at the Museum Hill location, visit some or all of the other four institutions to more fully immerse yourself in what New Mexico has to offer. The Museum of Indian Art and Culture and the Folk Art Museum, both on Museum Hill and the New Mexico History Museum, including the Palace of the Governors, located downtown, are highly suggested. If time allows a car ride on the High Road to Taos is majestic, especially in autumn, and a tour of the World Heritage Site, Taos Pueblo, will make lifetime memories.

Source
visitsfbg.org



Piñon pine forest with frost-bitten chamisa adding a textural element to autumn MG Barbara Lyons



Horno (oven) in the cooking demonstration area MG Barbara Lyons

Green Thumb Book Review: *Gardening Can Be Murder: How Poisonous Poppies, Sinister Shovels and Grim Gardens Have Inspired Mystery Writers*



Cheryl
Brueggeman
GCMG 2014

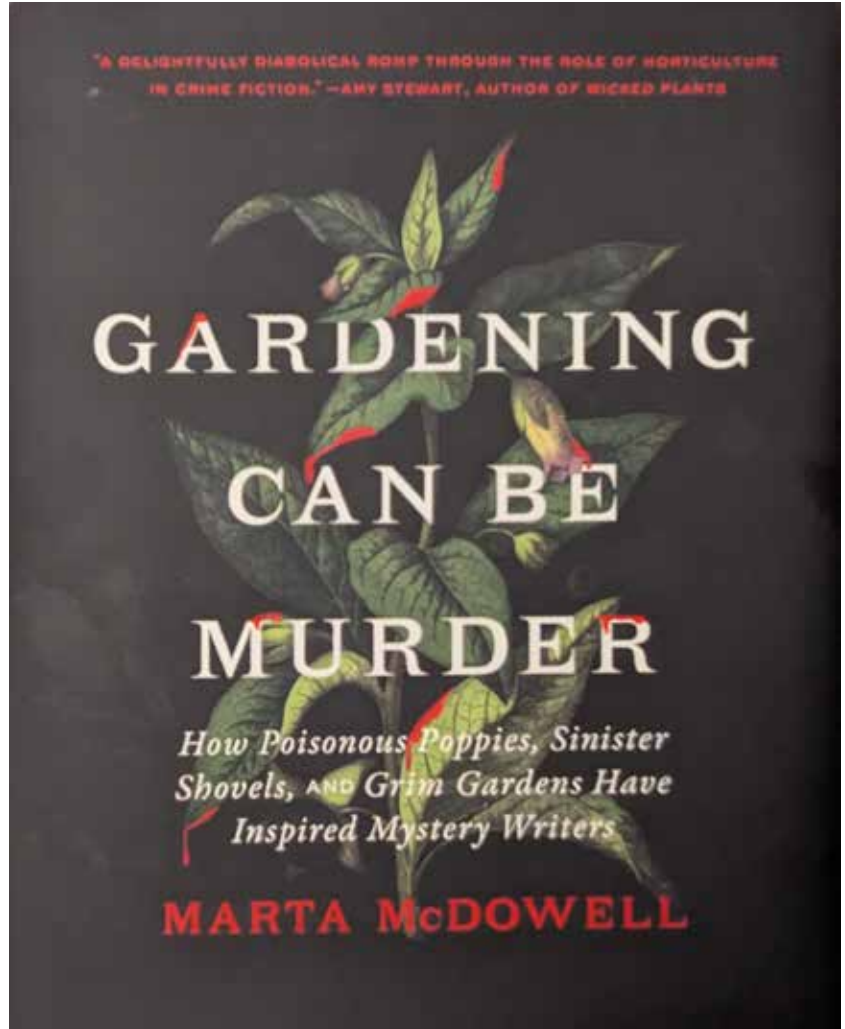
Whether you are a fan of crime fiction who also enjoys gardening, or simply a gardener who loves a good mystery, Marta McDonald's book will be an informative read. Being the later, I was intrigued by the title. I also welcomed the opportunity to read another of McDonald's books having thoroughly enjoyed

her book on Beatrix Potter that was on last year's Green Thumb Book Club list. Once again, she shows some impressive research skills. There is an amazing wealth of information on the different ways horticultural information and themes have been incorporated into classic and contemporary mysteries, both British and American.

With such a wealth of material, she cleverly arranges her book to follow the classic structure of a murder mystery. She starts with her premise for writing the book in the introduction, followed by chapters on gardening detectives, setting, motive, means, more means, clues, suspects, and finally, several fairly in-depth studies of mystery writers and their gardens.

Some of the detectives she discusses at length include Sergeant Cuff, Brother Cadfael, Nero Wolfe, and Miss Jane Marple. She goes into great detail of the various garden settings used in mysteries, from sunken gardens to Italian villas. She likens gardening to a competitive sport where perfection or the desire to possess something rare leads to ambition bordering on compulsiveness. Various garden tools and garden chemicals are the means by which many a murder has been committed. In addition, various plants can be used to make deadly poisons. In the chapter on clues, McDonald relates how the term "red herring" came to be used as a catchy phrase for a false lead. She then details some of the different types of gardeners that are suspects in various books.

Perhaps my favorite chapter and the one I enjoyed the most was the one about mystery writers and their gardens. Here we learn about the real-life gardening habits of writers such as Nathaniel Hawthorne, Rex Stout, Cynthia Riggs, and Agatha Christie to name a few. It gives insight into where



each got their inspiration for many of their books. There were even a few pictures included of their gardens such as Agatha Christie's Greenway which, after her death, was gifted by her daughter and grandson to England's National Trust.

The book includes a fairly extensive list of horticultural themed mysteries referenced by author, title, publisher, and year it was first published. There are enough titles to keep even the most avid reader busy for quite a while. There also follows a ten-page section of sources and citations used in the book, all arranged by chapter.

All in all, I found the book to be entertaining, although it did get a bit tedious at times with all the information about writers and characters with whom I wasn't familiar. I welcomed the times some of my own favorites such as Sherlock Holmes, Hercule Poirot, Kinsey Millhone, and Father Brown were mentioned. The illustrations by Yolanda V. Fundora were also a plus. If you are a gardener who enjoys a good mystery, this just might be a book to check out.

Seasonal Bites:

From Propagation to Plate: The Mighty Microgreen



Briana Etie
GCMG 2017

This month's recipe section takes a fresh turn: instead of only cooking what we grow, we're bringing the growing process to the kitchen counter. Microgreens—the tiny, flavorful bridge between gardening and gourmet cooking.

Microgreens are edible seedlings harvested when their first seed leaves appear or just as their first true leaves begin to emerge. Once a chef-favorite garnish of the 1980s, they're now popular with home cooks and growers for their bold flavor, crisp texture, and concentrated nutrients.

Growing microgreens at home is a simple, budget-friendly way to enjoy fresh greens year-round; they take up little space, grow quickly, and can thrive on a windowsill, shelf, or small table.

The Master Propagation Recipe

Think of growing microgreens like most of our recipes: start with clean materials, measure by eye, and let the right conditions do the work.

1. Choose a Growing Medium

Use a sterile soilless germination mix like coconut coir or non-woven hemp or jute mats to reduce the risk of soilborne disease. There are many cute microgreen containers online, a used rotisserie chicken container was my first container. I have also purchased domed square aluminum pans, anything bigger takes up more space and requires more seed.

2. Sow the Seeds

Broadcast seeds evenly across the tray. Sow more densely for cotyledon-stage harvests and more lightly if you plan to wait for true leaves. I suggest starting with fast growing microgreens first. Arugula, (spicy and nutty), borage (cucumber), and sorrel (lemon) are my favorites and are fast growing within 10 to 15 days. Refer to the Microgreen Comparison Chart linked at the bottom. Tip: Cover seeds with a thin layer of vermiculite or another tray on top of seeds to hold moisture until germination.

3. Care for the Crop

Water gently: Mist seeds or bottom-water trays to avoid disturbing growth and to keep foliage dry. Keep conditions steady: Aim for 65–75 degrees and use light air movement to help prevent damping off. Add light if needed: Supplemental lighting can speed growth when natural light is limited.

The Culinary Finish

When the greens look lush, harvest with sharp scissors, cutting close to the base without pulling up the growing medium. If rinsing is needed, dry thoroughly before storage to help extend freshness.

Microgreens are nutritional powerhouses because they are harvested at the peak of a plant's early life cycle, when all the energy meant to sustain its growth is present. When a seed germinates, it activates an intense surge of vitamins, minerals, and health-protecting antioxidants like vitamins C, E and K along with beta-carotene to fuel the emerging seedling. Adding a simple handful of these tiny greens to a meal can boost dietary value without adding extra calories or volume.

I add microgreens to salads, sandwiches, wraps, and protein-veggie bowls, but I've learned that the real key is understanding their flavors. A microgreen comparison chart can help match flavor profiles to your likings. I prefer nutty-flavored microgreens in salads and spicy varieties or herbs on sandwiches and wraps.

For a comparison chart go to [Microgreens Comparison Chart \(PDF\)](#) | [Johnny's Selected Seeds](#)

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Microgreens MG Briana Etie

MGs in Action

Summer was busy with MGs presenting, trying to keep cool in the Discovery Garden on Thursdays and having fun at monthly meetings.



MG Bettye Vogler shared container gardening how-to's with over 50 attendees
MG Karolyn Gephart



MG Carl Lee studies the irrigation system for the rose research bed
MG Becky Risinger



MGs Jim Bridgett and Bob Siml shop the plant swap at the Fish Fry
MG Norma Torok



MGs Tina Woods and Janice Simonet in the Discovery Garden
MG Kevin Lancon



MG Robert Rodriguez dips fish and MG John Mitchiner fries them as MG Cooking Team members Briana Etie and Tanya Padgett watch at the Fish Fry in July.
MG Linda Crowston



Plant Swap Chair MG Norma Torok with Assistant MG Bettye Vogler
MG Linda Crowston

GALVESTON COUNTY MASTER GARDENERS 5TH ANNUAL FALL FESTIVAL & AND PLANT SALE

OCTOBER 3, 2026



FALL FESTIVAL HIGHLIGHTS

Celebrate the fall season with the Galveston County Master Gardeners at this family-friendly community event featuring educational exhibits, gardening demonstrations, interactive activities, and one of Galveston County's most anticipated seasonal plant sales. Meet Texas A&M AgriLife Extension experts from Horticulture, 4-H & Youth Development, Family & Community Health, Agriculture & Natural Resources, Coastal & Marine Resources, along with the Galveston Bay Area Chapter Master Naturalists.

EVENT FEATURES

- Plant Sale
- Educational Exhibits
- Garden Tours
- Children's Activities
- Ask a Master Gardener
- Extension Educational Booths
- Booth Decorating Contest
- Antique Tractor Display
- Food

PLANT SALE SPOTLIGHT

- Fall Vegetables
- Herbs & Edibles
- Native Plants
- Pollinator-Friendly Plants
- Fruit Trees
- Master Gardener-Grown Plants
- Garden Supplies
- Artisan & Handmade Goods

WHEN

October 3, 2026 | 9 AM - 2 PM

In-Person

FREE Admission | **FREE** Park & Ride

LOCATION

The Discovery Garden in Carbide Park
4102 Main Street | La Marque

BOOTH DECORATING CONTEST

Vote for your favorite booth display created by our AgriLife Extension program areas and volunteers. The winning booth will receive the People's Choice Award!

LEARN MORE

Proceeds from the Fall Festival & Plant Sale support educational programming, demonstration gardens, youth outreach, and community horticulture projects throughout Galveston County.

Visit <https://txmg.org/galveston/> for plant sale updates and upcoming seminars!

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Texas A&M AgriLife Extension is an equal opportunity employer and program provider.

Persons with disabilities needing accommodations for effective participation in the program should contact the Galveston County Extension Office at 281-534-3413 prior to the program or event to request mobility, hearing, visual or other assistance.

2026 Master Gardener Recertification Hours

Browse online to the members only webpage to review all hours: <https://txmg.org/galveston/membersonly/>

Date	Name of Program	Speaker	MG CEUs # MGs
6/4/2026	Lunch & Learn - Growing & Using Chamomile	D. Merritt, C. McGrath	0.50
6/9/2026	MGA June Mtg: Tookies	N/A	3.00
6/11/2026	Lunch & Learn - Observations of a Plant Propagator	Roy Martins	1.00
6/13/2026	Seminar - Heat Loving Veggies	W. Oalman, J. Mitchiner	2.00
6/13/2026	Seminar - Herbs for Beauty	D. Merritt, C. McGrath	2.00
6/25/2026	Lunch & Learn - Tomato Trial Update : Roots	Ira Gervias	0.50
7/2/2026	Lunch & Learn - Spiders in the Garden	Fran Brockington	0.50
7/11/2026	Seminar - Successful Container Garden	Karolyn Gephart	2.00
7/11/2026	Seminar - Healthy Lawns	Phil Starks	2.00
7/14/2026	MGA July Mtg: Fish Fry & Plant Swap	Kevin Lancon	3.00
7/16/2026	Lunch & Learn - Earthkind Rose Trial	R. Collins, B. Risinger	0.50
7/23/2026	Lunch & Learn - Fermenting Hot Peppers	Steve Holliday	0.50
7/30/2026	Lunch & Learn - Texas Superstar Trees	Hazel Lampton	0.50
8/6/2026	Lunch & Learn - Sea Grant Intern Experience	H. Reese, S. Berry	0.75
8/8/2026	Seminar - Fall Veggies	W. Olamann, J. Mitchner	2.00
8/8/2026	Seminar - Texas Superstars for Galveston Co	Sue Bain, Briana Etie	2.00
2026 Recertification Hours for MGs		Total CEUs (Hours)	22.75
Last Updated: August 8, 2026		MG Only Activities (# of MGs)	

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2026 HORTICULTURE SEP - OCT EVENTS

TEXAS A&M
AGRILIFE
EXTENSION

GALVESTON COUNTY

**SEP
12**

URBAN ORCHARD SERIES

T-Bud Grafting

Speaker: Galveston County Master Gardener
Hazel Lampton

**SEP
12**

URBAN ORCHARD SERIES

Growing Strawberries

Speaker: Galveston County Master Gardener
Michael Reed

**SEP
19**

HERB SERIES

1st Annual Herb Day in the Garden

Presenters: Galveston County Master Gardeners
Donna Merritt, Briana Etie, and the Herb Team
Fee: \$40

**OCT
3**

FALL FESTIVAL

5th Annual Fall Festival and Plant Sale

Hosted By: Galveston County Master Gardeners and
Galveston County AgriLife Extension Service

**OCT
17**

HERB SERIES

Culinary Herbs and Edible Flowers

Speakers: Galveston County Master Gardeners
Briana Etie and Christie McGrath

**OCT
17**

VEGETABLE SERIES

Growing Broccoli

Speaker: Galveston County Master Gardener
Ira Gervais

ONE LINK | ALL EVENTS

See the full lineup of horticulture events and register for any seminar using this single link:

<https://txmg.org/galveston/events/>

QR CODE

Open your camera and scan the QR code to explore all horticulture events and sign up for seminars in seconds.



**SCAN
ME**



If you need special accommodations, please contact the Extension Office no later than seven days before the program so we can consider your request. Extension programs of Texas AgriLife Extension Service are open to all people without regard to race, color, sex, religion, national origin, age, disability, genetic information, veteran status, sexual orientation, gender identity, or any other classification protected by federal, state or local law. The Texas A&M University System, U.S. Department of Agriculture, and the County Commissioners Courts of Texas Cooperating.

Judy's Corner: Galveston County Master Gardener Monthly Membership Meetings



Judy Anderson
GCMG 2012

September

Mark your calendars for a special GCMG Meeting with Paul Winski. He began his career with AgriLife Extension in Harris County in 2013 as a commercial horticulture agent. In 2023, he started a new position as a state-wide Program Specialist with a focus on the Green Industry. In this role he provides evidence-based information for greenhouse and nursery producers, landscape designers, landscape maintenance operators, and arborists. He has over 30 years of experience in the green and nursery industry with expertise in new product development, integrated pest management, and nursery/greenhouse production.

He conducted trial studies for the reintroduction of the Earth-Kind® roses. In this new role he is actively involved with the Texas Superstar® Program. This presentation will qualify for Continuing Education hours.

The meeting will be held at the Extension office with the social beginning at 5 pm. Bring a dish to join the potluck dinner.



Paul Winski MG Stacey Phillips

October

Backyard Meeting in Galveston

Trish and Mike McDaniel will be hosting the Galveston County Master Gardeners in the first backyard meeting of the year. Trish has requested that members bring a flower from their garden to create a floral display. This is a beautiful time of year, and Trish and Mike invite the members to tour their garden. It was on the 2026 Galveston Garden Tour.

This evening is designed as a social meeting, but there will also be updates from the GCMG officers. Dinner will be served indoors, but outdoor dining is encouraged.

The social will begin at 5 pm.



The backyard MG Judy Anderson



Floral displays MG Judy Anderson

Galveston County Master Gardeners 2026 Monthly Meetings

October 13	PM	Backyard with Trish McDaniel; potluck
November 10	lunch	Annual Meeting and potluck
December 8	PM	Holiday Party hosted by Mikey and Allen Isbell