

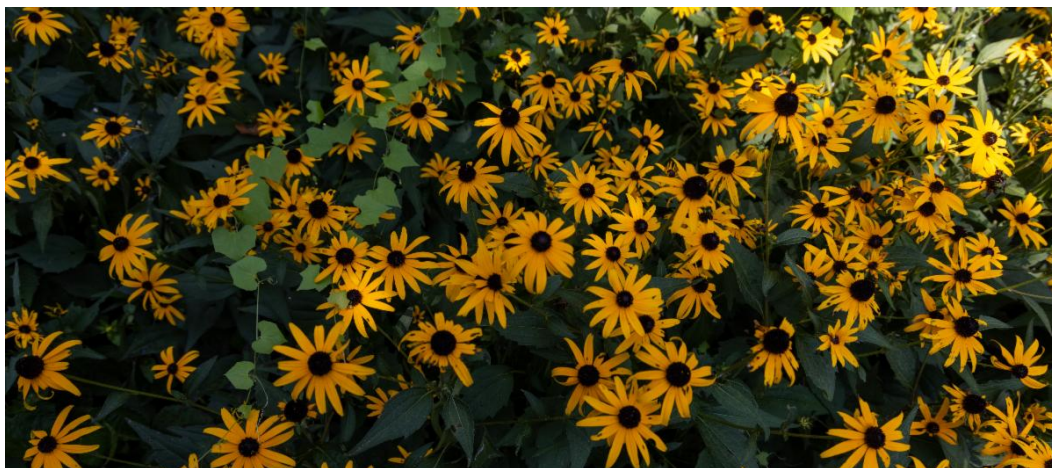
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## FALL 2021

Learn how to compost. Propagate plants for your own garden. Discover a new succulent species.



*photo by Mike Kerr*

Greetings to All

It is hard for me to believe that summer's end is fast approaching. It has been a typical summer in many ways for our part of the country. Basically hot and humid, a few dry spells, army worms, Japanese beetles, fire ants, red wasps and all the other things we normally live with in the South in summer. I am very thankful we live in the middle of the country where we don't have to contend with massive fires, floods, hurricanes, and other uncontrollable events. We are very fortunate indeed!

This has been a good summer for all species of Hydrangeas. We still have quite a few Panicle Hydrangeas that are looking good in spite of the heat. It has been a good year for trees and shrubs in general with a few exceptions. Because of the cold weather we had in February, Hollies in general have a poor crop of berries. Some of them have none. Camellias, Gardenias, and Cleyeras probably suffered more from the freeze than any other species. My hope is that a freeze of that magnitude shouldn't happen again for a long time, but of course that isn't something any of us are capable of predicting.

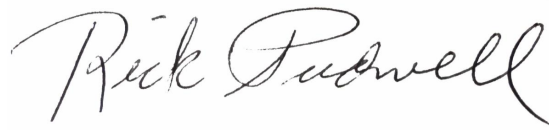
Looking forward to fall and cooler weather, our Fall Plant Sale is going to be in person October 8-9 and 11-15 (while supplies last).

Our nursery crew has been busy propagating, potting, and planning for this event all summer. Please check our website and watch social media for more details. Fall is one of the best times of the year for planting trees, shrubs, and perennials. They are better established the following spring and will outperform their spring planted counterparts.

We are also planning a pumpkin display in the Four Seasons Garden for the month of October. We did this two years ago. It was a very popular spot for families to take pictures.

This year, we have added a number of new faces to our Horticulture Staff. You will hear from two of them in this issue. Owen Smith, who moved here from Indiana, has an educational background in the environment. He is the new Curator of our Urban Home Garden. He will talk with us about making compost for your home garden. Faye Brown has lived most of her life in Memphis and New Orleans. She has a wide variety of experiences in horticulture from landscaping to retail. She is the new Curator of the Entry Gardens to our Visitors Center as well as Celebration Stroll, which you walk through on your way to My Big Backyard. Faye gives us some practical tips on propagation of plants for your own landscape. Finally, Jill Maybry, Curator of the Delta and Pollinator Gardens as well as caretaker for our Desert Garden and succulent and cactus greenhouse, gives us an overview of Mangave. A succulent species that is new to the plant industry and is a very welcome addition to succulent collectors as well as individuals who do container gardening.

In another month, fall color will be evident and weather should be cooler. Take the time to do some fall planting, you will be glad you did next spring!



MBG Director of Horticulture



*photo by Taylor Hendon*

## Building Soil Fertility in your Backyard with Compost

*By Owen Smith, Urban Home Garden Curator*

Your garden is a complex system of living things. There are bugs, plants, birds, amphibians, mammals, and an unfathomable amount of microorganisms in your soil. All of these living things are connected through predator-prey relationships, competition for resources, and beneficial relationships. In your garden, there are many ways to foster these connections in a way that benefits the organisms involved and ultimately benefits you as the gardener. In any ecosystem, greater diversity leads to a more stable, sustainable system. Diversity in the garden starts with soil life. Investing in your garden's soil fertility is not only important, it is simple and easy! Many organic farmers recognize composting as an essential part of their farming practices, and recommend it as a simple way to build soil. Their methods can easily be scaled for your backyard garden. *Four-season harvest* (Coleman, 1999, 16-30) and *Gaia's garden* (Hemenway, 2009, 71-95) were great resources for me as I began searching for a way to invest in soil fertility in my gardening practices.

Last week in the urban home garden, it came time to replace the litter in the



chicken coop. The floor inside the coop is covered with a few inches of straw bedding, which eventually starts to rot and accumulate a nasty smell as it mixes with the chicken manure. Although the litter is unpleasant to clean up, it makes for a wonderful start to a compost pile. I usually have one or two compost piles in my garden so that I can amend the raised beds in between vegetable plantings. When finished compost is integrated into the top layer of soil, a microbial process spins into motion, which greatly affects the health of your plants.



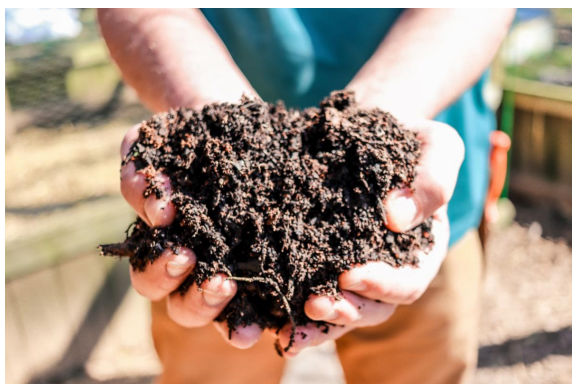
*photo by Mike Kerr*

A compost pile is an abundant resource of soil fertility that can easily be added to your garden. All it takes is a little bit of time and attention.

Composting can be as simple as you like. Just throw your leaves, plant cuttings, and table scraps in a pile in the corner of your yard, and let it sit for a few months. In time, this will turn into great soil to add to your garden. However, if you want to ensure that your compost is high quality, there are a few things you can do to help the process along.

The first thing to consider is your compost bin. What will you use to keep the pile contained? You can find plenty of options online or build your own with whatever materials you have on hand. I prefer a homemade compost bin, made out of rotting tree branches stacked in “Lincoln Logs” fashion. The structure can be dismantled from the top down as I shovel compost out for my gardens or transfer it to a new pile. It can be fun to use your imagination with the container materials. Whatever you decide to go with, make sure the sides have vents or gaps for air to flow in and out. The microbes inside will need oxygen to break down the materials inside.

Pay attention to the materials you are adding to the pile.



“Green” materials, like fresh plant cuttings, small weeds, manure, and scraps from your kitchen, provide a great source of nitrogen. “Brown” materials, a source of carbon, are usually found in the form of straw, dry plant stalks, vines, twigs, or paper products from around the house like toilet paper rolls, non-glossy newspaper, or brown paper bags.

*photo by Taylor Herndon*

You want to aim for a 1:1 ratio of green to brown, if possible. As you stack these materials, alternate between layers of green and brown, and douse each layer with water after adding it to the pile. The goal is to have the dampness of a wrung-out sponge.

One concern that many people seem to have about starting a compost pile is the smell. In my experience, if there is any smell, it only tends to last 3-4 days as fresh materials are breaking down. Once decomposition kicks into high gear, the odor will disappear, especially if you have a good balance of green to brown materials. If the odor does persist, add straw (a brown material) to the pile and turn it in. The added carbon will balance out the nutrients in the pile, and decomposition will speed up again.

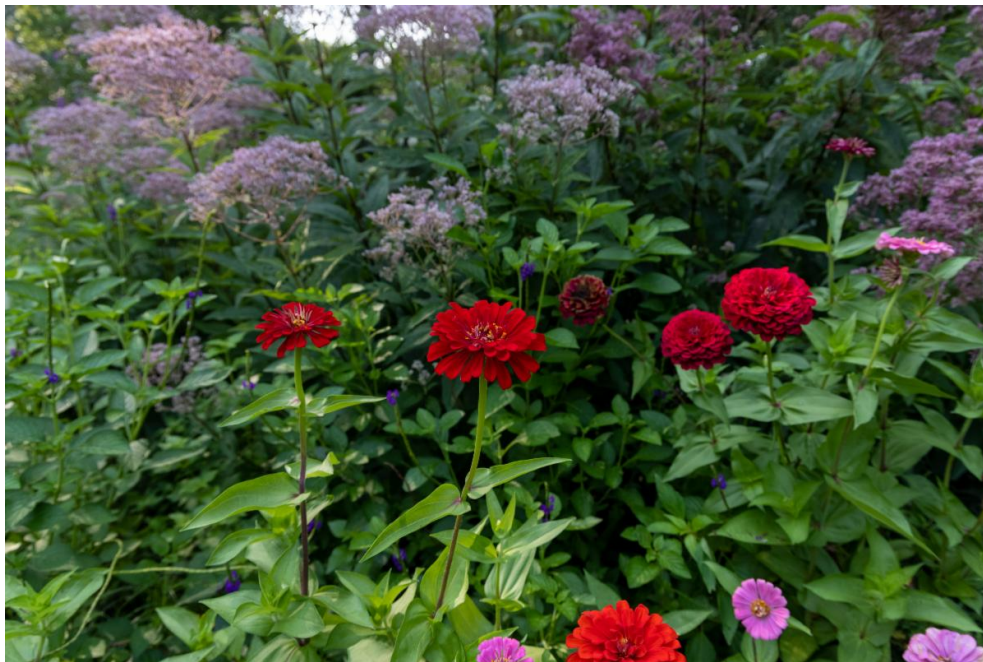
If you bought a compost bin, it probably came with a lid. This is a great feature, as it will keep rain from washing any of your hard-earned nutrients out of the pile and help with water retention. Be sure to check the moisture level of your pile from time to time. If the compost is getting too dry, leave the lid open during a rainstorm or add water with a hose during dry spells. If you decide not to use a cover for your compost, you will still end up with a high-quality product when it is finished.

Depending on how soon you want your compost to be a finished product, turn it in periodically with a shovel or pitchfork. Mixing it up once a week will result in finished compost in a matter of months. If you are not in a hurry to produce your compost, turn it in less frequently. You will have to wait longer for the finished product, but the resulting soil will be lighter and have better drainage. When your compost is done, add a ½-1" layer to your raised beds or annual flower beds and lightly integrate it with a soil cultivator. Repeating this process each year will be a major investment in the health and fertility of your soil. If you are establishing a new garden bed, add as much compost as you need to establish fertile soil.

Composting is the easiest, simplest step you can take to build soil fertility in your garden. You are laying the groundwork for fertile soil for years to come, as well as investing in your garden's pest and disease resistance. The extra organic material from your compost will provide plants with a balanced supply of the nutrients they need, and the healthy soil will hold the right amount of water. Composting can be done with little cost and a bit of intentionality on how you use your waste.

#### Bibliography

Coleman, E. (1999). *Four-season harvest: how to harvest fresh organic vegetables from your home garden all year long*. White River Junction, VT: Chelsea Green Publishing.  
Hemenway, T. (2009). *Gaia's garden: a guide to home-scale permaculture*. White River Junction, VT: Chelsea Green Publishing.



*photo by Mike Kerr*

## Propagation 101

*By Faye Brown, Entry Gardens and Celebration Stroll Curator*

I'm sure many of you have received a plant cutting and rooted it in water in your kitchen windowsill (maybe some of your kitchen windows resemble mine - crowded with countless little bottles and jars of various shapes and colors, each with a cutting in some stage of root development - perhaps even one or two whose roots grew so quickly that they'll just have to stay put?). This method of propagation is a simple (and thrifty) way to add more plants to your collection. At the Garden we use various methods to propagate a wide variety of plants. Quite often the plants are tropicals that we want to include again in next year's landscape so we have to do *something* with them once temps start dropping. However, we always propagate because as plant people, we of course want MORE PLANTS! I spoke to my fellow Horticulturists about some of the more common methods they'll be using to propagate plants from their areas this season:

### Cuttings

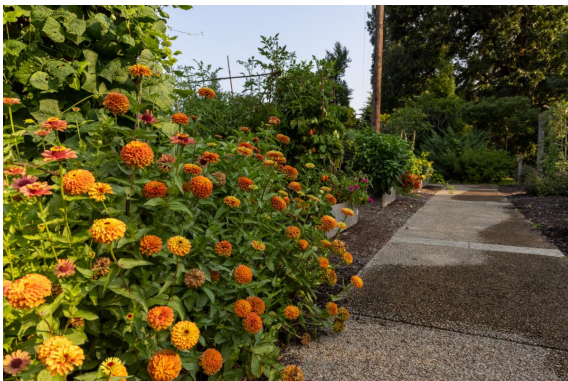
- Rapidly growing sugarcane adds structural interest and height to our Herb Garden. It's grown year-round in US zones 9-10 but is grown as an annual in our area. Sherri McCalla, Herb Garden Curator, will be propagating *Saccharum officinarum* 'Blue Ribbon' by rooting small sections taken from older parts of the cane in a soil mixture that drains well but still holds some moisture. This Louisiana cultivar will feel right at home overwintering in the most humid of our greenhouses.
- Rivers of *Pilea glauca* 'Baby Tears' flow and fall, and *Cissus javana* 'Tri-color Kangaroo Vine' swirls and spills from massive urns in our Container Garden. Jeff Reynolds, Horticulturist, intends to propagate these favorites the old-fashioned way: rooting in water (but overwintered in a greenhouse.)



- Few of us are lucky enough to have a greenhouse but not to worry! Eric Bakken, Formal Gardens Curator, shared with me his method for rooting moisture-loving plants from cuttings (he leans toward aroids like *Philodendron* and *Anthurium spp.*) Eric uses small pots of perlite as the medium for rooting his cuttings, housing each one inside a zip-style plastic bag. He removes the pots for watering every 2-3 days, and controls the humidity by opening the bag to whatever degree he feels is needed. Bonus: aroids don't need bright light, so windowsills are completely optional for these "mini-greenhouses."

### Division

- Flanking the entrance to My Big Backyard, *Xanthosoma aurea* 'Lime Zinger' elephant ears trumpet boldly from their raised planters. Anna Vo, My Big Backyard Curator, loves these for the cheerful pop of color they provide in part shade and also for how they reach 3-4 feet high in just a single season. These elephant ears multiply during their growing season, so after digging them up, Anna will separate the fibrous rhizomes from one another. To ensure these are already of good size by planting time, she'll start them early in the greenhouse. Most home gardeners store their rhizomes in a dry, cool place, waiting until soil temperatures are warmer before planting directly outside; however, these rhizomes can always be started early in a sunny indoor area and then transplanted when the time is right.
- Hanging baskets of *Pilea glauca* drift down from the limbs of *Magnolia virginiana* in the Container Garden, very much reminding me of Spanish moss. Jeff Reynolds, Horticulturist, will first take cuttings from these to root in water, but he plans to then divide each "parent plant" by cutting through the existing root ball. As long as each new section has adequate roots, one parent plant can be divided multiple times. After spending winter in the greenhouse, these new hanging baskets will be ready to add to the effect in this courtyard area.



### Seeds

- Among the vast array of plants in the Pollinator Garden - and especially in the adjacent Delta Garden - the majority are started from seed by Jill Maybry, Pollinator Garden and Delta Garden Curator. Soon, Jill will cease the endless summer task of deadheading the zinnia and

photo by Mike Kerr

echinacea - allowing the plants to concentrate on seed production.

Soon, Jill will cease the endless summer task of deadheading the zinnia and echinacea - allowing the plants to concentrate on seed production. Once the center and petals of the blooms have dried completely, she'll deadhead one last time so she can collect the seeds for propagation. Both our native butterfly weed, *Asclepias tuberosa*, and the tropical milkweed, *Asclepias curassavica*, have begun producing plump pods filled with numerous fluffy seeds. Jill will collect these before they crack open so the seeds don't get whisked away by the wind. Though all can be sown or planted directly into the ground after our last frost, Jill will be starting these in the greenhouse in early March - about six weeks before the last frost date. She gives heat lovers an even earlier start, popping this summer's pepper seeds into 4-inch pots as early as January.

- Not all propagation by seed is so labor-intensive. Favorites such as *Hibiscus coccineus* (scarlet rose mallow), *Coreopsis tinctoria* (golden tickseed), and *Ocimum tenuiflorum* (holy basil), as well as many others are allowed to go to seed in place whenever they're ready. The only thing we need to do is remember where they are!

## Layering

- Speaking of non-labor intensive propagation, we now arrive at my personal favorite: layering, specifically simple ground layering, as it's just about the easiest method there is to propagate many woody perennials. I do this a lot with *Hydrangea spp.*, but it also works with other plants commonly found in our landscapes, for example, *Forsythia spp.* and *Rhododendron spp.* You may have seen this occurring naturally; however, the basic "how-to" is to push a drooping or flexible branch down to exposed soil then weigh it down. That's it. While still connected to the parent plant, this weighted branch will produce new roots at the point where it contacts the soil; it can then be cut from the parent plant and replanted in another location. The time it takes for roots to develop varies from a couple to several months. Some people recommend "wounding" the branch at the point of soil contact to speed up root production; I personally don't do this, as I feel the creation of wounds also creates an open door for pathogens. I'm a patient enough gardener (which is another way of me saying I'll probably forget I've done it and at a much later date wonder, "Why on earth is this brick here?").

If you'd like to try to propagate your plants (or plants from a friend or neighbor,) now is a great time to start looking around for seeds to swipe, branches to bend, and pot-bound behemoths to divide. Experiment and have fun with it. You'll spend nothing, and you'll end up with what we all want: MORE PLANTS!

# The Magnificent Mangave

*By Jill Maybry, Curator of the Pollinator and Delta Gardens*



Attention succulent lovers! MBG is thrilled to have added several new mangave cultivars to our plant collection. Mangave (pronounced “man-GAH-vay”) is an exciting new intergeneric plant hybrid created by crossing Manfreda with various Agave species. The resulting plants are a combination of the best traits of their plant parents with the color of Manfreda and the toughness and pleasing compactness of Agave species. These beautiful succulents are fast-growing, boast striking markings, and have softer “teeth” along their leaf edges than agaves (which can often take quite a bite out of tender human flesh). While not hardy outdoors year round in Memphis, they make great potted specimens that thrive outside in the summer here and in a sunny room inside over the winter.

Our new mangaves can be seen at the Garden as part of mixed succulent planters outside the Rose Garden, in the purple chair in the Delta Garden, and in the Garden kaleidoscope at the southwest corner of the Great Lawn. We’re also proud to announce that we’ll be offering a limited number of these rare and beautiful succulents at our Fall Plant Sale. We’re currently growing 6 different varieties of mangave. (And remember, that’s pronounced “man-GAH-vay”, after the Agave parent, not “MAN-gave,” after your friend’s no-doubt-lovely man cave filled with comfy chairs and neon beer signs.)



The names are as delightful as the plants themselves. “Freckles and Speckles” boasts long, strappy leaves of mint green lightly sprinkled with deep red spots and will grow to 8” tall and up to 20” wide. “Sponge Paint” is more compact, reaching only 4-6” tall and up to 14” wide. Its leaves are short and plump, silvery-gray, lightly marked with red. “Night Owl” is another short and compact variety, splotched so heavily with deep burgundy that the entire plant takes on a dark, mysterious air. It can grow to 8” tall and 18” wide. The whimsically-named “Tooth Fairy” matures into something really special: a 12x18” rosette of blue-gray foliage edged with orange-cinnamon-colored showy teeth. “Catch A Wave” is ultimately the largest of our current varieties, reaching 10x20”. Its very thick, gray-green leaves have burgundy markings and mature into attractive wavy shapes.

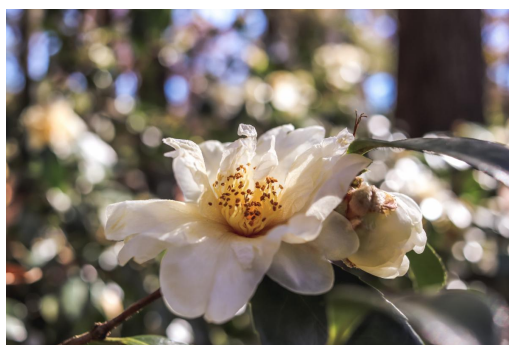
So far my favorite of our collection is the aptly named “Fiercely Fabulous.” This has been the fastest growing of the group so far and has large, arching bronze-green foliage very generously marked with large wine-red spots. Soft green teeth cover every leaf margin.

I’ve been very impressed and pleased with the performance of these colorful succulent plants. Check them out in our mixed containers on your next



Garden visit and consider adding one (or several!) to your own plant collection during our Fall Plant Sale happening October 8-9 and 11-15.

*photo by Jill Maybry*



Something you want to learn more about?  
Email our Director of Horticulture at  
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