

# Gardening in Rich Land



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## From the President



Greetings RCMGA Family,

It is an honor to work with you all and share our deep passion for gardening and nurturing nature's beauty as we embrace the arrival of spring. Spring is a season of rejuvenation and growth, where the earth awakens from its slumber and bursts forth with vibrant colors and fragrances.

Being a Master Gardener is more than just a hobby or a profession; it is a commitment to nurturing our environment and fostering a harmonious relationship with nature. Our expertise in horticulture and unwavering dedication to the art of gardening have a profound impact on the well-being of our communities and the sustainability of our planet.

May this spring be a time of growth, abundance, and unlimited possibilities for us as Master Gardeners. Together, let us sow the seeds of a sustainable future and nurture the beauty that lies within each one of us. I have three months and three weeks left in my term as your president. I hope I have served you all well thus far, and I look forward to working with you on our numerous projects this spring. Thank you for all that you do to support our RCMGA projects.

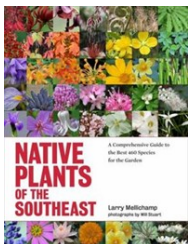
Warm regards,  
Isha Kirton  
RCMGA President

“May our gardens teach us the art of patience, nurture our soul,  
and remind us of all of the beauty that grows from the simplest of seeds.”

Author Unknown

## A Book to Take a Look At

Cathy Beattie



You might want to thumb through Larry Mellichamp's book, *Native Plants of the Southeast*. Dr. Mellichamp, a professor of botany at UNC Charlotte, is the director of the university's botanical garden. With beautiful photography by Will Stuart, this volume guides us through the various categories of native plants and lists plants by their utility and appeal from “useful,” plants with limited ornamental appeal with some good and bad traits to “outstanding,” plants that have a lot of appeal, three or four seasons of interest, and no negative traits. The most helpful information is each plant's availability for purchase so that we know, even if the plant is a “must have,” that it might be difficult to find.

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# Meet, Greet and Eat: An Energetic Get-Together

Toni Hubbell

“Interns, meet your mentors” was the focus of the Meet and Greet held before the regular February 6 Membership Meeting. Robin McClellan and her committee had a colorful and delicious buffet laid out in the large room at the library on Parklane. For some interns and mentors, this was their first meeting. The energy in the room was so strong that if it could have been stored in a battery, it could have powered the entire library.



As the group settled around the long tables, eating and talking, the interns introduced themselves, telling about their lives, interests, jobs, hobbies and what drew them to the Master Gardener class. This class is a diverse group. One intern told us she is a retired hospital pathologist, another told us about her bees, one had worked as a nutritionist, another had won awards for photography and another was a retired lawyer. When their turns came, many of the Master Gardeners talked about how much being an MG has meant to them, how they feel a strong bond with their colleagues, and how a shared love of plants and horticulture has given them a common purpose. We are a family, they agreed.

After introductions, Robin went over some of the opportunities interns have to earn their needed educational hours. She explained the difference between office and non-office hours, what activities count and which do not. She and her committee handed out several pages of explanations for the interns to take home. Then it was time for interns and mentors to have their pictures taken. We agreed we felt like a family when we left the meeting – a new family.



L to R: Heidi McKinley, Val Hutchinson, Elizabeth Welling

Below: Isha Kirton and Leslie Platt



Elizabeth Welling, Diane Bruner, and Michael Brown

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L to R: Linda Olsen and Rita Shipman; Cathy Beattie and Angel Clark; Pam Robinson and Mary Stepping



L to R: Regina Monteith, Nancy Maseng; Sherrerd Harkness and Jane Key; Susan Wilson and Toni Hubbell



L to R: Nancy Maseng, Regina Monteith, Linda Hughes, Debbie Thomas; Isha Kirton, Jane Keys, Nancy Maseng; Robin McClellan makes a point about earning hours.

## Welcome the Orchids

Toni Hubbell



Our February Membership Meeting’s speaker, Alleene Smith, promised to give us the real facts about growing orchids. Entitled “Things They Never Told You About Orchids,” the presentation dispelled many myths about growing these beautiful plants and, by explaining clearly how orchids grow in the wild, showed us that we can have these flowers in our homes.

Alleene focused on one kind of orchid, *Phalaenopsis*, sometimes called the ‘moth orchid,’ as this one is best for beginners and can do very well in the house where their fragrance and colors can be enjoyed. Because we can control the climate in our houses, our plants are not at the mercy of the weather.

Alleene with some of her orchids

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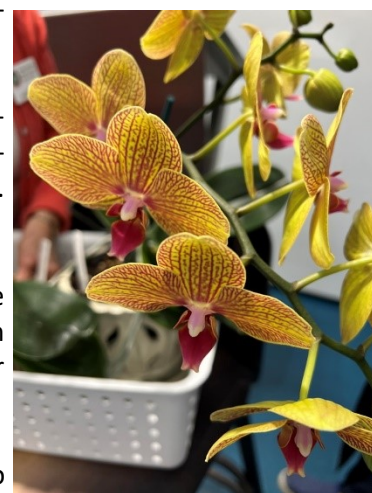
One fact she was not told before she began to grow orchids, Alleene said, was that the “Big Box *Phalaenopsis*” she had just bought was probably grown in Taiwan in huge trays with sphagnum moss and shipped in a giant container, a long journey by sea. Nothing natural about this beginning! So if the orchid is blooming in the spring or summer, when most of these plants are seen in stores, it is blooming out of its natural cycle, which would have it setting buds in the fall. That is why the orchid does not re-bloom soon after its flowers drop. It must get back into the way it lives in the wild, in Southeast Asia, where it is native. In the tropical forests, orchids grow on tree trunks or branches where their roots or spikes hang down and grip the bark of the tree. They are naturally fertilized by birds and watered by rain and mists.

To make these beauties happy, she said, we must simulate the light, temperature and moisture the orchids enjoy in the wild. Fortunately, orchids like the mild temperatures we like in our homes, between 50 and 80 degrees. A southern or eastern exposure is good because the light is indirect. Orchid leaves will suffer sunburn if they are placed in direct sunlight. Like most of our houseplants, orchids will tell us when they need to be moved out of the sun, or they need watering or if they are receiving too much water. Their leaves will show red tinges if they are receiving too much sunlight; they will be dark green if they need more light (olive green is the desired color); the leaves will be limp and wrinkled if the water is too much or not enough, so the owner just needs to pay attention to the leaves. Other elements from the forests that orchids need are air movement and humidity, which can be provided by humidifiers and fans.

Alleene talked about the pros and cons of bark or sphagnum moss as the growing medium. She brought examples of both for us to see. She cautioned about overwatering, telling us to water thoroughly and then wait until the medium is dry before watering again. One good way to tell if the orchid needs water is to check the weight of the pot.

Fertilize with a mild solution about once a week, noting the ingredients listed on the label. Nitrogen is important. To encourage growth or new spikes, the temperatures in the house need to drop 10 degrees for about two weeks. Warmer days and cooler nights mimic the forests and establish the natural rhythm for the plant’s growth.

When the orchid’s medium breaks down, it is time to re-pot, usually about every two years. The best time to re-pot occurs when the orchid is putting out new roots. Cut off any dead roots and settle the orchid in a new pot that is big enough to contain the healthy roots but not any larger. Think of that orchid growing outside in the Philippines, with the healthy roots gripping the tree and hanging down, Alleene encouraged.



Another beautiful phalaenopsis!

Few of us will reach Alleene’s orchid collection—she admitted to over 150 plants of different species—but we left the meeting feeling that we could bring a lovely *Phalaenopsis* home to join our family of houseplants. I may start looking more closely at the orchids in the stores and imagining where my orchid might live. But I forgot to ask Alleene if she has cats. Nelson might have other plans.

## Flowers for Cool Seasons

Toni Hubbell

Linda Bradley, owner of the Purple Tuteur Flower Farm, brought color to our February 6, 2024, Membership Meeting with a jar of purple, magenta and white anemones, the magenta matching Linda’s sweater. She also brought color to her talk, telling us how we can have a colorful flower cutting garden in early spring if we start now. “Cool Season Cut Flowers: Getting an Early Start on your Cutting Garden” defined cool season flowers as those that bloom in the cool months of early spring and are dormant by May. This early time, said our speaker, is nearly ideal for working in the garden as it is not yet too hot and there are no annoying bugs out.

Timing and planning are the keys to success. Begin your planning in the summer when it is just too hot to work out-

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Mary Stover and Linda Bradley

side. This is a good time to decide what plants you want next year. Order your bulbs and seeds early so you can have the best selection and so that you can sow seeds and plant in the fall. Remember also to order soil amendments so that the compost and fertilizers can be worked into the soil and can break down before you plant. A good date for planting outside is four to six weeks before November 1 (usually the date of the first frost) so the plants can get established.

Sow the seeds around the first week in September so the plants can be set out in October. The seeds can be started in seed trays for good germination. If you sow some of the same seeds directly in the garden when you are setting out the seedlings, you can have a succession of blooms. Because the plants are susceptible to temperature extremes, you need to provide protection as the temperatures fluctuate. Bed sheets can be used, or row covers and frost cloth can be used. These items can be found online and work well to keep frost from damaging the tender leaves. Another tip Linda shared was to pre-soak the seeds to break dormancy.

Some options for cool season planting are anemones or wind flower (*Anemone coronaria*); ranunculus, called Persian buttercup (*Ranunculus asiaticus*) and daffodils (*Narcissus pseudonarcissus*), which are all bulbs. Some annuals to start indoors include pansies (*Viola tricolor*); snapdragons (*Antirrhinum majus*); statice (*Limorium sinautum*) and stock (*Matthiola incana*). However there are some annuals whose seeds can be directly sown, bachelor's button (*Centaurea cyanus*), larkspur (*Delphinium*), nigella (*Nigella sativa*), and saponaria (*Saponaria officinalis*).



Anemones, in addition to being beautiful, said Linda, are also very forgiving and can do without cover even when the temperatures drop to around 20 degrees. Once they bloom, however, the flowers need protection from frost. Ranunculus, sometimes called the Rose of Spring, needs protection against frost. Pre-soak these seeds to help germination. Pansies and bachelor's buttons should be started indoors in the fall. Larkspur seed likes cold and should spend several weeks in the freezer to improve germination before being sown directly outdoors. Love in a Mist (*Nigella damascene*) is easy to grow. Linda introduced a plant which was new to most of us, saponaria, *Vaccaria hispanica*, which produces lovely pink and white flowers. This seed can be sown directly in the fall or spring. She brought some of the seed to share. Snapdragon is another good plant for cool weather. This plant must be kept moist to do well. Statice, which comes in many colors, should be started indoors as should stock (*Matthiola incana*), which has a sweet clove scent.

Our speaker concluded by recommending three sources for seeds which offer not only offer great varieties but also contain information about the plants and germination.

<https://www.johnnyseeds.com>

<https://www.longfield-gardens.com>

<https://www.johnscheepers.com>

In closing, Linda reminded us of the South Carolina Ag & Art Tours for Richland County. The dates are June 8 and 9, and the Purple Tuteur will be part of this tour.

## Propagation at the Children's Garden

Toni Hubbell

When Lynn Derrick begins his propagation for spring and summer growth, he does not just take a cutting or two or open a pack of seeds. Instead, he takes 25-40 cuttings, opens packs containing hundreds of seeds and gets started. Like the ringmaster under a giant circus tent, Lynn was surrounded by all of his performers and equipment when he spoke to his fellow Master Gardeners at the March 5 Membership Meeting in the Children's Garden.

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Heidi McKinley, Pam Robinson, Michael Brown, and Joyce Pundt

On a sunny day, as Master Gardeners sat at picnic tables taking notes, Lynn pointed to grow bags filled with planted potatoes, to pots of grape cuttings, to seed starters, both commercial and homemade, some with seedling tomatoes and even strawberry seeds. "I had to put these strawberry seeds in the freezer before planting," said Lynn. He talked about what soil mix he uses, which turns out to be the one preferred by MGs – equal parts potting soil, compost and sand or perlite.



Lynn Derrick

Next he demonstrated how he roots cuttings by holding up several pots of woody stems of a grapevine. He stripped off all the leaves of a demonstration stem before dipping the base in a root stimulator and planting. He showed how to make a hole in the potting medium before inserting the stem, reminding us that just pushing the stem into the soil will knock off most of the rooting powder. Several people questioned his removing all the leaves, but Lynn said he had planted his stems bare and it worked for him.



Sally Mullen, Isha Kirton, Evelyn Abernathy and Leslie Platt watch Lynn Derrick

He paused in his demonstration to tell us about the history behind the Herbemont grape cuttings. In 1811, Nicholas Herbemont brought a number



Smiles all around. Deb Thomas, Dot Valentine and Valerie Moore

of cuttings from European grapes, but all withered and died in the heat of the Midlands. However he noticed that the native grape vines were hardy and disease resistant, and so in 1819 he began grafting the European grape vines with the native ones, resulting in a grape sturdy enough to flourish in our heat and produce a popular table wine. At one point, said Lynn, Herbemont almost persuaded the South Carolina lawmakers to make wine growing the state's major crop. The Herbemont grape can be found growing at the historic Robert Mills house. Several of us wondered if Lynn has a vineyard in mind for his farm?



The Ask-a-Master Gardener booth at the Home and Garden Show at the SC Fairgrounds was very successful, with Interns and Master Gardeners meeting visitors to the show and answering gardening questions. From Left, standing: Lawrence Haselden, Interns Michael Brown, Nancy Maseng, Pam Robinson, Annette Bethel (LCMGV), Master Gardener Susan Zourzoukis and Intern Leslie Platt. Seated are Regina Monteith and Lynn Derrick.



# Campanula and Delphinium in The Garden for Spring Blooms

Linda Bradley

Campanula and delphinium are two elegant spring blooming flowers. Both are used in arrangements and have a “spike” shape, the floral design term used to describe multiple flowers arising from the main stem. They are not related in a botanical sense.



## Growing Delphinium

Delphinium is a genus of about 300 species of annual and perennial flowering plants in the family *Ranunculaceae*, native throughout the Northern Hemisphere and also on the high mountains of tropical Africa. All members of the genus *Delphinium* are toxic to humans and livestock. This includes the seeds and all parts of the plant.

I am not familiar with all 300 species, but we do grow a couple of them at the farm.

Delphinium prefers cooler temperatures, so in our climate, they grow best when planted out in the fall to bloom in the spring. They need full sun to perform well. While considered a perennial, it is hard for delphinium to survive the heat of our summers, so consider it an annual if you are growing it in Columbia.

### *Guardian (Delphinium elatum)*



One variety that I grow in a hoop house is Guardian (*Delphinium elatum*). It comes in white, light blue and dark blue. We grow a mix of all three colors. It can grow while the days are short (less than 12 hours), which means we can have blooms as early as late February. This is helpful to me for our subscription business, but not necessary for the garden. I have grown this plant in the garden (without benefit of cover), and it does well as long as it has a little shade in the afternoon.

Continue cutting stems as they bloom. This plant can produce stems until the temperatures hit the high 80s on a consistent basis. It will then fade. It may come back in the fall, as temperatures cool, but the stems are not as lush as the early ones.

### *Larkspur (Delphinium consolida)*

Another variety that we grow is larkspur (*Delphinium consolida*). The shape of the flower includes a spur on the back of the bloom.

This one is very easy to grow from seed. Sow the seed directly into your garden in the fall and it will come to life in the spring. They are usually ready to cut sometime in April. One benefit of its poisonous nature is that nothing wild will eat the seeds or the plants over the winter. As long as they get enough water to germinate and enough sun to produce blooms, this is a pretty reliable annual to grow. Larkspur comes in many colors and can be cut multiple times too.



There are many other varieties to explore, but if you haven't grown it before, I would definitely start with larkspur.

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## Growing Campanula



Canterbury bells (*Campanula medium*) can produce a dramatic stem of bell-shaped flowers.

Like delphinium, campanula also grows in the cooler months of spring. However, they bloom later, typically in May. This plant prefers full sun but needs some shelter from rain. Too much spring rain can ruin this flower, as the cup-shaped blooms fill with water and spoil. On the plus side, birds and bees like to drink water from these blooms.

*Campanula medium* var. *Champion* is the most widely grown variety. It comes in white, lavender, dark purple, light pink and dark rose. The stems can grow to about three feet tall for a really dramatic stem, or they can be pinched so that multiple smaller shoots grow up from the base of the plant.



Campanula is day-length sensitive in that it needs to establish its roots during short days. As the days lengthen and the plant grows, strong roots are needed to support the tall plant. If they do not get a long enough growth period during the short days of the year, the stems will be short. Grown from seed, it is best to start the seed in the fall and then plant out the plants in late fall so that they will be ready to “jump up” as the days get longer than 12 hours (March 16 this year in Columbia). Seeds for the Champion series can be found at [www.johnnyseeds.com](http://www.johnnyseeds.com).

Both of these plants are best started in the fall. Make a note on your calendar to order seeds and get them started in late September or early October. By spring, you will be glad you did!

## The Carolina Yard at Its New Site

Toni Hubbell



Nancy Maseng watched Jackie Jordan measure parameters of a future planting bed.

The Carolina Yard got a wonderful Valentine gift on February 14 as a team of Master Gardeners and Interns, under the guidance of its director, Regina Monteith, prepared the ground for its fall planting. Following a detailed plan drawn up by Jackie Jordan, Jim Hightower and helpers spread lime over the areas that had been outlined by pink spray paint as the planting beds. When the spreader did not work properly, Jim and his crew finished the job by spreading the lime by hand.

Then 50 bales of pine straw, that had been delivered to the site earlier, were opened and spread over the beds to suppress weeds. When this step was completed, the curved outlines of the two beds were clearly visible, so now everyone’s attention turned to the playhouse.

Over the next week, the playhouse, which had been moved earlier from the previous site at the Carolina Yard by the white cottage, got a makeover. Although the little house was physically intact, it was looking rather shabby. Soon very capable volunteers scraped the peeling paint from its sides and power washed the exterior. Now it awaits its coat of paint.

The original white picket fence and rose arbor were also moved from the previous location to the new address. The sections of fence had been neatly stacked at the rear of the Children’s Garden to be used again around the Carolina Yard. These pickets also were power washed and will be painted along with the arbor.



Jackie Jordan outlines planting beds as Regina Monteith looks on.

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Planting in and around the new site will begin in the early fall, following a plant list compiled by Jackie Jordan. In the fall, the weather (hopefully) will be more temperate as the days grow cooler, and the soil will be ready to receive the new plants. There are still a few more items to be moved from the previous site, but the new location already looks like a Carolina Yard waiting to bloom.



Jim Hightower loading the lime spreader



Steven Crisp delivers the arbor.



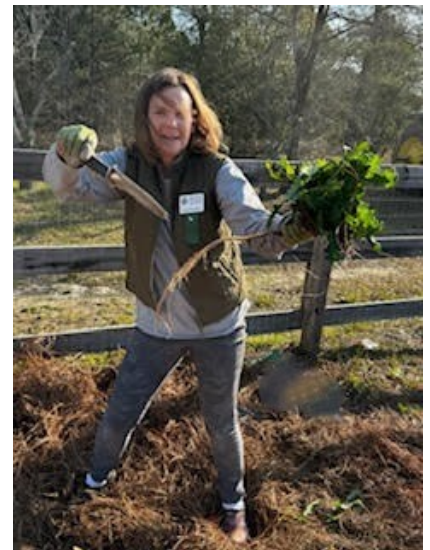
Rich Byer power washes the arbor.



Robin McClellan power washes fencing. There are over 100 feet of fencing to be washed. It is hard, but rewarding work - one can see dirt and mildew wash down the slats.



Pam Breen and Nancy Maseng have just finished sanding the glider.



Warrior Princess Susan Zourzoukis

Harriette Edmonds and Robin McClellan hold a newly painted bird feeder for the Carolina Yard, a gift from Harriette.



Leslie Platt scraping peeling paint off the playhouse.



Angel Clark spreading pine straw





L-R Toni Hubbell, Carla Franz (Kershaw), Nancy Maseng, Karen Zimmerman, partly hidden behind Pam Robinson, Rich Byer, Angel Clark, Jackie Jordan, Regina Monteith, Isha Kirton, Susan Zourzoukis, Susan Wilson, Heidi McKinley

## Rose Rosette Disease (RRD)

Cathy Beattie

Rose Rosette Disease (RRD) has been around for a while, but it seems to be getting more attention lately. First identified in the 1940s, this virus affects all cultivated roses. Multiflora roses (*Rosa multiflora*), imported from Japan, are thought to have been the primary host of the Rose Rosette Virus (RRV) which is spread by the rose leaf curl mite *Phyllocoptes fructiphilus* Keifer, an eriophyid mite that can travel on breezes, clothing, and tools. The mite, only visible with magnification, hides in buds, flowers, and sepals, and in the base of shoots, leaf axils, and under leaf scars. RRD affects all cultivated roses including Knock Out® roses. Symptoms of RRD are visible in the spring but become more apparent later in summer.



Witch's brooms and red coloration of new growth from <https://bit.ly/3wUVFY0>



Witch's broom images from <https://bit.ly/3VqrRwB>

Some of the more obvious symptoms are witches' brooms, which are masses of shoots at the end of stems, excessive pliable prickles, red coloration of new growth, thickened stems, abnormal and discolored buds and flowers, and stunted leaves that may be yellow or red. This last symptom is not the usual red appearance of new leaves; it shows up and remains discolored. The infection weakens the plant and makes it more susceptible to winter damage and to diseases such as black spot and powdery mildew. Glyphosate exposure can cause a witch's broom appearance, and 2,4-D injury can cause leaves to appear distorted or dwarfed, making RRD diagnosis a little more difficult.

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Symptoms become apparent several weeks to months after the plants are infected. Roses may survive for a couple of years, but they will eventually die. Miticides available for homeowner use may not be effective; commercial growers have access to miticides that can reduce populations of the eriophyid mite, but none of the resources I reviewed indicated that these can save rose plants. Removing affected stems will not prevent disease spread; the entire plant must be removed and discarded in a sealed bag. The activities involved in digging up an infected plant may spread mites to other nearby roses, so take care to avoid doing so. Although it is not thought to survive in the soil, recent research has identified RRV in rose roots. Roses can resprout from root pieces, so planting roses where diseased plants have been removed is not recommended. Disinfect tools with a household cleaner such as Lysol, Pine Sol, or Listerine and wash gardening gloves before going on to other plants.



Excessive prickles (thorns), Image from <https://bit.ly/3IH6ole>

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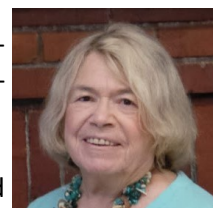
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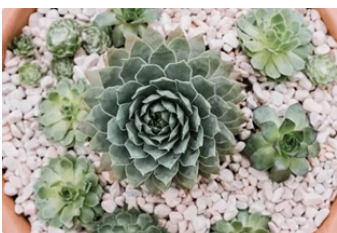
## On the Farm or at the Zoo? Or Simply in the Garden?

Regina Monteith

(Editor’s note: This article first was published in *And Sow Forth*, the newsletter of South Carolina Midlands Master Gardeners Association, SCMMGA for short, in October 2011. With the author’s permission, it is reprinted here. Enjoy)



Gardeners always know where they are when they hear another singing the praises of their hen and chicks, the chicks multiplying rapidly, tumbling away from the hen, or extolling the virtues of lamb’s ears, the soft and fuzzy texture, the pale and silvery color. They are not in the barnyard feeding a flock of chickens or petting the baby lambs, but in their gardens counting the numerous offsets a mother plant has produced (hen and



Hens and chicks, image from <https://bit.ly/3xbZVCs>



Lamb’s ears, image from <https://bit.ly/4akTgnX>

chicks, the ground-hugging species of the genera *Sempervivum* and *Jovibarba*), or stroking richly textured leaves (lamb’s ears, *Stachys byzantina*). Likewise, when gardeners hear zebra grass, they think not of the plains on which zebras, black equids striped with white, commonly roam, but of the exotic tall green grass with its golden horizontal bands (*Miscanthus sinensis* ‘Zebrinus’). They also cherish storksills (*Erodium botrys*) and cranesbills (*Geranium spp.*), not for the long beaks of

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these elegant wading birds, but for the elongated seed pods of these plants, pods that snap open like beaks to disperse their seeds. Among the most interesting of commonly known plant names are those associated with animal features. In many plants, that resemblance is readily apparent throughout the plant's growing cycle; in others, the feature occurs at only one stage of the cycle, as in the last example. Let's return to the farm for some readily available plants and to the zoo for some more exotic ones.



Zebra grass, image from <https://bit.ly/3TFhzaC>



Top: Storksbill seed pods, image from <https://bit.ly/3vkPigo>

Bottom: Cranesbill seed pods, image from <https://bit.ly/3TqvzUp>

Like hens and chickens, other denizens of the coop have lent their names to plants. The noisy inhabitant, the rooster with his flaming crest, has found his match in an equally colorful flower, the cockscomb, (*Celosia cristata*), the crested or fasciated celosia. The growing tip elongates perpendicularly to create a compact crested head measuring 2 to 5 inches across on long sturdy stems, the cockscomb makes excellent cut and dried flowers. While typically scarlet, the flowers appear in golds and yellows too. To complete the chicken coop in the garden, one can look to butter-and-eggs (*Linaria vulgaris*), a perennial roadside weed and an ornamental plant. On a spike-like raceme, its showy flowers, resembling snapdragons, come in two shades of yellow: the upper and lower lips are the pale yellow of butter, and the palate between is the bright yellow-orange of egg yolk.



Cockscomb, image from <https://etsy.me/493xy6M>

Still near the chicken coop in the barnyard, the tear- or corn-shaped yellow bulblets of *Dicentra eximia* resemble poultry feed or corn. In flower, this plant is more usually known as bleeding heart—because of the pink, heart-shaped flowers that dangle in a raceme above the fern-like foliage. Two petals clasp together, forming the shoulders of the heart, and two open, making the opening of the heart and its point. But after the flowers bloom and wither, the plant goes underground, storing its energy in the bulblets and giving rise to the name “turkey corn.”



Butter and eggs, image from <https://bit.ly/3TKMW3P>

In contrast to the showy but ordinary plants associated with animals of the farm and countryside, plants named after animals found at the zoo or in exotic locales may be dramatic and confounding. A landscape specimen fitting both descriptions is the monkey puzzle tree (*Araucaria araucana*), an irregularly shaped evergreen native to the Andes and to Chile, where it is the national tree. With branches that splay and spiral and triangular leaves that stiffly overlap, the tree, growing to more than 90 feet, has an open, prehistoric, almost reptilian look. Popularly cultivated in Victorian England, the tree received its common name when a young man observed that it would puzzle a monkey to climb the tree. Perhaps the most primitive conifer alive today, it has been grown in the Pacific coast area as a result of sapling distributions during world's fairs in 1905 and 1962. Though far from its native habitat, the Monkey puzzle tree also grows along the southeastern Atlantic coast from Virginia to Texas.



Top: Bleeding hearts, image from <https://bit.ly/3TEf7Bf>

Bottom: Turkey corn, image from <https://bit.ly/3VI4fUD>

No less exotic in origin, the southwest corner of Western Australia, but more widely desirable of cultivation for its brilliantly colored flowers is the red and green kangaroo paw (*Anigozanthos manglesii*). Kangaroo paws are herbaceous perennials with strappy leaves. The unopened flowers with six unequal lobes give rise to its common name. In nature, *A. manglesii* has flowers with

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Monkey puzzle tree, image from <https://bit.ly/4cnrRU3>

red bases, the claws opening a brilliant green. The plant has become widely hybridized by California growers, and varieties are now commonly available with red, purple, pink and even yellow flowers. Kangaroo paws have been sold at Lowe's, and even on Amazon as wedding flowers!



Kangaroo paws, image from <https://etsy.me/43itb6P>

The association of an unknown or an uncommon object with a more familiar or usual one is a tactic to define the unknown in terms of the known and to improve the memory of it. And even for the garden-er well versed in scientific nomenclature, the name hen and chicks may evoke a more vivid image than *Sempervivum*, monkey puzzle tree more than *Araucaria araucana*.

## Lead Contamination

Cathy Beattie

You may have heard a report on the TV or read something in the newspaper about lead in the water of the Gills Creek Watershed. Here's a little background about that.

The Gills Creek Watershed consists of about 115 miles of streams that flow across Richland County from near Sesqui-centennial State Park to the Congaree River. The majority of Fort Jackson's small arms ranges are near watershed trib-utaries, and it seems likely that the ammunition casings, made of lead and copper, have been dropped there for many years and have contaminated Boyden Arbor Pond and possibly some streams, particularly after heavy rains.

It was thought that, due to the low levels of lead in the pond, little was contaminating other waters. However, the Ar-my found that there was a potential for aquatic plants and animals to have been affected by exposure to lead and copper. Control methods that were considered were either not effective or too costly to use.

DHEC found that the levels of lead between Boyden Arbor Pond on Fort Jackson and Rockyford Lake were the most consistently high and likely to affect aquatic plants and fish. Farther downstream near Devine Street, lead was also found in greater levels than the acceptable standard, although in a smaller percentage of samples. Lead levels in Gills Creek itself were considered to be similar to those in other parts of the state.

Where the increased lead levels have been found, they are not considered to be hazardous to swimmers or boaters, and DHEC has not found any supplies of drinking water that are at risk. There is concern that minority and low-income populations downstream who fish for food may be ingesting fish with high levels of lead, but as yet no studies have been done.

DHEC has charged Fort Jackson with developing a plan to remediate Boyden Arbor Bond and the tributaries near the ranges and to reduce the lead coming from the ranges.

To have irrigation water from the Gills Creek Watershed tested for lead, follow the instructions at <https://www.clemson.edu/public/regulatory/ag-srvclab/irrigation-water/how-to-guide.html>. The cost for the test is \$15.00 and includes other heavy metals besides lead. Clemson's Agricultural Services Laboratory is also able to test soil for heavy metals including lead. The cost is \$15.00 and requires about two cups of soil.

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## Meet Our New Master Gardeners

Robin McClellan



The first five newly-certified Master Gardeners from the class of 2023!



**Michael (Mike) L. Brown** is the youngest of 14 children. A native of Bennettsville, SC, he holds a M.S. degree in Agribusiness, a B.S. degree in Business Administration, has completed the University of Kentucky's College Business Management Institute and was a certified public manager (CPM) in state government. Michael is also an ordained minister and a licensed insurance agent. He is a retired Higher Education administrator and recently came out of retirement to work for a non-profit organization as the program manager for the Farmers Market, Community Gardens, and Food Promotion program. He is an avid gardener, of course (enjoying vegetables and flowers), enjoys woodwork, coin collecting, and raising rabbits. Recently, he has become interested in beekeeping. Mike is married to Dr. Jacqueline J. Brown and they have four children and five grandchildren. *Michael's*

*mentor: Lynn Derrick.*



### **Emily Bryan**

Emily is a long-time resident of Columbia and audited the MG course this past fall to certify once again and continue volunteer service. She initially took the course in 2015. A unique fact about Emily, she is the mother of twin daughters. She is a dog lover and contributes to community animal care causes. She loves traveling and meeting new people, as well as sightseeing. She enjoys growing vegetables, herbs, and flowers. She is interested in combining the best of gardening tradition with modern techniques. She enjoys walking and exploring native Carolina areas from the coast to the mountains.



### **Rich Byer**

Rich was the first intern from the fall 2023 MG courses to certify. Born overseas to a military family, he settled here in what he now calls his home state of South Carolina. After graduating from USC, he had a 30-year career as a contract software engineer for various insurance companies. Tired of cubicles, he has vowed to spend whatever time he has left outside in the fresh air. He is now participating in the Master Naturalist course and will pursue certification in the future. In his spare time, Rich enjoys building furniture and "fixing" things in his workshop. He and his wife, Kim, have raised several Golden Retriever pups and currently dote upon their four-legged kids: Colby, and Hetta Grace. *Rich's mentor: Tim Carrier*



### **Nancy Maseng**

Nancy is a lifelong gardener, inspired by her grandmothers' gardens and tutored by her father, Leif, a fellow Master Gardener. She is a second generation American. Putting down roots, literally, is meaningful to her. She retired in 2021 from a satisfying 30+ career as a psychotherapist, mostly in private practice. Participating in the Master Gardener course was on her retirement list for years, so she has accomplished this major goal. Working in the Carolina Yard at the Cottage project most closely resonates with her passions for work in her home landscape. She wishes to thank everyone for welcoming her so warmly into the association. *Nancy's mentor: Regina Monteith*



### **Heidi McKinley**

Meet Heidi McKinley, a Blythewood local, who shares her garden with her husband (Mike), daughter (Amber), and four purr-fect cats. When not tending to her garden, which she eagerly plans to expand, she likes to travel, cook, and fly drones. And her secret garden ambition? To grow a giant pumpkin! Watch out Charlie Brown! Professionally, Heidi is a data analyst. She is a proud USC graduate (Go Gamecocks!), but also earned an MBA at the University of Illinois. Heidi describes becoming a Master Gardner as a wonderfully enriching experience filled with new friends, continuous learning opportunities, and even the occasional 'morning workout' in the Sandhill Children's Garden. *Heidi's Mentor: Val Hutchinson.*