Growing, Gardening and Gaining Knowledge

April / May 2021

Gardening With The Masters

Due to continuing COVID health conditions, all face-to-face programs are still being restricted. Most programs are being scheduled as virtual events. The Cherokee County Master Gardeners, along with the UGA Extension office, are proud to offer these upcoming virtual seminars. The full list of seminars offered through June is posted on page 7 in this newsletter. Join us on the last Friday of each month.
Register using the link posted here.
https://ugeorgia.ca1.qualtrics.com/jfe/form/SV_9NOr2GKycbwiqHj

WHAT'S HAPPENING

April

ARBOR DAY* - CANTON
CHECK WITH THE CHAMBER OF COMMERCE FOR DETAILS

Apr 30 - **VIRTUAL SEMINAR**
CUTTING GARDENS
REGISTRATION LINK POSTED ABOVE

CCMG PLANT SALE
APRIL 30TH AND MAY 1ST,
9:00AM - 12 NOON
SENIOR SERVICES,
1001 UNIVETER ROAD,
CANTON, GA 30114

May

May 28 - **VIRTUAL SEMINAR**
CONTAINER GARDENING
REGISTRATION LINK POSTED ABOVE

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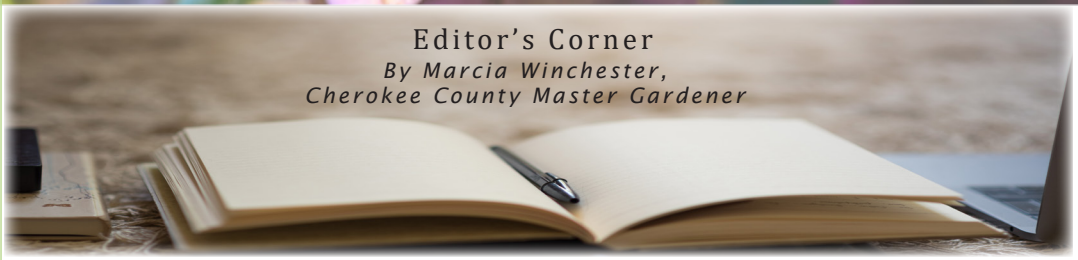
https://www.facebook.com/cherokeemastergardeners

email
www.cherokeemastergardeners.com

or **the UGA County Extension**
https://extension.uga.edu/county-offices/cherokee.html
or call
770-721-7803



Editor's Corner

By Marcia Winchester,
Cherokee County Master Gardener

I see a common mistake made by both everyday gardeners and professional landscapers when planting landscapes and gardens. This mistake is not giving plants, trees and shrubs enough room to grow to their natural height and width. Have you ever been to a lecture and the chairs are jammed side by side? There isn't enough room to move, and it's very uncomfortable. Well plants are the same way. Giving plants space allows air flow which discourages diseases and fungus. It can allow sunlight to reach the center of the plant encouraging better growth. Sometimes landscapers deliberately put too many plants in a bed to immediately make it look fuller instead of allowing plants to naturally fill out.

It is actually easy to avoid making planting mistakes. Most plants have a tag attached. This informational tag will give the mature height and width of the plant. You can use a yard stick to measure the distance, or pre-measure your hand (for annuals and perennials) or arm (for larger plants) and use instead of a yard stick. If a plant gets 12 inches wide then they need to be spaced 6 to 7 inches apart depending on if you want space between plants or if you prefer them touching. Thoroughly read your label, and do some research if necessary; a tree described as "dwarf" could mean it is 12 feet tall instead of 24 feet.

A lot of labels are written for the Midwest, so I look for key phrases like "needs good drainage." Our wet winters and clay soil will rot a lot of plants that need good drainage. I also research where the plant grows naturally. I no longer buy plants from the Northwest or even a lot of plants from north of Tennessee. They can't take our hot summer evenings when it doesn't cool off. Doing a little research can help the gardener avoid costly planting mistakes.

Marcia

IN THIS ISSUE

The Truth about the Asian Giant Hornet

By Joshua Fuder, Agriculture & Natural Resources Agent, Cherokee County

Photo http://agr.georgia.gov/invasive-pests.aspx

Every spring I receive calls and emails from individuals that have found a giant wasp or hornet. Occasionally one of these concerned citizens has done their own internet sleuthing and started their questioning with the Asian giant hornet and its presence in Georgia.

A flurry of recent press coverage has created a surge of interest in the Asian giant hornet (*Vespa mandarinia*). The coverage is not traced to any recent event. The insect was found in September 2019 in Vancouver Island (Canada) and again in December 2019 in Washington state. But to date, this invasive insect is not present in the state of Georgia, nor indeed, east of the Mississippi.

The Asian giant hornet is a "true" hornet and the world's largest, ranging in size from 1.5 to slightly over 2 inches long (38 to 50mm). The stinger is nearly ¼-inch long and stings are extremely painful. Each year in Japan, 30 to 50 people die from being stung by these hornets. The venom is not the most lethal among bees and wasps, but due to the insect's large size, the dose is larger than any other stinging insect that Americans typically encounter. Human deaths by these stings are biased toward individuals who are prone to anaphylactic reactions or to individuals who receive large numbers of stings. One or a few stings from an Asian giant hornet should not be life-threatening to an average individual.

The Asian giant hornet is not necessarily aggressive towards humans, livestock, or pets but will sting if provoked. However, this giant killer can inflict a devastating blow to honey bee colonies, with several hornets capable of annihilating 30,000 bees within hours.

There are three phases of an Asian giant hornet attacking a honey bee colony. The first is the hunting phase where individual hornets will capture bees at the entrance of the colony, cut off their heads, and form a "meat ball" from the thorax. They then return to their nest to feed their young this protein-rich meal.

The second phase is the slaughter phase. Hornets will mark a particular colony with a pheromone to recruit their sisters to the site. Then numerous hornets will descend upon the colony, killing all of the workers by ripping their heads off, dumping their bodies onto the ground below, and returning to their nest with their prey.

Once the bee hive is dead, hornets enter the occupation phase. Hornets take over the hive, collect pupae and larvae, and return to their own nest to feed their carnivorous young. The hornets now guard the hive entrance as if it were their own nest. The aftermath of an attack will be piles of decapitated or ripped apart bees in front of a colony. The visible key to an Asian giant hornet attack is "decapitated" or "ripped apart" bees, and not just a pile of intact dead bees, which could be the result of pesticides, starvation, or something else.

This is the hornet that incites the famous bee defensive response of "cooking" hornets to death. Asian honey bees grab an invading hornet, pile around it, and raise their thoracic temperatures to the critical temperature that is lethal to wasps but tolerable to bees. Unfortunately, American honey bees, which are of European not Asiatic descent, do not have this behavior.

The Asian giant hornet's life cycle is typical of that for other social wasps and yellowjackets. A solitary female emerges from winter hibernation and founds a subterranean nest, at first performing all nest duties including foraging and incubating the young. The colony steadily grows until workers eventually take over all foraging duties. New queens and males emerge in late summer and mate. Eventually the males and workers die, leaving only the newly-mated queens who overwinter in isolation.

At this time there have been no confirmed cases of this hornet's presence in Georgia or anywhere outside of Washington state. Other wasps and hornets that are already residents in our state and may be confused with the Asian giant hornet are:

- Cicada killers (*Sphecius speciosus*), size range 0.6 to 2 inches long (15 to 50mm)
- European hornets (*Vespa crabro*), size range 1 to 1.4 inches (25 to 35mm)
- Southern yellowjackets (*Vespula squamosa*), size range 0.5inches (12mm)
- Baldfaced hornets (*Dolichovespula maculata*), size range 0.75 inches (19mm)

Continued on page 6

My Plant Can Do What?

By Carolyn Puckett, Cherokee County Master Gardener

If I told you that we do not see with our eyes or hear with our ears, you would probably think I was daft. The truth is, the eyes just take in electromagnetic waves in the visible light spectrum, and the ears take in sound waves. It is the brain that makes sense of these intakes, interpreting the information as what we "see" or "hear." So, thinking we see with our eyes and hear with our ears is a very simplistic explanation of those senses.

The process of photosynthesis we learned in school is also a simplistic explanation of how a plant functions. Plants are actually much more sophisticated, with astonishing capabilities. Of course plants do not have eyes, ears, or a brain, but they have alternate processes that mimic our capabilities.

Plants can "see" light. A plant must know the direction, amount, duration, and color of light to survive. For instance, to turn red, poinsettias (*Euphorbia pulcherrima*) must have a sufficient amount of uninterrupted dark, and Christmas cacti (*Schlumbergera bridgesii*) require a dark period to bloom. Plants use blue light detection to bend towards a light and red light to determine when to flower. Plant nurseries use exposure to red light to control when chrysanthemums (*Dendranthema maximum*) bloom. Some species' seed will not sprout unless exposed to light. Sunflowers turn to face the sun, unless it is a cloudy day.

Recent experiments have proven that plants have a function somewhat like hearing. In a 2014 study, scientists played the recorded sounds of an insect chewing on a plant leaf in an enclosed space with a plant. The plant produced chemicals that deter that particular kind of insect from eating its leaves. An unexposed control plant did not increase production of the chemical.

Plants also send out gaseous signals in the air when they are under attack. These signals not only attract beneficial insects that prey on the attacking insect, but also alert plants downwind to start producing protective chemicals. In effect, the other plants can "smell" the warning signal. Ethylene gas from one ripe fruit alerts other fruit that it is time to ripen. The agricultural pest plant dodder (*Cuscuta* spp.) can seek out preferred plants to parasitize by the scents that the other plants produce.

Plants are very sophisticated chemical factories, producing a wide range of chemicals. We are urged to eat vegetables because of their antioxidants, such as lutein, anthocyanins, and carotenoids. These chemicals play a wide range of functions in the plant, such as deterring insect pests by scent, bitter taste, and poison. Other chemicals include auxins that control rooting and stem growth, abscisic acid that cause plants to drop their leaves, and ethylene that promotes ripening.

How about the sense of touch? Plants know when they are touched and can tell hot from cold. The Venus flytrap (*Dionaea muscipula*) snaps closed when an insect touches two of its hairs, and it can distinguish between the touch of rain or an insect. A mimosa (*Mimosa* spp.) will fold up its leaflets when touched. Some vines send out tendrils that tend to whip around in the air—until the plant comes in contact with another object. Then the plant responds to that "touch" by wrapping itself tightly around the other object. Pea (*Pisum sativum*) tendrils curl when they touch a suitable support. Trees exposed to harsh winds limit their branch development and grow short, thick trunks.

Plants also have a memory-like function. An insect must touch the second hair of the Venus flytrap within 20 seconds of the first hair touched to trigger the trap, so the plant must encode the information about the first touch. Some plants require a period of cold before they can flower, or their seed may require a cold period to germinate, so the plant must recall that it experienced the required period of cold. Plants also remember the color of light that last touched them, such as the chrysanthemums that bloom after red light exposure.

Plants can form partnerships. They have a mutually beneficial relationship with a kind of soil fungi called mycorrhizae. These mycorrhizae fungi attach to the plant's roots, and then spread out long filaments called mycelia throughout the soil. The fungi are particularly good at taking in phosphorus, which often is not in a form the plant can easily use. In return, the plant shares the carbohydrates it produces through photosynthesis with the fungi, which cannot photosynthesize.

Once a plant has developed this partnership with the fungal network, the plant can use it to share nutrients with other plants. Interestingly, some plants do not limit sharing to members of their own species. Some scientists call this network the "Wood Wide Web."

continued on page 6

The Tale of Two Vines: Jessamine and Jasmine

By Karen Garland, Cherokee County Master Gardener

Photo *Gelsemium sempervirens*, courtesy Bruce Leander, Lady Bird Johnson Wildflower Center

Our story begins with two vines that have caused much confusion amongst gardeners for years. They are both popular ornamental evergreen vines that are relatively pest-free and have a place in our landscapes if planted in a spot compatible with their needs.

Character #1 is the fragrant native, Carolina jessamine (*Gelsemium sempervirens*), sometimes referred to as Carolina yellow jasmine, that you often smell before you see. Character #2 is the ever-popular and also fragrant Confederate jasmine (*Trachelospermum jasminoides*). This native of Asia is also known as star jasmine due to the star-like appearance of its white five-petaled flower.

However, as our narrative reveals, neither one is a real jasmine (*Jasminum* spp.), yet I have seen the names intertwined, exchanged, and applied to both trailing vines. Herein lies the problem with common names, which can vary with geographic region, language, or individual preference.

Therefore, let us now take a closer look at our two characters and reveal their true qualities. In the wild, the native Carolina jessamine (*Gelsemium sempervirens*) is a thin but vigorous vine typically found in open woodlands and near roadsides. Once temperatures warm in the early spring, the treetops appear to glow with the vine's two-inch-long, yellow flowers. The trumpet-shaped blooms exude a very light fragrance that attracts birds and insects, including bees and butterflies.

As well as growing in the wild, Carolina jessamine is easy to grow as a landscape plant. It is often seen vining around arbors, trellises, mailboxes, and pergolas. It covers these structures quickly but is relatively easy to keep in bounds. It can also be planted as a ground cover and works well along steep banks. The vine is somewhat drought tolerant and will also endure some shade, but plant it in full sun for prolific blooms.

All parts of Carolina jessamine are very poisonous. The sap may cause skin irritation in sensitive individuals. Children can be poisoned by sucking the nectar from the flowers. Diseases, insects, deer, and rabbits are seldom a problem since they will not eat the plant.

Adding to the story, this plant can be easily confused with the invasive, non-native cat's-claw vine, also known as yellow trumpet vine (*Macfadyena unguis-cati*). It climbs trees in similar habitats and also produces a similar display of bright yellow flowers. Both vines have opposite leaves, but the cat's-claw leaves are compound, while Carolina jessamine leaves are simple. Besides, cat's-claw blooms later in the springtime after Carolina jessamine flowers have already disappeared. This plant is one of a long series of noxious invasive vines that we battle in the Southeast, and it behaves like a smaller version of kudzu! The good news is that in the northern half of Georgia this vine is not winter hardy.

Our second evergreen vine is the non-native Confederate jasmine (*Trachelospermum jasminoides*), which grows just as fast as Carolina jessamine, has all the same uses, and is cared for in the same way. However, there are several significant differences. First, Confederate jasmine blooms in late spring and early summer and is highly prized for its heavily scented small clusters of white flowers that are attractive to bees. Secondly, while it may have a sturdier vine, it is not quite as cold-hardy. As mentioned, Confederate jasmine is not native, but it is also not listed on the USDA's list of introduced, invasive, and noxious plants. However, some gardeners feel that it does tend to spread heartily through its deep roots and long runners.

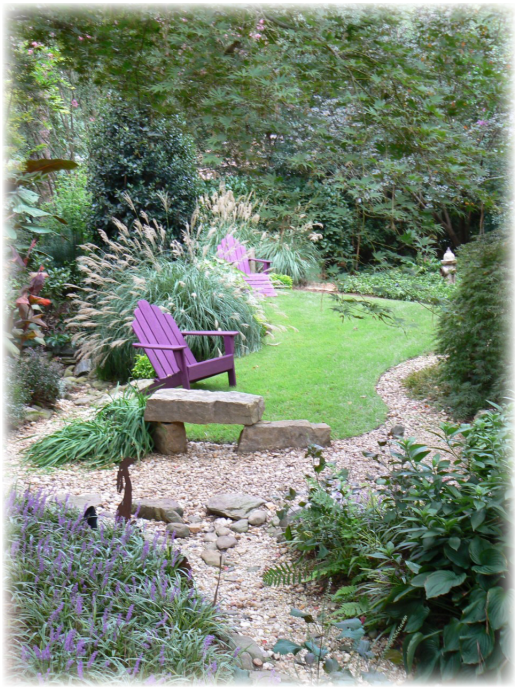
Many times, when setting the stage with landscape design, planting a vine can be a fast and easy way to fill in an area. These two vines are fast-growing, free of pest and disease problems, and provide many colorful blooms. However, the downside is that many vines grow so fast that they can completely overwhelm an area they have grown onto in a few years. Therefore, be sure and prune your vine to manage its size and keep it where you want it. Pruning allows air circulation and sunlight to reach the interior foliage.

Our story ends where it started—they are vines, they are evergreen, they have showy flowers, and their common names are similar. If you have something in your garden you want to be covered fast, add color and fragrance to your landscape or patio with these two Southern traditions—Carolina jessamine or Confederate jasmine.

Walk this Way: Enhancing the Garden with Paths

Part Two – Selection and Materials

By Mary Tucker, Cherokee County Master Gardener



In the last issue of this newsletter, we looked at how to plan garden paths from the aspects of layout and functionality. Now we turn our attention to the selection of materials, ones that the average homeowner can install.

When deciding on materials, consider what will complement your property best, choosing materials that suit the garden style and character of the landscape. Also take into account the architectural style of the home, as well as its materials and color scheme. If the look of the path materials does not suit the garden style, the path may prove to be a distraction rather than an asset.

A wooded, natural site will be most complemented by meandering paths of an informal nature. Bark chips, wood mulch, or pine straw are compatible with such a garden. These natural materials can be allowed to simply blend into the plantings beside the path, or if more definition is desired, an edging can be employed. This can be a subtle and casual arrangement of stones or a living line of plants.

More formal gardens, such as those with symmetrical or geometrically shaped beds, are generally well suited to crisp, clean lines. This effect can be easily obtained with neatly edged paths of crushed stone or gravel or with a walkway of brick or cut stone.

Flagstone, with its irregular shapes and varying color, is an effective and attractive paving material. It offers a traditional look, yet it has a more casual feel than cut stone. Flagstone refers to a variety of stones, including bluestone, granite, limestone, sandstone, and quartzite. These can either be used as individual steppingstones or laid more tightly together.

Concrete pavers come in a multitude of colors, shapes, and sizes. They are widely available and are relatively inexpensive and easy to install. These pavers tend to have a manufactured look, so they do not blend in with a natural setting as well as native stone. However, their regular nature can serve to create a clean, neat path.

A casual and eclectic garden style can incorporate a mix of materials, for instance a brick path punctuated with the occasional ornamental glazed tile. Likewise, gardens composed of different and distinct "rooms" can employ varying path materials to signal a transition from one area to another.

Photo brick edging with millstone

A change in material can also signify a change in usage. For instance, the main walkways may be of flagstone, with the secondary paths (such as those for maintenance) of mulch or pea gravel.

Turf grass is another option and makes an effective path that is easy on the feet, though it requires the regular maintenance of mowing and does not stand up to heavy traffic. A swath of turf can be incorporated into either a formal or informal design. A neat edging will help give it definition and prevent the grass from creeping into the flowerbeds.

Photo gravel and pine straw

As you consider material options, think not only of appearance; also consider issues of convenience and safety. Factor in how the path will be used and who will use it. Will children be running on it, or will adults be slowly strolling? Will garden equipment, such as a wheelbarrow or lawnmower, be rolled along the walk, thereby requiring a stable surface? Will wet or humid conditions create a safety hazard, such as slippery moss that can appear on damp wood or brick?

Other factors that will influence your choice of materials include initial cost, durability, and ease of installation. Natural materials, such as pine straw, bark chips, or wood mulch, will need to be replenished over time, though their initial cost is minor. In contrast, the higher expense of brick or stone may give you a path that will last a lifetime. Of course brick or stone patterns that must be carefully fitted together will require more time and preparation to install than will a simple path of mulch.

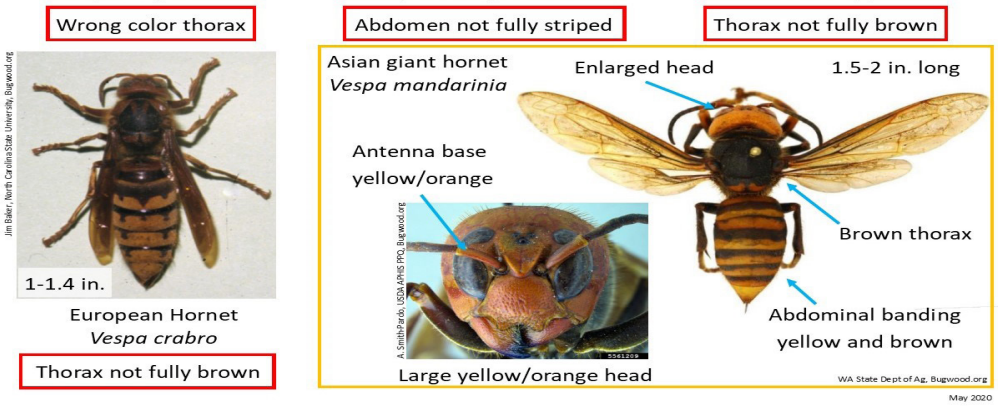
Photo antique brick

Continued on page 7

Asian Giant Hornet *.....continued from page 2*

The Asian giant hornet and cicada killer may be similar in size but very different in coloration. The Center for Invasive Species and Ecosystem Health has put together an "Asian Giant Hornet and its SE US Lookalikes" photographic fact sheet (link below) which is extremely helpful for distinguishing between the different species in our state.

At this time, we need to be vigilant but not over-reactive since, again, there is no evidence that the Asian giant hornet has journeyed east. However, sightings and/or disturbances to honey bee colonies should be reported. If you think you have seen an Asian giant hornet, found evidence of an attack (decapitated or ripped apart bees), or have a specimen, please contact your County Extension office (770) 721-7803 or jfuder@uga.edu. We will be able to collect your information and properly identify the specimen.



For photos and more in-depth information about the Asian giant hornet, please check out the following:

- Center for Invasive Species and Ecosystem Health https://www.bugwood.org/publications.cfm
  Here you will find two publications: "Asian Giant Hornet Fact Sheet" and "Asian Giant Hornet Southeastern Lookalikes."
- Georgia Department of Agriculture http://www.agr.georgia.gov/invasive-pests.aspx
- Washington State Department of Agriculture
  https://wastatedeptag.blogspot.com/2019/12/pest-alert-asian-giant-hornet.html

My Plant Can Do What? *.....continued from page 3*

Plants also use this fungal network to communicate chemically with other plants. In effect, plants have their own gossip network. If one plant is attacked, it can communicate that with the other plants in its extended neighborhood via the Wood Wide Web.

Plants can also perform calculations. During the day, a plant is busy photosynthesizing carbohydrates and sugars. During the night, these processes stop. The plant knows the quantity of chemicals it produced during the day. Its internal clock lets it know how long of a dark period to expect. Using these figures, it determines the rate that it can use up the stored nutrients during the night and releases them based on that computation.

Plants are even more sophisticated than what I explain here. Space limitations preclude an explanation of the complex science behind these capabilities. If you would like to learn more, try these resources:

Chamovitz, Daniel. *What a Plant Knows: A Field Guide to the Senses. Scientific American. 2012.*

Chalker-Scott, Linda. *How Plants Work: The Science behind the Amazing Things Plants Do. Timber Press. 2015.*

Plants respond to sound of insect eating leaves:
https://cahnrs.wsu.edu/blog/2014/09/plants-respond-to-sounds-of-insects-eating-leaves/

The Wood Wide Web:
https://aggietranscript.ucdavis.edu/the-wood-wide-web-underground-fungi-plant-communication-network/

Walk this Way: Part Two .....continued from page 5

You may even want to consider the sound or feel of a material underfoot. The crisp crunch of gravel as feet tread on it may be perfectly acceptable in the open garden, though you might find the same effect objectionable in a quiet wooded setting.

A site's conditions may also influence the choice of materials. For instance, a sloped site requires a material that will not wash away easily. Low lying areas may need to drain quickly. Hot, sunny sites benefit from a material that is light in color and will not hold excessive heat.

Once you have decided on the appropriate material and have laid out your plans, you will need to do some site preparation. The route for the path should be excavated as needed to allow ample depth for your choice of material. For most paths, you will want to install a base of crushed stone or sand on which to place the walkway. This will improve drainage and provide a smooth, stable surface. A layer of weed blocking fabric under the paving material will help deter unwanted seedlings.

Loose material, such as pea gravel or crushed stone, is some of the easiest and quickest to install. However, it may require a framework or edging to contain it. Larger material, such as brick or stone, can be mortared in place or can be dry laid using sand or rock dust in the joints. Individual steppingstones laid in turf should be laid flush with the grass to allow ease of mowing yet prevent water from pooling.

Whatever material you choose, you'll find that a path will enhance the appearance, enjoyment, and utility of your garden.

***All photos courtesy Mary Tucker, Master Gardener*

Join the Cherokee County Master Gardeners in a Virtual Seminar on the last Friday of each month. From 12:00noon until 1:30pm Registration is provided by clicking on the registration link listed here.

https://ugeorgia.ca1.qualtrics.com/jfe/form/SV_9NOr2GKycbwiqHj

Join the biggest bird day yet! The largest virtual bird day on the globe. Join the annual celebration of birds virtually wherever you are. Use the ebird mobile app and report your findings for 5-10 minutes or longer. Last year, 50,000 people submitted 120,000 sightings from 175 countries setting a world-wide record. Sign up here for an eBird account. Watch birds and enter what you see and hear in the eBird mobile app or the website. You can submit multiple checklists throughout the day too! This is fun for kids too.

Then celebrate on social media **#globalbigday!**

Photo bush beans, courtesy UGA

ORNAMENTALS

- If your bulbs have been shaded by new growth of a tree or shrub plantings, consider moving them to a sunny location or pruning back the plantings. Mark crowded unblooming clumps; and dig up and divide them after the tops have died back. Note where you want to add color for next spring. http://extension.uga.edu/publications/files/pdf/B%20918_4.PDF
- Upon emergence of foliage, fertilize bulbs with a 10-10-10 fertilizer. After the bulbs have bloomed, fertilize with a 10-10-10 at a rate of 3 lbs. per 100 feet.
- If you plant an Easter lily outside, don't plant it near other lilies as it may carry a virus that can infect them.
- Prune spring-blooming shrubs, such as forsythia, quince and early spirea, after they have completed flowering. https://secure.caes.uga.edu/extension/publications/files/pdf/B%20961_5.PDF
- Do not fertilize azaleas and camellias until they have finished blooming. They should be pruned after blooming. https://secure.caes.uga.edu/extension/publications/files/pdf/B%20670_5.PDF
- Many gardeners plant annual and perennial flowers to attract hummingbirds; woody plants can also be added to the yard to provide nectar for our smallest native birds. Some trees to add are buckeye, horse chestnut, apple, crabapple, hawthorn, redbud, and tulip poplar. Shrubs include red and bottlebrush buckeye, rhododendrons, Georgia basil, azaleas, and rosemary. https://extension.uga.edu/content/dam/extension-county-offices/forsyth-county/anr/B1483_1.pdf
- Once new growth emerges on trees and shrubs, cut back to green wood any twigs affected by winterkill.

FRUITS AND VEGETABLES

- When planting orange or yellow peppers, plant extra since they take longer to mature and produce fewer peppers.
- To hinder early blight on tomatoes, mulch to keep the soil-borne diseases from being splashed on the plant during rains. Remove mulch and dispose of at end of season. http://extension.uga.edu/publications/files/pdf/B%201271_5.PDF

APRIL GARDENING TIPS

- To have fresh raspberries, raise them in your own backyard. Fifteen or twenty plants, spaced 3' apart, in rows 6' apart, will produce a good supply of fruit. https://secure.caes.uga.edu/extension/publications/files/pdf/C%20766_3.PDF
- Thin young fruits of apples, pears and peaches within 25 days of the peak bloom, leaving 4-7" between fruit to insure larger, healthier fruit.
- Grapevines with excessive vegetative growth generally have less high-quality fruit. In early spring, prune out the canes with the fewest buds to allow light, moisture, and air circulation within the plant to improve the quality and quantity of the fruit. https://secure.caes.uga.edu/extension/publications/files/pdf/B%201505_2.PDF
- Erect trellises now for beans and cucumbers. Don't plant tomatoes, peppers, or other warm season plants until the soil temperature warms up. Usually in Cherokee County that will be April 15 or later. Plants that are planted earlier will just sit there and not grow, or they will be killed by a late frost.
- When weather is wet and cold, allow about twice the germination time listed on the seed packet. If there is no sign of growth after this time, dig around a little to check for sprouted seeds; if you find no signs of life the seed has probably rotted and you will need to replant.
- If your garden is small and you do not have adequate space for the long-vine varieties, plant a bush type of squash and green beans.
- Root crops must be thinned, no matter how ruthless this practice seems. Thin carrots, beets, parsnips and onions so you can get three fingers between individual plants.
- When planning your vegetable garden, consider that leafy vegetables need at least six hours of sunlight to develop properly. Fruiting vegetables like squash, tomatoes, eggplant, beans, and peppers need 10 hours of full sun.
- When transplanting seedlings in peat pots to your garden, be careful not to allow the rim of the peat pot to protrude above the soil level. If the rim is above the soil, it will act as a wick and draw moisture away from the transplant. To prevent this from happening, break away the uppermost rim of the pot before planting and make sure the pot is completely covered with soil.
- When tomato seedlings have 5 to 7 leaves, they are ready to transplant into the garden. To increase root growth and produce a sturdier plant place tomatoes in soil up to the bottom leaves.
- Drive stakes for future supports at the same time you plant tomatoes. If you try to install stakes later, you may damage the plant roots. https://secure.caes.uga.edu/extension/publications/files/pdf/C%201150_1.PDF

Photo staked tomatoes courtesy Mike Lloyd, *Master Gardener*

MAY GARDENING TIPS

ORNAMENTALS

- Keep an eye out for aphids and other insects on roses. Spray if necessary. Begin spraying for blackspot at least twice a month. Removing and replacing mulch under roses will cut down greatly on black spot. http://extension.uga.edu/publications/files/pdf/C%201001_2.PDF
- Red and silver maples, willows, poplars, and elms can clog septic lines with their roots. Don't plant near water/sewer lines.
- If you are building a home on a wooded lot, save young, vigorous trees. They will adapt to changes in their environment better than older trees. Trees that once grew in shade and are suddenly exposed to increased sunlight, wider temperature changes, and drying winds may not survive.
- Lightly sidedress perennials, including spring bulbs, with a 5-10-10 or 10-10-10 fertilizer, being careful to avoid the center or crown of the plant.
- Prune off sprouts from the base of crape myrtles. https://secure.caes.uga.edu/extension/publications/files/pdf/C%20944_7.PDF
- Check the leaves on azaleas and camellias for leaf galls. They are white to green growths and can be pruned out and disposed of. http://blog.extension.uga.edu/bulloch/2015/04/what-is-this-strange-growth-on-azalea-leaves/

FRUITS AND VEGETABLES

- Protect developing strawberries from birds with spun bonded row covers. Netting can trap and kill beneficial snakes and birds. http://extension.uga.edu/publications/files/pdf/C%20883_4.PDF
- Technically, berries are fruit that are soft throughout, such as blueberries. The raspberry is not a true berry, but a fruit that is made of many small sections each with a seed or pit. Fruits with fleshy material surrounding a hard seed are called drupes. Thus a raspberry is not a berry but is a cluster of small drupes or drupelets.
- Thin peaches 4-6" apart for large, high-quality fruit.
- If spraying fruit trees near a vegetable garden, cover vegetables with a sheet of plastic to protect them.
- Place a thick layer of newspaper under tomatoes to cut back on leaf diseases. Cover with mulch. This helps prevent fungus spores from splashing on leaves. Remove and dispose of at end of the season.
- To ensure pollination of sweet corn, plant several rows together in a block, rather than in one long row. Side-dress with 3 Tbsp of 10-10-10 per 10 feet of row when 12-18" high. https://athenaeum.libs.uga.edu/bitstream/handle/10724/12286/C905.pdf?sequence=1&isAllowed=y
- When thinning beans, watch for "snake heads," seedlings that have lost one or both of their cotyledons and produce poor, weak sprouts. Also, watch for "bald heads," seedlings that have the growth point damaged so severely that they cannot develop. Both types will be weak and delayed in growth and should be removed.

https://www.vegedge.umn.edu/pest-profiles/pests/seed-corn-maggot

Aphid infestation on a rose. (Clemson University - USDA Cooperative Extension Slide Series,Bugwood.org)

April/May Miscellaneous

- Mark the handle of your spade/hoe in inches for a handy measuring device for row width and planting distances. Paint or tape the measurements on the handle, and apply varnish to make the marks last longer.
- When you see ants crawling on garden plants, look for aphids. Some ant species protect aphids, moving them from plant to plant and even taking them into the anthill for overnight safety. The ants do this to ensure a supply of honeydew, a sugary water substance secreted by aphids, on which ants feed. https://secure.caes.uga.edu/extension/publications/files/pdf/B%201074_7.PDF
- A garden use for plastic milk jugs: seep irrigation. Punch holes in the sides of a jug about 2" apart. Bury the jug leaving the neck protruding from the soil. Fill jug with water (solutions of liquid fertilizer may be used to water and feed at the same time) and screw on the cap. The water will seep out, providing a slow, deep irrigation for plants.
- Trellis and stake downwind from the prevailing winds so plants lean against the supports when the wind blows.
- Don't be too anxious to move your houseplants outdoors. A slight chill can knock the leaves off tender plants.
- Replace bulbs on plant lights yearly. They gradually lose their strength causing plants to stretch and stop blooming.
- Moles are tunneling insect eaters and are particularly attracted to grubs. When bulbs are missing or shrubs have root damage, look for voles or field mice to be the culprits. These rodents often use mole tunnels as their runs.

RAINFALL COMPARISONS

	Cherokee County			State Wide		
	Jan 21	Feb 21	YTD 2021	Jan 21	Feb 21	YTD 2021
Actual	4.8	4.2	9.0	4.3	3.6	7.9
Normal	6.0	5.0	11.0	4.1	4.5	8.6
Deviation	-1.2	-0.8	-2.0	0.2	-0.9	-0.7

Recipes *courtesy Maurya Jones*

NEW ENGLAND BOILED DINNER
Corned Beef 'n' Cabbage

Growing up in New England, in Massachusetts to be exact, I ate a lot of Corned Beef 'n' Cabbage over the years, and I didn't particularly crave it on St. Patrick's Day. My mother served this boiled dinner a lot because my Irish dad liked it for dinner, and the leftovers were turned into corned beef hash or sandwiches. Also, it is easy to prepare, and everything is cooked in one big pot.

When my family moved South in the 50s, our nightly menus slowly changed—Mom learned how to fry chicken and Dad learned how to barbecue.

Oddly enough, my very Southern husband loves my New England Boiled Dinner, and for the past 20 years or so, we have invited family and friends to our home for this traditional Irish feast. It makes a wonderful meal any time of year.

I have added a slight variation to my mom's corned beef dish—a honey mustard glaze and dilled cabbage.

Corned Beef and Vegetables
3-lb. corned brisket of beef
12 small or 6 medium onions
6 carrots, quartered
6 potatoes, quartered
1 head cabbage, cut in wedges

Place brisket in Dutch oven and cover with water. Bring to boil and cook slowly for 3 hours. Add carrots, onions, and potatoes. Cook 15 minutes. Add cabbage, cook another 10 minutes. If desired add honey mustard glaze to brisket and dill to cabbage.

Honey Mustard Glaze and Dill Sauce
1/4 cup honey
2 Tblsp. Dijon-style mustard (divided)
3 Tblsp. butter
1-1/2 tsp. chopped fresh dill or 1/2 tsp. dried dill weed

Brennan's Irish Soda Bread

Very easy to make and goes well with Corned Beef.

Ingredients:
1 cup milk
1 Tblsp. white sugar
2 Tblsp. distilled white vinegar
1/2 tsp. baking soda
2 cups all-purpose flour
1/2 tsp. salt

Directions
1. Stir the milk and vinegar together, and allow to stand until curdled, about 10 minutes.
2. Preheat oven to 400 degrees. Grease a baking sheet. In a bowl, mix together the flour, sugar, baking soda, and salt.
3. Gradually stir the soured milk into the flour mixture until the dough just comes together, and then turn the dough out onto a well floured surface. Knead a few times and shape into a round. Place the dough onto the prepared baking sheet. With a sharp knife, cut an X shape into the top of the dough to release steam and help the bread keep its round shape.
4. Bake in the preheated oven until golden brown, about 45 minutes.

Remove brisket from cooking liquid; trim and discard excess fat. Place brisket, fat side up, on rack in broiler pan about 3 to 4 inches from heat. Combine honey and 1 Tblsp. mustard; brush half of honey mixture over brisket. Broil 3 minutes. Brush brisket with remaining honey mixture; continue broiling 2 minutes or until brisket is glazed.

Meanwhile remove cabbage wedges to warm platter. Combine remaining 1 Tblsp. mustard, butter, and dill; spoon over hot cabbage wedges. Carve brisket diagonally across the grain into thin slices; serve with cabbage and remaining vegetables. The mustard and dill will add flavor and zest to the steamed cabbage wedges. Center the corned beef on large platter and surround with colorful vegetables.

http://extension.uga.edu/county-offices/cherokee.html
https://m.facebook.com/cherokeemastergardeners/

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To stimulate the love for and increase the knowledge of gardening and to voluntarily and enthusiastically share this knowledge with others.

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