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Denton County Master Gardener Association

THE ROOT

Grow With Us

Little Bluestem Grass Seeds Photo courtesy Rachel James, CC BY-NC-SA 2.0

WHAT'S GROWING ON

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Buds from the Board

BY RAELINE NOBLES, PRESIDENT

The dog days of summer have arrived. We hope you enjoy this edition of *The Root* – there's plenty to learn and enjoy as you sip a cool drink in an air-conditioned space!

August means it's time to be aware of how we can help keep our plants living through the incessant heat. Here are a few tips to remember:

If you haven't mulched your gardens and pots, you might reconsider. Not only does it help shade the soil, it also helps retain the soil's precious moisture that plants need to stay alive.

Water gardens deeply once or twice a week during early hours of the day for best absorption. Two inches per week should suffice, but sometimes that thermometer tells us we better check our plants for water needs. Pots often need watering every day, but watering your garden deeply will, with the help of mulch, keep your Texas natives going strong and most other plants as well.

For lawns, the general rule is water deeply (2 inches per week) and infrequently. Set your mower for higher mowing – at least 3.5 inches; 4 inches is even better! The longer the blades of grass, the deeper and more complex your lawn's root system will become, making it stronger to withstand periods of drought and heat. In addition, longer grass blades hold more moisture to help keep it thriving.

If you plan on spraying with pest or disease control, please do it in the early morning hours. Those chemicals can burn plants easily when the sun comes out; even organic concoctions often say to do your work in early morning hours. As always, read ALL the directions carefully when using chemicals of any kind!

Your plants are okay if they quit blooming for a while. Extreme heat tells plants they need to hunker down and retain as much water and nutrition as they can to survive. This effort often means a lack of flowering until cooler weather arrives again.

Watch those veggie patches! Check your vegetable gardens every day. When things look ready to harvest, do it! Ripe veggies and heavy heat do not mix well, and we'd sure hate to see all your hard work go to waste. Gather them up, wash, and maybe try some new recipes with your wonderful harvest – yum!

Buds from the Board (Cont).

Be sure to check qualified sources, such as Texas AgriLife Extension Service, Denton County Master Gardener Association (www.dcmga.com), or other science-based information on fertilizing lawns and gardens in harsh heat. It's often not recommended, but it is best to check reputable sources before you decide. You can always depend on DCMGA's Help Desk to assist with questions you may have – there's an email form on our website. Simple to fill out and submit – and your answer will soon be forthcoming!

While you're helping your plants survive the summer, don't forget about you! Hydrate often, take breaks from the sun, and if you begin to feel weird (dizzy, stop sweating, cold, disoriented), immediately get out of the heat and find help. Your plants can't take care of themselves – they depend on you taking care of YOU as much as you take care of them! Be careful, be safe, and enjoy!

~Raeline

WHAT TO PLANT IN AUGUST

- Set out fall garden transplants. This includes broccoli and cauliflower.
- Direct sow seeds of cucumbers, beans and summer squash for fall harvest.
- Direct sow more beets, carrots and other root vegetables.
- Plant fall annuals. Sow wildflower seeds.
- Continue fertilizing all summer vegetables as well as summer flowering plants. Thoroughly water in all fertilizers.
- Trim back any unsightly limbs or branches of perennials. Remove spent blooms to encourage additional blooms.
- Watch your garden closely for heat stress.
- Remember to stay hydrated as you work in your garden. This is August!

CLICK HERE FOR MORE MONTHLY TIPS

Plant of the Month: Living on the Edge: Little Bluestem

BY IVY SUMMERFIELD

Over the years, I've learned that rows and rows of colorful annual flowers were beautiful for a while but short-lived. Realizing that perennials and native plants were going to give me more bang for my buck when it came to longevity, provide year-round color and texture, and lighten my maintenance load, while also providing food and shelter for local wildlife, I jumped on the bandwagon and began to research which ones would be best for my area.

As I did not have the luxury of removing my entire landscape and starting over from scratch, my first adventure was to take an Earth-Kind landscape design class and learn how to incorporate natives and perennials into my existing garden while also staying within the guidelines of my homeowners association. Next, I researched which plants were best for my region and particular landscape conditions and located nearby nurseries that carried the ones I wanted. Little did I know that I would have so many plants to select from, all exhibiting vibrant colors and textures. Surprisingly, my new adventure led me to admire short and tall grasses, specifically, Little Bluestem.

Little Bluestem Prairie Grass Photo courtesy 3616073354S CC0 1.0 Universal

Little Bluestem Prairie Grass (Schizachyrium scoparium)

Origin of Little Bluestem

According to Wisconsin Horticulture, "Little Bluestem, *Schizachyrium scoparium*, is a North American prairie native found throughout the 48 contiguous states, except for the far western coastal areas." It was one of the dominant grasses of the tall and short grass prairie regions of North America. From spring to summer, its foliage is bluish-gray, and in fall it turns bronze with fuzzy white seed heads. This variation of color and texture provides year-round visual interest, making it an ideal native plant option for the home landscape. (And can't you just picture pioneers in covered wagons rolling through those vast prairies of grasses waving in the winds?)

Little Bluestem (Cont.)

Growth Requirements

Little Bluestem performs best in average, dry to medium-moist, well-drained soil in full sun. It tolerates a wide range of conditions, including high temperatures, humidity, and infertile clay soils. Once established, it has excellent drought resistance and is considered a waterwise plant, requiring little water. Despite its name, at maturity, "little" bluestems can reach 3 to 4 ft in height!

In the home landscape, Little Bluestem is a striking addition to planters, and its clumping growth habit and mature size make it an excellent choice for a rain garden or foundation planting. Its deep root system can provide soil stabilization and erosion control on slopes. Additionally, it provides grazing for livestock, shelter for ground-nesting birds, and a place for butterfly caterpillars to overwinter.

Maintenance

Although Little Bluestem is a low-maintenance plant, here are a few care tips if you choose to include it in your landscape:

- Seedlings require water every 3-5 days; established plants need water only every 1-2 weeks. Watering frequency can vary in hotter months; be careful to avoid overwatering in clay soils.
- No fertilization or pesticides are needed.
- Foliage and stems should be pruned to the ground in late winter or early spring to promote plant health and new, attractive growth.
- Propagation can be achieved in several ways: by seed, by division of a mature plant, or by cuttings. In November 2019, The Root published an article by Kathy Rainey titled "Propagation," which lays out the entire process of plant propagation and what to watch out for. These principles apply to Little Bluestem and can bring more plants into your landscape without having to purchase plants.

Cultivars

Consider the following little bluestem cultivars for your landscape needs:

- Carousel: a bowl-shaped rainbow of blue-gray hues, 30 inches in height
- Blue Heaven: upright blue foliage in summer changes to burgundy in late summer and red in fall, 3 to 4 feet
- Prairie Blues: blue foliage, with a very open or prostrate growth habit, 3 to 4 feet
- Standing Ovation: upright, blue-green foliage turns orange, red, and yellow in the fall, 3 to 4 feet
- The Blues: light blue foliage, can easily grow in nutrient-rich soil, 3 to 4 feet

Little Bluestem (Cont.)

When American pioneers passed through prairies full of grasses, did they stop and admire Little Bluestem? If only they could have known that future generations would grow this tall grass in suburban landscapes or in planters flanking front doors, or in pocket prairies to promote wildlife and prevent soil erosion! I venture to say many a covered wagon rolled right past with never a thought given to how beautiful these grasses were and what bold colors they brought to the prairie. Every plant deserves to have a space– on the edge of your flower bed, driveway, in the pasture, or as a container planter. Let Little Bluestem have a place in yours! I promise, whether sitting on your porch or in your favorite patio chair, gazing across your property, you'll see it swaying in the breeze and you, my friend, will say, "Life is good."


Courtesy Wasowski, Sally and Andy, Lady Bird Johnson Wildflower Center

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You're Invited

August 2025, Monthly General Meeting & Program

"Laura W. Bush Native Texas Park"

Lois Diggs will discuss the building of the park, its hydrology, goals for the park, and the Fall emphasis on monarch and bird migration. Lois is a Master Naturalist, Entomology Specialist, and Park Guide.

Don't forget to bring a friend!

August 13, 2025, 10 am
Global Spheres Center, Solomon's Porch
7801 S Interstate 35E, Corinth,TX 76210

Creature Corner: Pill Bugs and Sow Bugs

BY JANICE YODER-SMITH

Does reading the word "pillbugs" bring forth childhood memories of small, dark creatures that rolled up into small balls? Let's pair memories with new information to learn more about these mostly beneficial garden creatures.

Pillbugs and sowbugs are land crustaceans, not insects. They have gills and must live in damp places to breathe. Most adults are about 0.38 in. (1 cm) long or smaller. Commonly found where moisture collects in the soil or under surfaces, these decomposers share many features. They have two antennae, seven pairs of legs attached to seven overlapping horizontal plates behind their heads, and several increasingly narrow, overlapping plates that form their tail sections. They use their rasping mouthparts to eat decomposing matter at night. If decomposing matter or moisture is insufficient, they may feed on seedlings or young transplants.

Several physical differences distinguish pillbugs from sowbugs. Sowbugs have two short tail-like structures called uropods extending from their back ends. Their overlapping plates are somewhat convex in the middle but taper to flatter edges. They appear lighter gray and elongated compared to pillbugs. Sowbugs cannot roll up into balls, but pillbugs do roll when threatened. Roly-poly is a common name for pillbugs. Some young children enjoy playing with pillbugs and feeling the gentle tickle as they unroll and walk across their skin.

Armadillidium vulgare Scout Beeler is licensed under CC BY NC

Armadillidium vulgare, Pill Bug

"Porcellionidae" by L. Miles Horne is licensed under CC BY 4.0.

Porcellionidae, Sow Bug

Most pillbugs and sowbugs reproduce in warmer months. Some species produce three sets of offspring per year. The number of offspring reaching adulthood varies with female size but can be as high as forty. Wetter years and areas around leaky outside faucets promote larger broods. Female pillbugs and sowbugs have pouches on their bellies that carry their developing young for up to two months. Immature stage morphologies resemble adults but may be lighter in color. *Armadillidium vulgare* pillbugs and *Porcellio scaber* sowbugs, which accompanied settlers from Europe, are now common across the United States. Each may live two to three years. They overwinter in protected areas that remain moist and warmer than the air.

Pill Bugs and Sow Bugs (Cont.)

Pillbugs and sowbugs occasionally become nuisances in the garden if there is insufficient decaying matter to feed a huge population during wet years. Parched years may force them to seek out water. Hungry or thirsty arthropods may damage the delicate roots or young shoots of garden plants. Using diatomaceous earth around plants and pulling mulch away from stems helps limit damage from these creatures. Beer traps may help reduce damage. This author observes pillbugs and sowbugs in her garden vermicompost bins, but not on or near her seedlings or young transplants.

Sometimes these isopods enter buildings seeking moisture or shelter. Stopping water leaks, keeping screens in weep holes, and sealing thresholds and windows reduce the indoor population. Brooms and vacuums can quickly gather isopods from the building and facilitate their removal.

For horticultural scientists, the contributions of pillbugs and sowbugs to healthy soil outweigh their occasional nuisance status. These isopods help convert compost and organic detritus into small particles, which they excrete, allowing them to release nutrients more easily into the soil. They tunnel into the top of the soil, aerating it and making it more permeable to water. They harbor beneficial nematodes. They help redistribute bacteria and fungi that improve soil as they move about.

Beyond the garden, uses of pillbugs and sowbugs include collecting different species for display or as pets. Some people raise them to feed reptiles, poultry, or themselves. Others use them in terraria for educational programs. Many, though, enjoy watching small children interact with these little creatures. How do you use pillbugs and sowbugs?

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Feature Article: Raised Bed Gardening

BY LAURA FRANKLIN AND DONNA HULL

There's something just "better" about a raised bed garden, isn't there? It conjures up the image of vibrant green leaves and blooms nodding in a soft breeze, luscious, perfect vegetables ready to harvest… okay, we'll stop with the romantic scene! But in reality, raised beds are not only an aesthetically pleasing option; they are one with numerous practical benefits.

Photos courtesy of Photos Courtesy of DCMGA Member Laura Franklin and Beulah Acres

Soil in raised beds will warm earlier allowing for an earlier planting season

The Benefits of Raised Bed Gardens

One of the best reasons for using a raised bed is the level of control a gardener has over the soil. Good soil is literally the foundation for happy plants! The soil of the North Texas/DFW area is usually less than ideal for gardening. It is frequently heavy in clay particles and can be compacted due to building practices or regular use. These factors don't allow plants to spread out their roots to obtain nutrients and result in poor water drainage. You can work to amend your native, in-ground soil, tilling and adding organic matter. But this is labor intensive, requires the knowledge/research of what to do, takes longer periods of time, and can be costly.

In a raised bed, gardeners get to start from scratch, creating a contained space with balanced soil that works for their plants' needs. Vegetables, natives, succulents, or roses - the soil can be tailored to it. A good general-purpose raised bed soil can be purchased in bulk or in bags, or you can mix your own. This created medium will allow plants to put their roots down with ease. The improved drainage allows water movement underground, reduces runoff when it is dry, and prevents water-logged soil from remaining soggy for too long.

Raising garden beds above the ground has the added benefit of a longer growing season. Soil in raised beds will warm earlier allowing for an earlier planting season (and more succession planting for your garden). To extend the growing season in cooler weather, raised beds allow for the easy installation of hoops and supports for frost cloth. These same supports can be used for shade cloth when the summer heat is at its maximum and micromesh to protect crops from hungry insects.

Raised Bed Gardening (Cont.)

Raised beds also have a very practical advantage as well - the added height means you don't have to bend over as far. This may seem like a small benefit, but most gardeners will likely attest that this is definitely a good thing! Getting up and down and all around to check soil, look for pests, and control weeds can really add up and make for a long day of gardening.

Finally, raised beds can provide a barrier against the spread of grasses and weeds. A very familiar task for gardeners is regularly pulling and trying to prevent Bermudagrass from taking over where it shouldn't. With the soil level being above the ground you can avoid, or at least lessen, the invasive weeds.

Challenges of Raised Bed Gardening

Raised beds are a wonderful choice and definitely have an iconic appeal, but before you head to the store for supplies, keep a couple of things in mind. As with all gardening, there are challenges and downsides. Raised beds generally have high initial cost and labor. It is important to consider the design and location (see below). This is a pretty permanent structure you are investing in, so take the time to think about what plants this will be for and their requirements (sunlight, co-planting etc.). While the improved drainage is excellent for your plants, it does mean that it will require more regularly scheduled watering and fertilizing. During the hotter months, watch plants for signs of stress.

Choosing a Site and Design

Wherever you choose to build your raised beds, whether around the home or in an open area of your property, there are several important considerations.

If you are building close to your house, remember to consider exposure throughout the year. The south-facing side of the home tends to receive light year-round, with more exposure during the winter when the sun is lower on the horizon. The northern side of the home receives indirect light and has the most shade. East-facing sides receive morning sun and afternoon shade, and the western side will be shady in the morning, but in full sun by the afternoon.

Raised Bed Gardening (Cont.)

If you are developing your raised bed in an open area, you'll need to consider what you are growing. Vegetables require at least 6-8 hours of sun daily. If you're growing flowers and/or shrubs in an open area, you can either: (1) observe the sunlight patterns in the area and choose your plants accordingly; or (2) choose the plants you want to grow, then choose the site according to their light needs! Take into account trees and structures on the property and watch how the shadows fall during the day. And consider the height of your plants: placing taller plants on the north side of shorter plants will prevent them from shading shorter plants. Conversely, you may want to plant taller, sun-loving plants on the western side of shorter plants to provide some respite from the intense afternoon sun.

How deep should your raised bed be? Most flowers and smaller or leafy vegetables will grow successfully with a soil depth of only 8-12". Larger plants and vegetables, however, will need up to 18" or more of elevation. This is a very important consideration for gardeners, particularly when considering the cost of filling raised beds with compost and garden soil.

Consider proximity to irrigation. If you intend to hand water, make sure that you have chosen a site within easy reach of a spigot or hose bib to save yourself the task of hauling water to your beds. If you are planning to install drip irrigation or sprinklers, it is also necessary to be close to a water source and to implement the best irrigation layout/plan for the plants that you have chosen.

Think about access - you are going to need to get into these beds to weed, harvest vegetables, or trim and prune your bushes and flowers. Plan for a path through large raised beds; if building for vegetables, be sure that your harvest will be within arm's reach from at least one side. If it is a large bed and you need to have the ability to bring bulk loads of mulch and compost directly to it, be sure that you provide for that access.

Finally, before you begin - make a sketch. Draw out the dimensions of your raised beds and make a list of the plants that you want to grow. Research the spacing and mature height of your plants, light and water requirements, and possible color palettes. Then have a little fun and play with the design. And before you dig - call 811 and know where your gas and water lines are to avoid any unpleasant surprises.

Raised Bed Gardening (Cont.)

There are many different ways to build a raised bed and many materials with which to do so. Stones, bricks, and concrete blocks are long-lasting, but the look of softer timbers (treated or untreated), or simply "mounding up the soil" without a physical barrier may be a good choice, too. A handy resource for building instructions is AgriLife's "Building a Raised Bed Garden" (https://agrilifeextension.tamu.edu/asset-external/building-a-raised-bed-garden/). It is also possible to purchase a kit to make an elevated raised garden out of cedar or other wood or find corrugated metal containers for raised beds. Or get creative with other large containers - even an old ceramic bathtub! The sky is the limit - design what fits your needs and fills your vision - and happy gardening!

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Companion Planting

BY RENEE HENDERSON

Companion planting, intercropping, and polyculture are methods of growing multiple plants together to enhance crop production and create a more diverse and resilient ecosystem. Companion planting focuses on beneficial interactions between specific plant pair combinations which can increase garden biodiversity. It does so by mimicking similar positive interactions between organisms in natural ecosystems.

The 3 Sisters: Corn, Squash and Beans, Renee, CC BY-NC 2.0

The Abenaki (a Native American tribe) cultivated and practiced the intercropping of plants.

Our understanding of companion planting and intercropping as used by gardeners has evolved from historical observation, horticultural science, and an unconventional source: the Abenaki tribe. This Native American tribe cultivated and practiced the intercropping of plants such as corn, beans and squash, sunflowers, sunchokes (Jerusalem artichokes), chokecherries, and tobacco, a grouping known as the "Seven Sisters." Texas A&M University's two-year study on intercropping okra, peanuts, peas, peppers, and watermelon showed that intercropping three or four crops produced the most yield on a per-land-unit basis. Another horticultural study was done on intercropping with perennial and annual wildflowers (frogfruit, sea ox-eye, Henry Duelberg salvia, Texas kidneywood, cosmos, zinnia, borage, and basil) with cucumbers and habanero plants with favorable results.

Here are some of the ways in which plants can be "good" companions to one another.

- **Pest control.** Planting bright colored, strongly scented, or nectar-producing flowers can distract or confuse insects as they make their way to your plants. For example, studies have shown that combining two plants like marigold and cabbage results in a reduction in pest activity on the cabbage. Growing herbs and flowers in your vegetable garden can help lower pest populations by providing nectar and pollen sources that increase populations of beneficial insects. Some beneficial insects such as bees and butterflies are important pollinators in our gardens, while other beneficial insects such as ladybugs, hover flies, and green lacewings are predatory and feed on garden pests. Many predatory insects use the pollen as an alternate food supply when insect pests are less available. Many varieties of flowering plants can be effective at attracting beneficial insects to the garden, such as alyssum, marigold, calendula, cosmos, zinnia, sunflower, borage, and lacy phacelia.

Companion Planting (Cont.)

Marigolds with Tomatoes: Marie Coleman. CC BY-NC-SA 2.0

Allowing some of your vegetable or herb plants to mature and set flowers is another way to attract these same beneficial insects. Some great choices for this are dill, basil, cilantro, parsley, broccoli, chives, arugula, thyme, and oregano.

- **Boosts to soil fertility.** Companion planting can help plants access more nutrients, sunlight, and support, leading to increased growth and yields. Regarding fertility, several legume plants (beans, peas, clovers) can be grown in the vegetable garden to increase nutrients by adding nitrogen to the soil. These types of plants have a symbiotic relationship with specific bacteria in their roots which convert nitrogen from the air into forms of nitrogen that plants can use. Mycorrhizal fungi play a key role by growing around root systems and creating a vast network of fibers through which plants share resources and send out alarms.

- **Increasing yields and efficiency.** When designing the garden, plants should be paired to maximize space, with vining plants growing up tall support plants and quick-growing crops planted between slow-growing ones. Natural supports can be provided by tall plants, like corn, reducing the need for staking or other artificial supports. Diverse planting can slow the spread of disease by reducing the quantity of the same crop in the same place. Companion planting also suppresses weeds by filling in bare spots in the garden.

- **Strengthening plant resistance to drought stress.** Companion planting may increase the ability of plants to preserve and absorb water in times of drought. For example, planting species with shallow root systems together with ones with deep root systems reduces direct water competition. Growing a cover crop may reduce surface evaporation and protect companion plants with deeper root systems. Taller companion plants can provide shade and reduce transpiration in shorter companion plants.

While pairing plants can be beneficial, it is important to understand that the opposite can also be true. Be aware that some plants can harm others if grown nearby. Allelopathy is the ability of some plants to produce compounds that kill or inhibit the growth of other plants. Common plants with allelopathic effects include winter rye, sunflowers, oats, rice, radish, and alfalfa.

Companion Planting (Cont.)

There are also some negative companions to vegetable plants that are best kept apart because they attract the same pests or compete for the same nutrients. Avoid planting tomatoes and brassicas (cabbage, broccoli, and cauliflower) or tomatoes and corn together. Both need a good supply of nutrients in the soil, and plants will compete for the same nutrients.

Even as many of our yards and gardens have become less diverse over the years, our understanding of the value of environmental diversity has never been greater. When you implement companion planting in your home garden, the impacts of your actions will generate real and measurable results that will extend beyond your garden gate!

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Comfrey (Symphytum officinale)

BY JANET GERSHENFELD

I am often asked what my favorite plants are or what plant I cannot do without. No surprise, the rose is my favorite herb for beauty, scent, versatility, and edibility, followed closely by feverfew because of its efficacy as a migraine remedy. However, for usefulness…hands down, it's the rock star of dynamic accumulators: comfrey!

Photos Courtesy DCMGA Member Janet Gershenfeld

Comfrey is named from the Latin word *confervere,* meaning "to heal" or literally "to boil together," referring to how it was first used in ancient traditional medicine. Indeed, it is a very practical plant in so many ways. It is a handsome perennial herbaceous herb that I use to beautify my garden, support pollinators and wildlife, and feed my garden.

There are three types of comfrey. Wild or common comfrey (*Symphytum officinale L.*) is native to England and extends throughout most of Europe into Central Asia and Western Siberia. Prickly or rough comfrey (*Symphytum asperum Lepechin*) is named for its bristly or hairy leaves and was brought to Britain from Russia around 1800. Quaker, Russian, or blue comfrey originated as a natural hybrid of *S. officinale L.* and *S. asperum Lepechin*. This hybrid was called Russian comfrey in reference to its country of origin. Cuttings were shipped to Canada in 1954, where it was named Quaker comfrey after the religion of Henry Doubleday, the British researcher responsible for promoting comfrey as a food and forage. The majority of comfrey grown in the United States can be traced to this introduction.

In my own garden, I grow common comfrey, which blooms in shades of pink and purple. It spreads by seed, has deep roots, and multiplies quickly. The other variety I grow is a rough comfrey named Bocking 14, a sterile variety propagated by division and root cuttings.

Comfrey is rich in potassium, nitrogen, phosphorus, and calcium, and I use it to fertilize my plants in several ways. Growing it on the root zone of fruit trees helps them to thrive by drawing up minerals from the tap root deep below ground. I also chop up comfrey leaves for surface mulch under tomatoes, vegetables, and fruit trees. Finally, it makes a great addition to the compost pile.

Comfrey (Cont.)

Another method I use is to chop and compress leaves and blooms to make a liquid organic fertilizer. This can be done two ways. The first (and easiest but nasty-smelling) method is to put the leaf material in a bucket of water and allow it to rot for two weeks and then strain it. The solution is concentrated and needs to be mixed with water. (The ratio of 1 cup of solution to 1 gallon of water works well.) The potassium levels are excellent for tomatoes. I have a 55 gallon drum of rainwater by my greenhouse potting bench that I keep filled with ready-to-use comfrey "tea" so I don't have to mix it up all the time.

My favorite way to make comfrey tea involves chopping the leaves and compressing them in an empty black pot with holes in the bottom. I pack it tight and full, then take a bucket with no holes and place the black pot inside it. I place a heavy brick on top of the crushed leaves. The moisture and sap drain into the bucket. This creates a thick, dark syrup that does not smell bad and can be mixed with water to make a great garden feed. I harvest comfrey leaves about every eight to ten weeks during the growing season.

Native bumblebees love comfrey flowers. On any summer morning, I can wander through the herb garden and enjoy watching them stuff themselves into the rich purple and scarlet blooms. My honeybees, hummingbird moths, and other pollinators love them, as well.

Historically, comfrey was used in Asia and Europe to speed healing of sprains, bone fractures, and abrasions. It is currently used for those purposes in our country, and hundreds of medical studies at the National Institutes of Health confirm the benefits of this herb. Because comfrey is mildly toxic, in 2001 the U.S. Food and Drug Administration banned the sale of comfrey products for internal use and for use on open wounds. However, a wide variety of salves containing comfrey for topical use to treat back, arthritis, and joint pain are available at big box stores and pharmacies. You can also make your own.

The plant grows well in sun to part shade, and it is deer resistant. It does not mind our clay soils, but I grow mine in raised beds and amended flower beds. They grow to about 3 feet tall. Comfrey has also been used as forage food for livestock. Pigs, sheep, and poultry eat fresh leaves, but cattle and rabbits prefer wilted foliage. Horses, goats, chinchillas, and caged birds are also fed this forage.

Comfrey (Cont.)

I always contribute comfrey to DCMGA's annual plant sale in April. Think about giving this beautiful and useful plant a place in your garden.

Resources

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- *Comfrey - Symphytum officinale* | North Carolina Extension Gardener Plant Toolbox. (n.d.). https://plants.ces.ncsu.edu/plants/symphytum-officinale/common-name/comfrey/
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Powerful Pollinators Take Flight at Shiloh Field Kids' Camp

BY NANCY DIMARCO

This June 3-6, Shiloh Field Community Garden came alive with laughter, learning, and the buzz of young minds exploring the vital role of pollinators in our gardens. Our "Powerful Pollinators" Junior Master Gardener Kids' Camp welcomed children ages 6–11 for four days of hands-on discovery, designed to cultivate both curiosity and care for the natural world. This was our fourth camp collaborating with the City of Denton, Parks and Recreation, and Carin Zeman, transporting 15 campers from Denia to Shiloh. The camp was made possible by an incredible team of Denton County Master Gardeners, Master Naturalists, and community volunteers who shared their knowledge, passion, and time. Their mentorship left a lasting impact on both the children and their families—many of whom now want to plant their own pollinator gardens.

Science With Attitude brought Sharon Betty, Delia Kleehammer, Meaghan Dawson, 2025 DCMGA interns Kamron Keyes, Andi Fitzgerald, Pam Peterson, and Sam DelToro, plus veterans Nancy Blakney and Ann Marie O'Lone together to provide superb lessons to these spirited campers. Sharon and Delia crafted bees that could "pollinate", and Kamron brought his beehive and helped the children spot the queen.

Powerful Pollinators Take Flight at Shiloh Field Kids' Camp (Cont.)

Each day focused on a different theme, from monarch butterflies and hummingbirds to bees and native plants. Through garden scavenger hunts, pollinator-themed crafts, and up-close plant exploration, campers learned how pollinators support our food system and why protecting their habitats matters. Children delighted in watching bees visit bergamot blooms, finding out that many of our bees are solitary and lack stingers, and discovering that society garlic isn't just pretty—it's a pollinator magnet!

One of the highlights was our Pollinator Scavenger Hunt, where young explorers raced to identify 17 flowering pollinator plants in the garden that attract butterflies, bees, and hummingbirds. Other favorites? Creating a monarch lifecycle 3D model and butterfly puddling stations to take home and support pollinators in their own backyards. They even learned that a hamburger is actually a plant!

Each year, we visit Denton Area Food Center, and Tom Newell, Director, shares how important Shiloh is in providing food for the food pantry and for those individuals who receive these healthy vegetables – all made possible because of pollinators.

"Powerful Pollinators" was more than just a fun summer activity. It planted seeds of stewardship and scientific wonder, teaching kids that even small gardens can make a big difference. As we look to expand future programming, we're reminded that when we nurture young gardeners, we're growing more than vegetables—we're growing hope for a more sustainable future.

The Denton County Junior Master Gardener program is now recruiting new students in grades 3-5 for the 2025/26 school year. The program is tentatively scheduled to begin classes at Shiloh on Sept 9 at 4 pm. Please contact Nancy DiMarco, firecracker0450@yahoo.com, for more information.

Photos courtesy of Shiloh Field Community Garden Camp

Nature Explorer Camp (A SWAt Project)

BY SHARON BETTY

Just as summer was heating up, SWAt was host to some very cool campers. We call this week Nature Explorer Camp, the week when the City of Denton, Master Gardeners, and Master Naturalists come together to provide a camp for kids. Twenty children, ages six to ten, along with nine to eleven Master Naturalists and Master Gardeners, spent an eventful week at Clear Creek Natural Heritage Center. This camp revolves around topics that children are most enthusiastic about: animals. But the camp goes further and also teaches them about the role of plants in animal lives. For example, the foundation of the food chain consists of plants. Plants provide animal habitats and refuges. Pollinators are also animals, and they flock to Clear Creek because they depend on flowers to exist.

We began our week with Mammals Day, highlighting the coyote, an animal most had seen and were familiar with. Shaleen Wunrow, Master Naturalist, demonstrated the importance of this predator to the ecosystem, sharing facts and showing skins and skulls. We rounded out the morning with a visit from five therapy dogs from Golden Triangle Therapy Pals. We had lots of petting and hugs along with comparisons of wild and domestic animals.

Upper Trinity Water District shared the stream table with our campers on Tuesday. Kim Wooten, Master Gardener, explained conservation and the force of water on the planet in real time using this spectacular tool. Even though the children's primary concern was "seeing it again," Kim explained the forces of nature and taught new vocabulary. Every time erosion caused our riverbank to collapse, the kids cheered like it was a football game.

We devoted a day to our local heroes, the pollinators. Our 4-H helper, Madie Holland, discussed butterflies, attracting them and saving them, life cycles, and their beauty. She led them in science activities/art that they proudly took home. Kamron Keys, Master Gardener, bought an amazing beehive for the kids to examine and find the queen. Follow-up activities taught the campers about pollination.

Photos courtesy of DCMGA Member Sharon Betty and the SWAt Camp Staff

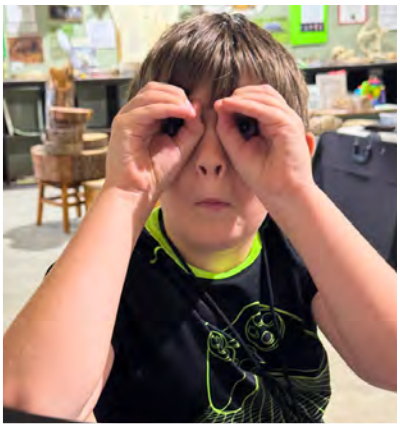
Nature Explorer Camp (Cont.)

Black Land Prairie Raptor Center visited us with five spectacular birds, including a vulture whose antics caused so much laughter. Our instructors tirelessly answered questions from the campers as they walked around with raptors perched on their arms. Cathy Milliger, Master Naturalist, has studied vultures in the wild and showed the kids what an important role every creature plays. They don't all look like owls; some look like vultures.

Reptile Day wrapped up our week. Hugh Franks, our Master Naturalist turtle expert, dazzled the kids with stories and facts and allowed the children to examine the reptiles up close. When the campers thought life could not be any better, Sharon Barr, Master Naturalist, visited our camp with her snakes. Everyone held them and had their picture taken.

Our goal was to leave our campers with the idea that nature is so intricately woven together that every animal and plant has an important role, and it is up to us to protect them. And protection begins by understanding them.

Here is a link to a video made by DTV about our camp. [Where Curiosity Meets Nature](#).



Gardening Grandma Says...

BY BARBARA BROWN & IVY SUMMERFIELD

Humans transitioned from hunting and gathering to growing food about 12,000 years ago. Over the millennia, they found some tricks to increase their harvest. What they learned, they passed down to their children. Today, some of us are fortunate to have a grandmother, aunt or neighbor who continues the tradition of sharing old-fashioned gardening wisdom. The Gardening Grandma series puts these tips and tricks to the test of modern science by answering the question: Does it really work? Or, is it a myth?

Gardening Grandma says, "It helps to put honey on insect bites."

Anyone who has spent time in the vegetable garden, enjoying walking trails, or even sitting on the patio has likely experienced an irritating bug bite. It hurts. It itches. And for individuals who are very sensitive to the venom, it can lead to a serious health issue.

Why do insects bite humans? The exact reason differs among common biting insects, including bees, wasps, ants, ticks, chiggers, and mosquitoes. However, usually an insect stings or bites you either because they feel threatened or they are hungry.

Gardening Grandma is right! Placing a dab of honey on an insect bite can reduce inflammation and itching. First though a caution: some people are extremely allergic to insect bites. If someone is experiencing any of the following symptoms, call 911 or your local medical emergency number:

- Trouble breathing
- Swelling of the lips, face, eyelids or throat
- Dizziness, fainting, or unconsciousness
- A weak and rapid pulse
- Hives
- Nausea, vomiting, or diarrhea

Photo courtesy of DCMGA Member Barbara Brown

Gardening Grandma Says... (Cont.)

Why a dab of honey helps: "Honey has many properties that relieve itching and pain. Honey contains an enzyme called catalase, which provides relief for minor inflammation. Put on enough unprocessed honey to lightly cover your bite. To avoid accidentally creating a sticky mess, you can also put a bandage on top of your honey-covered bites." https://my.clevelandclinic.org/health/diseases/17695-mosquito-bites.

- Honey has many medicinal properties. It contains compounds that combat inflammation, so it may help reduce swelling. https://www.medicalnewstoday.com/articles/322907#eight-home-remedies
- The natural antibacterial agents in honey may also help prevent infection and speed healing. For these reasons, some medical professionals use honey extracts in wound dressings.
- "Honey is also believed to release oxygen into wounds to aid healing and help flush out dead tissue." https://www.healthline.com/health/outdoor-health/home-remedies-for-bee-stings#:~:text=Honey%20is%20 also%20 believed%20to,for%20up%20to%20an%20hour

Other potential home remedies to treat symptoms of an insect bite:

- Aloe vera gel
- Baking soda
- Over-the-counter medicines such as hydrocortisone cream or Benadryl
- Calamine lotion
- A cold compress

How to decrease your chances of being bitten:

- Wear long-sleeved shirts, long pants, socks, and closed-toe shoes. Tuck in your shirt and pants, and tape or tuck your pants into your socks. Wear light-colored, tightly woven clothing.
- Use insect repellent: Apply an EPA-registered insect repellent to your skin and clothing.
- Remove standing water that attracts mosquitoes.
- Avoid colognes, perfumes, perfumed soaps, and strongly-scented shampoos and deodorants.
- Look for ant trails and visually check for the presence of ant mounds before you dig.
- Stay alert for nests in trees, bushes, and along home borders. Do not get too close if you see one. Knocking them down may make them mad, so be careful. Or, contact a professional pest control service for safe removal. Bee hives should be removed by a professional beekeeper. To find beekeepers in your area, check with the American Beekeeping Federation: https://abfnet.org/swarm-rescue-removal/
- Keep food and drinks covered when consuming outdoors.
- Do not wave your arms to swat away bees or wasps, just move away slowly.

Gardening Grandma Says... (Cont.)

Do biting insects provide any benefits or should they be killed immediately?
We know that bees are essential pollinators for many garden crops and honeybees provide the honey to use on bites. Ants help excavate soil and break up compacted earth that facilitates the movement of nutrients and water to plant roots. Other biting insects such as mosquitoes serve as a primary food source for other wildlife.

Conclusion: Our plants and the ecosystem need these insects so we must learn to live among them!

Resources

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- McDermott, A. (2024, November 22). *Bee sting treatment: 6 home remedies*. Healthline. https://www.healthline.com/health/outdoor-health/home-remedies-for-bee-stings#:~:text=Honey%20is%20%20also%20%20believed%20to,for%20up%20to%20an%20hour
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- *Swarm Rescue & Removal – American Beekeeping Federation*. (n.d.). https://abfnet.org/swarm-rescue-removal/
- Tashkandi, H. (2021). *Honey in wound healing: An updated review*. Open Life Sciences, 16(1), 1091–1100. https://doi.org/10.1515/biol-2021-0084, https://www.ncbi.nlm.nih.gov/labs/pmc/articles/PMC8496555/

QUESTION: What's All The Fuss About Gardening During A Texas Summer?

QUESTION: I love gardening and have had a wonderful time putting in new flower beds this spring. All my neighbors think I'm crazy because I've spent whole days in the yard digging. They keep warning me about Texas weather. It has been humid some days, but after putting in new plants, the heavens just seem to cooperate and water them in for me. I feel lucky, but they have me worried and I thought I'd better ask a Master Gardener what all the fuss is about.

ANSWER: We feel lucky here in North Central Texas this year, too! We have been blessed with a long, cool, wet spring this year. But now, the heat is on! Denton County has average temperatures of 92° in June, 96° in July and August, and 89° in September with 60-65% humidity and virtually no relief from wind speeds of less than 10 mph. Also, rain measuring 1/2" or more is less than 2 days each of these months.

TENDING THE GARDENER is just as important as tending the garden. It's good that you have begun acclimating yourself to being outside instead of waiting until summer and trying to catch up with an unending list of garden tasks. That is one way people get into trouble, in terms of our local weather..."slow & steady" is a safer strategy than "full speed ahead."

DRESS SMART: Light-colored clothing will help reflect the sun's heat, thereby keeping you cooler than darker colors. (A bonus is that mosquitoes are attracted to darker colors.) Loose-fitting, breathable, lightweight fabrics and styles allow for air circulation. Moisture-wicking technology is available in shirts, pants, and even hats that can help keep you dry and comfortable. Wearing a neck cooler or a damp bandana around your neck uses evaporation to help keep your body cool. Wearing gardening gloves and closed-toed shoes can prevent injury. Wear sunglasses. Don't forget sunscreen and insect repellent!

Help Desk (Cont.)

PLAN YOUR OUTDOOR ACTIVITIES
Walk around your yard weekly, noting the most important chores. Organize your list indoors where it is cool. Use terms like "Must" for problems, "Should" for routine maintenance, and "Fun" for choosing a new plant to try or a creative project, such as taking photos for a blooming calendar.

Plan your garden work in the morning when temperatures are cooler. Our past two summers have taught us to plan on an extended period of drought and extreme heat stress in our gardens.

SEEK SHADE
Plan your chore list based on when each area is shadiest. Avoid overexertion and heat-related injury. Set a timer on your phone for taking breaks to cool down in shady, breezy locations (like under a patio fan or indoors).

Hydrate, hydrate, hydrate. Drink 2 to 4 cups of water every hour when working outside in the heat and avoid alcoholic and caffeinated drinks (which can speed up dehydration).

PREVENTION is the most important strategy

- Try some warmup stretches before starting gardening chores.
- Consider updating hand tools with more ergonomic designs that will lessen physical strain and reduce the chance of injury.
- Protect your knees with knee pads, kneeling pads or kneeling benches.
- Minimize repetitive fine motor motions (You can't pull all the weeds in one day!)
- Use safe body mechanics when lifting and squatting.
- Break down heavy loads into multiple smaller parts.
- Protect your hearing by using earplugs when using loud machinery.

BE A GARDENING BUDDY/Get a Gardening Buddy. Check on each other either in person or with a phone call.

Help Desk (Cont.)

RESOURCES

- C. M. Schweikhardt. (n.d.). *Tips for safe gardening in extreme heat conditions - Bluebonnet Master Gardener Association*. Bluebonnet Master Gardener Association. https://txmg.org/bluebonnet/tips-for-safe-gardening-in-extreme-heat-conditions/

- *Safety Tips for your farm and garden*. (n.d.). https://www.ncat.edu/caes/cooperative-extension/covid-19/files/safety-tips-for-your-farm-and-garden.pdf.

Denton County Master Gardener YouTube Channel

Click on "Videos" and check out our new presentations!
Don't forget to subscribe!

http://www.youtube.com/c/DentonCountyMasterGardener

North Texas Gardening Tips

Timely Articles from DCMGA and The Root

Fall Armyworms (Garden Basics)

Okra (Path to the Plate)

Meet the Abelias - Rose Creek and Kaleidoscope (Plant of the Month August 2020)

Water Conservation (*The Root*, August 2020)

It's Time for Fall Vegetable Gardening (*The Root*, August 2024)

Composting With Worms (*The Root*, August 2021)

Denton County Master Gardener Association

Upcoming Events

Community Strong Farm Work Days
Growing Vegetables for Linda Tutt High School Student Run Grocery & First Refuge Food Bank. All tasks from soil prep to harvesting as the season dictates. We will have a short education on the tasks of the day. Meet Monday mornings in August. 7AM-10AM 1350 Milam Road E., Sanger

LLELA Nature Preserve Workday
Lake Lewisville Environmental Learning Area
201 E Jones St. Lewisville, TX 75057, Meet Wednesdays 9AM-12PM

Flower Mound First Baptist Community Garden
Learn and grow veggies to help the community. Wear comfortable shoes, hat, and sunscreen. Bring water. Meet Thursdays in August 8:30AM-10:30AM
1901 Timber Creek, Flower Mound

AUG 13 **Monthly Meeting and Program -Laura W. Bush Native TX Park**
Join a Master Naturalist and Park Guide who will discuss the building of the Park and its 15 acres of native Texas trees, grasses and flowers, located right in the heart of Dallas. Also highlighted will be the Park's management of water, and the Fall emphasis of monarchs and bird migration. The program begins at 10:00 and is followed by the general business meeting at 11 a.m. The public is welcome to attend and grow with us!
Solomon's Porch, Global Spheres Center 7801 S. Int. 35 Corinth 10AM-12PM

AUG 15 **Succulent Propagation Techniques**
Summer is a great time to propagate succulents. The Propagation Team and Succulent Team have partnered together to demonstrate succulent leaf, stem and root propagation methods and techniques. Participants will take home succulent plants they propagate.
Doubletree Ranch Park 310 Highland Village Rd
Highland Village, TX. 10AM-11AM

AUG 16 **Gardening Techniques**
Gardening can be a fun and productive hobby, and not feel like work! Let Mario Casanova, Denton County Master Gardener, clue you in on some labor saving ideas to bring more enjoyment and productivity to your landscape.
Carrollton Public Library at Josey Ranch Lake1700 Keller Springs Road
Carrollton, TX 75006 10:30AM-11:30AM

Please check the dcmga calendar for updates

Mission Statement

As Master Gardeners, our mission is to educate and inspire Denton County residents through research-based horticulture, to promote eco-friendly gardens and enduring landscapes that enrich our communities.

Extension EO/EEO Statement

Texas A&M Agrilife Extension provides equal opportunities in its programs and employment to all persons, regardless of race, color, sex, religion, national origin, disability, age, genetic information, veteran status, sexual orientation, or gender identity. The Texas A&M University System, U.S. Department of Agriculture, and the County Commissioners Courts of Texas Cooperating.

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https://twitter.com/DentonCountyMGA

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https://www.pinterest.com/DentonCountyMGA

YouTube:
http://www.youtube.com/c/DentonCountyMasterGardener

Save the Date

August 13 — General Meeting & Program, Master Naturalist and Park Guide will discuss building of Laura W. Bush Native Texas Park in Dallas. Open to public.

September 10 — SWAt "Enviroscape" presentation. Open to public.

Contact Information

Texas A&M AgriLife Extension
Hulcher Services Building
611 Kimberly Drive
Bldg. B
Denton TX 76201-9026

Office: 940.349.2883

Help Desk:
940.349.2892
master.gardener@dentoncounty.gov

Webmaster:
dcmga.webmaster@gmail.com

Communications:
dcmga.communications@gmail.com

Website:
https://dcmga.com

Content

The submission deadline for the September edition of *The Root* is August 5. Submissions may be revised at the discretion of the editor.

Ideas, photos, and articles are welcome and may be submitted to Communications Director Donna Hull at doctorhulld@gmail.com .

Unless otherwise attributed, all photos are courtesy of Denton County MGA.