BELL COUNTY MASTER GARDENERS NEWSLETTER . SEPTEMBER 2023

The Blooming Bell

NEWS . EVENTS . GARDENING TIPS. EDUCATIONAL ARTICLES

…. BULBS & RHIZOMES ….

Do **you** love bulbs? **Have** you been **growing bulbs** for **years? Do you** just **want** to **learn** about **bulbs and** the **best** varieties **to grow** in **Central Texas**? Then **join** the **folks** who are **working** on **our Fall** Bulb **sale today!**

This **fall, rather than an** in-person **plant sale**, **we will be** offering **a limited** variety **of bulbs for sale** to the **public** and master **gardeners**. **This is** our **only fall fund raiser**. **We** are modeling **this experimental** sale **after very successful sales** by **Tarrant** and **other** counties' master gardeners **groups**.

General framework:

- **Sale will offer 10** to **12 varieties of bulbs to** the **public.**
- **There will** be at least **one-education session offered** to the **public to support this sale** (date & time to be determined)**.**
- Sale **will** be **on**-line and **payment will be** collected **at the time** of **sale** electronically.
- **Bulbs will** be **pre-packaged by** master **gardener volunteers in advance of a pick-up** date
- Packaging **will** include **tips for** planting and caring **for** the bulbs

Are you available to help? **Bulb experts are needed – this** volunteer **effort will** be **primarily education focused** and **can be** done **in small groups or from home**.

Please contact **barbaraishikawa@gmail.com or** text **me** at **817-716-5604.**

Have Gardening Questions? Submit your questions and photos at: bell.mg@agnet.tamu.edu

UPCOMING EVENTS SEPTEMBER 2023

Speakers Bureau & Monthly Outreach Seminar
Here is a tentative schedule for upcoming seminars. Please note the bureau will be adding hands-on classes on Saturdays and working in classes on the West side of the county.
Sept. 16th: Herbs 101 Thursday, 6:00-7:30 pm in the Learning Center.
Sept. 21st: Migrating Monarchs Thursday, 6:00-7:30 pm in the Learning Center.
For more information please email: **BCMGASpeakers@gmail.com**.

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WEDNESDAY WORKDAYS: First & Third *Wednesdays, 8:00-11:00 am*, are Master Gardner workdays at the Extension Office. We have demonstration beds all around the facility. Bring a friend who may be interested in becoming a MG or just a friend of the BCMGS. Come for an hour or two or four. ***To Beat the Heat, you may want to come earlier.*** *Check with April for what needs to be done.*

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General Membership Business Education Meeting: Meets on **Sept. 13th.** Fellowship time 9:00-9:30 a.m., followed by the educational portion with the **Killeen Rotary Club** 9:30 am and then our business meeting.
We will meet at the Harris Community Center, 401 N. Alexander St., Belton.

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Board of Directors Meeting: Meets on **Sept. 27th** at **10:00 a.m.**, in the Education Center (which is in the AgriLife Building).

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Burger Wednesday: There is NO Burger Wednesday for September. ***NEEDED: One or more volunteers or groups to organize these events***.
Service hours are available for those who set up and prepare the main course.

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Herb Study Group: Meets on the **3rd** Wednesday of the month, **10:00-11:30 AM.** See the Calendar of Events for location as it may fluctuate between the learning center and the extension classroom.
August 9th How to grow mushrooms in your garden.
Please contact Tracy Brown for further information: bcmgtabrown@gmail.com.

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Killeen Municipal Court Community Garden: Meets every Saturday, time varies according to the season. It is harvest season as well and fall garden preparation time, see Calendar of Events
Please contact Dave Slaughter slaughtd915@gmail.com. See VMS for additional Harvest Days to earn extra service hours.

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HELP DESK: Monday through Thursday, 9:00 am to Noon & 1:00 to 4:00 pm.

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Blooming Bell Newsletter: You can find the newsletter on the Home Page of our Website at **txmg.org/bell** . The deadline for articles is the 1st of each month. Publication will be on the 5th.

Texas AgriLife Extension Service
Horticulture Program in Bell County

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PRESIDENT'S CORNER

By Kathy Love

This has been one hot summer, and we are again in a prolonged drought. Conserve water any way you can. Hopefully this will be over soon as we move officially into fall later this month.

I wanted to write this month about some changes taking place at the state level and try to explain them as best I can. At the August TMGA BoD meeting, the terms Extension Master Gardener (EMG) and Extension Master Gardener Program (EMGP) were introduced. What are these, and does it affect us? To better explain, several other terms need to be explained. The Texas Master Gardener Program (TMGP) is the overall program under the AgriLife Extension Service. It is headed by Jayla Fry, with Nicky Maddams as her assistant. The TMGP provides the Master Gardener Management Guide. The management guide is used by all county extension agents who want to have a Master Gardener program in their county. If you have never read the management guide, I encourage you to do so. It can be found at this link on the txmg.org website https://txmg.org/administration/management-guide

The Texas Master Gardener Association (TMGA) is the association that represents most county Master Gardener Associations to the TMGP. Note that a county can have a Master Gardener Program without having a master gardener association, and that program doesn't have to belong to the TMGA. In fact, the first Master Gardener programs in Texas were created before there was a TMGA. So, how does that take us back to the EMG term? Nationally, many other states have an EMGP without having state or county associations. They are all run by their respective extension services. The TMGP is trying to align more closely with the national EMGP. How does that affect us? In Texas, the TMGP is the EMGP. A Texas Master Gardener is an Extension Master Gardener. We don't need to do anything like change our association name, etc. However, there are some differences between the TMGP and the EMGP in other states. The difference that will probably impact us the most is the issue of volunteer service hours and education hours. The TMGP currently has a minimum of 12 hours of volunteer service and 6 hours of education annually. The BCMGA adopted this minimum in 2018, reducing the numbers down from 50 and 12. Nationally, the EMGPs have adopted a minimum number higher than our current requirements. The TMGP (Jayla's office) is currently revising the management guide. When that revision is finished and published, we will then know what the requirements are going forward.

Concerning volunteer service hours, the TMGP is a volunteer service organization. We are not a garden club. The reason we exist is to provide volunteer service. Even at our current minimum hours, there are members who have difficulty doing 12 hours of volunteer service annually. I frequently hear comments like "I have difficulty volunteering for things, but I still want to attend meeting and educational offerings." That is not an issue. Our meetings and educational offerings are all open to the public. You don't have to be an active member to attend these offerings. If you no longer want to do volunteer service, tell us and we will place you in an inactive status.

One last thing for this month. We discovered late last year that the mandatory background checks, new and renewals, had not been done for several years. At the same time, we learned that the process for doing background checks was changing. Our membership chairman worked diligently to get everyone caught up. Without a current background check, you CANNOT do volunteer service. The updated process has now been refined and finalized and went into effect on September 1. Everyone who is a current active member is caught up and will not need to interact with the new process until they are approaching the three-year anniversary of the completion of their last background check. If you fail to complete the background check process prior to the three-year anniversary of your last background check, you will no longer be an active member. As new intern classes come on board, they will use the new system. It is a completely online system and includes a course that must be taken before the background check is done. We will learn more about the process as they go through it.

That's enough for this month. Stay cool.

Blooming Bell Community Outreach September Events

SEP 9

The Bell County Master Gardener Association presents a hands-on workshop "I Dig Red Wigglers" on Saturday, September 9, from 9 a.m. to 11 a.m. at the Texas Agrilife Extension Office, BCMGA Learning Center, 1605 N. Main St., Belton. Please plan to join Certified Master Gardener Teri Marceau as she will teach you how Vermicomposting with Red Wiggler Worms will help to break down food scraps to create an enriching source of nutrients that are beneficial additives to your garden. She will teach you how to build a worm tower for your garden to take home plus Red Wigglers and a small bag of food to get you started.
Class Limit: 20 Class Fee: $20
Register at bcmgaspeakers@gmail.com Registration closes Wednesday, September 6
Payment instructions will be provided upon registering for the workshop.

SEP 16

Please plan to join us for the Bell County Master Gardener Association Hands-On Workshop "Herbs: From Garden to Kitchen" on Saturday, September 16, from 9 a.m. to 11:30 a.m., at the Texas Agrilife Extension Office, BCMGA Learning Center. Certified Master Gardeners Betty Nejtek and Terrie Hahn will conduct an educational class on tips on growing herbs successfully in Central Texas. Information will be provided on how to use herbs from your garden followed by tasting.
Class Limit: 20 Class Fee: $------8
Register at bcmgaspeakers@gmail.com Registration closes on Wednesday, Sep 13
Texas Agrilife Extension Office, BCMGA Learning Center (Located on North End of Parking Lot) 1605 N. Main St. Belton

SEP 21

Please plan to join us for the Bell County Master Gardener Association Free Monthly Seminar "Migrating Monarchs, on Thursday, September 21, from 6 P.M. to 7:30 P.M. at the Texas Agrilife Extension Office, BCMGA Learning Center, 1605 N. Main St., Belton. Certified Master Gardener Dave Slaughter will discuss the migration patterns of the monarchs as they fly to their summer breeding grounds in southwestern Mexico as well as what each of us needs to do to protect the monarch butterfly habitat in North America. He will also discuss milkweed varieties as well as when to plant, maintain, propagate, and prune in the late fall.
Class Limit: 50
Please register at bcmgaspeakers@gmail.com

Sep 28

BCMGA & Harker Heights Activities Center Presents "Drought Tolerant Native Plants" on Thursday, September 28, from 6 P.M. to 7:30 P.M. at the Harker Heights Activities Center, 400 Indian Trail, Harker Heights. Certified Master Gardener, Barbara Ishikawa. Barbara will present an assortment of native plants that are drought tolerant for your landscape, enabling you to conserve water.
Please register at https://bit.ly/43wOEIc Registration opens on September 11 at 8 A.M. Class limit: 50

Please email Kailie Gomez at kgomez@harkerheights.gov or call 254-953-5465 if you have any questions.

SEPT 30

The Bell County Master Gardener Association presents a Hands-on Workshop "Herb Vinegars, Salts and Dressings, Oh My" on Saturday, September 30, from 9 a.m. to 11:30 a.m. at the Texas Agrilife Extension Office, 1605 N. Main St., Belton. Please plan to join Certified Master Gardeners, Jeanne Richard, Nancy Novakoski, and Pat Johnson as they teach you about using fresh and/or dried herbs in the kitchen to create tasty vinegars, salts, and dressings like a professional chef. You'll discover how herbs are a cook's best friend and much better than store bought! Class participants will create their own herbal vinegar, herb salt and herb dressings to take home as well as demonstrations, tastings and recipes that will make you look like a gourmet chef.
Class Limit: 20 Class Fee: $11
Register at bcmgaspeakers@gmail.com Registration closes on Wednesday, Sep 26

The Herb Study Interest Group

By Tracy Brown

For those not familiar with our Herb Interest Study Group. You should be!

Even if you have not been to one of our meetings (every third Wednesday in the Learning Center from 10-1130 am) , you should be familiar with our group. This year alone, we have volunteered for five (5) Community Outreach Programs with Debbie Thompson. Have also volunteered twice to Host, Burger Wednesday (the second will be October 2023). Not to mention we also hosted the goodies for the membership meeting in June 2023!

On top of this we are constantly learning and studying gardening techniques, herbs propagation, and the proper use of said herbs. (**Disclaimer:** Herb Interest Study Group is for informational and study purposes only. We are adherent to the TX A&M Agrilife Extension Office and Master Gardener Policy. We learn about Herbs and their uses. At NO time do we insist anyone use what we have learned. Or offer any kind of medical, culinary, etc. advice. It is left to the individual to further research, should they choose to use, anything studied.)

For instance, this last Month (August) Jane Van Pragg, introduced us to Mushrooms in your Garden and Home and showed us how easy it is to use your garden in culinary applications. She brought reference materials of over 50+ recipes, books on mushrooms for your soil, raised beds and more. I also emailed to those who participated, University and Agriculture links of what new research is showing us, all that mushrooms do for us. Trivia: Did you know Mushrooms are most closely relate to our DNA/Genetic makeup? That the Mycelium that is found in healthy soil actually communicates with insects and all plant material in the ground? Or that research is now showing oil spills are cleaned up quicker and have less impact on the environment, when cleaning up said spills with Mushrooms? And further research is currently being conducted on Toxic Chemical Spills too?

This and so much more information is what we are educating members on. This year alone, we learned All about, tisanes and teas, ginger, turmeric, culinary herbs of Texas, Edible Flowers in your Garden, Unusual herbs grown in Texas (Brought to us by the Austin Herb Society). If that wasn't enough, we also had a Potting Party, where we put together Herb Pots to be sold at the Spring Plant Sale. And the year isn't over yet.

Yet there is MORE! Have you seen our demonstration Garden? The Spiral has performed so well this year. Using Mushroom compost and mulch. While the regular bed, used just plain compost and mulch. (Our first Experiment) The herb spiral performed so well this year. We did an experiment using mushroom compost and mulch in the spiral which showed much better results compared to the regular bed using plain compost and mulch. You should see the difference. Also, we installed a drip system. We would also like to encourage ANY Master Gardener needing herbs, to please help themselves and trim just what you need. Right now, herbs are going to seed, which the Master Gardener Seed Saving project is collecting. You should see the pollinators all over our Herb Garden!

We encourage ALL Master Gardeners to join us for our meetings. Or/and if you have any questions or suggestions? We would enjoy hearing from you. Hope to see more of you at our next Meeting in September. Virginia will be educating us on Ancient Remedies for Modern Illness (Disclaimer: **DO** your own research on medicinal herbs. What works for one person doesn't necessarily means it works for another, everybody reacts differently. **REMEMBER**, as a Master Gardener Interest Study Group, we do not condone nor recommend **ANY** Herbs medicinally. Herbs can also cause allergic reactions, interfere with traditional medications by blocking their effectiveness, increasing their effectiveness or reacting with them in a harmful way. Always check with your health care professional before using herbs or herbal products!)

Horticultural Myth of the Month – September 2023

By Wayne Schirner

The theme for September is Everything Bulbs with a secondary theme on Migrating Monarchs so I looked for any myths related to growing bulbs.

The most common claim I found is along these lines: "It's bulb planting time. Remember to add bone meal or a high phosphate fertilizer when planting bulbs."

What is the science behind this claim? First, I searched .tamu.edu sites that might address fertilization recommendations for bulbs planted in the fall. There was a scarcity of information from Texas AgriLife or Texas Extension Service on this topic. I did find one article that addressed hyacinths and it said to use a 10-10-10 fertilizer with additional bone meal added. They even had a formula for the amount of fertilizer and bone meal to use in a 100 square foot area. There were no links to any evidence supporting this recommendation. I have learned to not simply accept a recommendation without supporting evidence, so I kept looking.

Concerning the addition of bone meal, this is probably the best article I could find. Even though it talks about using bone meal for planting trees or shrubs, the information about bone meal is equally applicable to planting bulbs.

https://s3.wp.wsu.edu/uploads/sites/403/2015/03/bonemeal.pdf

In my searching, I found many recommendations to use a fertilizer "designed" for growing bulbs. I found numerous fertilizers specifically recommended for growing bulbs. Here are just a few of the ones I found.

This one is a bone meal product with a NPK of 2-17-0

This one has a NPK of 3-5-3.

This one has a NPK of 3-5-4

This one has a NPK of 7-8-5

A quick glance at these four products reveals that they all have a different NPK analysis and none of them share a NPK ratio. Which one do you choose? If there was truly a "best" fertilizer for bulbs, there would only be one NPK ratio recommendation. Go back and read again the information from the link above. It is uncommon for non-agricultural soil to be deficient in phosphorus (phosphate). There are side effects related to excess phosphorus (phosphate.). if you read my post in the August Blooming Bell, you already know that most plants use NPK in a ratio of 3-1-2. Both phosphate and potassium oxide tend to hang around in soils. Only nitrogen is frequently deficient. Bottom line, if you think you need to anything other than nitrogen, do a soil test first.

That's it for this month. Happy Gardening!

Growing Irises in Central Texas

By Lindell Small

Mariposa Autumn Iris

My passion is growing irises (particularly Tall Bearded iris with a few Louisiana irises thrown in for some variety). My passion was generated by my wife Judy's love of bearded irises. Now that we live in Central Texas, we have the opportunity to grow Tall Bearded irises that our past home in Houston didn't provide. My passion for irises motivated me to share some information and references with the readers in hopes it will spark interest in other readers to plant and grow irises. I can only outline some of the key points on growing irises, but I have provided some references at the end of this article for more detailed information on the planting and maintenance of irises.

There are actually around 300 different varieties in the Iris genus. There are 26 irises native to North America with four of them accepted as being native to Texas. The Texas natives are commonly known as Zigzag Iris (*Iris brevicaulis*), Copper Iris (*Iris fulva*), Dixie Iris (*Iris hexagona*), Viginia Iris (*Iris virginica*). For more detailed information on native and introduced Irises refer to the USDA Plant Profile database @Floridata.com.

Zigzag Iris (*Iris brevicaulis*)

Copper Iris (*Iris fulva*),

Continues on next page….

Irises are available in two main forms: those that grow from rhizomes and those that grow from bulbs. Bearded and Louisiana iris varieties are probably most familiar to the reader, but there are also German, Siberian, and Japanese iris varieties.

Except for the Louisiana iris (which likes a wet, swampy environment), irises are generally tough, drought-tolerant plants that do well in Central Texas. They are also deer resistant which is a further advantage for this region. They are pretty simple to grow and require only minimal maintenance which makes them a great plant for beginning gardeners.

Here are a few key points to keep in mind when considering raising iris. Further details on these points can be found in the references.

- Best time for planning is August through September
- Irises do best in direct sun but can tolerate partial shade in afternoon if they have about six hours of sun daily.
- Irises will thrive in rich well drained soils at least 10-12 inches deep. Raised beds work well and soil needs to be neutral pH.
- Plant rhizomes at surface level or barely covered. Best to set the rhizome on a small mound of dirt in hole with plant end up and roots spread to the sides down in the hole around the mound. Some of the references have pictures that show the correct way for planting.
- General rule is to plant irises 12-14 inches apart. Crowded plants will need to be thinned about every other year.
- Irises, when first planted, need moisture to get started and then sparingly unless they are Louisiana Irises. Bearded Irises do not like soggy soil. Rebloomers need a little more water to prepare for their reblooming. Too much water promotes root rot.
- Irises need light fertilizing in October and February. Bearded irises need low nitrogen as too much promotes root rot. Some commercial growers suggest low nitrogen fertilizers such as 6-10-10 or a balanced organic fertilizer lightly sprinkled in as a top dressing and mixed/scratched into top soil.
- Irises need to be divided every 3-5 years to promote good blooming (see references below showing how dividing is done). Dividing is best done in the mid-August through September timeframe in Central Texas. This gives the plants plenty of time to get started for the winter season.

On this last point, now is the time to be dividing our irises for next spring. With that in mind, I would ask you to save any plants that you don't need and donate them to the Bell County Master Gardener Association (BCMGA) for their upcoming Fall Bulb sale. To donate, contact Crystal Mears or myself. Our contact information is in the BCMGA VMS website.

Reference Links:

https://www.irises.org/resources/commercial-directory/

https://lisalapaso.com/2015/04/24/iris-in-central-texas/

https://www.almanac.com/plant/irises

https://www.youtube.com/@SchreinersGardens

https://pcmg-texas.org/info/grow-with-the-masters/326-dividing-bearded-iris

https://travis-tx.tamu.edu/about-2/horticulture/ornamental-plants/annual-and-perennial-flowers-for-austin/bulbs-for-central-texas/

KILLEEN MUNICIPAL COURT COMMUNITY GARDEN REPORT

By April Marek and Randy Brown

The Killeen Municipal Court Community Garden remained productive despite the scorching temperatures of August. There were four Saturday workdays and mid-week harvest days to keep up with the squash and okra. The harvest total for August was 367.8 pounds of okra, tomatoes, peppers, and various squash varieties. Okra is the predominant harvest right now, as squash production has slowed considerably.

Lots of maintenance and preparation for fall was performed during the month. Several rows of spent squash were removed to make room for the next squash crop. The determinate tomato plants were removed once they ceased producing fruit.

Texas Superstar of the Month

Mystic Spires Blue Salvia (Sage)

Salvia longispicata x farinacea

By Sylvia Maedgen

This herbaceous, semi-evergreen perennial is a compact form of another popular salvia called 'Indigo Spires'. It was produced in a California lab in 2003. Though shorter than 'Indigo Spires', it flowers even more freely during the entire growing season and is well branched. It produces masses of true blue flowers that mix nicely with other annuals and perennials, is tolerant of heat and humidity (low and high), and is not bothered by pests or diseases or deer. The 'Improved' form sheds dead petals for a cleaner look in the garden.

Exposure: Prefers full sun but can tolerate light shade

Hardiness: Zones 7 – 10

Size: Height — 18 to 30 inches; Width – 30-36 inches

Planting time: Spring to summer from containers

Bloom time: Spring to fall

Soil type: Adapts to most soils, but needs good drainage. Amend heavy or clay-based soil with organic matter, such as compost to improve drainage.

Suggested uses: Bedding, containers, perennial border, cut flower

Special notes: Easy to grow and requires low care. Excess water and fertilizer can result in excessive vegetative growth and lack of flowers. Mulch around the base to retain moisture. If needed, plants can be pruned during the growing season as re-flowering occurs quickly. Shoots can be pruned to 12 inches or so in the fall after being killed by freeze, but refrain from pruning to the ground until growth is strong in the spring. The plant attracts bees, birds, butterflies, and hummingbirds as well as beneficial insects. The plant can be propagated with cuttings or division in the spring or early summer. Cover the plant with a blanket or frost cloth if temperatures drop below freezing.

Resources: https://aggie-horticulture.tamu.edu www.texassuperstar.com https://hgic.clemson.edu

Pollinator Trees

By Sylvia Maedgen

Desert Willow *(Chilopsis Linearis)*

Earth-Kind

Family: Trumpet-creeper (Bignoniaceae)

Height: 15-40 feet

Range: The Trans-Pecos region of West Texas

Blooms: flowers April through August with heaviest in May to June, but also into September, usually after rain

Habitat: Can be found along well drained soils, dry beds and streams

Soil: Sand, loam, clay, caliche, well drained

Light: Part shade, full sun

This perennial shrub/deciduous tree is not a true willow but is native to Texas. It is related to the Southern Catalpa with similar flowers and seedpods. It grows from southern California across Arizona and into southern portions of New Mexico, western Texas and well into Mexico. The tree can be found in desert washes and grasslands in low elevations. It grows larger near a constant or good water supply; otherwise it stays small and inconspicuous. It is a large shrub to a small tree with short twisted trunks and a broad round crown. It gets its name from its leaning, twisting trunk and narrow leaves. They are drought tolerant, maintenance is easy, and they are fast growers, but not as fast in the Blackland Prairies.

The leaf is a simple leaf, narrow lance shaped about 6-8 inches long and alternately attached. It has a smooth wavy margin, light green, on a short leafstalk (petiole) turning yellow in the fall. The bark is a light gray to dark gray with many wide flat ridges and flakes. The flowers are large orchid-like, sweetly fragrant, loosely clustered, white-to-pink and red tubulars about 1-2 inches long with a purple stripe that leads to the pollen. Other flower colors can include lavender, rose, purple and two-tone mixes. The flowers' nectar appeals to pollinators including butterflies and hummingbirds, and bees that feed on desert willow are known to make tasty honey. The flowers do not last long, but reappear after each rain. The fruit is long narrow green seedpods which are produced after the flowers fall, are about 4-8 inches long and about ¼ inch wide, turning brown with age. The woody pod contains numerous flat, oval, and winged seeds with hairy tufts. The tree's relatively thick vegetation makes the desert willow an important habitat for birds.

The Desert Willow can be grown from seeds, cuttings, and transplants. When planting by seed, gather seedpods as soon as they are dry and brown-colored. Remove seeds from pods and dry completely, then store in refrigerator until spring. Before planting, soak the seeds in water for a few hours. Semi-hardwood cuttings can be taken in the late summer and should root in two to three weeks. You can then transplant the rooted cuttings in the late fall or holdover until spring.

Varieties to consider include:

Benny Simpson released a pure white called "White Storm" and a rich burgundy named "Dark Storm."

Dr. Jimmy L. Tipton released "Marfa Lace," "Tejas," and "Alpine."

Desert Willow is highly resistant to cotton root rot. It is winter hardy almost all the way to Amarillo. The best time of the year to prune the Desert Willow is in January-February when it is dormant. You can trim the lower branches to form an airy, graceful tree shape, but only if it is in a location not bothered by freezing temperatures. For a more shrubby shape, you can prune back the plant more severely which will produce more flowers.

Resources

https://aggie-horticulture.tamu.edu

https://texashighways.com

Trees of Texas Field Guide, Stan Tekiela

Butterfly Gardening for Texas, Geyata Ajilvsgi

Native Texas Plants, Sally Wasowski and Andy Wasowski

Migrating Monarchs

By Dave Slaughter

September brings the return of the eastern monarch butterfly as they pass through Texas to their winter resting grounds in the oyamel fir forest of central Mexico. The eastern monarch includes all monarchs east of the Rocky Mountains except for a few non-migrating colonies permanently residing in Florida and South Carolina. To fully understand the monarch migration of this year, we need to look back to last February and the over-wintering fourth generation of monarchs from the previous year. They departed Mexico as temperatures warmed, fed voraciously, mated when they came upon milkweed in Texas and died shortly thereafter. More importantly, creating a new generation of monarchs to begin the migration cycle anew this year. The new generation of monarchs, the first of this year, continued their northward journey following the milkweed to create a second generation of monarchs in states to our north, again mating and dying soon after.

The second generation of monarchs continued northbound following the milkweed, again mating and dying to create the third generation. The third generation continued its northward journey looking for milkweed in the most northern states and southern Canada, eventually mating and dying, also creating the fourth generation of monarchs. The fourth generation, born in the north, breaks the pattern of the previous generations. They begin their southern migration to Mexico once temperatures cool and the sun is 57 degrees on the horizon in the northern states and southern Canada. Instinct dictates this fourth and final generation to eat voraciously and store fats for the journey south and long winter in Mexico. Instinctively, like their ancestors before them, they know how to get to the oyamel fir forests of Mexico, never having been there before. During their journey south and their over-wintering period, the monarchs are in sexual diapause from mating until after they spend the winter in Mexico and begin their northbound migration journey early next year to begin the cycle all over again.

There are two things we can do to support the monarch in their migration to Mexico. One, have plenty of nectar plants available for them to feed on to support their long journey to Mexico. If nectar plants are scarce in your yard, they will feed on cut fruits, such as oranges, mangoes, and rotting bananas, but their preference is always nectar plants. If feeding fruit, provide saucers with water, but supplemental water isn't necessary if nectar plants are available. Two, if you're still growing milkweed, it's time to cut it back to the ground and mulch it heavily to remove all traces of the plant.

Remember, this generation is in sexual diapause, but occasionally instincts kick in if milkweed is present, and we don't want them mating and creating caterpillars only to die in late November. Don't worry, milkweed is an herbaceous plant, it will be back next year. Once this generation of monarchs arrives at the fir forest, they will be inactive, huddling for warmth and relying on stored fats except for an occasional trip to the forest floor on warm sunny days for a quick drink of water. The complete monarch migration can be tracked on the website journeynorth.org; go to the sightings tab and search for adult fall monarch. As of this writing, monarchs have been spotted in Abilene and Boerne, so they are getting close.

Propagating Milkweed for Monarch Butterflies

By Wayne Schirner

One thing I learned while writing this article is that the Monarch butterfly was listed in 1995 as the official insect of Texas. Now, you all know this too. Other's will write about the Monarch waystations or gardens, so I would like to write about a critical part of the Monarch's migration, their food source.

This link from TAMU provides important information about why we should care about the problems related to the reduction in the Monarch population:

https://today.tamu.edu/2022/08/02/monarch-butterflies-facing-battle-for-survival-experts-say/

The adult Monarchs migrating south in the fall can use multiple different flowers for nectar to provide the energy they need for their journey. For the spring migration back north, milkweed is the main food source needed by the Monarch caterpillar. For years, milkweed has been treated as a weed and destroyed, significantly removing the primary food source required for survival of Monarch caterpillars. To counteract that problem, it is important for milkweed to be planted and grown along their migration path. To maximize this process, propagation of milkweed varieties that are appropriate for Bell County should be encouraged. There are over 30 varieties of milkweed grown in Texas, but not all of them thrive in Bell County and not all of them serve as food for the growing Monarch caterpillars.

The primary resource for this article is the book Butterfly Gardening for Texas by Geyata Ajilvsgi, available from Texas A&M AgriLife Learn.

The Monarch butterfly moves through Texas during the fall migration to overwinter in Mexico, returning in March just as milkweeds (*Asclepias* spp.) are showing fresh young growth. The females mated before leaving their wintering grounds and when they reach Texas, they deposit their eggs on milkweed. There are many other flowers that they feed on when making the fall journey back to Mexico, but without milkweed in the spring, new generations will have difficulty surviving. Most members of the *Asclepias* species are poisonous. The chemicals that cause this are carried over from the larval stage to the adult butterfly, making the insect unpalatable to predators. Some *Asclepias* spp. Have very low toxin concentrations, leaving the adult butterfly relatively un-protected. Monarch females try to find the most poisonous plants on which to lay her eggs. That's one reason to be attentive to what is planted. One website listed ten different species of milkweed that do well in Texas, including the Antelope Horns Milkweed (*A. Asperula)*, Green Milkweed (*A. viridis)*, and the Prairie Milkweed (*A. sullivantii)*.

Rarely do nurseries offer any species of *Asclepias* other than Butterfly Weed (*A. tuberosa*) and Tropical Milkweed (*A. curassavica)*. Butterfly Weed is often listed as a Monarch plant food, but because of its roughness and very low concentration of toxins, it is not preferred by Monarch butterflies. Information from some websites about growing milkweed in Texas recommended avoiding Tropical Milkweed because it can carry a parasite that infects the Monarch butterfly, while other sites encouraged its use. Fortunately, most species of milkweed can be started from seed. Antelope Horns are not easily transplanted but are easy and fast to grow from seeds. Milkweed seeds usually go through a period of dormancy, which prevents them from germinating immediately after they are ripe at the end of the spring growing season. Any seedlings growing then would not survive the summer heat and/or drought that is common in Texas. Prior to sowing milkweed seeds, dormancy can be broken by subjecting the seeds to a temperature change, called stratification. This process also requires moisture and is most easily accomplished by wrapping the seed in a moist paper towel, placing it in a baggy, and then in a refrigerator (not a freezer.) The period of chilling for milkweed seed is around four weeks and can be done in the fall or in the spring. If done in the fall, plant the seeds indoors using a seed starting mix so that they can be grown for transplant later. If germinated in the spring, they can be direct sown after stratification in enough time for them to grow for six weeks prior to the Monarch migration to the north.

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The link below provides information from the Lady Bird Johnson Wildflower Center on germination of milkweed. They claim an 85% success rate when stratified for 4 weeks:

https://www.wildflower.org/learn/how-to/how-to-germinate-milkweeds

This link provides information about growing milkweed in Texas, however I don't agree with the recommendation to fertilize with a 10-10-10 fertilizer, as I have previously written about in the August Blooming Bell.

https://growing-guides.com/how-to-grow-milkweed-in-texas/

Here is another website that had some useful information, especially if you look at all the links:

https://texasbutterflyranch.com/213/04/25/got-milkweed-updated-plant-guide-for-central-and-south-texas/

Hopefully this article will encourage you to propagate and grow milkweed so we can help prevent the extinction of the official insect of Texas.

Happy Butterfly Gardening!

Monarch butterfly on Milkweed

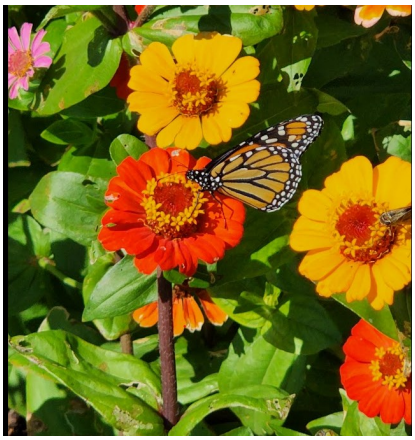
BCMGA Monarch Waystations

By April Marek

The Bell County Master Gardener Association (BCMGA) currently maintains two registered Monarch waystations: one in Killeen at the Killeen Municipal Court Community Garden (KMCCG) and one in Belton at the Bell County Extension office grounds. The Killeen waystation is the older of the two, and the zizotes milkweed growing in the Belton waystation was transplanted from volunteer milkweeds found at KMCCG.

According to Monarch Watch, "Monarch Waystations are places that provide resources necessary for monarchs to produce successive generations and sustain their migration. Without milkweeds throughout their spring and summer breeding areas in North America, monarchs would not be able to produce the successive generations that culminate in the migration each fall. Similarly, without nectar from flowers these fall migratory monarch butterflies would be unable to make their long journey to overwintering grounds in Mexico. The need for host plants for larvae and energy sources for adults applies to all monarch and butterfly populations around the world."

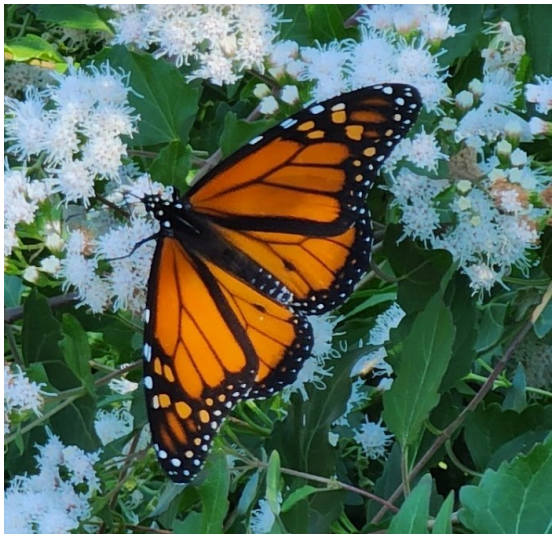
The two BCMGA-maintained waystations include milkweed and nectar plants for migrating butterflies. The nectar plants that are the most popular with the butterflies at these two waystations include Henry Duelberg salvia (*Salvia farinacea* 'Henry Duelberg'), Gregg's Mistflower (*Conoclinium greggii*), and annuals, such as zinnias.



Belton waystation

Killeen waystation

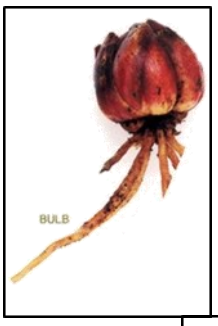
Photo by Dave Slaughter



Aren't they the Same?

By: Teri Marceau

What is your favorite bulb? Do you know if it is really a bulb, or could it be a corm? I remember being taught this in my intern class, yet five years later I still find myself lacking confidence regarding the difference between what is a corm or bulb. I thought if I still question the difference maybe some of you have the same issue. I will attempt to shed some light on the different characteristics of bulbs, corms, rhizomes, and tubers.



Bulb: a rounded underground storage organ present in some plants, notably those of the lily family, consisting of a short stem surrounded by fleshy scale leaves or leaf bases, lying dormant over winter. (Oxford Dictionary).

Corm: a rounded underground storage organ present in plants such as crocuses, gladioli, and cyclamens, consisting of a swollen stem base covered with scale leaves. (Oxford Dictionary)

Rhizome: a continuously growing horizontal underground stem which puts out lateral shoots and adventitious roots at intervals. Did you know Cana are rhizomes? (Oxford Dictionary).

Tuber: a much-thickened underground part of a stem e.g. in the potato, serving as a food reserve and bearing buds from which new plants arise. Dahlias are beautiful flowers for your garden that grow from tubers. (Oxford Dictionary).

Clear as mud, right? We are going to be selling bulbs at our Fall "plant sale" but from now on let's call it our Fall Bulb Sale. Pending on availability we hope to sell several varieties. Watch our website and FaceBook pages along with our October Blooming Bell issue for the list of the bulb variety that we will be selling. I for one am very excited for our Fall Bulb Sale. I can't wait for the list and to learn more and more about bulbs that grow in our area.

https://aggie-hort.tamu.edu/newsletters/hortupdate/2012/oct/spring-flowering-bulbs.html