



### Introduction

Spring is in the air, as is garden fever. In between your gardening, check out the listing of programs that we have coming up.

Check out this quarter's newsletter for information on planting for pollinators, grafted tomatoes, lawn care calendar, program announcements, and general announcements.

Special to this year is the Texas Community Futures Forum, which is a program where you vote on which critical issues extension should focus on in your county.

As always if you have questions about anything in this newsletter, please feel free to call us as 830-997-3452.

### Office Closures

We will be closed on 4/19 and 5/27/2019.

### Preview

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# 2019 Garden Trends

If you don't think that the nursery industry follows trends, think about when was the last time you saw 'German Red' Carnation being offered? Predicted 2019 trends according to Garden Media include:



If you have seen this plant, a German Red Carnation, please call me. Picture from Bexar County Agrilife Extension.

- *Native plants in landscapes. (FYI the local Native Plant Societies & the Hill Country Master Gardeners have been espousing native plants for years.)*
- *An increase in people buying houseplants. Those Millennials are responsible for 31% of houseplant sales, according to Garden Research.com (garden media).*
- *More technology use in gardening, including drone use and robots such as the Tertill (robotic weeder).*
- *Planting night gardens that bloom in the dark/evening or reflect moonlight.*
- *The "in" color is mint-blue green.*



This Millennial hasn't killed her aloe vera houseplant yet!

These trends may be fun to look at or think about, but locally, I'm not sure they are accurate. For example, the "in color" last year was "dark purple". The only movement on that trend I noticed was in the free seed packet of carrots I got from a seed company. Other things that were supposed to become trends last year included:

- *Imperfect gardening (leaving weeds in your garden is a lifestyle...not a trend in my garden)*
- *More houseplants*
- *Using water features in gardens and rainscapes*
- *Thinking of gardens as groups of plants working as in an ecosystem*

Keep out an eye this year on the plant catalogues and nurseries, and see if these garden predictions ring true! You can look at these garden trends in more detail here: <https://gardenmediagroup.com/trends>



## Ampleharvest Surplus Garden Vegetable Survey

Ampleharvest is conducting a survey on what happens to extra vegetables that are grown in home gardens. The survey takes about 7 minutes to complete and you can find it here: [www.AmpleHarvest.org/survey](http://www.AmpleHarvest.org/survey). They are looking to have 3,000 responses by April 1<sup>st</sup>, so if interested, do it soon. You can read the results of a prior survey here: [https://www.ampleharvest.org/downloads/GardenerSurvey/AmpleHarvest.org Garden Food Waste Study-8-30.pdf](https://www.ampleharvest.org/downloads/GardenerSurvey/AmpleHarvest.org%20Garden%20Food%20Waste%20Study-8-30.pdf)

Ampleharvest is a database website with the goal of linking gardeners to food pantries that they can donate produce to. In Gillespie County you can take excess produce to the Fredericksburg Food Pantry at 701 Mustang St, Fredericksburg. Donations are accepted Monday, Wednesday and Friday from 1-5 pm. The Harper Food Pantry doesn't have a cooler, so it cannot accept produce donations at this time. Dry good donations are accepted at Harper on Thursdays from 12:15-1:00 pm.



## Gillespie County Texas Community Futures Forum on April 4th, 2019

About every five years, AgriLife Extension has a special program, the Texas Community Futures Forum. Despite the grandiose name, the program has a simple purpose. It's to find out what issues your local county extension office can focus on.

When you attend the program, you choose to be a part of one issue group. The issue groups include Agriculture and Natural Resources (Horticulture included), Family and Consumer Sciences, and Youth and Community Development. The small groups brainstorm on potential issues, and a facilitator will write the suggestions on a flip chart. The issues will be combined and grouped, then prioritized. Each participant will receive 10 votes to select the top 3-6 issues that are facing the county pertaining to a particular subject. The winning issues will be relisted on a clean sheet, and a second vote will be held. Each participant gets ten dots to vote on the likelihood that the issue can be addressed locally. The intent is for the issue with the highest number of dots to be the highest priority issue with greatest likelihood of being addressed locally.

The small groups gather together into one big group, and someone reports on the issues that were identified and prioritized. Issues are not voted on again in the big group. Sometimes issues are prioritized that we don't really deal with. That's okay, in that instance we try as best we can to pass them along to the relevant people.

Past agricultural issues included water and ranch and hunting optimization.

If you are reading this and do not live in Gillespie County, do not feel left out. Find your local county extension office here (<https://counties.agrilife.org/>) and contact that them to find out when their Texas Community Futures Forum is. If you live in Gillespie County and plan to attend ours, please call the office at 830-997-3452. The program will be at 6 pm on April 4th at the Gillespie County Extension Office. Light refreshments will be served. This program is free. If you can't make our forum or your county's forum, you can fill out an online survey here: <http://tx.ag/gcbhH8W>. These responses will be sent to the appropriate county.

### Listen to Hill Country Gardening Podcasts on the Radio or Internet

Every morning, either Brad (the Ag Agent) or I have a short radio program that plays on KNAF 910 at around 7:10 am, during the farm and ranch news. These radio shorts feature upcoming program information or cover specific horticulture topics that are going on in the county. Each are around 3 minutes long.

If you miss it at 7:10 am, the horticulture radio shorts can be downloaded off the internet at <https://hillcountrygardening.podbean.com/>. More are available at <https://soundcloud.com/txhillgarden>, but you have to have an account to download them. If you have any questions about this, please contact me at [elizabeth.mcmahon@agnet.tamu.edu](mailto:elizabeth.mcmahon@agnet.tamu.edu).

# 5 Tips For Creating a Pollinator Garden

## Grow a Diversity of Flowers

- Different pollinators are attracted to different plants. Also, some plants may do better in your garden than other plants.
- Try different colors and shapes too!

## Something Flowering All the Time

- Pollinators need to eat during the summer too. Try to have something blooming or flowering at different parts of the year, even in the heat of summer.
- Winter may be difficult but try daffodils or leave the henbit weeds alone.

## Plants at Different Levels

- Different insects forage at different levels. Having different plants with different heights will also break up the garden and make it look more natural.
- Make sure you put taller plants in back.

## Don't use Insecticides in your Pollinator Garden

- It's going to hurt your pollinators too.

## Go with Texas Natives as Much as Possible

- Native plants are what are adapted to the area and should be more likely to survive (and apparently they are trending).
- Make sure to plant in conditions that the plant needs. For example, plant shade loving plants in shade and sun loving plants in the sun.



*Example butterfly garden. Note the different levels of plants. Picture by Monika Maeckle of Texas Butterfly Ranch.*



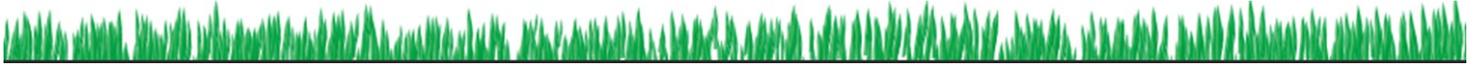
*Something flowering all the time. Picture by Matt Kolodze of Friendly Natives Nursery.*



*Top left is stemless evening primrose, (buttercup), top right is flame acanthus, bottom is Texas Bluebonnet. Pictures by Beth McMahon.*

# When & What to Do with Your Lawn

## General Care Guide



### Watering

**When to Water:** Turf should last 5-8 days between watering. Water when turf shows slight signs of drought stress.

**How Much:** Wet soil to 6 inches. Check infiltration. Water longer, not more often. Do not water daily unless it is new turf.

### Fertilizing

**When:** First start after you mow your turf (not the weeds) three times.

**How Much:** Apply according to soil test. If no soil test, for st. augustine, common bermudagrass and zoysiagrass apply 1 pound of actual nitrogen per 1,000 square feet of lawn in May, July and September. Apply half the above recommendation for buffalograss. Sandy soils should use slow release nitrogen fertilizers because it's more likely to leach out.

**Notes:** Avoid weed and feed combinations early in the growing season. In our area we apply weed killer at different times than fertilizers, and weed killer applied underneath trees can be harmful. These fertilizer recommendations are for pounds of actual nitrogen. Divide the rate per 1000 ft.<sup>2</sup> by the converted decimal of your fertilizer bag. To get how much to apply. For example, say that you are using a 50 lbs. bag of 21-0-0. Your application rate is 1 lbs. actual nitrogen per 1000 ft.<sup>2</sup>. Divide 1/.21, which is 4.8. So apply 4.8 lbs. of 21-0-0 to achieve an actual nitrogen fertilizer of 1 lbs. per 1000 ft.<sup>2</sup>.



### Mowing

**How Often:** Buffalograss, zoysiagrass and st. augustine mow when the grass is 3 inches in height, common bermudagrass when it is 2.25 inches and hybrid bermudagrass when it is 1.5 inches.

**How Much:** St. Augustine and zoysiagrass should have a mower height of 2 inches, common bermudagrass should have a mower height of 1.5 inch, hybrid bermudagrass should have a mower height of 1 inch and buffalograss should have a mower height of 3-4 inches. Set mower height 3 inches for st. augustine in shade. Mow longer in summer.

### Weed Control

**Use When:** Apply pre-emergents in late February to March and August (if cool) to September.

Apply post emergent weed killers when target weed is visible but small.

**How Much:** Depends on label. St. augustine lawns may have different rates than other grass species. Do not apply to stressed turf. Healthy vigorous lawns have less need for weed control.

**Notes:** If you have 'Floritam' st. augustine grass, pay special attention to herbicide label.

### Insecticides & Fungicides

**Use When:** When you see the problem, though if your lawn has history of the incident, it might be wise to apply ahead of time. Make sure you correctly identify the problem before application.

**Use What:** Identify problem and use a fungicide with a fungal issue and insecticide with a bug problem. Read the label to make sure your grass species is listed.



# Grafted Tomatoes: Worth it or Not?

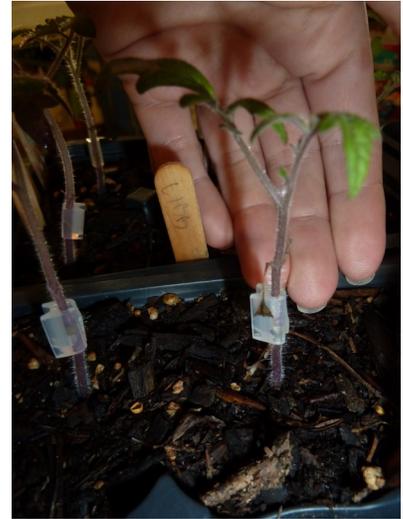
You've probably seen them advertised in gardening catalogues.

**Grafted tomatoes! See increased yields! More tolerance to stress! Grow more of those heirlooms you love!**

The excitement lasts until you see the price. Grafted tomatoes can cost at least double the amount as purchasing a regular un-grafted plant from the catalogue, and maybe as much as triple in cost, when compared to purchasing an ungrafted plant from a local nursery.

But are these grafted plants worth the price? The research is mixed. In an experiment by Barrett et. al 2012 in Florida, they grafted heirloom 'Brandywine' tomatoes to 'Multifort' rootstock and compared these to un-grafted 'Brandywine' tomatoes. All plants were grown organically. The non-grafted tomatoes produced an average 1.8 lbs. marketable yield per plant while the tomatoes grafted onto 'Multifort' produced an average marketable yield of 1.31 lbs per plant.

In a different experiment by Khah et al 2006, the tomato variety 'Big Red' was grafted onto 'Primavera', 'HeMan', onto itself and not grafted all. When planted in an open field there were no significant differences between the grafted and ungrafted plants in the total fruit weight.



*Grafting isn't difficult to do yourself. Contact our office for a rough guide.*



*Grafted tomatoes in the Uvalde experiment. Picture by AgriLife Research.*

More locally in Overton, Texas Dr. Masabni of Texas A&M AgriLife Extension saw marketable yield increases of 59% and 44% on 'Tycoon' tomato grafted onto 'Estamino' and 'Multifort', respectively. In Uvalde, they had an 8-23% increase in yield (Leskovar et al. 2018 poster).

The yield increase with the Uvalde experiment wasn't due to more fruits, it was due to a bigger fruit being grown. If you want to see the Uvalde results in person, check out their field day on May 10<sup>th</sup>.

The scientific literature isn't conclusive in that grafted tomatoes produce more than un-grafted tomatoes. With the additional cost, are grafted tomatoes worth it?

The extra cost of grafted tomatoes would payout if you are trying to grow an un-resistant variety in fields infect-

ed with nematodes or particular soil diseases.

Getting to grow that heirloom or other variety that you've missed so long may be worth it. Yet if your garden has none of these issues and you can grow your favorite tomatoes just fine, grafted tomatoes are probably not a cost effective option for you.

However we aren't sure yet if this is the case. Because AgriLife Extension is research based, Kerr and Gillespie County AgriLife Extension will hopefully be holding grafted tomato trials this year. Please keep an eye out for the fall or winter newsletter where the results will be posted.

# Strange Tales of Horticulture

## Plants in Space?

Gardening in the Texas Hill Country is tough enough. But have you ever considered how difficult it is to garden in space? For a while the popular theory was that if plants could be grown in space, their roots wouldn't grow up, because gravity wouldn't be pressuring downward on them. This could have been beneficial for space weeding, because if nutsedge had all of its roots up and exposed, it would be a lot easier to get rid of.

Root orientation was officially tested in 2010 on the International Space Station. The plant grown was *Arabidopsis*, a weed commonly used in science experiments. Instead of the roots growing everywhere, they grew downward, as they do on earth.

*Arabidopsis* isn't the only thing being grown on the International Space Station. In 2014, using a VEGGIE system leafy vegetables were grown. These plants were planted in special bags that look similar to pillows. The pillows were filled with water and anchored to a special growth chamber. The chamber has increased humidity to help the plants grow. The first crop of greens was planted in 2014, but the American astronauts didn't get to eat it because NASA wanted it sent back down to test for contamination issues. The American astronauts finally got to snack on some in 2015. Plants that have been grown in the VEGGIE chamber include zinnias, 'Mizuna' mustard, 'Waldmann's Dark Green' lettuce and 'Outredgeous' Romaine lettuce.

Growing in space will probably end up being more similar to hydroponics. But what about gardening in otherworldly soil, like that of Mars? Since we haven't had the opportunity for any kind of rover to bring back large quantities of soil, scientists use the closest soil that they can find. This soil comes from the Pampas de lo Joya Desert in Peru. It lacks any trace of nutrients, as a Martian soil is thought



*Zinnia in space. Picture by NASA.*



*VEGGIE growth chamber. Picture by NASA.*

to. In one experiment, potato seeds were placed inside a special grow chamber that replicated Mars's carbon dioxide levels and low pressure. Plants were fertilized with a nutrient solution, and sprouts did appear. This chamber did not account for Mars's wild temperature swings, which is very likely to kill any plant grown without protection on the surface.

China has taken one step further for mankind in space gardening. Its Change'e 4 lunar explorer, which landed on the dark side of the moon in January this year, included a special growth chamber. This growth chamber included air, water, soil, a heater and seeds. These seeds were watered and the cotton germinated. Unfortunately, due to severe temperature fluctuations in the chamber, the experiment was ended prematurely.

In order to support longer space missions, space gardening will need to be implemented. So if you think it's hard to garden in our hill country soils, just imagine, you could be trying to garden in space.

## Upcoming Programs In Gillespie County

### **Texas Community Futures Forum**

April 4<sup>th</sup>, 2019. 6:00 pm -7:00 pm. Extension Office, 95 Frederick Road, Fredericksburg. Help Gillespie County AgriLife Extension decide what program topics to focus on. Light refreshments will be available. Free.

### **Kolaches and Conservation**

April 9<sup>th</sup>, 2019. 8:30 am -10:30 am, Gillespie County AgriLife Extension Office, Fredericksburg. Come in, drink some coffee, eat a kolache and ask us questions. Representatives from Natural Resources Conservation Service, Hill Country Alliance, Texas Parks and Wildlife and the Ag Agent & Horticulture Extension Agents will be there. Free (including the kolaches).

### **USDA Ag Labor Compliance Seminar**

April 17<sup>th</sup>, 2019. 7:30 am -4:30 pm Gillespie County Extension Office. Learn about H2A visa application process, H2A compliance principles, food safety modernization act, pesticide training and reporting, labor trafficking, child labor in agriculture, MSPA Housing, transportation and OSHA field sanitation requirements. Geared for Ag Producers. Free. Lunch not included. Register at <https://www.eventbrite.com/e/wage-and-hour-seminar-for-agricultural-employers-tickets-58817264020>.

### **Eighteen Years of Native Plant Gardening in the Hill Country: Lessons Learned**

April 23<sup>rd</sup>, 2019. Memorial Presbyterian Church, 607 North Milam, Fredericksburg. Kathy Lyles is a locally renowned speaker on native plants, and she's moving. Come hear her last presentation in the area. Free. Part of the NPSOT monthly meeting. Refreshments at 6:30 pm, meeting starts at 7:00 pm.

### **Native Landscape Certification Program Level 1**

April 27<sup>th</sup>, 8:30 am - 4:30 pm, Central Texas Co-op Office, 386 Friendship Lane, Fredericksburg. Program covers 45 native plants and understanding your vegetation region and soil. Cost is \$45. Register at <https://npsot3.123signup.com/event/registration/rqknc>. Contact Meg Inglis at [meg.inglis@npsot.org](mailto:meg.inglis@npsot.org) or 512-589-1316 for more information.

### **Grow It Cook It: Heat Beating Sweet Potatoes**

May 10<sup>th</sup>, 2019. 12:00-1:00 pm. Gillespie County Extension Office, 95 Frederick Road, Fredericksburg.

Learn not just how to grow sweet potatoes, but how to cook them too. Recipe tastings included. Program cost is \$15 for this program or \$25 for it and Trendy Cauliflower on September 6th. Contact the Gillespie County Extension Office at 830-997-3452 to register.

## Upcoming Programs Near Gillespie County

### **Llano County Lawn & Garden Show**

April 6<sup>th</sup>, 2019. 9:00 am -1:00 pm. United Methodist Church Family Life Center, 308 W. Main, Llano. Free admission. Vendors, door prizes, native flower exhibits and plant sale. Speakers will speak on seed saving, grasses and building greenhouses. Please contact the Llano master gardeners at 325-247-5159 for more information.

### **Hill Country Master Gardeners Blooms and Barrels**

April 13<sup>th</sup>, 2019. 9:00 am – 2:00 pm (or sold out). Hill Country Youth Event Center-Back Barn, 3785 HWY 27 East, Kerrville.

Education stations are from 10 am to 12 pm. Topics include rainwater harvesting, vegetables, ornamental grasses, garden preparation, and butterfly plants. Demo garden self-guided tours and associated vendors. Free seeds. Cash or check only. Entry is free.

### **Riverside Nature Center Spring Festival and Plant Sale**

April 20<sup>th</sup>, 2019. 9 am- 2 pm. Kerrville Nature Center, 150 Francisco Lemos St., Kerrville.

Information tables and kids activities. Also, a native plant sale with some hard to find plants. Email [rnc.kerrville@gmail.com](mailto:rnc.kerrville@gmail.com) or call at 830-257-4837 for more information. Free entry.

### **Kerr County Pecan Grafting & Production Workshop**

April 23, 2019. 9:00 am - 12:00 pm. Bill Hathway Orchard, off TX HWY 173, 4.5 miles from Kerrville-Schreiner State Park. Turn left on Center Point River road, enter first gate on right. Signs posted.

Learn about pecan production, grafting, early insect management and how to fertilize pecan trees. Program led by Dr. Stein. Three pesticide applicator CEUS will be offered. Cost is \$10. Please call the Kerr County Extension office at 830-257-6568 to pre-register.

### **Bennet Land Trust**

April 25-26<sup>th</sup>, 2019. Y.O. Ranch Hotel & Conference Center, 2033 Sidney Baker, Kerrville.

Convers topics on grazing, vegetation management, birding, tax valuation options, fence laws, white-tail deer and using exotic wildlife. Day 2 includes choice of two tours, either visit the Hillingdon Ranch or go on the Wildlife Management Tour. Cost is \$75 dollars. Register online at <https://agriliferegister.tamu.edu/productListingDetails/2789>

## Upcoming Programs Near Gillespie County

### **Healthy Lawns Healthy Waters Turf Program**

May 7<sup>th</sup>, 2019. 1:00 pm - 5:00 pm. City of Boerne Library, 451 n. Main st., building #100, Boerne, TX. Free soil sample analysis to everyone attending. Learn how much to properly fertilize your lawn, improve irrigation efficiency, turf selection for local growing conditions, and how to capture rain-water and use it for landscape irrigation. Free. Pre-registration is requested. Register here: <https://hlhw.tamu.edu/workshops/2019/may-7-boerne/>. Contact John Smit at 979-845-2761 or [johnsmith@tamu.edu](mailto:johnsmith@tamu.edu).

### **Vegetable & Wheat Spring Field Day**

May 10<sup>th</sup>, 2019. 8:00 am to 2:00 pm. AgriLife Research Center, 1619 Garner Field Rd, Uvalde. Topics include hydroponics, high tunnels, tomato grafting, organic tests, soil health, crop development and production information on melon, watermelon, artichoke, peppers, onions, tomatoes and winter wheat. 2 pesticide applicator CEUS will be provided. Free. Must RSVP by May 3<sup>rd</sup> to Liza Sila at 830-278-9151 ext. 232 or [lmsilva@ag.tamu.edu](mailto:lmsilva@ag.tamu.edu).

### **Gardening 101: Harvesting & Composting**

May 11<sup>th</sup>, 2019. 10:00 am - 11:00 am. Butt-Holdsworth Memorial Library, Kerrville. Free program on harvesting and composting. Part of the Gardening 101 program series. Contact Hill Country Master Gardeners at 830-257-6568 for more information.

### **San Antonio Tomato Fest**

June 15<sup>th</sup>, 2019.

Details are tentative, but the plan is to have a tomato competition, as well as information regarding growing tomatoes. Tomatoes will not be tasted as part of the competition. Entry into the tomato contest will be limited to Hill Country tomato growers. Please see next newsletter for more information.

## Land Looking for Farmers



If you are looking for land to farm or someone to farm your land, check out the Farmshare Land Link at <https://www.farmshareaustin.org/land-link>. This is an online database set-up by Farmshare Austin to pair people who want to farm with people who are looking for people to farm the land. You do not have to be an organic producer to apply. Contact Farmshare Austin at (512) 337-2211 for more information.

## Name that Plant!



What is the name of this plant? First person to respond with the correct answer will get their name featured in next quarter's newsletter.

## Last Newsletter's Plant



*Answer from last quarter's newsletter was Flowering Quince. First to answer was Mable Wilke .*

*This newsletter is a publication comes out quarterly, with issues out on February/March (spring), June/July (summer), September/October (fall), November/December (winter). If you would like to stop receiving this newsletter, please contact us me at [elizabeth.mcmahon@agnet.tamu.edu](mailto:elizabeth.mcmahon@agnet.tamu.edu).*

*For other questions, comments, and concerns, please contact us at:*

*Gillespie County Extension office  
95 Frederick Road  
Fredericksburg, TX 78624  
830-997-3452*

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