

AG & NATURAL RESOURCES

Connecting Texas Farmers & Ranchers with
 Texas A&M AgriLife Extension

Farm & Ranch Tips

Sometimes Ag Law, Agriculture Commodities, and even Thanksgiving Turkeys can be overwhelming to keep up with. Therefore, we have selected some of the most hot topic items for you to read this month.

Agriculture Law with Dr. Tiffany Lashmet

1. Questions from Tiffany's Desk: What Statutory Protections Apply if Hunters Are Injured on My Land?

- "Question: What statutory protections are available as a defense to a landowner if hunters are injured on my land?"
- "Answer: With opening weekend for deer season right around the corner, this is a great and timely question. There are two main statutes that could apply in this situation: Texas Recreational Use Statute and Texas Agritourism Act. As you will see, there are many situations, including hunting, where both statutes may be an available defense if someone is injured."
- <https://agrilife.org/texasaglaw/2021/10/11/questions-from-tifyanys-desk-what-statutory-protections-apply-if-hunters-are-injured-on-my-land/>

2. Trifecta of "Ag Gag" Opinions

- "Recently, there have been three appellate court opinions related to "ag gag" statutes in states around the country. Although they differ in detail, "ag gag" statutes essentially make it illegal to gain access to agricultural operations in order to photograph or record agricultural operations without consent. They target both unauthorized access such as trespass, but also frequently prohibit providing false information, such as on an employment application, to gain access to the facility."
- <https://agrilife.org/texasaglaw/2021/10/18/trifecta-of-ag-gag-opinions/>

Farm & Ranch:

1. Adapting crops for future climate conditions

- "With crops, farmers will adapt — they always have and always will. To help this adaptation, however, a Texas A&M AgriLife research project has used artificial intelligence modeling to determine what traits cultivars will need to be successful under changing climate conditions."
- <https://agrilifetoday.tamu.edu/2021/10/13/adapting-crops-for-future-climate-conditions/>

2. Cotton prices rally amid speculative buying

- "Cotton futures rose rapidly over recent weeks as speculators began buying for potentially big profits based on expectations that prices would go up, according to a Texas A&M AgriLife Extension Service expert."
- <https://agrilifetoday.tamu.edu/2021/10/13/cotton-prices-rally-amid-speculative-buying/>

3. Expect higher prices, fewer options on Thanksgiving turkeys

- "Consumers can expect higher prices and fewer options for whole turkeys leading into this Thanksgiving, according to a Texas A&M AgriLife Extension Service expert."
- <https://agrilifetoday.tamu.edu/2021/10/19/expect-higher-prices-fewer-options-on-thanksgiving-turkeys/>

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Improved Pecans

BY: CODY TREMBLE - GLASSCOCK ANR AGENT

This is an excerpt from Texas A&M Agrilife Extension article Texas Fruit and Nut Production: Improved Pecans, by Monte Nesbitt, Larry Stein, and Jim Kamas.

Orchard floor management

Weeds compete with pecans for water and nutrients and can reduce growth and kernel development. The most practical and widely used system of orchard floor management is the sod and strip system, in which a herbicide-treated, weed-free band is left down the tree row; sod is grown between the bands and maintained by mowing (Fig. 10).

The soil is broken up in pecan orchards by different means across the state. Shallow, clean cultivation (clearing out all plants except the pecan trees) with a disk harrow (disking) is practiced in Far West Texas, where orchards are flood-irrigated with river or reservoir water. It is also used in other parts of the state. However, this practice contributes to erosion and compaction and is impractical in rainy areas because it makes moving the equipment difficult.

Although some Texas growers graze sheep, cattle, goats, and other animals in improved orchards, it is generally not recommended because livestock can compact the soil, damage young trees, and interfere with irrigation, spraying, and harvesting.

Fertilizer

Pecan orchards need applications of nitrogen and zinc every year. Depending on soil test results, they may also need to be fertilized to correct pH problems as well as other macro- and micronutrient deficiencies.

Nitrogen: Pecans must have nitrogen to grow well.

Apply nitrogen at bud break in April and again in May and June.

As a rule, 10 pounds of actual nitrogen is needed in June to produce 100 pounds of pecans per acre. For heavy crops, apply it in July and August also. Young trees should

receive small, frequent applications in response to growth from budbreak to late July. Later applications will expose young trees to greater risk of freeze injury.

Zinc: Foliar zinc sprays are essential for maximum leaf expansion and pecan growth (Fig. 11).

Applying zinc to the soil or via drip systems is ineffective unless the soil pH is 6.0 or less and no limestone has been applied.

Apply zinc frequently in the early part of the growing season.

Liquid zinc nitrate and zinc sulfate wettable powder are equally effective.

To improve zinc uptake into the foliage, add liquid nitrogen (32 percent urea ammonium nitrate, called UAN) to either type of zinc.

Trees that are young, non-bearing, and growing fast need zinc sprays every 14 to 21 days from bud break in April until July. Mature bearing pecan trees respond best to five applications of zinc: the first three applied 1 week apart beginning at bud break, the fourth application 2 weeks after the third, and the fifth 3 weeks after the fourth.

Because zinc sulfate can seriously damage the leaves of many types of plants, use zinc nitrate on pecan trees in urban landscapes to reduce the risk of damaging overspray.

pH: Have the soil tested periodically to monitor pH and nutrient levels.

If the pH is less than 6.0, you may need to add limestone; soil with a pH of more than 7.5 may require micronutrients.

Potassium and phosphorus: Potassium fertilizer may be needed every 1 to 3 years, especially on sandy soils. Phosphorous fertilizer is seldom needed ...

Texas and applying it can aggravate other micronutrient deficiencies. Monitor both elements regularly through soil and leaf analysis.



Figure 10. A "sod and strip" orchard floor.



Figure 11. Severe zinc deficiency symptoms in pecan: bunched canopy, small leaves, and limb dieback.



Mule Deer Season in the Trans-Pecos Area

BY: LUKE HENDRYX - BREWSTER/JEFF DAVIS ANR AGENT

Fall is definitely in the air in West Texas and with it comes some of the things West Texans get most excited for annually, cooler temperatures, football and mule deer season. Hunters flock to our part of the state every year to hunt mule deer in the mountains and ranges of West Texas. Scientifically named *Odocoileus hemionus*, mule deer received their name due to their large ears that resemble those of a mule, with the average adult weighing anywhere from 125-300 pounds. Another distinguishing characteristic of mule deer is their antler configuration. Whereas white tail deer have antlers that branch off of a main beam, mule deer have what is called Bifurcated antler branching in which antlers branch once off of the main beam and the again towards the tip.

Drought is a key factor when it comes to mule deer populations in West Texas. Mule deer diets consist heavily of browse and forbs, and without adequate rainfall their food sources suffer greatly. A lack of rainfall also causes a lack of fawning cover which leads to greater fawn mortality due to predation. Recent deer surveys in the area have showed populations to be steady with the individuals observed in good body condition as well thanks to the strong monsoon season the Trans Pecos received this year. When asked about how drought affects mule deer in this part of the state Cody McEntire, Area manager of Elephant Mountain Wildlife Management Area says that “Mule deer are a resilient desert species that have persisted in arid climates throughout history. Their innate reproductive potential in years of favorable conditions allows them to maintain healthy populations throughout the southwest.”

The general season for mule deer hunting in the Trans Pecos runs from November 26th – December 12th, 2021. The Texas Panhandle is implementing an experimental antler restriction for four hunting seasons that will require a legal buck to have an outside spread of at least twenty inches on the main beams, however the Trans Pecos area will not be affected by these restrictions. For questions regarding mule deer in general, contact your local Texas Parks and Wildlife office.

For more basic information on Deer of Texas, please utilize the "Deer of Texas" AgriLife Extension - Wildlife & Fisheries article here: <https://wildlife.tamu.edu/wildlifemanagement/deer/>



Brush Busters Cut-Stump Spray for Hardwood Species

BY: DAWSON OWENS - CROCKETT ANR AGENT



Works Best: On algerita (agarito), baccharis, blackbrush, bois d'arc, bumelia, catclaw acacia, catclaw mimosa, Chinese tallowtree, elm, hackberry, huisache, lotebush (bluethorn), mesquite, all oaks, pricklyash (Hercules'-club), saltcedar, Texas persimmon, winged elm, and yaupon. (Note: Although specific cut stump data is not available on all the species above, the plants all can be controlled with basal stem applications of Remedy™, which indicates that the stumps are also susceptible to this same herbicide.)

When to Apply: Any time of the year, although the best results occur during the spring-summer growing season

Prepare the Equipment:

- Remove the top growth using pruning shears, a sharp ax, chain saw, hydraulic shears, etc.
- Apply the herbicide spray with a pump-up garden sprayer, backpack sprayer or sprayer mounted on a four-wheel- drive all-terrain vehicle (ATV) or hydraulic shears.

To make sure that you cover the stump adequately when using a sprayer attached to hydraulic shears (skid/steer loader), use an adjustable cone nozzle with a relatively large orifice (such as a ConeJet™ 5500-X12 nozzle). For hand-held spray guns, an adjustable cone nozzle with a small orifice nozzle (such as a ConeJet™ 5500-X1 or X3) is recommended.

Mix the Herbicide with Diesel or Vegetable Oil

A mixture of Remedy™ herbicide and diesel fuel oil or vegetable oil is recommended. Diesel fuel oil and vegetable oil act as coating agents and penetrants to ensure good cover- age and absorption of the herbicide. The recommended mixture is 15 percent Remedy™ and 85 percent diesel fuel oil or vegetable oil (see mixing table below). Using vegetable oil instead of diesel fuel oil increases the cost but may be desirable in some situations. One vegetable oil known to mix well with Remedy™ is JLB Oil Plus™.

Mixing Table

Herbicide	% Herbicide	Amount of Remedy™/Gallon(s) mixed*		
		1 gal	5 gal	10 gal
Remedy™	15%	19 oz	3 qt	1.5 gal

* The herbicide is mixed with diesel fuel oil or vegetable oil.

Cut and Spray the Stump:

- Cut every stem of the plant as close as possible to the soil surface, but not below the soil surface. Avoid leaving soil on the cut surface.
- Spray the stump immediately after cutting it. Adjust the spray nozzle so that it delivers a coarse mist in a cone- shaped pattern. Hold the spray wand so that the nozzle is within 1 or 2 inches of the stump and spray the entire cut surface until it is wet, especially the outer edges.
- Spray the sides of the stump and root collar almost to the point of runoff.
- If you use a spray system attached to hydraulic shears, position the spray nozzle directly over the cut stump high enough to ensure that all the stump is within the spray pattern. Using the dye as an indicator, spray the entire cut surface of the stump almost to the point of runoff.

Keep these points in mind:

- Follow the directions on the herbicide label.
- The cost of treatment escalates rapidly as the number of woody plants and stems per acre increases.
- This method is best for plants with a single stem or a few basal (growing from the base) stems.
- Before spraying, brush any soil off the cut stump surfaces.
- Do not spray when the basal stems are wet.
- To reduce resprouting, thoroughly spray the cut surface as well as the bark from the cut to ground level.



Photo by Casey Reynolds, Ph.D.

Spotted Spurge in West Texas

KALIE GILLESPIE: WARD COUNTY ANR AGENT

Does this dense mat look familiar? This is known as Spotted spurge or *Euphorbia maculata*. It is a low-growing plant native to eastern North America that is usually considered a weed in gardens, cultivated agricultural areas, and disturbed sites. It will grow in almost any open area, including waste ground, roadsides, pastures, open woods, in sidewalk cracks and in thin lawns.

What to look for:

Seeds germinate best in warm soil when temperatures are above 75 degrees F, although it will sprout at cooler temperatures when moisture is available. The seeds need light to germinate, so seeds more than half an inch deep in the soil are unlikely to germinate. These low-growing plants tend to develop slowly and often are not noticed until late summer. Plants are killed by frost.

The stems are typically a pink to marron color that are hairy. The leaves can have a red spot in the middle upper leaf however this may not be present in all plants. When the stems are broken, they secrete a milky sap that is highly toxic to sheep and can be a skin irritant to humans.

Getting rid of and preventing:

This can be a very difficult weed to deal with in Ward County and the rest of west Texas. The best control method is preventing germination. A mulch or straw that is at least 2 inches thick will prevent the sunlight that is needed for the germination to occur. When mulching isn't feasible and spotted spurge has been an ongoing problem a pre-emergent herbicide can be used. This will only be effective to seeds that have not yet sprouted.

When spotted spurge is growing among other plants it is best handled by hand pulling with gloves on. Non-selective herbicides, such as glyphosate, can be used on larger plants, taking care to avoid contact with desirable plants. If only the foliage is killed, they may grow back from the roots.

Spotted spurge is only a problem in thin lawns, so the best means of preventing it from becoming a problem is to maintain a thick, healthy turf through proper mowing, fertilization and irrigation. Small infestations in lawns can be removed by hand, but for more widespread infestations herbicides may be more practical.





TX Livestock and Horse Brands Expired August 31st Renew by February

PAYTON KEIFER: PECOS COUNTY ANR AGENT

If A livestock owner uses brands, earmarks, tattoos or electric devise to mark cattle, hogs, sheep, goats, or horses. The Livestock owner in the state of Texas must register the Brands with the County Clerk. The Brands of the livestock must be entered in the County that the Livestock species resides in. If a Livestock species is in two counties the owner must register the livestock in both counties. The requirements for the branding must include Identifying the brand as well as the location of the brand. Every 10 Years all livestock and horse throughout the state of Texas expire. This pas expiration date was August 31,2021.

Brand holders will have six months to renew their respective brands the last day to renew will be February 28,2022. If the current brand holders fail to renew registration in the timeframe, then the brand will be up for grabs for anyone to register said brand in his/her name. There may be different procedures for renewal at each county. Brand owners are advised to contact the applicable offices to find out the best way to complete the brand renewal process. Once Brand are renewed, they will be valid through August 30,2031.

The use of brands that are now registered will constitute in a misdemeanor offense punishable by a fine up to \$500.



(Photo by Laura McKenzie/Texas A&M AgriLife Marketing and Communications)

For more information about brand renewal, we recommend you read this article by Dr. Tiffany Lashmet: <https://agrillife.org/texasaglaw/2021/08/23/tx-livestock-horse-brands-expiring-need-to-renew-by-february/>



Planting Your Fall Vegetable Garden

MATLIN SAIN: PRESIDIO COUNTY ANR AGENT

For most Texans, the fall season is probably the most favorite. The cool and crisp air brings excitement that the hot, hot Texas summers have come to an end. However, there is more to celebrate than the end of the hot summers – Fall Gardening.

Gardening in the fall and winter can be tricky. This is the time where a gardener really needs to know the difference between cool season vegetables or winter vegetables and those summer veggies. However, that doesn't mean that planting your fall garden is impossible, but it does require some planning and investigating. Below you will find some of the most common fall/winter vegetables in Texas. I highly recommend that you keep a list like this one on hand, so that you can plan your fall garden in the summer.

Table 1. Average planting dates for fall vegetables in various growing regions of Texas.

Vegetables	Region I	Region II	Region III	Region IV	Region V
Beans, snap bush	Jul 15	Aug 1	Sep 1	Sep 10	Oct 1
Beans, Lima bush	Jul 15	Jul 25	Aug 20	Sep 1	Sep 15
Beets	Aug 15	Sep 1	Oct 15	Nov 1	Dec 15
Broccoli	Jul 15	Aug 1	Sep 1	Oct 1	Nov 1
Brussels sprouts	Jul 15	Aug 1	Sep 1	Oct 1	Nov 1
Cabbage	Jul 15	Aug 1	Sep 1	Oct 1	Nov 1
Carrots	Jul 15	Aug 15	Nov 10	Nov 20	Dec 15
Cauliflower	Jul 15	Aug 1	Sep 1	Oct 1	Nov 1
Chard, Swiss	Aug 1	Aug 15	Oct 1	Oct 20	Dec 15
Collards	Aug 1	Aug 15	Oct 10	Oct 20	Dec 15
Corn, sweet	Jul 1	Aug 10	Aug 20	Sep 10	Sep 20
Cucumber	Jul 15	Aug 1	Sep 1	Sep 10	Oct 1
Eggplant	Jul 1	Jun 15	Jul 1	Jul 10	Aug 1
Garlic (cloves)	Jul	Aug	Oct	Nov	Dec
Kohlrabi	Aug 15	Sep 1	Sep 10	Oct 1	Nov 1
Lettuce, leaf	Sep 1	Sep 15	Oct 10	Nov 1	Dec 1
Mustard	Sep 1	Oct 1	Nov 1	Dec 1	Dec 15
Onion (seed)	Not recommended	Not recommended	Nov 1	Dec 1	Dec 15
Parsley	Sep 15	Oct 1	Oct 10	Nov 1	Dec 1
Peas, southern	Jun 15	Jul 1	Aug 1	Aug 15	Sep 1
Pepper	Jun 1	Jun 15	Jul 1	Jul 15	Aug 1
Potato	Not recommended	Aug 1	Sep 1	Oct 1	Not recommended
Pumpkin	Jun 1	Jul 1	Aug 1	Aug 10	Sep 1
Radish	Sep 1	Oct 1	Nov 25	Dec 1	Dec 15
Spinach	Aug 15	Sep 1	Nov 15	Dec 1	Dec 15
Squash, summer	Aug 1	Aug 15	Sep 10	Oct 1	Oct 10
Squash, winter	Jun 15	Jul 1	Aug 10	Sep 1	Sep 10
Tomato	Jun 1	Jun 15	Jul 1	Jul 10	Aug 1
Turnip	Sep 1	Oct 15	Nov 1	Dec 1	Dec 15

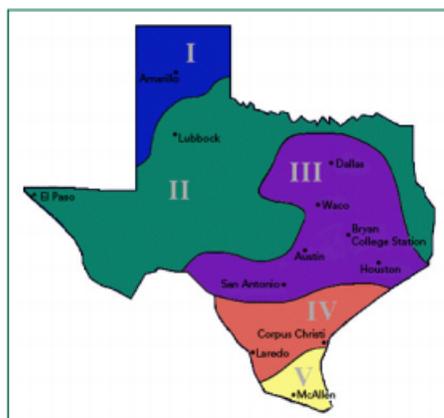


Figure 1. Gardening regions of Texas.

Table 3. Average minimum temperatures for Texas gardening zones.

Texas gardening zone	USDA Hardiness Zone	Average minimum temperature
Zone I	Zone 6	-10–0°F
Zone II	Zone 7	0–10°F
Zone III	Zone 8	10–20°F
Zone IV	Zone 9A	20–25°F
Zone V	Zone 9B	25–30°F

Now that you know what vegetables you can plant during the fall; it's time to prepare your soil for vegetables and herbs. This means removing all dead or decaying plant matter from your garden, along with those pesky weeds. By removing dead plant matter, it can prevent diseases, fungi, and bacteria from spreading to your new crops. Also, don't forget to refer to your soil sample that you tested! If you have not done so already, I highly recommend contacting your local county extension agent for a free soil sample bag. Lastly, choose the best variety of fall vegetables that will grow in your region. Furthermore, it is recommended that the vegetables you will plant will be suitable for your household and always determine if you have enough space before planting seed or a transplant. For example, pumpkins and other squash can take up quite a bit space in your garden, so make sure you leave open space for them to grow. For more information on planting a fall garden, I recommend utilizing this article by Dr. Larry Stein and Dr. Joe Masabni:

<https://agrillifeextension.tamu.edu/browse/featured-solutions/gardening-landscaping/fall-vegetable-gardening-guide-for-texas/>



How to Practice Self-care on a Busy Schedule

KAILEY SCOTT: CROCKETT COUNTY FCH AGENT & MENTAL HEALTH FIRST AID USA

You're making a difference for so many people, but how can you be the difference for yourself? You can practice self-care.

When we hear about self-care, we often think about expensive massages, retail therapy, yoga classes and vacations. These are all great ways to relieve stress and relax but aren't always an option. Many of us face busy schedules, nonstop pressures and daily expenses that make self-care seem impossible.

But it's not. In fact, self-care is something that can be done in as little as 10 minutes a day with no cost at all. And it can help reduce stress and positively impact your mental health and well-being.

Use these self-care strategies to develop a routine that fits into your schedule and budget.

1. Exercise. Moving your body every day can help clear your mind of the day's stress, reduce symptoms of depression and anxiety, or prevent anxiety before it even starts. This can be as simple as taking a walk outside or stretching at home.
2. Self-help books based on cognitive behavioral therapy. According to the National Institutes of Health, "Cognitive behavioral therapy (CBT) has been associated with improvements in quality of life in anxiety patients." Self-help books that use theories of CBT can help you work through periods of stress or anxiety. Check out the Association for Behavioral and Cognitive Therapies' recommendations for self-help books that can help.
3. Computerized therapy. There are self-help treatment programs available online that can be done at your own pace and are sometimes free-of-charge. Moodgym (paid subscription) is just one example of a CBT website that has been evaluated in a scientific trial and found to be effective in relieving depression symptoms if people work through it systematically.
4. Relaxation training. Methodically tensing and relaxing certain muscle groups can help you relax voluntarily when feeling overwhelmed, stressed or anxious. This can take as little as five minutes and can have a positive impact on your state of mind. Relaxation tapes are also available online.
5. Light therapy. Exposing your eyes to bright lights, especially in the morning, can have a major impact on your mental health and well-being. This can be as simple as a morning walk in the sun!

Self-care doesn't need to be expensive or time-consuming. Even small changes to your routine, like getting more light in the morning, can improve your overall mood and make for a more stress-free day. We hope you will incorporate these and other ideas into your daily routine.

Thank you for choosing to #BeTheDifference for yourself and remember to practice self-care with Mental Health First Aid.

