



**TEXAS A&M AGRILIFE EXTENSION - FRIO COUNTY**

**FRIO COUNTY AGRICULTURE & NATURAL RESOURCES NEWSLETTER**

**Dear Agricultural Producers:**

We are pleased to be able to provide you with information contained in this newsletter. The Frio County Agriculture & Natural Resources Newsletter is a Monthly newsletter beginning January 2023. Best efforts have been made to include Agriculture & Natural Resources information that should be of interest to you and helpful in the management of your agricultural operations. A wide variety of educational publications are available upon request or by accessing the Texas A&M AgriLife Extension website at [www.agrilifeextension.tamu.edu](http://www.agrilifeextension.tamu.edu). Our office hours are from 8:00 a.m.- 12:00 p.m. and 1:00 p.m.-5:00 p.m., (Monday-Friday). It is recommended that office visits be scheduled in advance or by appointment as there will be times that I'm not in the office.

You are encouraged to read this newsletter and keep informed of all on-going agricultural events and activities. Try to do your best to attend Extension educational programs, workshops, etc., throughout the year as they are sponsored by your local Extension committees for your educational benefit. We would like to acknowledge the Extension Agricultural Specialists and cooperators including: TSCRA, Texas Drought Monitor, AgriLife Today, Aggie Horticulture, and the Texas A&M Beef Cattle Browsing, who contributed and provided the educational information for this educational newsletter. For any further questions regarding your agricultural operation, please contact the Frio County Extension Office (830) 505-7474, located at 400 S. Pecan St. Pearsall, Texas, or e-mail [brianna.gonzales@ag.tamu.edu](mailto:brianna.gonzales@ag.tamu.edu). Visit the Frio County AgriLife Extension website at <https://frio.agrilife.org>.



Sincerely,

**Brianna G. Gonzales**  
**County Extension Agent- Agriculture & Natural Resources**  
**Frio County**



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**Helpful Texas A&M AgriLife Extension Service Websites:**

- [agrilifeextension.tamu.edu](http://agrilifeextension.tamu.edu)
- [texaswater.tamu.edu](http://texaswater.tamu.edu)
- [aggie-horticulture.tamu.edu](http://aggie-horticulture.tamu.edu)
- [livestockvetento.tamu.edu](http://livestockvetento.tamu.edu)
- [animalscience.tamu.edu](http://animalscience.tamu.edu)
- [texashelp.tamu.edu](http://texashelp.tamu.edu)
- [SouthTexasRangelands.tamu.edu](http://SouthTexasRangelands.tamu.edu)





# BQA TIP

## Rotational Grazing

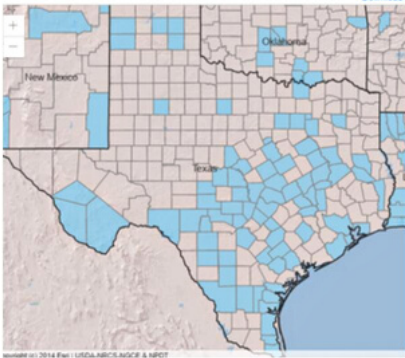
- For most operations the ability to do some rotational grazing is beneficial.
- With a rotation system cattle can be kept out of certain fields so they can be cut for hay, set aside to grow stockpiled forage for fall grazing, overseeded with cool-season annual forages, or allow time for highly palatable forages to grow and reproduce.
- It is important to realize that rotational grazing is not a magic bullet and there are many claims about increases in production that are not accurate.
- Keep the rotation plan simple; splitting a property into 3 to 5 pastures works well in many situations.

***For more information please visit:  
<https://texasbeefquality.com/bqa-tips/>  
[or animalscience.tamu.edu.](http://animalscience.tamu.edu)***



# RANGELAND PLANT IDENTIFICATION

By: Stacey Hines Ph. D., Assistant Professor, Rangeland Habitat Management Specialist



Distribution Map Credit: USDA Plants Database @ plants.usda.gov

## Yellow Bluestem Distribution

Yellow bluestem is found throughout most Texas ecoregions. It is the OWB species most often seen growing along roadsides.



## Yellow Bluestem Look-a-Likes

Leaf green-up and the presence of a seed-head in the early spring is one of the first indications you may be looking at an OWB and not a native bluestem. In the field, it is nearly impossible to distinguish yellow bluestem from Kleberg bluestem. Some differences between these two species: Kleberg bluestem is taller, often has more leaf material, and grows best on loamy to clay soils. Yellow bluestem grows across a variety of soil types and more often in highly disturbed areas. The inflorescence base on Angleton bluestem is very hairy while they are not hairy on yellow or Kleberg bluestems.

Without a seedhead, yellow bluestem leaves look similar to these natives- little and silver bluestem. However, the base or crown of yellow bluestem is more flat.

## Yellow Bluestem (KR Bluestem)

*Bothriochloa ischaemum*



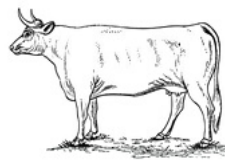
## Plant Identification Tips



[Neighborhood Plants: KR Bluestem](#)

Yellow bluestem, also known as King Ranch bluestem, is a non-native, invasive bunchgrass 18-48" tall. The crown, the base of the plant at the soil surface, is almost flat. The narrow, 0.2" wide, leaves grow up to 8" long. The upper surface of the leaves are covered with silky hairs. The leaves are thicker near the collar and ligule. The dark colored nodes on the stems may have a ring of white 'fuzz' or may be hairless.

The reddish, purple inflorescence, or seed head, has 3 to 8 spicate branches that can grow to 4" long. It flowers often throughout the year. It was observed flowering in Nueces county as early as April.



## Livestock & Wildlife Value

New growth can provide forage for livestock and wildlife. [If fertilized and harvested timely, can provide hay with CP of 10-16%.](#)



## Risk and Diversity Management

Yellow bluestem forms monocultures and invades both native and non-native grasslands. Disturbance practices increase abundance. Multiple combination treatments, [disking and glyphosate herbicide applications](#), for 1 year followed by re-seeding with natives in autumn may increase diversity in OWB monocultures (Clayton et al., 2017).

Parts of this article were derived from:  
[Clayton et al. 2017. Introduced Bluestem Grasses: Management on Native Lands. Texas A&M AgriLife Extension ERM-036.](#)  
[Everitt et al. 2011. Grasses of South Texas. Texas Tech University Press.](#)

**Stacy L. Hines, Ph.D.**  
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# Variable deficit irrigation in cotton can help improve yields, save water

Timing of deficit determines effect on yield and water-use efficiency

**"Cotton producers struggling with available water after drought and dropping water tables can maximize crop yields from limited water with some planning and implementation of variable deficit irrigation, according to research by Texas A&M AgriLife Research scientists."**

A team of Texas A&M AgriLife researchers recently published "Evaluation of growth-stage-based variable deficit irrigation strategies for cotton production in the Texas High Plains" in the *Agricultural Water Management* journal. "This study is receiving a lot of attention from area producers who are trying to maximize their limited water," said Srinivasulu Ale, Ph.D., AgriLife Research agrohydrologist at the Texas A&M AgriLife Research and Extension Center at Vernon and the Department of Biological and Agricultural Engineering.

"Results from this modeling study provide useful recommendations on appropriate irrigation management strategies for sustaining cotton production under different weather conditions while conserving valuable groundwater resources of the Ogallala Aquifer." Ale was joined on the study by his former postdoc Sushil Himanshu, Ph.D., and current postdoc Sayantan Samanta, Ph.D., AgriLife Research, Vernon. Also on the team were Jourdan Bell, Ph.D., Texas A&M AgriLife Extension Service agronomist, Amarillo; Jim Bordovsky, retired AgriLife Research agricultural engineer, Halfway; and former postdoc Yubing Fan, Ph.D. The U.S. Department of Agriculture Agricultural Research Service laboratory at Lubbock was represented by Dennis Gitz, Ph.D., and Robert Lascano, Ph.D., and at Bushland by David Brauer, Ph.D.

## **Row About the study**

The study simulated four irrigation deficit levels in four cotton growth stages, resulting in 256 scenarios. The goal was to identify efficient growth-stage-based variable deficit-irrigation, GS-VDI, strategies based on data from cotton irrigation water-use efficiency field experiments conducted by Bordovsky at the Texas A&M AgriLife Research Center at Halfway. The four growth stages were: first leaf to first square, flower initiation to early bloom, peak bloom, and finally, from cutout to late bloom to boll opening. The long-term simulations reflected conditions from 1977-2019 and were conducted with four deficit levels – 30%, 50%, 70% and 90% evapotranspiration replacements. Based on the results of simulated seed cotton yield and irrigation water-use efficiency, Ale and his team concluded that different efficient GS-VDI strategies should be considered for dry, normal and wet years.

For example, a strategy of 90% evapotranspiration-replacement from first leaf to peak bloom and of 30% evapotranspiration-replacement in the final stage was found to be an ideal strategy in normal precipitation years to achieve higher seed cotton yield while saving 2.56 inches of irrigation water. Overall, the flower initiation/early bloom and peak bloom growth stages were the most sensitive stages to water stress. The cutout, late bloom and boll opening growth stage was the least sensitive stage to water stress and water deficit during this stage did not significantly affect yield and water-use efficiency.

"We also found that the amount of irrigation water required to achieve maximum irrigation water-use efficiency was less than the amount of irrigation water required to achieve maximum seed cotton yield under all weather conditions," Himanshu said. "By adopting GS-VDI strategies, a substantial amount of irrigation water can be saved, and it is possible to achieve high seed cotton yields with less irrigation water." Bell said the results indicated that the extent and timing of water deficit stress in different cotton growth stages substantially affected seed cotton yield, irrigation water use and water-use efficiency.



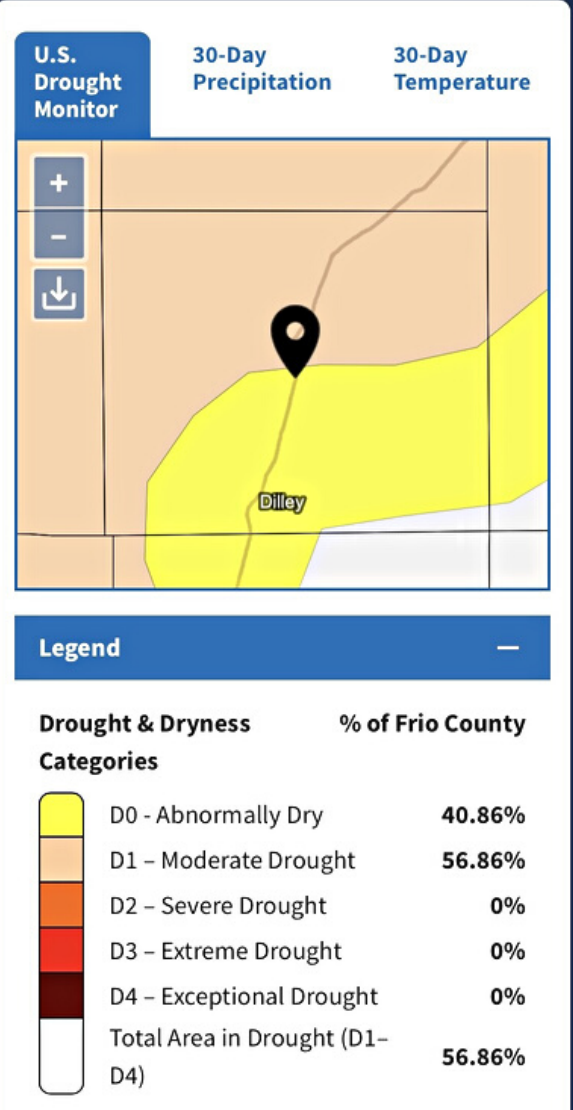
# Variable deficit irrigation in cotton can help improve yields, save water

(continued)

Timing of deficit determines effect on yield and water-use efficiency

The results from this study could be useful for producers in the Texas High Plains region in optimizing the application of limited available irrigation water to achieve higher irrigation water-use efficiency and cotton yields. “We believe producers can go into a normal cotton season with a strategy of 70% deficit in the fourth stage and 10% deficit in the remaining stages,” Ale said. “Our future efforts will focus on simulating the effects of GS-VDI strategies at different sites across the High Plains region to strengthen the recommendations.”

## Current Conditions for Frio County



## Weekly Crop Report - South Region

Topsoil and subsoil conditions were still adequate, but higher temperatures were starting to dry soils. Grain sorghum was coming along well and should begin heading soon. Corn was progressing well. Cotton, sesame and sunflowers were still being planted, and peanut planting was slowly starting. Some sunflower fields were in full bloom. Sorghum was showing signs of aphids and midge. Wheat harvest was delayed, and delays were expected to impact yields. Fertilizer and herbicide applications were ongoing in improved pastures. Strawberry harvest was moving along, but weather and temperatures were making it a challenge. However, the cooler temperatures have allowed plants to continue producing. Cattle prices continued to increase across all classes. Rangeland and pasture conditions were good to excellent. Livestock and wildlife were doing excellent, and ranchers were working cattle and selling the fall calf crop. Quail have paired up, and a few coveys with hatchlings were observed. Feral hogs were impacting crop production. Livestock and wildlife body conditions were improving. Sale volumes at one livestock market dropped from 922 sales to 428 with steady to higher prices for all classes of beef cattle. Hay grazer was growing rapidly and should be ready for baling in the coming weeks. Irrigation stopped on citrus and sugarcane for a few days due to the rainfall received.

FARM & RANCH - [agrilifetoday.tamu.edu](http://agrilifetoday.tamu.edu)





# **The power of flowers: How to keep your garden colorful through the summer:**

## **Tips from AgriLife Extension**

Larry Stein, Ph.D., horticulture specialist at the Texas A&M AgriLife Extension Service, Uvalde, shared his advice on what you can do now to ensure beautiful blooms over the next few months. “It is not too late to sow directly into the soil seeds of sunflower, zinnia, morning glory, portulaca, marigold, cosmos, periwinkles and gourds,” Stein said. “Achimenes, cannas, dahlias, and other summer-flowering bulbs can also be planted in May.”

### **Some other quick flowering advice he offered:**

- Allow the foliage of spring-flowering bulbs to mature and yellow before it is removed.
- Pinch back the terminal growth on newly planted annual and perennial plants to get shorter, more compact, well-branched plants with more flowers.
- Plant caladium tubers, impatiens, coleus, begonias and pentas in your yard or garden’s shady areas.
- Experiment with a container of Bougainvillea this summer since it prefers hot and dry conditions. Keep in mind that full sun and a rest period without too much watering are usually necessary before a burst of new blooms.
- Remove your flowers’ dead heads, unless you are collecting seeds.
- Now through early summer, make cuttings of chrysanthemums already established in your garden. Root them in a mixture of sand and peat moss, cover the cutting box with plastic and place in a shaded area for five or six days to prevent wilting.

“Not only does this allow you to increase your number of plants without having to buy new ones, but it’s also a great way for gardeners to share their favorite flowers with one another,” Stein said.

Stein said as the weather heats up, moisture will be key to keeping flowers and other garden plants growing. Replace or replenish mulch materials in flower beds and shrub borders to conserve moisture and reduce weed growth.

“During the summer, soil moisture becomes extremely important and essential for good plant production,” he said. “Because continual watering is often costly and time-consuming, it pays to conserve the moisture around plants. This is best done by mulching.”

He said a good mulch will retain valuable moisture needed for plant growth and improve overall gardening success. Mulches are usually applied 2-6 inches deep, depending on the material used.

“In general, the coarser the material, the deeper the mulch,” Stein said. “For example, a 2-inch layer of cottonseed hulls will have about the same mulching effect as 4 inches of coastal Bermuda hay or 6 inches of double-shredded hardwood mulch.”



## **Bud and graft trees**

Now is the prime time to bud and/or graft trees. Visit the Aggie Horticulture YouTube channel for how-to videos.

## **Prune climbing roses**

Prune climbing roses as they complete their spring bloom season. Remove dead or weak wood as needed.

## **Look at your landscape with a critical eye**

Take a critical look at your landscape while it's at the height of summer development. Make notes of how you think it can be better arranged, plants that need replacement, overgrown plants that need to be removed and how to create or better utilize activity areas in your yard that can be enjoyed by your family.

## **Check and treat for insects and disease**

Check for insects and diseases and destroy any badly infested plants. Keep an eye out for spider mites, which can be especially troublesome around this time of year. Select a chemical or organic control or use insecticidal soap to treat infested plants.

## **Consider water timers**

Invest in water timers to put out consistent water regularly. Remember that timers are only as good as the person monitoring them; they will eventually fail, and you need to maintain them.

## **Ask an expert**

AgriLife Extension horticulturists are available statewide to offer advice. Many counties also have a Texas Master Gardener chapter with knowledgeable volunteers. Reach out to the AgriLife Extension office in your county to learn what other tools and educational programs may be available to gardeners. Online courses and the Aggie Horticulture websites are also great resources.

**Learn more:**

**<http://aggie-horticulture.tamu.edu/>**





# 2023 Multi-County Beef Reproduction Management Workshop



## **PROGRAM HIGHLIGHTS:**

The 2023 Multi-County Reproduction Management Workshop hosted by Atascosa, Frio, Medina, Wilson, Bexar, McMullen, and Live Oak counties on 5/9/24. This educational event was conducted at the Tom Brothers Ranch in Campbellton, Tx. Beef cattle producers were educated by agents and Dr. Bruce Carpenter (Extension Livestock Specialist) on the Ins & Outs of Pregnancy Testing, Hands on Anatomy of a Cow's Reproductive Tract, Rectal Palpation, Reproductive Diseases, and more.





# 2023 Fecal Project with Merck Animal Health



Photo Credits: Rutherford Ranch

## **FRIO COUNTY RESULT DEMONSTRATION PROJECT:**

Result demonstrations and applied research projects are effective teaching tools and should be used to address the agricultural issues and program needs of the county. County Extension Agents can increase the effectiveness and rate of adoption of new practices by using result demonstrations as a teaching method.

This fecal project with Merck Animal Health aims to determine the prevalence of internal cattle parasites and the effectiveness of current deworming practices. Frio County Extension Agent Brianna Gonzales collected fecal samples from 20 calves and 20 cows on the day of deworming. In 14-18 days, the County Extension Agent collected a second set of fecal samples from the same herds. The second set of fecal samples collected at 14 days will be compared to the fecal samples collected at deworming to determine if there has been a reduction in egg count. There should be a 90% plus reduction in fecal egg counts on the 14-day test; a fecal count showing less than a 90% reduction indicates parasite resistance to the deworming protocol.

Special thank you to Rutherford Ranch and our local Frio County Agricultural Producers for their continued support in allowing us to conduct result demonstration and applied research projects.





A photograph showing a person wearing a cowboy hat and a dark shirt, working with horses inside a metal trailer. The person is holding a green rope attached to a horse. The trailer has metal bars and ropes. The background is slightly blurred, showing more horses and the structure of the trailer.

# Trailer Safety in Texas

*Texas A&M AgriLife Extension Service offers trailer tips on safety, maintenance.*

Agricultural producers use a variety of trailers to carry out daily business, including trailers to haul livestock, feed, supplies and implements. Routine safety towing tips should be kept in mind before venturing out on the road, according to a [Texas A&M AgriLife Extension Service Disaster Assessment and Recovery unit](#) agent. “We see it so frequently when traveling across the state where a vehicle is on the side of the road with a broken-down tow vehicle, a blown-out tire or broken axle,” said Jeff Fant, AgriLife Extension Disaster Assessment and Recovery agent, San Angelo. “After spending my college years working for a livestock/horse trailer manufacturer and the rest of my adult life in law enforcement and disaster response, I’ve found that the best insurance against these catastrophes is proper preparation and preventive maintenance.

## **Safety tips**

The following are recommended tips:

- Know your vehicle’s capabilities. Pickup, trailer and cargo combinations have significant effects on handling and overall performance of the vehicle. The addition of trailer weight and cargo impacts acceleration, turning, stopping and general navigation. Become familiar with the way your vehicle and trailer react when driving before you take a trip.
- Allow additional time when pulling into traffic. The additional load will impact the amount of time it takes to enter a lane of traffic.
- Allow for additional time and space for stopping. Stopping distances increase with the weight of a trailer and cargo. Allow additional space between you and traffic ahead. Begin to decelerate or stop earlier when approaching traffic or traffic lights and intersections.
- Make turns wider to allow the trailer to clear the corner. This also depends on the length of the trailer.
- Drive in the right lane or slow lane to not impede faster traffic.
- Adjust the trailer brakes.
- Do not rely on brakes when going down hills.
- Use a spotter when backing up

## **Other mindful points**

Aside from mechanical safety, Fant recommends drivers put together pre-trip planning information to make the route efficient and more enjoyable. “Check your route before departing,” he said. “Traffic, road closures and construction can affect your travel route. Pre-planning can prevent having to re-route at the last minute.” Fant also recommends inspecting and maintaining the vehicle throughout the year.

“We are all busy and routine maintenance items tend to get overlooked on vehicles and trailers,” he said.

“Inspect and maintain your vehicle,” he said. “Check tire pressure, condition, fluid levels, lights and electrical system, wiper blades and air conditioning system.”

Finally, Fant said it’s always good to be a safe and courteous driver.

“Use the far-right lane as often as possible when trailering,” he said. “Watch for smaller vehicles since pulling a trailer creates a larger blind spot and the need for more reaction space around you.”

Fant said to make sure the trailer is properly connected, and all systems are working correctly. Physically walk around the trailer and inspect. Check coupler, safety chains and lug nuts. Check that safety chains are secure and off the ground to prevent potential fire. Make sure all lights and turn signals work properly.

“And always fasten seatbelts before departing,” Fant said.

**For more information, please visit:**  
<https://agrilifetoday.tamu.edu/> **(Farm & Ranch)**



# BEEF QUALITY ASSURANCE TRAINING

**DATE:** June 27, 2023

**TIME:** 8:30 AM - 12:00 PM

**LOCATION:** Frio County Extension Office  
400 S. Pecan St. Pearsall, TX 78061  
Lunch Provided.

Topics Include: Residue Avoidance - Vaccine Handling - Proper  
Injection Technique - Genetic Selection - Environmental  
Stewardship - Cattle Handling & Welfare



To register for the event, contact [tschuster@tscra.org](mailto:tschuster@tscra.org) or 800-242-7820 ext. 1753,  
or contact [brianna.gonzales@ag.tamu.edu](mailto:brianna.gonzales@ag.tamu.edu).





***\*For more information please contact:***

**Brianna Gonzales-**

**Frio County Extension Agent, at**

**(830) 505-7474**

**[brianna.gonzales@ag.tamu.edu](mailto:brianna.gonzales@ag.tamu.edu)**

2023 Texas A&M  
**Beef Cattle  
Short Course**

*Save the Date!*

**August 7th - 9th, 2023  
College Station, Texas**



**Frio County Texas A&M AgriLife Extension**