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NEWSLETTER**

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 September 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. 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, The Peanut Grower, 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. Visit the Frio County AgriLife Extension website at <https://frio.agrilife.org>.



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Helpful Texas A&M AgriLife Extension Service Websites:

- agrilifeextension.tamu.edu
- texaswater.tamu.edu
- aggie-horticulture.tamu.edu
- livestockvetento.tamu.edu
- animalscience.tamu.edu
- texashelp.tamu.edu
- SouthTexasRangelands.tamu.edu



Sincerely,

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

BLOCK AND TUB SUPPLEMENTS FOR GRAZING BEEF CATTLE

Rick Machen¹, Jim Drouillard², and Joe Harris³

Block supplements are a convenient mechanism for delivering supplemental nutrients to grazing beef cattle. As the labels on most blocks or tubs state, they are meant to be used as supplements, not feeds. Success or failure of a block/tub supplementation program will depend on the availability of forage. If forage is limited or of poor quality, self-fed blocks or tubs cannot make up the nutrient deficit and are not formulated to do so.

Blocks and tubs have become increasingly popular because:

- ▶ They are easy to store and handle.
- ▶ They are easily accessible.
- ▶ They require little labor.
- ▶ Minimal equipment is required.
- ▶ Consumption is self-limiting.

Blocks are particularly appealing to owners of the smallest herds of cattle (fewer than 50 cows) and owners of large operations of more than 300 cows. Many small producers have off-ranch employment and like the convenience and comfort of knowing supplement is continuously available. Large operators use blocks because they save time and labor.

As with other supplements, blocks and tubs can vary widely in their cost, ingredient composition, nutrient content, storage requirements and consumption characteristics. Blocks and tubs generally can be divided into three categories based on the manufacturing method used:

- ▶ Pressed blocks
- ▶ Chemically hardened blocks
- ▶ Tub and low moisture (cooked) blocks and tubs.



Photo by Rick Machen.

PRESSED BLOCKS

Pressed blocks are formed by blending ingredients, conditioning the mix with steam and compressing this mix under 2,000-3,000 psi of pressure. The manufacturing process is similar to that used in making pelleted feeds and supplements. Pressed protein (33 to 250 pounds) and 50-pound mineral blocks are familiar options as grazing cattle supplements.

Advantages — A distinct advantage is the ability to use ingredients commonly found in dry feed mills.

Disadvantages — Formulations are somewhat restrictive; ingredients that are difficult to pellet generally do not make good blocks. For example, adding high levels of fat will jeopardize block integrity. Pressed blocks may deteriorate in humid climates or if exposed to moisture. If blocks take up moisture and soften, intakes will likely be higher than predicted and increase product waste.

Intake — Mature cattle generally average a daily intake of 1-4 pounds of pressed blocks, depending on the hardness of the block and the availability (number fed per unit time).

¹ Texas A&M AgriLife Extension

² Kansas State University

³ Westway Corporation

For more information:



Beef Cattle - Texas A&M AgriLife Extension

CHEMICALLY HARDENED BLOCKS AND TUBS

Chemical blocks are manufactured by combining liquid and dry ingredients into a slurry. The slurry is dispensed into cardboard containers or plastic tubs and allowed to cure. The block hardens as a result of chemical reactions between water and metal oxides such as calcium oxide or magnesium oxide. Hardness of the block or tub is regulated by altering the concentration of metal oxides. Once hard, chemically set blocks do not change shape.

Advantages — Chemical process blocks use many ingredients common to both liquid and dry feed manufacturing. Formulation is more flexible than the other two processes.

Disadvantages — Chemical blocks may have a high ash (mineral) content. Ingredients such as magnesium oxide may limit intake because of their objectionable flavor. These blocks can deteriorate during prolonged inclement weather, especially if packaged in cardboard.

Intake — Mature cattle normally consume an average of 1-3 pounds daily.

LOW MOISTURE (COOKED) TUBS

This is the most expensive tub manufacturing process, requiring specialized blending, evaporating and packaging equipment. Liquid ingredients are heated to 240-280 degrees F (cooked), subjected to a vacuum to remove moisture, combined with dry ingredients in a blender and poured into rigid containers.

Advantages — Low moisture tubs result in uniform consumption rates when used in intensive grazing environments. Also, consumption levels tend to be the lowest of the three types of blocks.

Disadvantages — Packaging options are limited because these blocks tend to absorb moisture from the air. Due to the consistency of the products and their tendency to change shape, containers must be stored in the upright position. In addition, the process is somewhat restrictive in the proportions of dry ingredients that can be incorporated. Specialized manufacturing equipment is also required.

Intake — Low moisture blocks soften or liquify on the surface as they absorb moisture from the air, which controls intake. Average daily intake by mature cattle generally ranges from 0.5-1.5 pounds. If forage quality is low (for example, dormant, weathered native grasses or dormant mature bermudagrass), intake of low moisture products may not provide the necessary amount of supplemental protein. When supplements are fed in extensive grazing situations (large pastures with low stock density), consumption can vary greatly.



Photo by Rick Machen.

EFFECTIVE USE OF BLOCK AND TUB SUPPLEMENTS

Read and follow label instructions. Provide blocks or tubs as soon as protein or energy deficiency is suspected and before noticeable loss of body condition. Young cattle grazing mature forages may require continuous access, regardless of expected diet/forage quality.

Proper placement of the supplement in a pasture affects consumption. Cattle will visit more frequently and consume more of supplements placed near water or loafing areas.

If consumption is lower than expected, increase the number of tubs. If aggressive animals dominate the tubs, spread the tubs out to discourage social interactions between competing animals.

In large pastures, movement of supplements can influence grazing distribution. Moving blocks to ungrazed areas will encourage more uniform grazing distribution. Do not place blocks or tubs in riparian areas. Cattle tend to congregate around supplements. The resulting bare ground and animal waste could be a source of non-point source water pollution. Do not locate tubs near surface water (ponds, streams or rivers). Cattle often push and play with empty tubs, which can float away.

Remember

Blocks and tubs are forage supplements, not forage substitutes. Forage must be available in adequate quantity and quality for any supplement to produce the desired results.



Waiting on rain: Texas Gardeners to Prioritize Water

AgriLife Extension's Gardening Guide offers tips to survive heat and dry spell

For most Texas gardeners, the heat of summer has felt never-ending, and the rain has been far too sparse, creating a need to prioritize which plants to water, and which ones can wait.

“Unfortunately, water remains the name of the game as we move into September,” said Larry Stein, Ph.D., [Texas A&M AgriLife Extension Service](#) horticultural specialist, Uvalde, and professor in the [Texas A&M College of Agriculture and Life Sciences Department of Horticultural Sciences](#). “September is usually the transition month from summer to fall, but there often can be many 100-degree days in September as well.”

September also traditionally brings much needed showers heading into fall, so Stein said don’t give up hope.

“It has been a tremendously hot and dry summer, and many plants are hurting and some appear to be dying,” Stein said. “Water the best you can right now, pray for rain and hang in there until it comes.”

With the [U.S. Drought Monitor](#) showing most of Texas ranging from abnormally dry to exceptional drought, very few parts of the state are getting the rain crops, gardens and people need right now. Currently, over 75% of the state is in a stage of drought, which is affecting more than 23.5 million people.

“Sustaining adequate moisture in the garden and landscape is the No.1 priority for late summer and fall,” Stein said.

Those Texans with water restrictions will have to continue to choose where they put their water and how best to conserve it.

“Ideally, one should water trees and shrubs by giving them at least 1 inch of water per week, delivered slowly, around the plants as far out as the dripline extends,” he said.

Last month’s [Texas A&M AgriLife Gardening Guide](#) offers additional guidance on watering during drought along with some conservation tips.

For more information:
AgriLife Today - Lawn & Garden



Garden Tips

AgrLife Extension's Gardening Guide offers tips to survive heat and dry spell

- **Apply a light fertilizer**

Deadhead roses and other perennials and then apply light fertilization for a fall bloom.

- **Prune with prudence**

Prune out dead or diseased wood from trees and shrubs, but hold off on major pruning until midwinter. Pruning now may stimulate tender growth prior to frost.

- **Prepare the soil for bulbs**

Prepare garden beds for spring-flowering bulbs as soon as possible. It is important to cultivate the soil and add generous amounts of organic matter to improve the water drainage. Bulbs will rot without proper drainage.

- **Think about seasonal color**

Flower plantings at this time can provide landscape color for three seasons in the central, eastern, and southern parts of Texas. Annuals set out early enough will bloom as soon as Thanksgiving and frequently last until Memorial Day.

- **Don't plant annuals until the weather cools**

Annuals that should soon be available in nurseries and garden shops include petunias, calendulas and pansies. Resist the urge to plant until the weather cools.

- **Add mulch as needed**

Replenish mulches around trees and shrubs. Mulch is crucial for retaining moisture so check for bare spots and add as needed.

- **Start cool-season vegetable seeds**

Start cool-season vegetables, such as mustard, lettuce, arugula, broccoli, carrots and turnips, from seed in well-prepared beds.

- **Harvest what vegetables you can**

Harvest okra, peppers, squash and other vegetables often to encourage further production.

- **Plan for pests**

Now is a good time to assess the fire ant situation in your yard and develop a control plan.

For more information:
AgrLife Today - Lawn & Garden

Sporadic rainfall brings relief to parts of Texas

Recent rainfall helped relieve some areas across Texas, but more is needed to escape drought conditions, according to Texas A&M AgriLife Extension Service experts.

After receiving above-average rainfall in May and June, the state was hit with extremely hot and dry conditions throughout July and August. Jourdan Bell, Ph.D., AgriLife Extension agronomist, Amarillo, said the rainfall will help the soil moisture profile, but the timing also could negatively impact farming schedules. “When looking at these areas, we have to consider the intensity of rainfall we experienced this week,” she said. “Will the recent September rain negatively impact the harvest? Or will it assist the end of our summer crops?”

Rainfall in the High Plains

Across the High Plains, rainfall was extremely variable. Sporadic showers delivered anywhere from 4/10 of an inch up to 4 inches of rainfall. “The rain we’ve received could have benefited our crops,” said Bell. “But when we received rain in some areas, cotton farmers were struck with baseball-sized hail in a production period that is extremely detrimental.”

Other areas of the High Plains that produce corn, sorghum and forages are in reproductive stages when moisture is critical. Those producers should benefit from the rainfall and move into wheat planting season with adequate soil moisture to plant the cool-season crop.

Areas that received no rainfall and were relying heavily on irrigation systems were expected to see lower yields this year due to a lack of well capacity to help fields overcome the drought. “Generally, when we haven’t received normal precipitation, irrigation systems helped stabilize our crops,” Bell said. “But groundwater has met a point in the High Plains where wells cannot produce enough to help stabilize this production.”

What to Expect

As of Sept. 14, the El Niño is anticipated for a higher chance of rainfall from January to March, said John Nielsen-Gammon, Ph.D., Texas state climatologist and Regents Fellow in the Texas A&M College of Geosciences Department of Atmospheric Sciences.

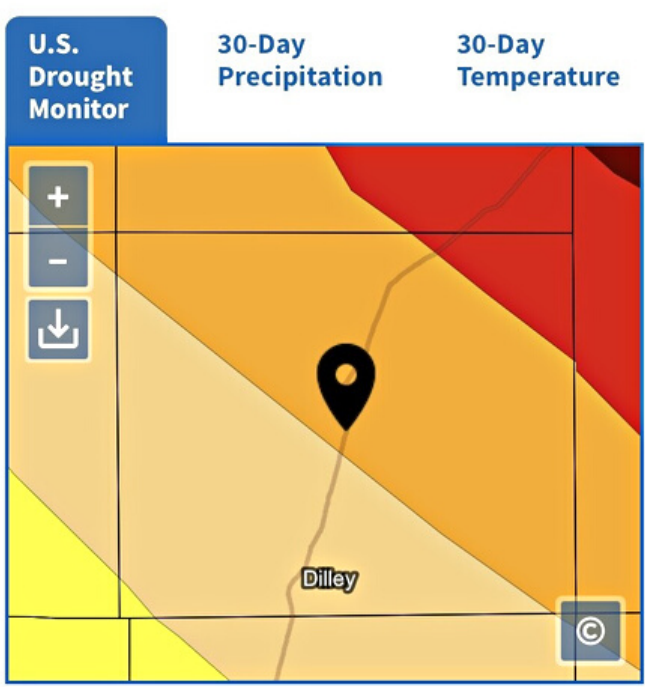
“We have gotten more rain the past week than we have in the last month,” Nielsen-Gammon said. “The El Niño is looking more and more prominent. But it’s going to take a lot more rain to break the drought since certain areas are 12-15 inches below normal water level.”

As far as temperatures go, the rain received across the state will keep those areas below triple-digit temperatures. The South and southwestern parts of the state like Laredo and Big Bend areas will continue to reach triple-digit numbers, Nielsen-Gammon said.

FARM & RANCH - agrilifetoday.tamu.edu

Sporadic rainfall brings relief to parts of Texas

Current Conditions for Frio County



Weekly Crop Report - South Region

The district received little rain, ranging between 0.25-2 inches. Despite the rainfall, the district was still under severe to extreme drought conditions. Many rangelands and pastures were bare, with small amounts of grass available for livestock. Cotton harvest was about 98% complete in some areas. Irrigation continued on citrus and sugarcane crops. Sesame harvest neared completion, with yields slightly below average. Most producers were hauling hay, feed and water to their herds. Cattle prices continued to rise as many producers thinned their cattle herds. Supplemental feeding continued. White-tailed deer and other wildlife were seen around water sources. Dove populations were good as the season started.

FARM & RANCH - agrilifetoday.tamu.edu

2023 District 12 Agriculture & Natural Resources Team Award - Weslaco, TX



Congratulations to our Frio County Extension Agent Brianna Gonzales and Atascosa County Extension Agent Dale Rankin on receiving the 2023 District 12 Agriculture & Natural Resources Team Award for excellence in team programming approaches through Peanut Production educational programs. Huge thank you to AgriLife Research of Corpus Christi, Stephenville, Lubbock, and College Station, Texas Peanut Producers Board, South Texas Peanut Growers Association, Frio & Atascosa County ANR Committees, Tech Farms, G&M Farms, Gary Boyd Farms, Slomchinski Farms, and Bennett Partnership.

2023 South Texas Peanut Grower's Annual Peanut Tour - Pearsall, TX



PROGRAM HIGHLIGHTS:

A packed house with over 50 attendees at the 2023 South Texas Peanut Grower's Annual Peanut Tour! Huge thank you to Frio County Judge Rochelle Camacho for the warm welcome. Thanks to our speakers Dr. John Cason, Dr. Josh McGinty, Dr. James Grichar and Industry Reps for putting on great impactful presentations on Peanut Breeding Trials & Variety Performance and Peanut & General Weed Control. Thank you to our Cooperator's G&M Farms, Slomchinski Farms, Tech Farms, Wilmeth Farms, Gary Boyd Farms, and Bennett Partnership. Lastly, a huge thank you to our sponsors Capital Farm Credit, South Texas Peanut Growers Association, and Executive Director of the Texas Peanut Producers Board, Mrs. Shelly Nutt for sponsoring today's meals and door prizes. This event was hosted by Texas A&M AgriLife Extension of Frio and Atascosa counties.





PRIVATE WATER WELL SCREENING

Hosted by: Frio, Atascosa, La Salle, McMullen, Dimmit, & Zavala Counties

(Private water wells should be tested annually)

WHEN: Wednesday, October 11, 2023.

**WHERE: Frio County AgriLife Extension Office
400 S. Pecan St. Pearsall, Texas 78061**

**COST: \$15.00 per water sample
(Please bring & drop off water samples by 9:00AM)**

WATER SCREENING RESULTS

Pick up results on Thursday, October 12, 2023, at the Frio County Extension Office - After 4pm.

***Samples Screened For: Fecal Coliform Bacteria, Nitrates, Salinity, Hydrocarbons**

**For More Information: Brianna Gonzales, Frio County Extension Agent,
(830) 505-7474 or brianna.gonzales@ag.tamu.edu.**

The Texas A&M AgriLife Extension Service provides equal access in its programs, activities, education, and employment, without regard to race, color, sex, religion, national origin, disability, age, genetic information, veteran status, sexual orientation, or gender identity. The Texas A&M University System, U.S. Department of Agriculture, and the County Commissioners Courts of Texas Cooperating.

Southwest Texas Soil Testing Campaign

Dimmit, Frio, Kinney, Medina, Uvalde, and Zavala Counties

The Texas A&M AgriLife Extension Service Soil Testing laboratory's primary mission is to provide research-based analysis and non-bias recommendations for agronomic and non-agronomic soil analysis.

Samples will be collected from October 16, 2023 to November 2, 2023. Landowners may pick up soil sample bags, instructions, and forms at their local County Extension Office.

- Dimmit County, 539 Industrial Blvd, Carrizo Springs, Tx 78834, (830) 876-8030
- Frio County, 400 S Pecan St, Pearsall, Tx 78061, (830) 334-0099
- Kinney County, 117 Ranch Road 693, Brackettville, Tx 78832, (830) 563-2442
- Medina County, 1506 Ave M, Hondo, Tx 78861, (830) 741-6180
- Uvalde County, 122 Veterans Ln, Uvalde, Tx 78801, (830) 591-9046
- Zavala County, 221 N 1st Ave, Crystal City, Tx 78839, (830) 374-2883

Your County Extension Agent will notify participants when results are ready to pick up.

Soil Tests Available:
Routine Analysis (R): \$8
R + Micronutrients: \$15
CASH ONLY



****For more information please contact:
Brianna Gonzales-
Frio County Extension Agent, at
(830) 505-7474
brianna.gonzales@ag.tamu.edu.***



Frio County Texas A&M AgriLife Extension