



**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: The Cattleman, TSCRA, 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) 334-0099, 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**

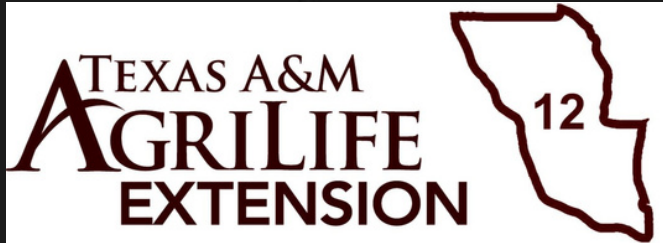


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**Helpful Texas A&M AgriLife Extension Service Websites:**

- [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)



VACCINES FOR CATTLE  
ARE GENERALLY  
CLASSIFIED AS KILLED OR  
MODIFIED-LIVE

- Vaccines for cattle are generally classified as killed or modified-live.
- When and how vaccines can and should be used changes depending on classification and specific product, so it is critical to read and follow label directions.
- In general, killed vaccines can be used across all cattle types regardless of previous vaccine history.
- Most killed vaccines are given in a 2 dose series initially followed by an annual booster.
- Modified-live viral vaccines have restrictions for use in breeding animals or calves nursing cows; these restrictions also vary depending on previous vaccine history.

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



# Inflationary challenges affecting retail beef prices

## Beef prices below 2021 levels, but remain historically higher

Though retail beef prices are lower than a year ago, prices remain historically higher as inflationary challenges affect the overall U.S. economy and projected fewer cows heading into 2023, according to a Texas A&M AgriLife Extension Service livestock economist. “Retail beef prices are lower than a year ago even though the total Consumer Price Index number is 7.1% higher than last year,” said David Anderson, Ph.D., AgriLife Extension livestock economist, Bryan-College Station. “(Retail beef prices) have been lower for several months now. And they are lower than last month. However, the level of prices remains high in comparison to the past several decades.”

Anderson said there are signs that consumers are looking at alternative beef cuts as a cost-savings measure at the retail meat case. “I think there’s evidence that consumers are switching to less expensive items,” he said. “For example, maybe buying fewer ribeye cuts and more less-expensive steaks or more ground beef. Overall, beef demand remains good, and people continue to buy. That’s one reason retail prices have remained high since folks are buying. The impact of higher costs throughout the economy and higher interest rates will impact people’s budgets and people will buy less of all kinds of goods. That will bring down prices and inflation.” Prime rib will continue to be featured on many dining tables this holiday season despite costing more, Anderson said. “Prime rib, standing rib roasts make a great celebration/holiday dinner,” he said. “In fact, we are doing that at my house. They aren’t cheap, though, but we are going to enjoy it and celebrate together.”

### **Record beef production**

As 2022 comes to an end, beef production across the U.S. has been at a record pace due to drought conditions over much of the country. “We are on pace to produce a record amount of beef this year, over 28 billion pounds,” he said. “Production is up because of the drought, and higher production costs are forcing ranchers to cull their herds. So, the increased number of culled cows and heifers are boosting beef production, for now. While production is high now, in the future we’ll have a lot less beef production as the impact of fewer cows and calves is felt.” Meanwhile, wholesale beef prices are well below a year ago. The lower wholesale prices are very slowly translating into lower retail prices, Anderson said. “Those lower prices should start to show up at grocery stores,” he said. “Beef has actually become relatively less expensive than pork and chicken in recent months as beef prices have declined.” Wholesale chicken prices have declined dramatically in recent weeks and months due to rising production, Anderson said. “Pork and chicken retail prices both declined from the previous month in the CPI data, but they remain well above last year,” he said.

### **Fewer cows projected for 2023**

Anderson said the overall U.S. cow herd will see a 3% reduction compared to a year ago. “We are headed to fewer cows in the U.S.,” he said. “Beef cow culling is up 28% in our region over a year ago. So, we are headed to tighter beef production and given biology we’ll have tighter beef production into at least 2025. Drought recovery and prices/costs that get ranchers back to some profits will be required to rebuild herds.”

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



# SUPPRESSION OF STABLE FLIES ON CATTLE

Sonja L. Swiger<sup>1</sup> and Jeffery K. Tomberlin<sup>2</sup>

The stable fly may be the most significant livestock pest in America. Its painful bite and blood-feeding behavior causes stress and may lead to self-injury while trying to escape an attack. More than 20 flies per animal can adversely affect animal health and significantly lower income for livestock producers.



Figure 1. Adult stable fly.

Evidence shows that heavy infestations of stable flies on beef cattle reduce weight gain by 25 percent and, in dairy cattle, decrease milk production by 10 to 20 percent.

To suppress stable flies effectively and economically, it is important to:

- ▶ Identify them properly,
- ▶ Understand their life cycle, and
- ▶ Use a combination of control strategies.

## IDENTIFICATION

The stable fly, *Stomoxys calcitrans* (Fig. 1), looks like the house fly but is smaller, measuring about 5 to 7 millimeters. Stable fly mouthparts protrude bayonet-like from the front of the head, unlike the house fly with its non-protruding, sponge-like mouthparts.

The stable fly abdomen differs from the house fly by having seven circular spots in a checkerboard pattern. The house fly abdomen has no pattern.

Because stable flies primarily bite the legs of livestock, they may first be noticed when livestock stomp and kick their legs excessively. Stomping also makes dairy cows difficult

to milk. When stable flies are present, unrestrained animals will bunch up in self-defense, which can cause an increase in heat stress.

## BIOLOGY AND HABITAT

The stable fly has a complete life cycle with egg, larval (maggot), pupal, and adult stages (Fig. 2). Populations can increase quickly. Under optimal conditions, the egg to adult cycle is about 3 to 4 weeks; therefore, several generations can develop each year.



Figure 2. Stable fly maggots and pupa.  
 (Courtesy of Bart Drees, Texas AgriLife Extension Service)

A female stable fly lives for 3 to 4 weeks and lays 500 to 600 eggs during her lifetime.

The eggs are typically laid in wet straw, wet hay bales (Fig. 3), or in other decomposing vegetation mixed with the urine and feces produced by the animals.



Figure 3. Remnants of hay bales can become breeding sites for stable flies.  
 (Courtesy of Jeff Tomberlin, Texas A&M University)

<sup>1</sup> Associate Professor and Extension Entomologist, Texas A&M AgriLife Extension Service

<sup>2</sup> Professor, Texas A&M University

# MANAGEMENT

To suppress stable fly populations efficiently, producers should use an integrated pest management (IPM) approach. IPM relies on three tactics for successful suppression of an insect pest: cultural, biological, and chemical.

**Cultural control:** Cultural control methods involve manipulating the environment to reduce insect pest populations. The most economical and effective method for suppressing stable fly populations is sanitation.

In confined animal facilities, a top priority should be to eliminate stable fly breeding sites as often as possible. To do this, remove and spread decomposing vegetation or bedding material that has become mixed with urine and feces. Spreading the bedding will allow the material to dry faster and prevent colonization by the stable fly.

Another tactic for confined animal areas is to design the stalls to allow for complete manure removal and drainage. Cleaning out the wet feed remaining in the ends of troughs should be done weekly, as the wet feed serves as a breeding site for flies.

For small to moderate populations of adult flies, sticky traps and other mechanical methods, combined with sanitation, are effective in confined areas. However, sticky traps will not substantially reduce fly numbers alone. Sticky traps should be changed weekly as they become coated with dust or “saturated” with flies.

Spreading decomposing vegetation, such as unused hay, should also be implemented for range or pasture cattle. When hay bales are provided as supplemental feed for cattle, sites where hay bales have been placed can become ideal stable fly breeding areas (Fig. 3). Hay rings can help to reduce stable fly populations in the field or pasture by reducing the amount of wasted hay trampled into the soil. Regularly moving cattle feeding sites reduces accumulations of wasted hay and helps eliminate breeding sites.

**Sticky Traps:** The use of sticky traps provides a non-chemical approach to controlling both male and female stable flies. Sticky traps are attractive to adult flies as resting locations during bloodmeal digestion. These traps are best placed out of reach of animals. Currently, there are three traps on the market designed to work against stable flies: the Knight Stick Biting Fly Trap from BugJammer, Inc., Starbar Bite Free Stable Fly Trap, and Olson’s Biting Fly Trap.

**Biological control:** This IPM tactic uses natural predators, such as fire ants, parasitoids like the wasp *Spalangia sp.*, or pathogens, such as *Bacillus thuringiensis*, to suppress pests.

The parasitic wasp, *Spalangia sp.*, is available commercially. The wasp lays an egg into the pupa of the stable fly. The

immature wasp feeds on the pupa, eventually killing it. The wasp then emerges as an adult and begins the cycle again.

At this point, there is no clear answer to the effectiveness of using parasites to reduce stable fly populations. Chances for success are greatest when coupled with waste and water management and chemical control as needed. Chemical controls should be limited to sprays or other application techniques that will not come in contact with breeding sites which could kill the parasitoids. Wasp releases must be conducted on a set schedule and are needed each year; do not count on establishing a population on your farm. Wasps may supplement an integrated program based on sanitation but are unlikely to provide adequate control by themselves when numerous breeding sites are available.

**Chemical control:** If a stable fly problem persists, an insecticide can be used. Many compounds are available for suppressing adult and larval stable fly populations. Always read the pesticide label in its entirety before making any applications.

Animals can be treated as needed with sprays containing permethrin (Catron, GardStar, Permethrin II, Permethrin, and Tengard), Ravap® EC (23% tetrachlorvinphos), and Vapona® EC (40.2% dichlorvos). Residual wall sprays such as Atroban® 11% EC (permethrin), Demon®WP (cypermethrin), Ravap®, and Vapona® can be applied to surfaces where the insects rest. These products can be used in backpack or truck sprayers for range or pasture cattle or used in misters daily on dairy cattle for protection against stable fly feeding. **Brahman and Brahman cross cattle should not be treated due to hypersensitivity to organophosphates.** One day withdrawal is required for beef cattle sprayed with Vapona®.

Many premise products are available (Annihilator®, Atroban® 11% EC, Brute®, Demon® Max, Durashield®, Elector® PSP, GardStar®, Grenade®, Permethrin II, permethrin, Ravap® EC, Rabon® 50 WP, Tengard®, and Vapona®) that can be sprayed around a livestock facility and on sidewalls that are used as resting sites for fed stable flies. Always follow product labels for conducting premise spray applications.

## FOR MORE INFORMATION

Additional information on insecticides labeled for livestock arthropod pests can be viewed at: <http://livestockvetento.tamu.edu>.

## ACKNOWLEDGMENTS

The authors would like to thank Dr. Mike Merchant and Dr. Pat Porter of Texas A&M AgriLife Extension Service and Ron Swiger for their helpful comments on this manuscript.

**[Learn more: http://agrilifelearn.tamu.edu/](http://agrilifelearn.tamu.edu/)**

# TEXAS A & M AGRILIFE EXTENSION DISASTER ASSESSMENT RECOVERY BLUE TEAM

## Drought Monitor

The drought situation in Texas continues to improve for the majority of the State, but we are still facing an uphill battle. While much-needed rain occurred in November, the general wellbeing of the state is still feeling the effects of limited rainfall throughout the year. Stay up to date with local county conditions by monitoring :

<https://www.drought.gov/states/Texas>

## Emergency Assistance for Honey Bees, and Farm-Raised Fish (ELAP)

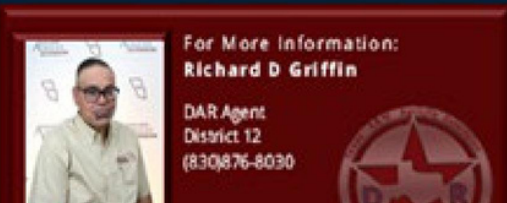
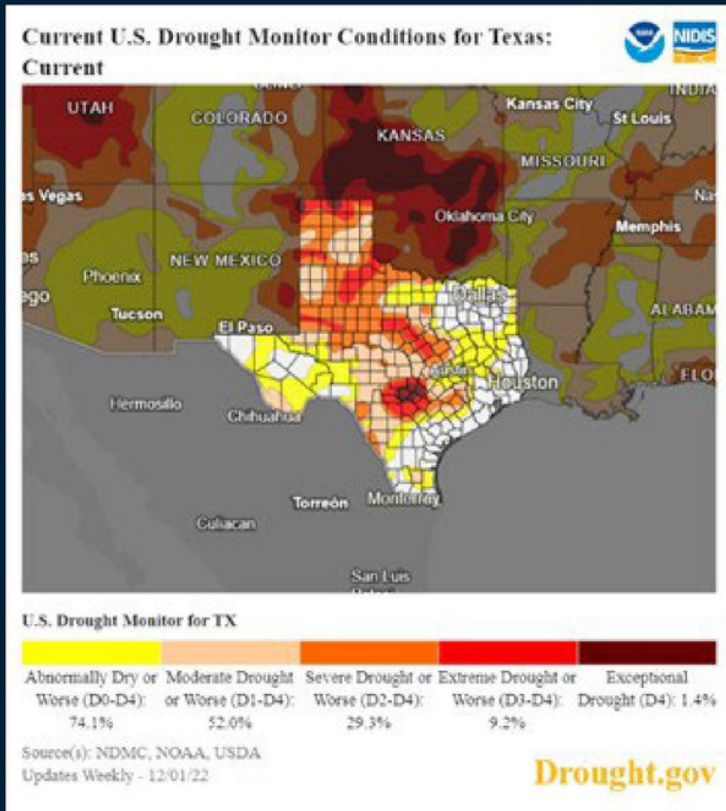
A new online tool is available through FSA to assist farmers and ranchers to determine eligibility for financial assistance. The deadline to request ELAP aid for losses incurred during the 2022 calendar year is January 30, 2023. Please share this helpful tool with your producers to assist in making those assessments.

<https://www.fsa.usda.gov/programs-and-services/disaster-assistance-program/emergency-assist-for-livestock-honey-bees-fish/index>

## Updates on Fire Potential

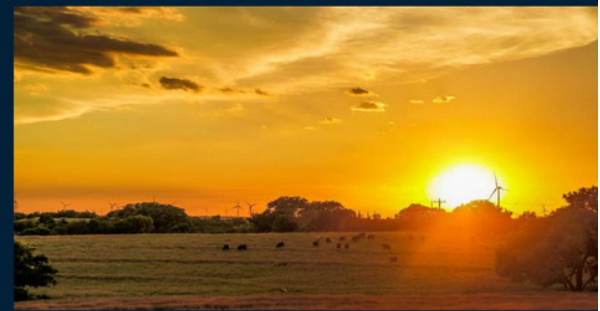
Across Texas, November and December's rainfall dramatically reduced the potential for wildfires. The Texas Forestry Service provides an excellent tool for tracking and predicting potential fires in every sector of the state. Please utilize this site to stay informed when wildfires are reported. Responding to wildfires is one of the DAR unit's primary responsibilities with years of experience among County Strike Teams as well.

<https://ticc.tamu.edu/PredictiveServices/default.aspx>



# Why Plan for Drought?

*"You may be thinking, 'It's the middle of winter, why would I be concerned about preparing for a drought?' The fact is – the time to plan is BEFORE it becomes a crisis. The time to start planning for a drought is when it is raining. And the time to start planning for rain is during a drought."* (Wayne Hamilton, Emeritus Senior Lecturer, College of Agriculture and Life Science, Texas A&M University)



The severe drought conditions that most of Texas suffered in 2022 are not over. National Weather Service experts cautiously predict the same weather patterns that occurred before 2021's historic Winter Storm Uri.

**Drought is inevitable** – Simply put, drought happens when not enough water is available to sustain a population's needs, which is especially important to agricultural producers. Historically, drought tends to be cyclical occurring once every few years.

**Preparedness Provides Choices** – For ag-producers, long-term survival depends on the ability to recognize the situation early and make decisions based on knowledge and experience. Gradual adjustments to normal management techniques can mean the difference between hardship and devastation.

Encourage producers to work with County Extension Agents or Water Conservation Offices to:

- **Assess available and projected forage production**
- **Manage grazing rotations**
- **Quantify livestock and irrigation supplies**
- **Identify alternative water sources/resources**
- **Develop a "destocking strategy"**
- **Consider different tillage techniques to maximize moisture retention**

**Drought is Cumulative** – Drought may last a single season or two and simple management adjustments can compensate for any losses or hardships. But what about extended drought lasting three years, five years or even 10 years? The impact can be devastating. Drought preparedness planning is essential to any long-term survival plan.

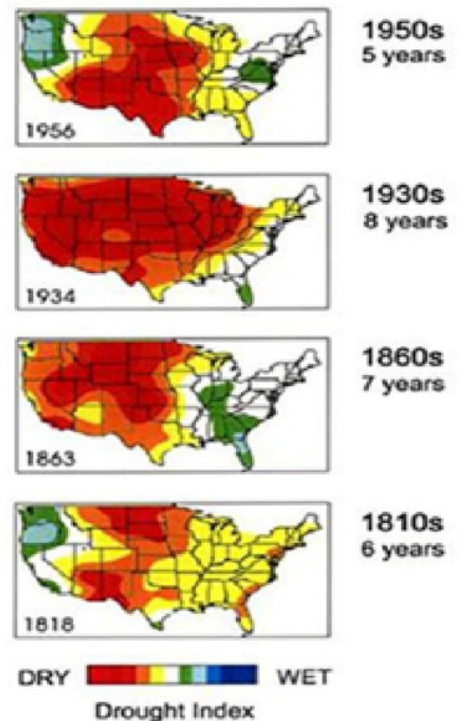
## Drought Resources:

National Integrated Drought Information System – [www.drought.gov](http://www.drought.gov)

National Drought Mitigation Center - <https://drought.unl.edu/>

Texas A&M AgriLife Extension Service, Disaster Education Network – <https://texashelp.tamu.edu/browse/by-type/naturally-occurring/droughts/>

## **DROUGHT EXTENT and LENGTH**



[National Drought Mitigation](http://NationalDroughtMitigation.gov)



For More Information:  
**Jeff Fant**  
DAR Agent  
District 7  
(325) 653-4576



[jeff.fant@ag.tamu.edu](mailto:jeff.fant@ag.tamu.edu)

# JANUARY CHECKLIST

Dr. Larry Stein

Sow seeds in flats or containers to get a jump on plant growth before hot weather arrives. Petunias, begonias, and impatiens should be sown in January or February. Warm temperature plants, such as tomatoes, peppers, marigolds, and periwinkles, should be sown in late January or early February.

Prepare beds and garden area for spring planting. Till in several inches of compost, composted pine bark or similar material.

Check junipers and other narrow-leaf evergreens for bagworm pouches. The insect eggs over winter in the pouch, and start the cycle again by emerging in the spring to begin feeding on the foliage. Hand removal and burning of the pouches reduce future damage.

The life of poinsettias and other Holiday Season plants can be prolonged with proper care. Keep the soil moist, but provide drainage so that excess moisture can flow from the pot. Keep the plant out of range of heating ducts and away from heating units. Keep in a cool room at night, preferably at 60 to 65 degrees F.

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## Reminder

Make sure to take a look at the January Garden Checklist

*Happy Gardening!*

# JANUARY CHECKLIST

Dr. Larry Stein

Continue to water and fertilize cool-weather annuals such as snapdragons, Bells of Ireland, Stocks, larkspur, pansies, violas and sweet alyssum to encourage the best blooms.

Stagger planting of gladiolus bulbs every two weeks during spring season

Now is an excellent time to transplant mature or established trees and shrubs while they are dormant.

Make flower and vegetable garden plans now before the rush of spring planting. Time spent in armchair gardening before the fireplace will pay off in improved plant selection. Besides, it is fun to page through the garden catalogs and books while contemplating changes in your garden.

Apply slow release fertilizer to pansies and other cool season annuals. Distribute 5 pounds of cotton seed or alfalfa meal per 100 square feet of bed area or use commercial slow release fertilizer products according to label instructions.

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### Learn more:

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

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# 2023 Southwest Texas Crop Kick Off

## Frio-Medina-Uvalde-Zavala

Wednesday, January 18th 2023  
Southwest Texas Junior College Auditorium-Uvalde Campus  
Registration 8:00-8:30  
Program 8:30-1:00; Optional Auxin training following  
Lunch sponsored by Medina Electric Cooperative

### Topics

- Managing irrigation deficit during drought
- Managing herbicide resistant weeds in row crops
- Managing aflatoxins in crops

Price  
**\$15**  
/Person

1 General  
2 IPM  
CEUs

**Optional Auxin Certification Training** held immediately after lunch for one additional Laws and Regulations CEU

RSVP by January 13, 2023 using the link:  
<https://SwTxCropKO.eventbrite.com>  
or by calling  
830-591-9046

Educational programs of the Texas A&M AgriLife Extension Service are open to all people without regard to race, color, religion, sex, national origin, age, disability, genetic information or veteran status. The Texas A&M University System, U.S. Department of Agriculture, and the County Commissioners Courts of Texas Cooperating

.HAPPY.  
*New Year*



***\*For more information please contact:  
Brianna Gonzales-Frio County Extension Agent,  
at  
(830) 334-0099  
[brianna.gonzales@ag.tamu.edu](mailto:brianna.gonzales@ag.tamu.edu).***



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