

Brazos County Agriculture News and Events

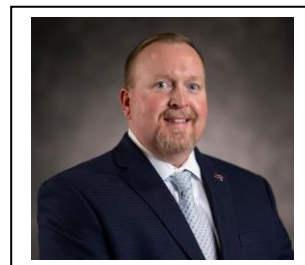
By Chadd Caperton

Brazos County Extension Agent- Ag and Natural Resources

October 2023

Greetings from the Texas A&M Agrilife Extension office!

“The farmer has to be an optimist, or he wouldn't still be a farmer.” – Will Rogers.



James 5:7

Therefore, be patient, brethren, until the coming of the Lord. The farmer waits for the precious produce of the soil, being patient about it, until it gets the early and **late rains**.

In this Edition

- Legumes as a nitrogen source
- Fall Armyworms
- Feral Hog Toxicant research

Upcoming Events

- 52nd Annual South Central Texas Cow Calf Clinic
- 12th Annual Brazos Valley Fair & Rodeo
- Cow Country Congress @ Gibbs Ranch

See the detailed flyers below!



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Legumes Can Provide Nitrogen

Commercial fertilizers are the most costly input for warm season grass forage production for hay and pastures. With high fertilizer prices there is increased interest in utilizing legumes to offset the cost of nitrogen. Here are some facts that you need to keep in mind when deciding whether or not to introduce cool season legumes into your forage system:



Arrowleaf Clover

- Clovers are cool season legumes with the ability to fix atmospheric nitrogen as a result of their symbiotic relationship with *Rhizobium*. **Specific *Rhizobium* inoculant is required for each clover species.** Although most clover seed has been pre-inoculated and sold as pelleted seed, one should always confirm that inoculation has occurred. Otherwise, N-fixation will be very reduced to even non-existent.
- There are several species and cultivars of clovers adapted to different locations in TX. Soil type and drainage are the primary factors that can influence the adaptability of species to a location in a vegetational region. The [WebSoil Survey](#) is a valuable resource that can be used to learn more about the soil characteristics of your property. Examples are as follows. Dixie crimson and Apache arrowleaf clover are good choices for sandy or sandy loam upland soils in east Texas but neither of these species are adapted to high pH soils of central Texas. White clover will provide late spring and early summer grazing in either east or central Texas but must be planted on bottomland sites with good moisture availability in winter and spring. Hairy vetch and medics are good choices for upland sites in central Texas.

- Legumes are generally more sensitive than forage grasses to nutrient deficiencies and low soil pH. Successful legume production in pastures depends on maintaining adequate levels of phosphorus (P) and potassium (K) with a soil pH of at least 6.0. Even though N fertilization is not required, fertilizers containing P and K may be needed to maintain productive and persistent stands. Without adequate P and K or when grown in acid soils, legume stands will be unproductive and unreliable.
- The full potential N-fixation and contribution of clovers to the subsequent production of warm season grasses is only accomplished if the grazed plant material is returned to the soil and by grazing livestock via excreta. This returns over 80% of the consumed nutrients by feces and urine. If the clover crop is removed from the pasture as hay, haylage or silage, the clover N contribution is decreased.



- Management strategies for clovers and legumes may fit well into a natural re-seeding with hay harvest for example. Re-seeded clovers provides the opportunity for earlier grazing in the winter-spring and also reduces costs related to new seeding each year.

Fall Armyworm



Fall armyworm, *Spodoptera frugiperda* (J. E. Smith) (Lepidoptera: Noctuidae), caterpillar. Photo by Drees.

Common Name: Fall armyworm

Scientific Name: *Spodoptera frugiperda* (J. E. Smith)

Order: Lepidoptera

Description: Caterpillars grow to about 2 inches long and are marked with green, brown or black colors arranged in stripes, with darker stripes along the sides. The top of each abdominal segment is marked with two pairs of black dots from which stiff hairs arise. The front of the dark head capsule is marked with a pale colored upside-down "Y." Adult moths have dark gray mottled forewings marked with light and dark areas. Wings are held over the back of the body when at rest. Outstretched, wings measure about 1 ½ inches from tip to tip. The hind wings are white.

The "true" **armyworm**, *Pseudaletia unipuncta* (Haworth) is difficult to distinguish from the fall armyworm in the larval stage. Caterpillars are pale-green to yellowish or brownish-green with bodies that are somewhat wider in the middle. They feed mainly at night, and like the cutworms, may curl up when disturbed. Small, young caterpillars skeletonize the surface of foliage and the inner surfaces of leaf sheaths while larger ones consume leaves, beginning from the outer edges. Host plants include corn, lawn grasses, legumes such as soybeans, small grains and others. Adult moths are predominantly pale brown to grayish brown wings. The center of each forewing is marked with a single small white spot.



A noctuid moth, *Melipotis* sp.(Lepidoptera:Noctuidae). Photo by Drees.

Life Cycle: Winter is spent primarily as pupae, although all stages may be encountered during mild winters. Adults emerging in early spring mate, disperse and lay eggs on host plants. Females lay clusters of a hundred or more eggs that are covered with fuzzy, gray scales from the female's body. Caterpillars hatch from eggs in about 10 days and begin feeding together, first on the remains of the egg mass and then on the host plant. Larvae grow and molt between several stages (instars) over a period of 2 to 3 weeks, before digging a burrow up to 8-inch deep in the ground in which to pupate. The pupa is about ½ inch long, reddish brown to black, smooth and hardened. Adults emerge in about 2 weeks. Several generations can occur annually. It is most common in late summer or fall.

Habitat and Food Source(s): Caterpillars have chewing mouthparts. Adults have siphoning mouths. Fall armyworms feed on a wide range of plants, including Bermudagrass, corn, fescue, Johnsongrass, rice, ryegrass, small grain crops, sorghum, Sudangrass and timothy. In corn, caterpillars can injure foliage as well as the ears. Caterpillars often occur locally in large numbers and migrate together like an army as they devour host plants, eating all above ground plant parts. They feed at all times of the day or night. In turfgrass, caterpillars may be driven to the surface by sprinkling soapy water onto infested areas. Adult moths are attracted to lights and in pheromone traps.

Pest Status: Caterpillars are commonly encountered in agricultural fields and landscape plants and turf; medically harmless.

For additional information, contact your local [Texas AgriLife Extension](#) agent or search for [other state Extension offices](#).

Literature: Brook *et al.* 1982.

Texas A&M AgriLife Extension Service study shows toxicant effective tool to reduce feral hog populations

Two-year study reported sharp declines in numbers and property damages when used correctly and consistently

A warfarin-based toxicant has been shown to be an effective option for landowners in the control of feral hog numbers and damage on their property, according to a study by the [Texas A&M AgriLife Extension Service](#).



Feral hogs cause millions of dollars in agricultural and property damages each year and negatively impact Texas ecosystems, including native plant and animal species. (Stock photo)

The two-year study was conducted by [Department of Rangeland, Wildlife and Fisheries Management](#) associate professor and AgriLife Extension wildlife specialist John Tomeček, Ph.D., and Michael Bodenchuk, director of [Texas Wildlife Services](#). The evaluation took place on 23 sites in 10 counties across the various regions of the state. Tomeček said his and Bodenchuk's team were able to reduce feral hog numbers effectively and efficiently with diligent application of the product.

"Texas A&M AgriLife Extension Service was tasked with evaluating the product's ability to reduce feral hog numbers and damage in regions across the state and seasons of the year,"

Tomeček said. “We found that it can be highly effective when utilized correctly and saw no access to the toxicant by non-target species when all feeder devices functioned properly.”

John Sharp, Chancellor of [The Texas A&M University System](#), said the study is an important step in the fight to curb the economic and environmental impact of feral hogs in Texas and across the nation.

There are more than 3 million feral hogs that cause more than \$500 million in damage to agriculture and private property throughout Texas each year, according to the most recent economic estimates. Feral hogs are a burden on native wildlife and responsible for widespread disturbances within native ecosystems.

“Texas A&M AgriLife experts are the leading authorities on feral hog control in the nation, and we are the first to test this in a real-world application and to show that this warfarin-based toxicant can be effective for reducing these pests,” Sharp said. “Unabated feral hog populations threaten our natural resources, our livelihoods and our quality of life, and our goal, as a land-grant institution, is to provide safe, effective, science-backed solutions for all Texans.”

Evaluating toxicant as a tool

The goals of the study were to conduct field evaluations of a low-dose warfarin-based toxicant to determine its efficacy in various regions of the state and to assess the product’s ability to help landowners prevent property damage and economic harm from feral hogs.

The team of AgriLife Extension specialists worked with private landowners on recommended application methodologies to provide real-world testing conditions for the product and the suggested best practices.

Bait that included warfarin was placed in specially designed dispensers that prevent access by non-target species, Tomeček said. Feral hogs were conditioned to access the bait before the product was applied. Once the product was applied, feral hogs consumed lethal doses within five days of consistent access to the bait.

The product is not considered acutely toxic to non-target animals in the event some might gain limited access to the bait nor is it found at lethal levels within the tissue of deceased feral hogs, Tomeček said.

Correctly and consistently are the key words for effective use of warfarin, Tomeček said.

After a trial period of close supervision and instruction, landowners in the study applied and managed the bait themselves. During the project, the Texas A&M AgriLife team made several discoveries that will help increase efficacy of the product when applied.

Landowners who checked the feeder for mechanical issues and replaced bait consistently as part of their regular maintenance schedule reported sharp declines in feral hog numbers and damage levels over the seasons of the year. Landowners who did not adhere to instruction reported mixed to low success in curbing feral hog numbers on their property. These results were true, regardless of the season of the year or the region of the state where the trial was being conducted.

Rick Avery, Ph.D., AgriLife Extension director, said AgriLife Extension is dedicated to providing effective, science-backed tools and information to Texas landowners dealing with feral hogs. "This toxicant is a new tool to have in the toolbox as we deal with feral hog populations across the state," Avery said.

Program Sponsored by County Extension Agents and Beef & Forage Committees from Austin, Brazos, Burleson, Colorado, Fayette, Grimes, Lee, Waller & Washington Counties

TEXAS A&M
AGRILIFE
EXTENSION



SAVE THE DATE

**52nd Annual South Central Texas
Cow-Calf Clinic**

OCTOBER 27, 2023

**30+ Tradeshow
Vendors,
CEUs, Contests,
& Door Prizes**

AT THE WASHINGTON COUNTY
EXPO IN BRENHAM, TX.

For details or to get involved visit our
website at


<https://washington.agrilife.org/ccs>



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BRAZOS VALLEY FAIR & RODEO

LIVESTOCK SHOW

AT THE BRAZOS COUNTY EXPO COMPLEX 5827 LEONARD RD, BRYAN, TEXAS 77807

For questions, contact Avery Fisher - avery@brazosvalleyfair.com - (979)821-1450

SATURDAY, OCTOBER 21, 2023 **SUNDAY, OCTOBER 22, 2023**
HEIFER- LAMB-GOAT SHOWS **STEER-SWINE SHOWS**



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\$65 UNTIL OCTOBER 1
\$100 OCTOBER 2-15

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CATTLE JUDGES: SHANE MEIER & LYDELL MEIER

SWINE JUDGES: NOA TAIPIN & JENNA WHEELER

LAMB JUDGES: KYLE WOOD & COREY FLACH

GOAT JUDGES: TBA & MARTY GIBBS

BRAZOSVALLEYFAIR.COM

**WHOOP
BV IT UP
Brazos
Valley
2023
FAIR AND RODEO**

CELEBRATING THE 12TH FAIR

WELCOME TO AGLAND

2023



**Celebrating the 12th Fair
October 13-22, 2023**

SAVE THE DATE!

TEXAS A&M AGRILIFE EXTENSION  **PRAIRIE VIEW A&M UNIVERSITY**  **agrr** 

Cow Country Congress
December 1st, 2023
733 Fraser Rd, Huntsville, TX 77320
Gibbs Ranch

CEUs and Lunch

GIBBS RANCH

AGRICULTURAL SCIENCES
SAM HOUSTON STATE UNIVERSITY



Program Sponsored by County Extension Agents and Beef
& Forage Committees from Anderson, Freestone,
Houston, Leon, Madison, Polk, Trinity, and Walker

For more information,
Contact Walker County Extension Office,
P: (936) 435-2426 E: jamie.sugg@ag.tamu.edu
102 Tam Rd Ste B Huntsville, TX 77320-1918

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