# AG & NATURAL RESOURCES

## INSIDE THIS ISSUE



## UPCOMING EVENTS

**FEBRUARY 23**
**PLANTASTIC GARDENING SEMINAR**

**FEBRUARY 28**
**GROW IT COOK IT IRISH POTATOES**

**MARCH 14-15**
**BENNETT TRUST CONFERENCE**

**APRIL 23**
**MULTI COUNTY WILDLIFE PROGRAM**

**MAY 9**
**BEEF & RANGE FIELD DAY**

TEXAS A&M AGRILIFE

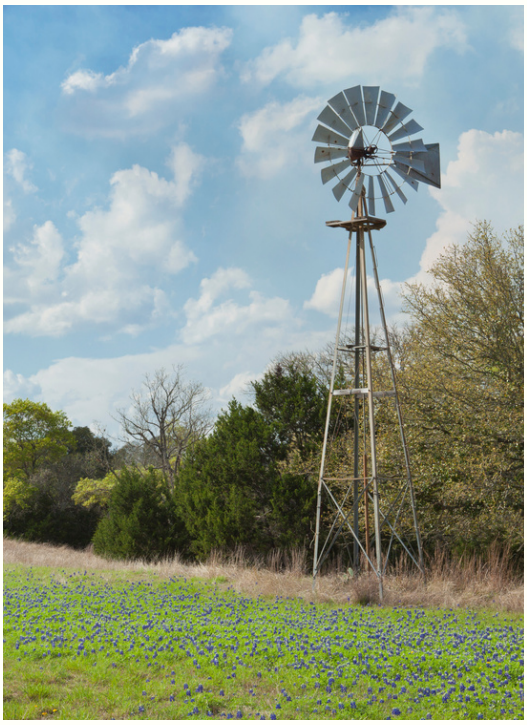
# Bennett Trust Land Stewardship Conference

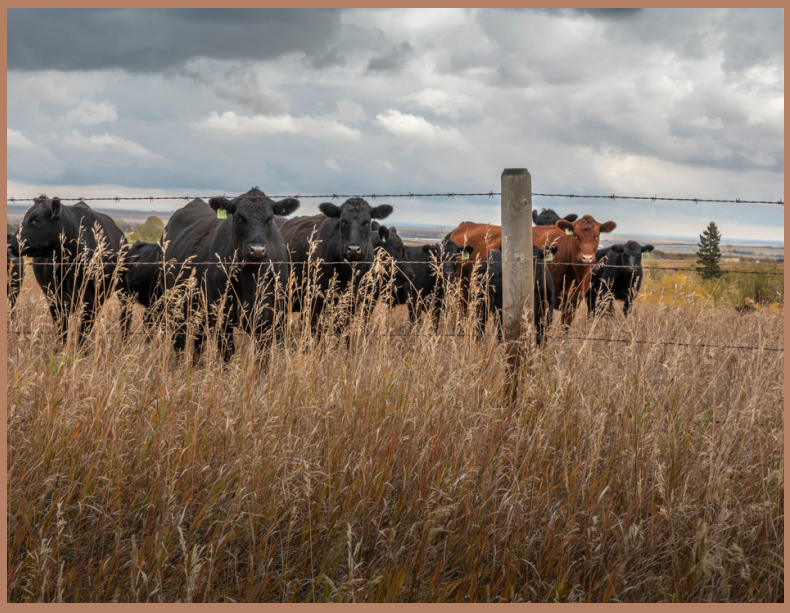
*March 14-15*

*Y.O. Ranch Hotel and Conference Center, Kerrville, TX*

*bennetttrust.tamu.edu*

This conference includes discussions and hands-on opportunities regarding brush management, key laws for Texas landowners, raising sheep & goats, and managing whitetail deer. Day 2 will be your choice of tours at the Hillingdon or Diamond V Ranch. All meals are provided during this event.





# Beef & Range Field Day

*May 9*

*Gillespie County Fairgrounds, Fredericksburg, TX*

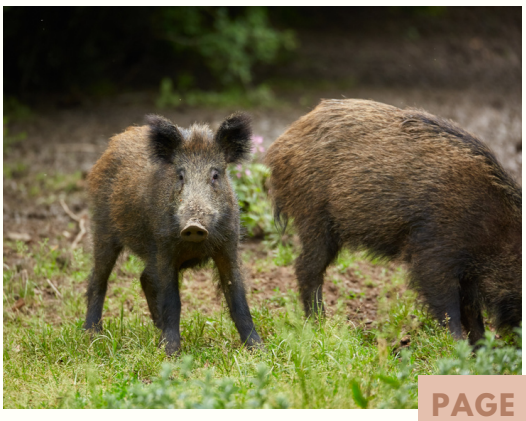
Topics will include Kaput Feral Hog Bait, grass burrs and KR Bluestem. CEU's will be offered. More information to come later.

# Multi County Wildlife Program

*April 23*

*Menard, TX*

Presentation topics include, turkeys, hogs, horned lizards, birding, and new ultrasonic predator calls. Call (325) 396-4787 for more information



# Plantastic Vegetable Gardening Seminar

*February 28*

*8:30 am - 3:35 pm*

*Gillespie County Extension Office*

*38 Business Court, Fredericksburg, TX*

This program will be filled with information about hydroponics, organic gardening, growing herbs, tomatoes and alliums, permaculture, and good bugs and troublemakers. The cost is $40 with lunch or $30 without lunch. The deadline to pre-register is Wednesday, February 21st. Payment must be received by February 21st. Cash and checks made payable to Gillespie ANR are accepted.

Pre-Registration Link:

https://forms.gle/sNVQo6TBvmAi17jC9

# Grow It Cook It Irish Potatoes

*February 28*

*12:00 - 1:00 pm*

*Gillespie County Extension Office,*

*38 Business Court, Fredericksburg, TX*

*$15 per session or $25 for the series*

This is the first session in a three part series. This session will focus on how to grow Irish Potatoes and you will sample unique recipes. The other sessions include Yellow Squash on April 24 and Broccoli on August 7. Call (830) 997-3452 for more information and to sign up.

# Texas Climate Smart Initiative

TEXAS A&M UNIVERSITY Soil & Crop Sciences

TEXAS A&M AGRILIFE EXTENSION

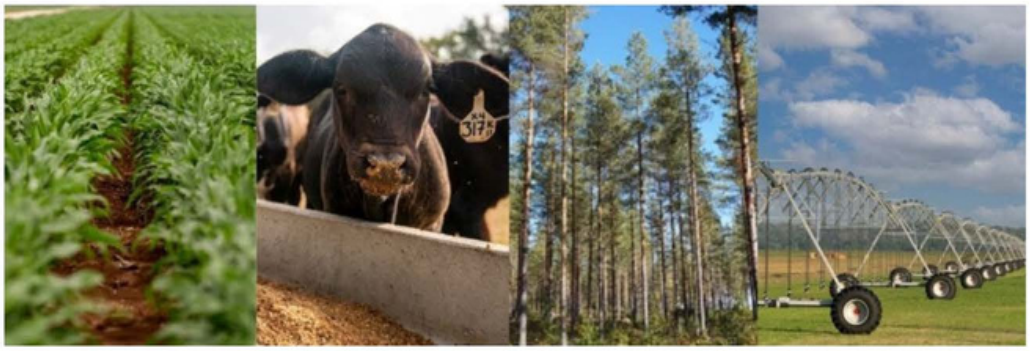
**TAM-AAMM**

***Texas A&M—AgriLife Agronomic Monday Memo***

## Texas Climate Smart Initiative—Inviting Producer/Landowner Applications

*This federally funded Texas A&M AgriLife program seeks applicants from every Texas county.*

**TEXAS**
**CLIMATE-SMART INITIATIVE**
CROPS · FORESTRY · LIVESTOCK



The Texas Climate Smart Initiative (TCSI) is a five-year $65 million program led by Texas A&M AgriLife. It is in partnership with the Texas Soil & Water Conservation Board, Tarleton State Univ., Prairie View A&M Univ., UT-Lower Rio Grande Valley, Texas Forest Service, and two private companies.

The goal is to foster growth in understanding and implementation of practices that are deemed "climate smart." These include four- and five-year plans for tillage reduction, soil health principles—especially building soil organic matter/soil carbon, and reduction of greenhouse gas emissions (carbon dioxide, methane, and nitrous oxide). The practices for each participant are tailored to fit the individual cooperator's interest.

AgriLife Today published a summary of the program on January 3, 2024. See https://agrilifetoday.tamu.edu/2024/01/03/texas-climate-smart-initiative-opens-producer-application-period/

Additional information is available at https://climatesmart.tamu.edu

**AgriLife Extension Agent Role—Encouraging Producer Applications**

The program anticipates 700 to 800 producer and landowner participants, possibly more. Though the Texas Climate Smart Initiative leadership and staff have not stated so, my goal is TCSI receives applicants from every Texas county. This program is definitely NOT preferential to large established farms and ranches, large landowners, etc.

Prospective participants in your county need not be just rowcrop farmers, ranchers, fruit & vegetable growers, or forest owners. Think of novel farming, animal, and resource management practices. These could include a blueberry farm, a pecan orchard, winegrapes, native range grazing with sheep and goats, changes in animal diets, a managed forest for products or reforestation, organic production of any kind, etc.

# Texas Climate Smart Initiative, continued

**Further Information & Application**

Most applicants will apply online through https://climatesmart.tamu.edu/apply-to-participate/ Applications may also be made through paper forms or phone interview. The TCSI program is at (979) 314-8095, climatesmart@ag.tamu.edu Mail is TCSI, 2474 TAMU, Soil & Crop Sciences, College Station, TX 77843.

Along with the TCSI website further information on the program interested parties can contact statewide team members at https://climatesmart.tamu.edu/team/ The hiring process has begun for eight regional "climate smart ambassadors" who will be the direct contact for the applicants chosen for the program. These individuals will be tasked with farm/ranch/orchard/forest visits, answering questions about the program, collecting data, etc.

Lands eligible for the program must not currently be in an any federal conservation program (EQIP, CSP, etc.) Participation is by contractual agreement. Most of the budget is for payments to cooperators for following agreed climate smart practices in their contract. Funds and contracts will be administered by the Texas Soil & Water Conservation Board. (I have not seen a contract myself, but some participants may wish to have an attorney review the agreement.)

*What payments are available to TCSI participants?*

I have not seen the details yet on what amount of payments may be made to a participant for the variety of climate smart practices to be implemented. $20/acre/year for four or five years? These could be for a fixed number of acres (small acreages possibly at a higher rate vs. larger acreages of possibly a few hundred). Payments might be made for implementation of practices that are not tied to the number of acres. Contracts will also include provisions for cancellation/ repayment if a cooperator fails to comply with contracted climate smart provisions.

This weekly agronomic Memo for Texas A&M AgriLife Extension county agents is compiled by Dr. Calvin Trostle, Professor & Extension Agronomist, Lubbock, (806) 777-0247 (mobile), ctrostle@ag.tamu.edu TAM-AAMM tips will be collected at http:// (to be determined) Permission is granted to AgriLife Extension personnel to use this information as you see fit for Extension education purposes (newsletters, web posting, social media, etc.).

# Nitrogen Deficiency in Small Grains

TEXAS A&M UNIVERSITY
Soil & Crop Sciences

TEXAS A&M AGRILIFE EXTENSION

**TAM-AAMM**

***Texas A&M—AgriLife Agronomic Monday Memo***

## Nitrogen Deficiency—and Late-Winter Topdress Timing—in Small Grains

*Pale fields indicate N deficiency. Optimum topdress N timing (grain) is tied to key growth stage.*

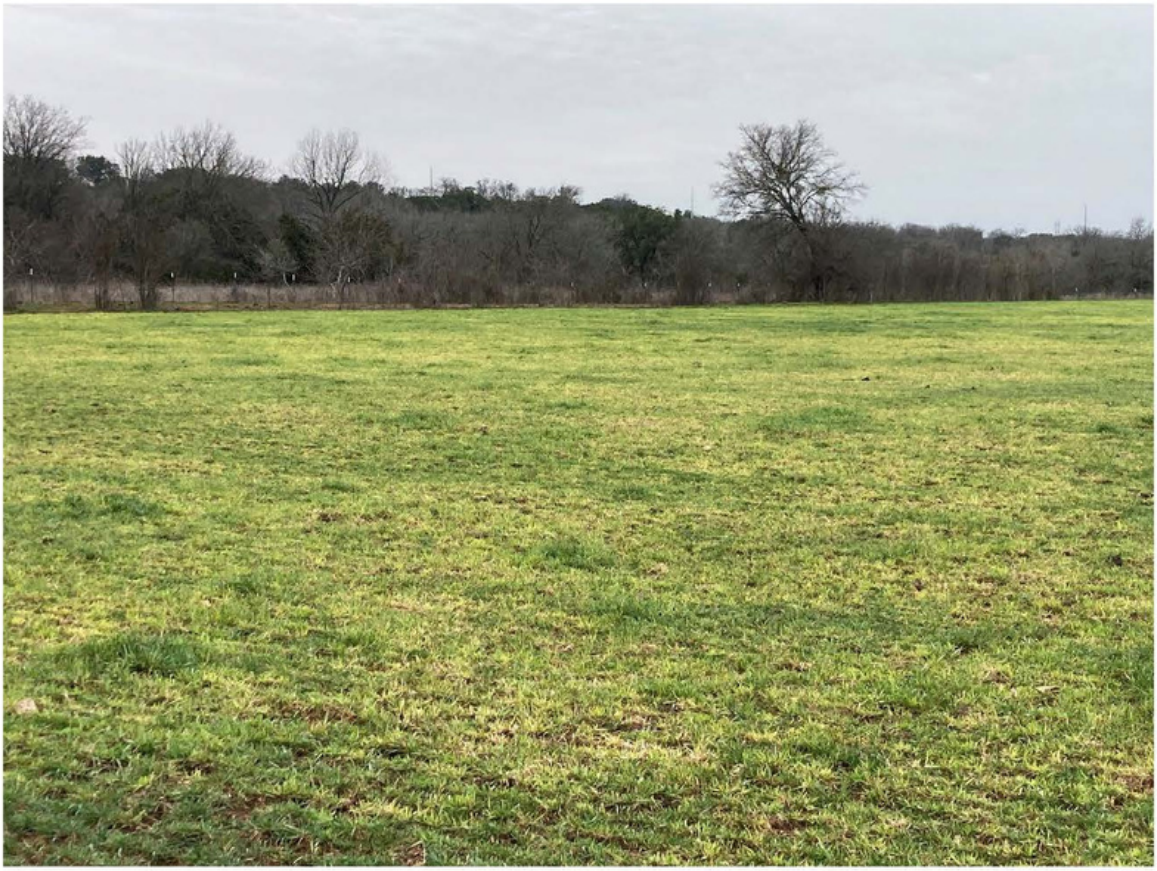


**Fig. 1.** Apparent broad nitrogen deficiency in wheat (yellow and pale green), Coryell Co., Feb. 8, 2024. See Fig. 2 for a close-up image of another issue that might be occurring in this wheat pasture. (Calvin Trostle).

### Nitrogen and Small Grains

Across Texas for grazing or grain—or both—nitrogen is a key management aspect of successful forage and grain production. Wheat and all other small grains—like almost all crops—have the highest nutrient requirement for nitrogen.

# Nitrogen Deficiency in Small Grains, continued

**Fig. 2.** February 8, 2024. Close-up of Fig. 1 shows confounding symptoms. Normally nitrogen deficiency is found in older leaves as N is mobile within the plant. Here it appears younger leaves are yellow. If this is N deficiency then the relocation of N within the plant might be delayed due to cool, wet, or cloudy weather. The striping is consistent with iron deficiency (veins are green, yellow in between veins, i.e. "interveinal chlorosis." A second check in seven days would be essential, but the overall appearance of the field does suggest nitrogen deficiency at some level. When this is recognized quick application of N—in front of a needed rain to dissolve the fertilizer and move it into the root zone—is needed. This type of rain occurred Feb. 9-10 after this image was taken.

When apparent nitrogen deficiency symptoms like Fig. 1 occur, whether in late fall to late winter, farmers and livestock producers should consider acting to alleviate the N deficiency. It will not improve with time. The crop is telling us it is short of nitrogen. This is typically expressed in older leaves as N is relocated within the plant to the growing point and youngest leaves. Farmers might balk at the cost of nitrogen. (This was especially two years ago when a unit or pound of actual N cost over $1.00). But in the deficient condition there is assurance they will get a higher return for the cost of the N fertilizer.

*A Simple Ag. Extension Agent Demonstration*

When you see an apparent N-deficient field, if the wheat owner is willing, consider this approach for a simple demonstration:

- Ask the wheat grower if they would be willing to allow a small demonstration to see if applied nitrogen will lift the crop out of the yellow or pale green condition.
- If so, then mark two 20' X 20' squares at opposite ends of the field or pasture.
- To each square, apply nitrogen by hand as evenly as you can: A) if urea (46% N), then 0.8 lbs (~360 grams), or B) ammonium sulfate (21% N), 1.75 lbs. (~800 grams). This is equivalent to 40 lbs N/acre nitrogen application.

# Nitrogen Deficiency in Small Grains, continued

- If you can get this done in front of rain or possible snow it will provide the moisture to dissolve the nitrogen and move into the root zone.
- Take pictures at the time of N application. Then compare to pictures about five days after the next rain.
- If the farmer decides to fertilize, the converse of the above demonstration is to leave a small area (width of the fertilizer spreader X 50'?) on each end of the field or pasture for comparison. Again, take pictures and compare.

**The Optimum Timing of Topdress N in Small Grains is Tied to a Specific Growth Stage**

A major management decision for Texas small grains, especially for grain, is when to apply mid-season nitrogen to boost yield potential for grain. Many Texas farmers only know that they should do so "at jointing". But why? The joint is typified by the erect growth of wheat or other small grains when you can feel and find the first bump or "BB" inside the wheat stem (Fig. 3) just above the soil line. This means the individual stem has entered reproductive growth. And likely the rest of the field is beginning growing point differentiation (GPD, switches from producing another leaf to reproductive growth—developing the head). Over a period of 7 to perhaps 10 days the grain yield potential of that stem is being determined.

Adequate nitrogen and if it is dry, irrigation (if you have it) are the two main factors in setting a higher yield potential. How the cropping season progresses for weather and further moisture, heat, insects, and disease will determine how much of that yield potential is achieved.

Initial growing point differentiation and jointing across Texas generally ranges from early February in the Coastal Bend and South Texas to mid-March at the top of the Texas Panhandle. Farmers and crop consultants should begin checking for jointing about two weeks ahead of anticipated jointing. Weather conditions and maturity differences among varieties can vary jointing by ±7 to 10 days. *My personal tip to timing of topdress N is* "**It is better to be early rather than late.**" Fields that do not have adequate N nutrition at jointing still need applied N due to the crop's total N requirement, but the applied N will likely have less impact on yield.

*Resources for Teaching and Timing of Topdress N in Texas Small Grains*

Two AgriLife Extension documents explain in greater detail key considerations for understanding small grains growth and development as well as nitrogen management. Both are found at https://varietytesting.tamu.edu/wheat/

- Growth Stages of Wheat: Identification and Understanding Crop Management. Travis Miller, TAMU Soil & Crop Sciences-1999-16.
- Nitrogen and Texas Wheat Grain Production—Topdress N Timing is Critical (*Twelve Common Grower Questions about N for Wheat Grain*). Calvin Trostle & Jake Mowrer, see the 'Topdress' document at http://varietytesting.tamu.edu/wheat (2019).

# OFFICE CONTACTS

TEXAS A&M AGRILIFE EXTENSION

## Gillespie County Extension Agents

**Brad Roeder** is the Ag & Natural Resources (ANR) Agent which encompasses hay production, wildlife management, predator control, farming, pest management, CEU's, livestock production, water conservation, brush management, and economic development.
bwroeder@ag.tamu.edu

**Beth McMahon** is the Horticulture Agent who works alongside Gillespie County residents and business owners with plant and pest related inquiries.
elizabeth.mcmahon@agnet.tamu.edu

**Shea Nebgen** is the Family and Community Health (FCH) Agent who provides programming in areas like nutrition, sewing, food safety, child safety seats, and healthy living.
s-nebgen@tamu.edu

**Emily Grant** is the 4-H & Youth Development CEA which includes the Gillespie County 4-H program. Gillespie County 4-H members participate in showing/raising animals, food & nutrition, clothing/textiles, photography, livestock judging, BB Gun, archery, meat judging, robotics, gardening, entomology, and horse projects.
emily.grant@ag.tamu.edu




**Our office will be closed on Holiday the following dates:**

Monday, February 19
Friday, March 1
Friday, March 29

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*38 Business Court*
*Fredericksburg, Texas 78624*
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**Fax:** (830) 997-6378
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**Business Hours:**
8:00 a.m. - 5:00 p.m.

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