What's Up, Doc?

TEXAS A&M AGRILIFE EXTENSION

Grayson County Ag and Natural Resources Newsletter

Vol 2: Issue 12 (December 2023) by D. Chad Cummings and Zachary Downe

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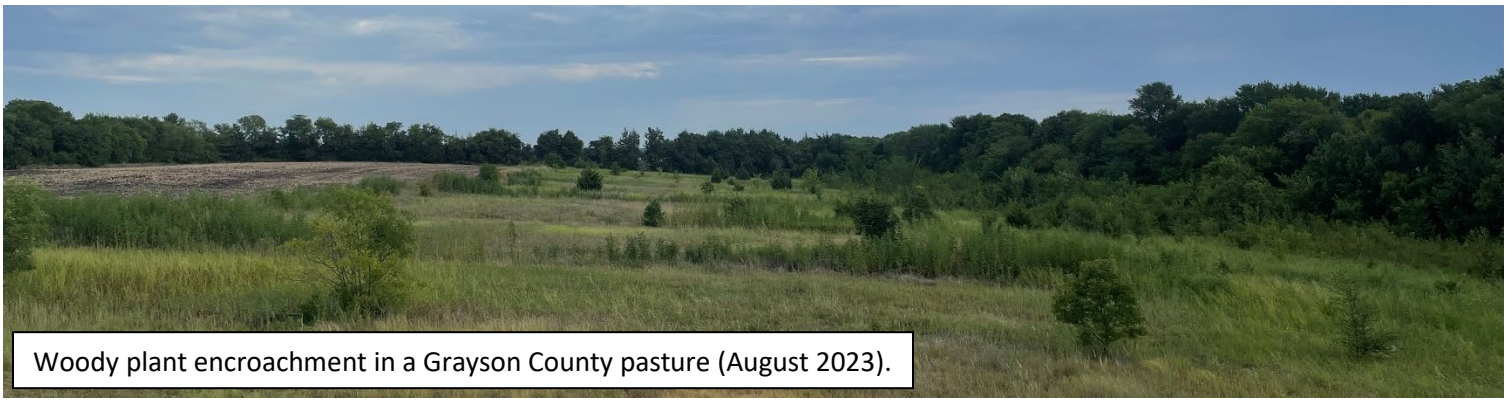


Woody plant encroachment in a Grayson County pasture (August 2023).

Grayson County USDA crop report summary

No Reporting in December (reporting ends in November for 2023)

D. Chad Cummings, PhD

New Landowner 101: What to Do in December?

1. Improve ponds and stock tanks: rebuild edges, add depth, and dig out sediment with low water conditions (https://fisheries.tamu.edu/pond-management/)
2. Stock new or renovated bass ponds with forage species such as flathead minnow and blue gill at 1,000 each per surface acre of pond.
3. Disk fallow fields to stimulate wildflower growth for doves, quail, and turkey.
4. Supplemental feeding of corn and milo (sorghum) are important in the fall and winter for upland game birds.
5. Plan and apply cool season postemergence weed control for pastures and lawns (if not wanted). Henbit, chickweed, mustards, dandelion, curly dock, ryegrass, and annual bluegrass are up and growing.
6. Prescribe burn in oak forests or oak woodlands (like the Red River Valley or around riparian areas in the county – see article on page 7 for more information).

In the News.....

‘It’s not the cow; it’s the how’

Texas A&M AgriLife researchers investigate impact of adaptive grazing management on Conservation Reserve Program lands

NOVEMBER 30, 2023

Researchers at the Texas A&M AgriLife Center for Grazinglands and Ranch Management are investigating the impact of grazing practices on the long-term sustainability and biodiversity of landscapes enrolled in the U.S. Department of Agriculture’s Conservation Reserve Program.

Supported by the USDA Farm Service Agency, the project will focus on adaptive grazing practices such as managed timing, intensity, frequency, duration and resting period.

About the Conservation Reserve Program

“The Conservation Reserve Program continues to be one of the signature conservation efforts of the USDA,” said Jeff Goodwin, Ph.D., director of the Center for Grazinglands and Ranch Management, Bryan-College Station. “The effort has a 38-year legacy of successfully protecting the nation’s natural resources while providing significant economic and environmental benefits to rural communities across the U.S.”

Established in 1985, the Conservation Reserve Program, or CRP as it is commonly known, is one of the nation’s largest private-land conservation programs with more than 23 million acres enrolled across the U.S.

Through contracts varying in length from 10 to 15 years, voluntary participants agree to remove environmentally sensitive cropland from agricultural production

and devote the land to the long-term conservation of grasslands, soil health, water quality and wildlife habitat. In return, these landowners receive annual payments and cost share assistance to implement conservation-based management practices.

Texas' enrolled landscapes

In Texas, more than 90% of the roughly 2.7 million acres enrolled in the Conservation Reserve Program are in the High Plains and Rolling Plains ecological regions.

Due to this density of enrolled properties, Goodwin and research partners in the Texas A&M College of Agriculture and Life Sciences will focus their studies within these regions.

Collaborating researchers include Katie Lewis, Ph.D., Texas A&M AgriLife Research soil chemistry and fertility scientist and associate professor in the Department of Soil and Crop Sciences, Lubbock, and Stephen Webb, Ph.D., Texas A&M Natural Resources Institute research assistant professor in the Department of Rangeland, Wildlife and Fisheries Management, Bryan-College Station.

Grazing exclusion and grassland trends

Since its inception, the Conservation Reserve Program has excluded grazing on enrolled lands with certain exceptions for emergency drought and disaster events or biennial grazing regimes outside of the grassland bird nesting season. Producers who do graze at a reduced stocking rate during the primary nesting season generally receive a 25% reduction in their annual payment from the program.

Historically, grassland ecosystems were maintained by periodic disturbances in the form of fire and grazing ruminants such as bison.

Goodwin said the removal of these disturbances can lead to the proliferation of less-desirable vegetative communities. Woody encroachment, land conversion, land fragmentation, invasive species and poor grazing practices have also contributed to the precipitous decline in native grassland health, as well as the avian species that depend on them.

“There is a common misconception that cattle production and conservation cannot coexist and have mutually exclusive goals,” Goodwin said. “But as the adage goes, ‘it’s not the cow; it’s the how.’”

Goodwin said an increasing amount of scientific research suggests that by focusing on ecological principles, grazing animals become yet another tool in the toolbox to help conserve and manage wildlife habitat and other ecosystem processes.

Boots and hooves on the ground

Specifically, researchers are seeking to answer three key questions related to lands enrolled in the Conservation Reserve Program:

- Can adaptive grazing management provide greater ecosystem and climate change mitigation benefits than biannual grazing or grazing exclusion?
- Are the conservation and ecosystem benefits of adaptive grazing management influenced by native versus introduced grass species?
- Can grassland birds be used as an indicator metric for the health and function of Conservation Reserve Program lands in the Texas High Plains?

To find these answers, over the next five years researchers will employ and replicate a variety of land management treatments across 18 properties enrolled in the program. These different management treatments include grazing exclusion, as well as alternative year grazing and adaptive grazing management techniques.

This investigation will enable researchers to collect valuable data on soil organic carbon and microbial activity, vegetation composition and structure, plus the presence or absence of high-priority avian species.

“Information gained from this study will benefit a number of stakeholders by providing data-driven insights and scientific evidence to inform Conservation Reserve Program policy on the ecologic outcomes associated with the implementation of grazing management,” Goodwin said. “Ultimately, this study will continue to inform the scientific literature serving as a scientific basis of support for the conservation of working lands in the U.S.”

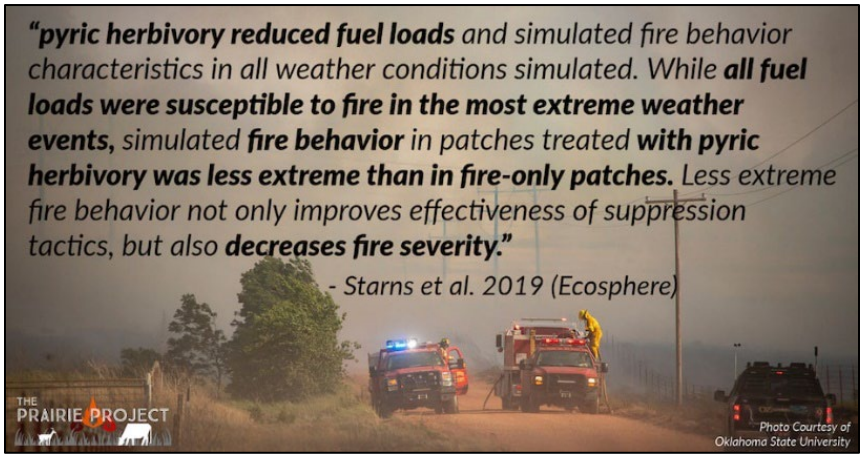
For more information visit: (‘It’s not the cow; it’s the how’ - AgriLife Today (tamu.edu))

4-H Pie of a Time – Giving Thanks Camp Recap

- Over 125 pies made by the 4-H students and volunteers
- Free pies delivered to some of our Grayson County Civil Servants at the Grayson County Dispatch and Grayson County Sheriff's Department
- Thank you to all our students, volunteers, and purchasers of the pies – proceeds go to support activities for our Grayson County 4-H Clubs

Prescribed burning in oak woodlands or oak forests

December is a great time of the year to burn leaf litter and duff in oak dominated forests for several reasons.



1. First and foremost, the oak forest canopy has recently fallen to the forest floor, and leaves are loosely piled on the ground, which is more conducive to carrying fire than densely packed, compressed leaves that have been on the ground for a long period of time.
2. Second, much of the vegetation in the oak forest ecosystem is dormant in the winter, which will provide additional fuel to aide in carrying consistent fire.
3. Last, weather conditions are generally milder, cooler, and this year more humid than other times of the year. This weather is safer to burn under and can be less stressful to the fire crew than growing season prescribed burns.

Factors to consider when planning a prescribed burn in oak woodlands or oak forest:

1. What are your objectives for the prescribed burn?
2. What are the targets for control or suppression with the fire? Remember that only a few tree species in north Texas are susceptible to prescribed fire – most will resprout if top killed. But you can use fire as a suppression tool for many small tree species in oak woodlands (See tables 1-3).
3. What are your planned prescribed fire boundaries, and have they been maintained sufficiently to provide protection to sensitive areas?
4. Do you have a written prescribed fire plan, with weather prescriptions, unit boundaries and fire suppression resources?

Table 1. Tree species response to prescribed fire, or mechanical/chemical treatment. Courtesy of The Prairie Project.

Tree seedling size and age killed by prescribed fire				
Tree Species	**Top Killed by Low Intensity Fire**	**Top Killed by High Intensity Fire**	**Mechanical or Chemical Control Needed**	**Source**
Ashe Juniper		2-6ft tall	6+ ft tall	Dalrymple 1969
Blackjack Oak		1.5-3.5in diameter at 4.5ft height (DBH)	>3.5in diameter at 4.5ft height (DBH)	Johnson and Risser 1975
Easter Red Cedar		4-8ft tall	8ft or taller	Owensby et al. 1973
Honey Mesquite			>3yr old	Wright et al. 1976
Live Oak	very small seedlings		>12in diameter at 4.5ft height (DBH)	Huffman and Blanchard 1991 Davison and Bratton 1988
Post Oak		2.5-6in diameter at 4.5ft height (DBH)	6+ in diameter at 4.5ft height (DBH)	Ferguson 1961
Redberry Juniper			>3ft	Steuter and Carlton 1983

Table 2. Common plant species in north Texas forests and prairies.

Common plant species in north Texas

Native, but may increase

Weeds/Forbs
- Black-eyed susan
- Common broomweed
- Woolly croton

Trees
- Honeylocust
- Honey mesquite
- Eastern redcedar
- Sweetgum
- Cedar elm
- Winged elm

Grasses
- Silver bluestem
- Broomsedge bluestem

Non-native, Invasive (Country of Origin)

Weeds/Forbs
- Japanese honeysuckle (Asia)
- Sericea lespedeza (Asia, China)
- Kudzu (China)

Trees
- Chinese tallow (China)
- Tree of heaven (China)
- Chinaberry tree (East Asia, Australia)
- Callery pear, Bradford Pear (China)
- Chinese privet (Asia)

Grasses
- Johnsongrass (Asia, North Africa)
- Old world bluestem (Asia, Africa, Southern EU)
- Bermudagrass (EU, Africa, Asia)
- Giant reed (Asia)

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Table 3. Woody plant species tolerance and susceptibility to moderate intensity prescribed fire in north Texas.

Woody plant response to prescribed fire

Susceptible Woody Plants

- **Eastern Redcedar** (*Juniperus virginiana*)
- **American elm*** (*Ulmus americana*)
- **Cottonwood*** (*Populus deltoides*)
- **Common hackberry*** (*Celtis occidentalis*)
- **Young pines** (*Pinus* spp.) (<2 years old)

* Depends on the age and size of the tree and fire intensity.

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Tolerant Woody Plants

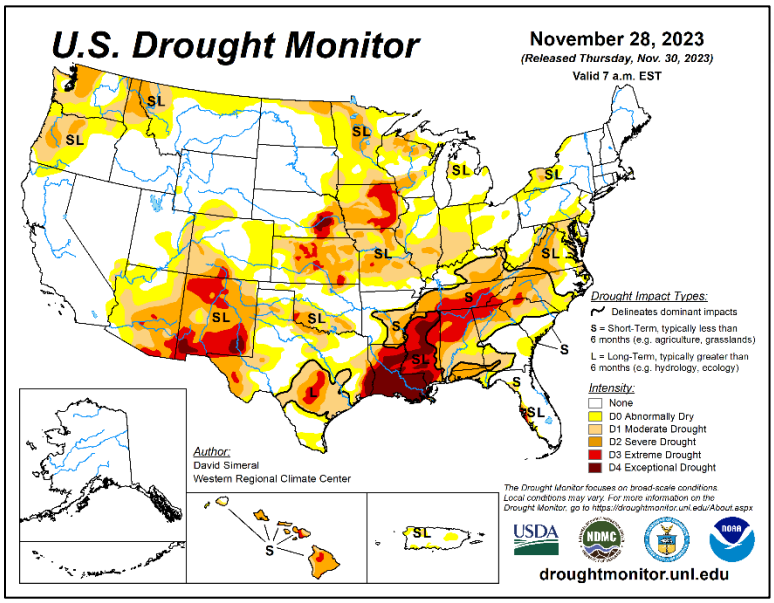
- **Honey mesquite** (*Prosopis glandulosa*)
- **Honeylocust** (*Gleditsia triacanthos*)
- **Sweetgum** (*Liquidambar styraciflua*)
- **Oaks** (*Quercus* spp.)
- **Green ash** (*Fraxinus pennsylvanica*)
- **Cedar elm** (*Ulmus crassifolia*)
- **Bois d'arc** (*Maclura pomifera*)
- **Dogwood** (*Cornus drummondii*)
- **Blackberry** (*Rubus* spp.)
- **Greenbriar** (*Smilax* spp.)
- **Most Rose Species** (*Rosa* spp.)
- **Common persimmon** (*Diospyros virginiana*)
- **Bradford pear** (Callery) (*Pyrus calleryana*)

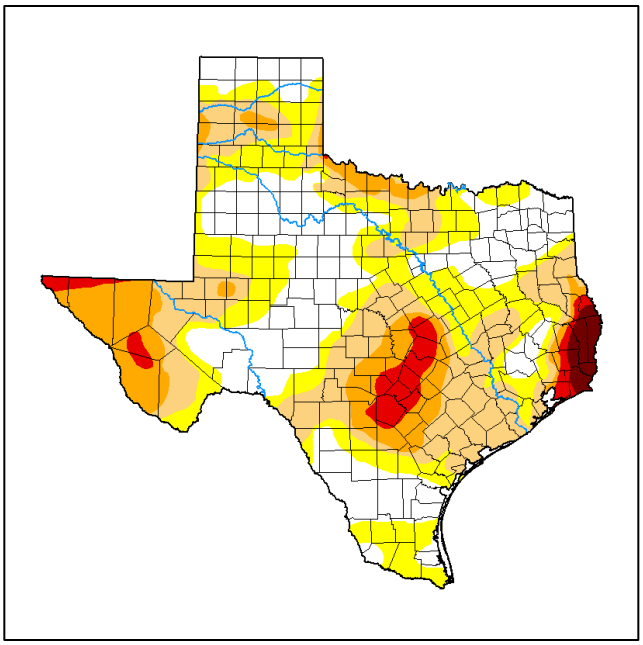
For more information visit: https://uploads-ssl.webflow.com/60143e4f3362793ccc653755/61f56e5c267a7b227e4de4f0_Prescribed%20Fire_%20A%20Tool%20for%20Landowners%20Large%20and%20Small.pdf

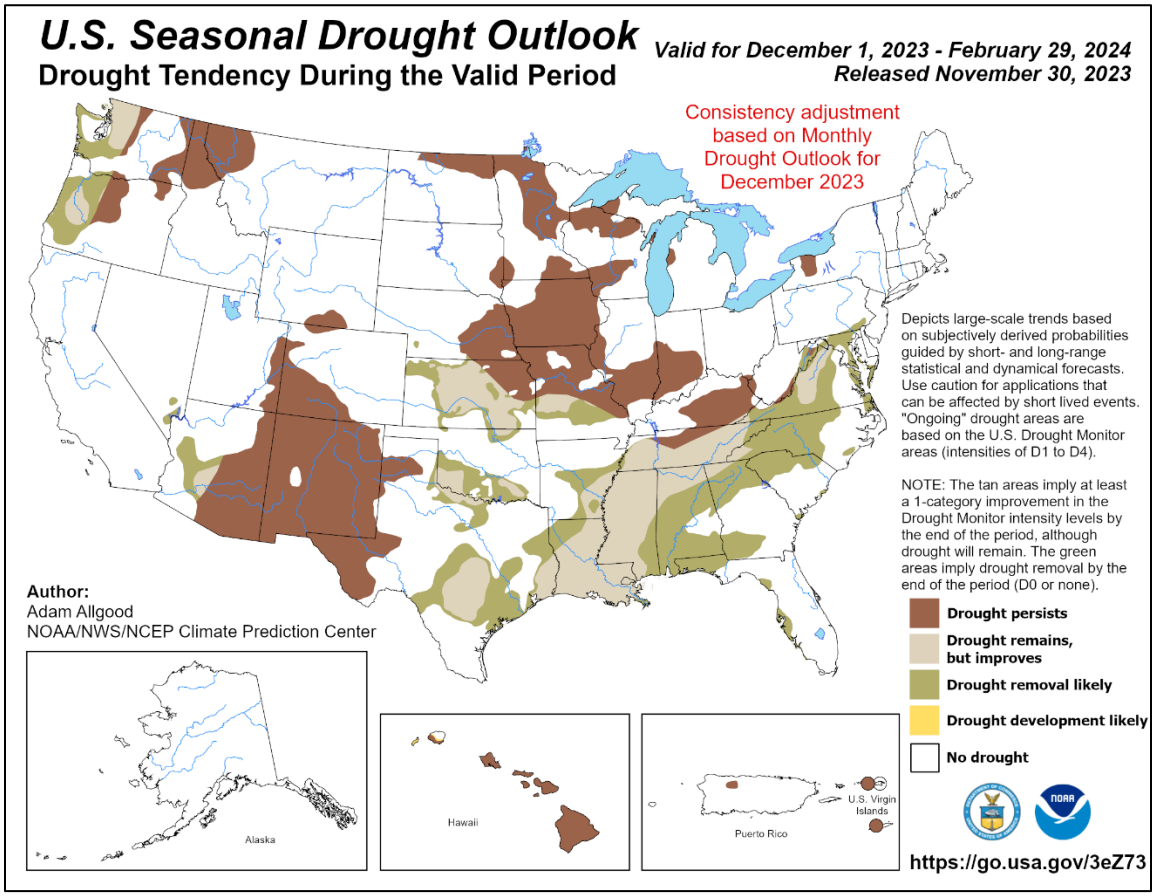
The Prairie Project Website is: https://www.theprairieproject.org/

THE PRAIRIE PROJECT

Current US drought monitor & 3-month climate prediction







Plants, insects, and diseases active now

Plants

Warm season weeds like crabgrass, foxtail, woolly croton (doveweed), ragweed, johnsongrass, and pigweed are mature due to the season of year. Cool season weeds and grasses are beginning to emerge (henbit, chickweed, ryegrass, wheat).

Insects

House fly infestation levels are stable for humans and livestock. Crickets, millipedes, and beetles are coming indoors to escape cold weather.

Diseases

No real disease issues currently in any crops.

D. Chad Cummings, PhD

chad.cummings@ag.tamu.edu

2024 North Texas Pest Mgmt CEU Conference

Mark your calendars for Tuesday, January 23, 2024

Where: The conference will be in Sherman, TX at the Municipal Ballroom.

When: Tuesday, January 23, 2024; 8:30 am to 4:00 pm

What: Bulk CEUs and expertise including:

- 6 structural CEUs and 7 Ag CEUs will be offered (TDA approval received)
- Expert speakers on the structural and ag topics, including Dr. Don Renchie, Ms. Janet Hurley, Dr. Sonja Swiger, and Mr. Brad Voss
- Laws and Regs, IPM, Weed, Termite, Lawn and Ornamental, and General CEUs included
- Catered lunch and light breakfast included in the registration cost.

The fee will be **$100** per person for the conference. **Registration is open online https://grayson.agrilife.org/**. Mail in registration is also available.

Events Coming Up

Dec 16

- 4-H Fur, Feather, Friends Livestock Show (*Denison*)

Dec 22-25

- Texas A&M AgriLife Extension offices closed for Christmas Holidays

Jan 23

- North Texas Pest Management Conference (*Sherman*)

Feb 25 - Mar 1

- Texoma Exhibition and Livestock Show (*Denison*)

May 31

- Northeast Texas Small Acreage and New Landowner Conference *(Farmersville)*

Visit our website at Welcome to Grayson County - Grayson (grayson.agrilife.org) (https://grayson.agrilife.org/) to sign up for the events.