### TEXAS A&M GRILIFE EXTENSION

# ZAVALA COUNTY AGRICULTURE AND NATURAL RESOURCES

May 2023 Newsletter



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# Zavala County



## **Dangerous Creatures To Look Out For**

**Venomous Snake Species:** 

- Coral snake (1)
- Copperhead (2)
- Cottonmouth (3)
- Rattlesnake (4)



Venomous Spider Species:

- Brown Recluse spider (1)
- Black Widow spider (2)



Venomous Species:

- Striped Bark Scorpion (1)
- Centipedes (2)





# Southwest Texas Prescribed Burn Association

Kinney, Medina, Uvalde, and Zavala Counties



Benefits of Prescribed Burns:

- Lowers risk of more dangerous fires
- Increases water availability through plan removal
- Increases plant diversity
- Helps control invasive/unwanted species
- Reduces tree competition
- Improves wildlife habitat
- Minimizes the spread of pests and diseases

### Want to learn more?

Join us at our next meeting September 12, 2023 12 PM @ The First State Bank of Uvalde 200 E Nopal, Uvalde, Tx Contact info: (830) 426-2532 ext 3



### Cutting High Quality Hay

Cutting hay at the desired maturity is critical to produce high quality hay. As the crop gets more mature the TDN decreases. Unfortunately, due to rainy conditions, availability of custom harvesters, or other challenges hay cutting is often delayed. Instead of having a dedicated hay field(s) having several fields that can be cut for hay or grazed can help with producing higher quality hay. If a field is ready to be cut, but circumstances won't allow for cutting, graze it while another field is growing that can be cut at a more desired maturity.

For more information please visit: https://texasbeefquality.com/



### King Ranch or Yellow Bluestem?

Common names for plants are often given based on the name of the person who discovered the plant or in the case of King Ranch bluestem (Bothriochloa ischaemum), based on where it was documented growing. In 1939, KR bluestem was named yellow beardgrass by the TX Agricultural Research Service. It was introduced to the King Ranch between 1924 and 1937. The Soil Conservation Service, now called USDA-NRCS, increased the seed from the King Ranch for distribution. Yellow beardgrass and King Ranch bluestem are not distinguishable and are considered to be the same plant. So, another common name for King Ranch bluestem is yellow bluestem (Clayton et al., 2017). Maybe we should start calling it by the first common name it was given - yellow bluestem?

### April by the #s



### 2 events

D11 CEA Program Planning Meeting & Habitat and Wildlife Management program



### 2 range trips

Jim Wells, Live Oak, & Gillespie Counties: huisache control training & range evaluation training



### **596 miles** in support of CEAs,

programming, and professional collaboration

### **OWB** Invasion

Management | Refresher, Updates, What's Next



More than 4million acres of TX rangelands are established in old world bluestems (OWB).

Old world bluestems (OWB), King Ranch and Kleberg bluestem grasses, are established on more than 4-million acres of TX rangelands. These invasive grasses form monocultures that hinder ecosystem functionality, alter nutrient cycling, and reduce biodiversity. New OWB growth can provide forage for livestock and wildlife, but it matures quickly which decreases its palatability and nutrition content. OWB can be harvested for hay.

Single disturbance practices, such as mowing, prescribed burns, and grazing, increase abundance of OWB. Diversity management practices in OWB monocultures includes a year of intense, combination treatments followed by re-seeding with natives. Eradication of OWB is a 3 to 5 year process of intense combination treatments followed by re-seeding with natives. But are these the only options? There have been some observations that OWB may decrease in abundance when disturbance is removed. Along roadsides with frequent disturbance from mowing, OWB was a monoculture. However, on adjacent powerlines where mowing had not occurred for years, OWB was not as abundant.

Does OWB, such as King Ranch Bluestem, decrease in abundance when disturbance is removed? We do not have the data to support this observation, but it may be a worth-while investigation. Interested in helping me collect this data and becoming a co-author on an extension publication? Contact me and we can chat about the details.

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Distribution Map Credit: USDA Plants Database @ plants.usda.gov

### Yellow Bluestem Distribution

Yellow bluestem is found throughout most Texas ecoregions. It is the OWB species most often seen growing along roadsides.



Yellow Bluestem Look-a-Likes

Leaf green-up and the presence of a seed-head in the early spring is one of the first indications you may be looking at an OWB and not a native bluestem. In the field, it is nearly impossible to distinguish yellow bluestem from Kleberg bluestem. Some differences between these two species: Kleberg bluestem is taller, often has more leaf material, and grows best on loamy to clay soils. Yellow bluestem grows across a variety of soil types and more often in highly disturbed areas. The inflorescence base on Angleton bluestem is very hairy while they are not hairy on yellow or Kleberg bluestems.

Without a seedhead, yellow bluestem leaves look similar to these natives- little and silver bluestem. However, the base or crown of yellow bluestem is more flat.

### Yellow Bluestem (KR Bluestem)

#### Bothriochloa ischaemum



### Plant Identification Tips 🕒

Neighborhood Plants: KR Bluestem

Yellow bluestem, also known as King Ranch bluestem, is a non-native, invasive bunchgrass 18-48" tall. The crown, the base of the plant at the soil surface, is almost flat. The narrow, 0.2" wide, leaves grow up to 8" long. The upper surface of the leaves are covered with silky hairs. The leaves are thicker near the collar and ligule. The dark colored nodes on the stems may have a ring of white 'fuzz' or may be hairless.

The reddish, purple inflorescence, or seed head, has 3 to 8 spicate branches that can grow to 4" long. It flowers often throughout the year. It was observed flowering in Nueces county as early as April.





#### Livestock & Wildlife Value

New growth can provide forage for livestock and wildlife. <u>If fertilized and harvested timely, can</u> provide hay with CP of 10-16%.

#### Risk and Diversity Management

Yellow bluestem forms monocultures and invades both native and non-native grasslands. Disturbance practices increase abundance. Multiple combination treatments, <u>disking and glyphosate</u> <u>herbicide applications</u>, for 1 year followed by re-seeding with natives in autumn may increase <u>diversity in OWB monocultures</u> (Clayton et al., 2017).

Parts of this article were derived from:**Stacy L. Hines, Ph.D.** *Clayton et al. 2017. Introduced Bluestem Grasses: Management*Assistant Professor, Rangeland Habitat *on Native Lands. Texas A&M AgriLife Extension ERM*-036. Management Specialist

Everitt et al. 2011.Grasses of South Texas. Texas Tech University Press.361-265-9203| stacy.hines@ag.tamu.edu

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# HOW TO CONTROL PRICKLY PEAR AND OTHER CACTI: Individual Plant Treatment Pad & Stem Application or Top Removal Method

Robert K. Lyons and Megan K. Clayton\*

Prickly pear is a valuable rangeland plant, but it can form dense colonies and interfere with the movement and handling of livestock, decrease forage utilization, and compete with desirable vegetation. Prickly pear are extremely tolerant of drought and harsh conditions. Therefore, they thrive across Texas—especially in the western half of the state.

Here are two methods to selectively control prickly pear that are easy, inexpensive, and environmentally responsible. One involves spraying a small but potent concentration of herbicide directly on the pads and stems to selectively control unwanted prickly pear. The second method uses a mechanical option to simply remove the top part of the plant.

These Brush Busters control methods were developed and approved by professionals with Texas A&M AgriLife Extension Service and Texas A&M AgriLife Research, both agencies of The Texas A&M University System. Results may vary with weather and other plant conditions, but correct applications should usually be able to kill 76 to 100 percent of treated prickly pear pads.

Remember: Controlling prickly pear is not a one-time job. Both livestock and wildlife spread seeds and scatter pads that can root into new plants, so monitor your land regularly to control unwanted seedlings.

### BRUSH BUSTERS PAD AND STEM SPRAY METHOD

Works well on: Relatively thin stands of prickly pear. Dense stands may benefit from a broadcast treatment first.

When to apply: Anytime throughout the year when there is adequate soil moisture, except during extremely cold weather. Absence of rainfall for extended periods after spraying may reduce plant mortality.

#### 1. Prepare the Equipment

Many types of sprayers work well for this method. Backpack sprayers are the most efficient for small acreages or those with a high density of prickly pear. Larger places with lower densities may find ATV or UTV sprayers more efficient. An adjustable cone nozzle—such as the ConeJet™ 5500-X6 or X8 nozzle that can deliver a coarse spray—will be more efficient for smaller plants, while a fan-type nozzle may be best for larger plants.

\*Professors and Extension Range Specialists, The Texas A&M University System

#### 2. Mix the Herbicide Spray

You can achieve 76 to 100 percent mortality by spraying with one of several herbicide options, including MezaVue (aminopyralid + picloram + fluroxypyr), Surmount/Trooper Pro (picloram + fluroxypyr), Tordon 22K/Triumph 22K/Picloram 22K (picloram), or PastureGard HL (triclopyr + fluroxypyr). To prepare the spray mix, add the selected herbicide at a 1 percent rate to water. To make sure the pads and stems are coated thoroughly, add a high-quality (80 to 90 percent active ingredient) non-ionic surfactant to the spray mix or crop oil, methylated seed oil (MSO), or MSO-OS (organo-silicone) adjuvant at manufacturer's specified rates (see table on next page). Add a dye, such as Hi-Light<sup>™</sup> blue dye, to mark plants that have been sprayed and ensure proper coverage.

#### 3. Spray the Prickly Pear

Adjust the nozzle to deliver a coarse spray in a wide pattern. Wet ALL the pads and stems of each prickly pear plant but not to the point of runoff. It is best to spray both sides of the pad for more consistent results.



#### Keep These Points in Mind:

Follow herbicide label directions.

- Prickly pear may die very slowly—taking up to 2 to 3 years after application for potential plant mortality to occur.
- ▶ For best results, do not spray when:
- Pads are wet from rain or dew.
- Daily maximum air temperature has not exceeded 50
- degrees F for at least 3 consecutive days.
- Working upwind of desirable trees, shrubs, or crops.
- Prickly pear growth is dense.

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- Cost of treatment rises rapidly as prickly pear becomes bigger and denser. Download the Brush Busters Cost Calculator app to easily estimate treatment costs.
- Large prickly pear plants may be used as quail nesting sites where bunchgrass is limited or serve as a food source for deer or javelina.



RECOMMENDED PAD AND STEM SPRAY HERBICIDE MIX OPTIONS*						
		Tank Size				
Ingredient	Concentration in Spray Solution	1 gal	3 gal	14 gal	25 gal	
MezaVue, PastureGard HL, Surmount/Trooper Pro, or Tordon 22K/Triumph 22K/ Picloram 22K	1%	1.28 oz	3.84 oz	18 oz	32 oz	
Non-ionic surfactant	0.25%	0.32 oz	1 oz	4.5 oz	8 oz	
Hi-Light™ blue dye	0.25-0.5%	0.32-0.64 oz	1–2 oz	4.5-9 oz	8–16 oz	

\*All spray solutions are mixed in water.

### BRUSH BUSTERS TOP REMOVAL METHOD

Cut the main root of prickly pear 2 to 4 inches below the soil surface with a grubbing hoe or shovel. Remove the detached plants from the area or stack them on piles of brush. Remember: Any prickly pear pads that come in contact with the ground have the ability to root and become new plants.





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Zavala County Texas A	A&M AgriLife
Extension Service Soil S	Sampling
Analysis Suites offered by our agency:	Prices per sample:
1. Routine Analysis (R)	1. \$12
2. R+Micronutrients	2. \$19
3. R+ Micro + Hot Soluble Boron (B)	3. \$26
4. R + Micro + B + Organic Matter (OM)	4. \$46
5. R + Micro + B + OM + Texture Analyses (TEX)	5. \$66
6. R + OM	6. \$32
7. R + TEX	7. \$32
8. R + OM + TEX	8. \$52
9. R + Detailed Salinity (SAL)	9. \$37
10. R + Micro + B + SAL	10. \$51
11. R + Micro + B + OM + SAL	11. \$71
12. R + Micro + B + OM + SAL + TEX	12. \$91

Please stop by our office to pick up a soil sample bag and form

If you have any questions, feel free to reach out to our office, (830) 374-2883 or stop by at 221 N Ist Ave, Crystal City, TX 78839

EXTENSION