

Top of the Windmill News

Summer 2022 Edition

TEXAS A&M
AGRILIFE
EXTENSION

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By: Justin Klinksiek CEA-Ag/NR

Calendar of Events

- Aug 19-20** Texas Sheep & Goat Expo in San Angelo
- Sept 13** Kerr County Ranchers Leasing Workshop
- Oct 1** Save the Date! Kerr 4-H Wild Game Dinner
- Oct 10 - 11** 2022 Bennett Trust Land Stewardship Women's Conference
"Building a Legacy of Environmental Stewardship"



Plant of the Month Giant Ragweed (*Ambrosia trifida*)

By: Kent Ferguson

Giant Ragweed is a native annual found throughout the U.S., Canada, and Mexico. The coarse, rough-stemmed plant is not found in dry, arid regions. Also known as Bloodweed, Blood Ragweed, or Buffaloweed, this plant:

- Has a single main stem or stalk reaching up to 12 feet tall in deep, moist soil.
- Has rough leaves that are simple, opposite and palmately divided into three lobes on the upper leaves, and five lobes on the lower leaves.
- Has leaves attached to the stem by a petiole up to 2 inches long.
- Produces both male and female flowers on the same plant, which yield seed up to a quarter inch long with short spikes on the top.



Giant Ragweed is grazed heavily by livestock and will seldom be found in continuously grazed pastures. Year after year, it will populate the same areas and is most often found in river bottoms, riparian zones, and wetland areas livestock cannot access. It will dominate these areas if allowed.

Giant Ragweed is not often consumed by white-tailed deer, except in early spring when the leaves are young and tender. However, many game birds and songbirds enjoy the seeds.

Giant Ragweed will produce a bright red sap when the tissue is damaged, hence the name Bloodweed. It has been reported that early natives used the sap for dye, paint, and medicines. Early pioneers also used the stalk's dry pith to seal leaky barrels and water vessels.

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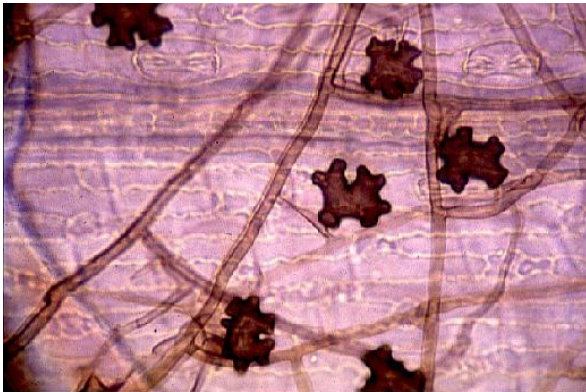
Commercial products and trade names are used for information purposes only.

Take-all Patch, Bermuda Decline, Take-all Root Rot (fungi – *Gaeumannomyces graminis* var. *graminis* or *avenae*)

Host Grass: Hybrid Bermuda (*Cynodon dactylon*), Common Bermuda, Bentgrass (*Agrostis palustris*), Buffalo Grass, Centipede Grass, St. Augustine Grass (*Stenotaphrum secundatum*)

Cause and Symptoms: Take-all root fungus is active in fall and winter when there is abundant moisture and moderate temperatures. However, symptoms are often expressed in late spring or early summer when affected turfgrass first experiences the stressful effects of high temperature and dry weather. This disease has the ability to destroy large sections of turfgrass if left uncontrolled. The first symptom is often yellowing of the leaves which eventually die. Turf becomes thin as roots, nodes and stolons become infected and plants die. Unlike brown patch, leaves of take-all infected plants do not easily separate from the plant when pulled. Roots become rotted so damaged stolons are easily pulled from the ground, similar to white grub damage. Regrowth of grass into affected areas is often slow and unsuccessful.

Control and Management: Controlling take-all is not easy and both cultural and chemical methods should be considered. Good surface and subsurface drainage is important. Irrigate only when required, and infrequent but thorough water is preferred to frequent shallow watering. Verticutting to remove thatch also helps. Aerification alleviates soil compactions and promotes a deeper, more vigorous root system. Balanced fertility is important. If possible, adjust the soil pH in the upper root zone to a range of pH 6.0 to 6.5. Preventive fungicides are best applied in the fall since the fungus is thought to be most active at that time.

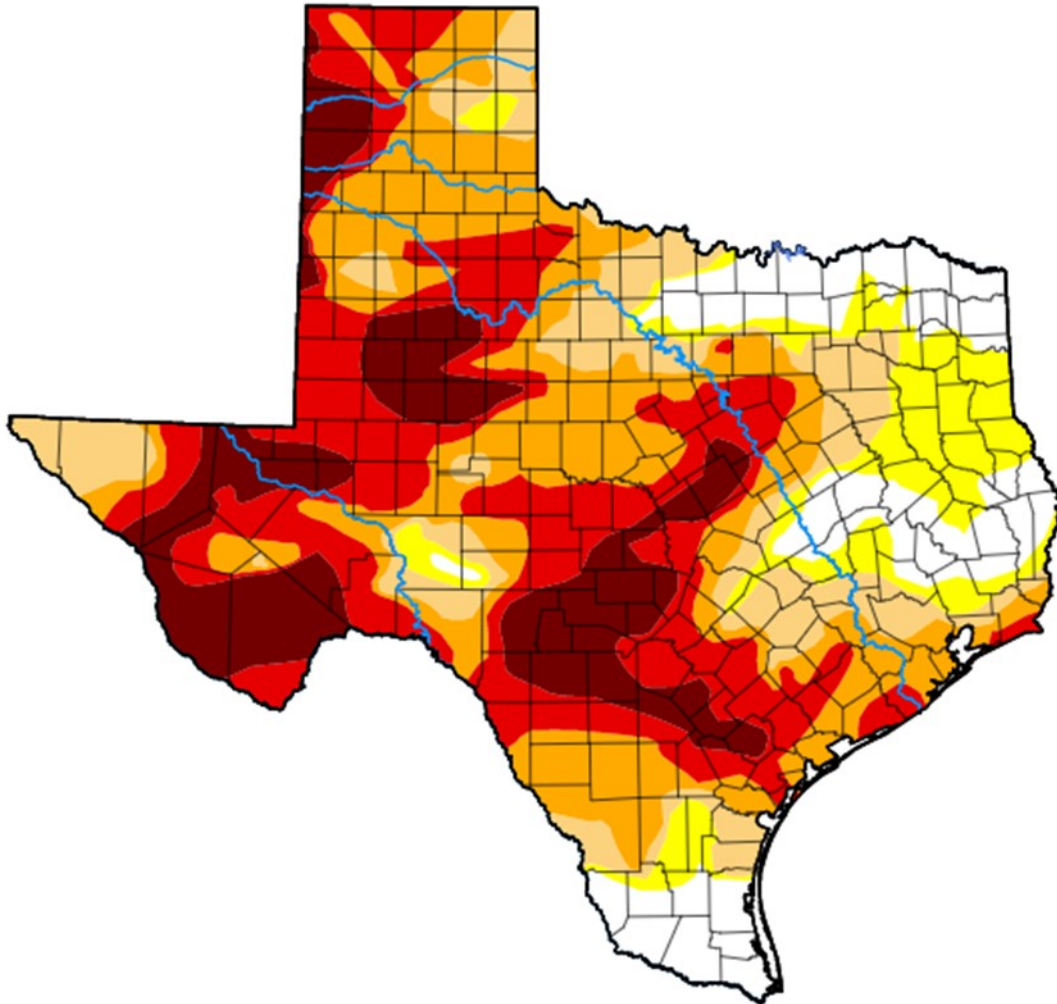


Characteristic hyphopodia (infection pads) of Take-all Root Rot pathogen.
Courtesy Joseph Krausz, TAEX, 1996.

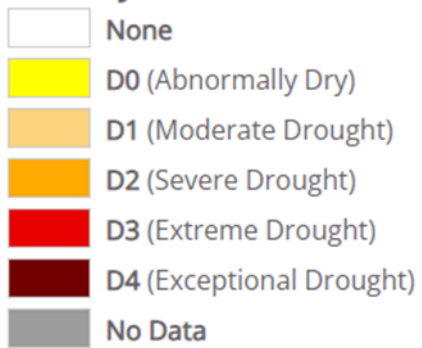


Take-all Root Rot of St. Augustinegrass.
Courtesy Joseph Krausz, TAEX, 1996.

Texas Drought Monitor Update



Intensity



Horn Fly Control in Cattle

By: Dr. Sonja Swiger, Texas A&M AgriLife Extension Entomologist

Horn flies (*Haematobia irritans*) bite cattle and feed on their blood; they weaken the animal and make it lose weight. Adult horn flies have piercing mouthparts and each fly feeds 30–40 times per day. The bites are painful and will form a wound that mars animal hides. Horn fly populations increase from late spring to early fall; they peak in midsummer. They rest on the withers, back, and sides of the cattle, moving to the belly when temperatures exceed 90 degrees F. Cattle react by licking their backs, twitching their flanks, switching their tails, and kicking at their bellies with their hind legs. When flies exceed 250 per side, cattle will lose 15 to 50 percent of their weight. Horn flies are the same color as house flies and stable flies but are slightly smaller (3/16 in.). The females can lay several hundred eggs in their 3-week lifespan. They lay their eggs under the edges of fresh dung pats where they develop in 10–20 days, depending on the temperature.



Photo: Jeff Tomberlin, Texas A&M University
Figure 1. Horn flies resting on the back of a cow.

To control and prevent horn fly infestations:

- ▶ Kill adult flies before they harm the cattle or produce offspring.
- ▶ Exclude adult flies with screens or other barriers.
- ▶ Drag pastures and spread manure in a thin layer to limit breeding grounds.
- ▶ Rotate pastures to prevent manure buildup.

Beneficial organisms such as predators, parasitoids and natural competitors will help control insect populations. Predatory mites, beetles, and the larvae of certain flies such as *Hydrotaea* spp. or *Muscina* spp. feed on horn fly larvae. Parasitoid wasps such as *Muscidifurax* spp. and *Spalangia* spp. feed on pupae. Dung beetles and the black soldier flies compete with horn flies for cattle dung.

The point at which chemical control measures are economically justified is called the threshold. For horn flies, the threshold is 250 flies per side. Use chemical control once the threshold is reached. Control options include:

- ▶ ear tags
- ▶ sprays
- ▶ pour-on liquids
- ▶ back rubs
- ▶ injections
- ▶ insect growth regulator
- ▶ mineral feed products
- ▶ boluses
- ▶ dust bags

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Place self-treatment devices at bottlenecks near water, feed, or mineral sources. It may take 2–3 weeks before cattle adopt self-treatment devices. Forcing cattle to use these devices can help control lice and will control horn flies more rapidly. Insecticide-impregnated ear tags can also give excellent control if they are properly attached, and the insect is not insecticide resistant. The tag applies a small amount of insecticide to the animal's body over a 2½- to 5-month period. Replace the tag when the insecticide is depleted and no longer controls the flies. Ear tags are an economical way to control horn flies, Gulf Coast ticks, and spinose ear ticks.

Managing pyrethroid- and organophosphate-resistant horn flies

Alternate the type of active ingredients to avoid or minimize insecticide resistance. Treating successive generations of flies with the same types of insecticides promotes insecticide resistance; insects that are susceptible to the active ingredient are quickly killed; those that are not pass on their genes and increase the number of resistant insects. Horn fly resistance to organophosphates was first recorded in the 1970s; resistance to pyrethroids was confirmed in 1984. Flies that resist one pyrethroid will resist all other pyrethroid insecticides currently labeled for use in Texas. To reduce resistance, delay treatment until flies reach the threshold levels and susceptible flies mate with resistant ones. Periodic application methods (sprays, self-treatment devices, etc.) tend to delay development of resistance more than do continuous release methods such as ear tags.

Treatment options

- ▶ Use sprays, dusts, or other formulations with a different mode of action than the ear tag and treat only when horn fly populations exceed 250 per head.
- ▶ Alternate the type of ear tag insecticide each year. Organophosphate (OP) ear tags such as Terminator II, OPTimizer, Patriot, Warrior, or Dominator can be used after a pyrethroid ear tag. Do not use organophosphate ear tags for more than 2 successive years. Organochlorine (Avenger) or macrocyclic lactone (XP 820) ear tags are effective alternatives to pyrethroid or organophosphate ear tags.
- ▶ Remove the ear tags when calves are weaned or when the cows are worked in the fall. If there are more than 200 to 250 horn flies per head when the tags are removed, use a spray or dust with a different mode of action to reduce overwintering flies. Combination ear tags are not recommended because they combine modes of action and can promote resistance to both classes of insecticides at the same time.



Ticks

Ticks are arachnids and related to spiders and mites. They have two body regions, eight legs and no antennae. They require a blood meal before molting to the next stage of their development. Adult female ticks also require a blood meal before they can lay eggs. Since ticks can feed on multiple hosts during their lifetime, including humans and other animals, they are capable of transmitting disease organisms through their bite. Ticks wait for their hosts by climbing up vertical surfaces such as vegetation, fences, or shrubbery. When a host brushes past, the ticks grab on and locate a suitable spot for feeding.

For avoiding ticks:

- Wear long pants & long sleeves when going into suspected tick areas; tuck in the shirt into pants and pants into socks
- Avoid sitting on the ground in suspected tick areas
- Keep vegetation cut short around the home -When treating for ticks with pesticide, treat up vertical surfaces such as the house, trees and fences
- Use a topical treatment to manage ticks on pets

To remove ticks:

- Do NOT use hot matches, petroleum jelly or grease; they may increase the chance of infection
- Grasp the tick as close to the head as possible
- Pull firmly, but gently without twisting
- Do not touch or smash the tick with your bare hands
- Use tweezers, but squeeze gently; do NOT smash
- Use a paper towel or disposable gloves
- Wash the bite area with warm, soapy water and apply an antiseptic



Sheep & Goat Predator Management Board Elections

The Sheep & Goat Predator Management Board will be holding its required election this summer to replace one director from each of our three districts. We encourage you to nominate someone from your district to serve as a director on this board. District 2 Counties include: Bandera, Edwards, Kerr, Kinney, Kimble, Mason, Medina, Menard, Real, Schleicher, Tom Green, Uvalde, and Zavala. Current Directors are Johnny Mayo, Clint Smith, and Jason Bannowsky.

Nomination forms are available at the Kerr County Extension Office located at 3775 Highway 27. For any questions, please contact Justin Klinksiek (Kerr County Extension Agent) at 830-257-6568, or the Sheep & Goat Predator Management Board directly at 325-659-8777.

Annual Sheep & Goat Expo and Field Day
Friday August 19-20, 2022
\$75 Per Person Online or \$100 Per Person Onsite

This unique sheep and goat event provides producers and other interested persons the opportunity to attend educational presentations. The speakers are experts in the industry. This program meets the needs of a very diverse sheep and goat industry.

The event draws producers from across Texas, out of state, and as far away as Australia. It is the largest event of its type in Texas and one of the largest sheep and goat industry educational programs in the world.

The expo will feature guest speakers, educational seminars, and numerous live sessions for participants to choose from. The event covers a range of industry topics, including addressing the concerns and challenges facing today's producer in light of recent events, as well as the exciting changes happening in the industry involving technological advances and new services.



Sheep and Goat Field Day

Friday, August 19, 2022, 8:30 a.m. – 11:30 a.m.
Texas A&M AgriLife Research and Extension Center
7887 US Highway 87 N, San Angelo TX

Texas Sheep and Goat Expo

Friday, August 19, 2022, 12:00 p.m. – 8:30 p.m.
Saturday, August 20, 2022, 7:00 a.m. – 1:00 p.m.
First Community Spur Arena
4722 Grape Creek Rd., San Angelo TX

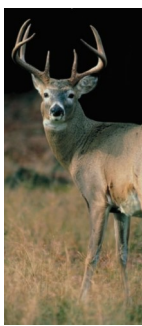
Youth Program and Skill-a-thon

Saturday, August 20, 2022: 8:00 am – 1:00 pm
First Community Spur Arena
4722 Grape Creek Rd., San Angelo TX



Ranchers Leasing Workshop Save the Date!

The Kerr County Ranchers Leasing Workshop will be held on Tuesday September 13, 2022, at the Hill Country Youth Event Center located 3785 Highway 27 in Kerrville. The workshop will take place from 9:00-1:00. The Rancher's Leasing Workshop is \$50, and preregistration is required at [TX.AG/AGLAWEVENTS22](https://tx.ag/AGLAWEVENTS22). Each participant will receive a copy of the "Ranchers Agricultural Leasing Handbook," containing checklists and sample lease language. Lunch is included.



Tiffany Dowell Lashmet, AgriLife Extension agricultural law specialist in Amarillo, and Greg Kaase, Ph.D., AgriLife Extension agricultural economist and risk management specialist, Bryan-College Station, both with Texas A&M's Department of Agricultural Economics, are the program presenters.

"These Ranchers Leasing Workshop events have been extremely popular over the past several years," Lashmet said. "Over 1,200 Texans, representing over 1.6 million acres, have attended these live programs, and 100% of them would recommend them to a friend based on post-event surveys."

Grazing, Hunting, Livestock Leases

The half-day program is designed for agricultural landowners and tenants and is focused specifically on grazing, hunting and livestock leases. A portion of the program is dedicated to landowner liability law and how landowners and tenants can protect themselves if someone is injured on a property they own or control. Additionally, the program highlights economic resources, budgets and decision tools.

"Dr. Kaase and I not only provide legal and economic information, but both of us having been involved in various grazing and hunting leases ourselves, we share practical advice and stories that I think really add to the workshops," she said.



For those unable to attend the in-person workshop, there is an online version of the Rancher's Leasing Workshop program at tx.ag/OnlineRanchersWorkshop. The online program is \$75. For more information on the program, contact Greg Kaase at 979-458-3348, Tiffany Lashmet at 806-677-5600, or the Kerr County Extension Office at 830-257-6568.

Fall Webworm

By: Bill Ree and Marty Jungman

The fall webworm, *Hyphantria cunea* (Drury), is native to North America and is a common caterpillar pest of trees. It attacks more than 88 kinds of plants in North America, including many fruit, nut, and ornamental trees and shrubs. It does not attack pines and other needle-bearing trees (conifers). Fall webworms are known for their large webs on terminal foliage. Heavy infestations are rarely fatal, but if they occur over several years, they can make trees more susceptible to drought, disease, or other insect pests. The fall webworm's plant preference varies according to region. In West Texas, they prefer mulberry, poplar, and willow-in East Texas, they most often attack sweetgum, oak, hickory, and pecan.

Description

The fall webworm moth has a 1- to 1½-inch wingspan. Its wings are white but sometimes may have small, dark spots on the forewings. Full- grown larvae are approximately 1 inch long, pale green or yellow, and covered with tufts of long, white, and black hairs. Fall webworms often cover entire branches with their webs and in extreme infestations may cover the whole tree. Larvae feed within the web-they eat the tender parts of leaves but avoid the larger veins and midrib.

Biology

The fall webworm's name is somewhat misleading because the caterpillars and adult moths can be found in the spring as well. Fall webworms have four generations per year in South Texas, and two to three generations in northern parts of the state. The first generation occurs as early as April in South Texas and as late as June in the Panhandle. However, the fall generation is usually the most damaging-hence the name Fall webworms overwinter as pupae on the ground, behind rough tree bark or in other sheltered sites around homes and buildings. Moths emerge from their silken cocoons in the spring, then disperse and mate. Female moths deposit hair-covered egg masses on the under- sides of the leaves of their food plants. Do not mistake these egg masses for those of the walnut caterpillar, which have no hairs.

Egg masses may be deposited in a single or double layer and can contain up to 600 eggs. Each female moth deposits only one egg mass in her life. The larvae begin to build a silk web soon after hatching. As larvae consume leaves within the web, they expand the web to take in more foliage. All the larvae within a web are the offspring of a single egg mass and will molt six or seven times before leaving the web to pupate. Under ideal conditions, the life cycle from egg to adult is approximately 50 days.



Figure 1. Fall webworm egg mass

Control

Fall webworms can be managed on smaller trees without insecticides. You can do this by physically removing the webs, caterpillars, or egg masses. You can knock larvae out of low-hanging webs into a box or garbage bag with a stick or broom. You can also prune webs from lower and smaller branches or pull them down with a rake or a pole.

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Beneficial insects attack the eggs and larvae of the fall webworm and keep populations under control in many years. You can help beneficial insects by tearing open the protective webs. If webs are too numerous or too high in a tree to deal with individually, you can use insecticides to prevent damage.

Hose-end or commercial high-pressure sprayers are best for reaching upper parts of trees. Webworm larvae stay inside their web so insecticide sprays must penetrate the web to be most effective. For best control, apply insecticides when webs and caterpillars are small. Insecticides containing *Bacillus thuringiensis* (Bt) or spinosad are effective and will not harm beneficial insects.

Carbaryl and pyrethroid insecticides (such as permethrin, cyfluthrin, bifenthrin, and esfenvalerate) are highly effective against fall webworm. However, these insecticides are also toxic to beneficial insects so use them only for severe infestations. Insecticidal soaps and horticultural oil sprays can also be effective when applied directly to caterpillars in their nests.

Insecticide labels are subject to change—always read and follow instructions on the pesticide label carefully. You are responsible for the effects of pesticides on your own property, as well as problems caused by drift to other properties. Not all insecticides are registered for fall webworms on all sites and commodities. Read the label to make sure the insecticide is labeled for your site and commodity.

Brush Busters Herbicide Mixing Guide

AMOUNT OF PRODUCT NEEDED FOR HERBICIDE MIXES USING PERCENT AND SPRAY VOLUME												
Total amount of herbicide mix desired	Product amount (%) needed for individual plant treatment applications											
	0.25%	0.5%	0.75%	1%*	1.5%	2%	3%	4%	5%	10%	15%	25%
	Amount of product											
1 gal	0.32 oz	0.64 oz	1 oz	1.28 oz	2 oz	2.56 oz	4 oz	5.12 oz	6.4 oz	12.8 oz	19 oz	32 oz
3 gal*	1 oz	2 oz	3 oz	4 oz*	6 oz	8 oz	11.5 oz	15.5 oz	19 oz	38.5 oz	58 oz	96 oz
5 gal	1.6 oz	3.2 oz	5 oz	6.4 oz	10 oz	13 oz	19 oz	26 oz	32 oz	64 oz	96 oz	1.25 gal
10 gal	3.2 oz	6.4 oz	10 oz	13 oz	19 oz	26 oz	38 oz	51 oz	64 oz	1 gal	1.5 gal	2.5 gal
14 gal	4.5 oz	9 oz	13.5 oz	18 oz	27 oz	36 oz	54 oz	72 oz	90 oz	1.4 gal	2.1 gal	3.5 gal
25 gal	8 oz	16 oz	24 oz	32 oz	48 oz	64 oz	96 oz	1 gal	1.25 gal	2.5 gal	3.75 gal	6.25 gal
50 gal	16 oz	32 oz	48 oz	64 oz	96 oz	1 gal	1.5 gal	2 gal	2.5 gal	5 gal	7.5 gal	12.5 gal
100 gal	32 oz	64 oz	96 oz	1 gal	1.5 gal	2 gal	3 gal	4 gal	5 gal	10 gal	15 gal	25 gal

*Spray Mix Example: To prepare 3 gallons of a 1% herbicide leaf spray mixture with 0.25% non-ionic surfactant (NIS) and 0.5% blue dye: Add half the water volume to the tank, pour in the correct amount of herbicide (4 oz; see chart), add 0.25% NIS (1 oz; see chart), add 0.5% blue dye (2 oz; see chart). Add the remaining water volume and mix well.

Note: For leaf spray applications, add the recommended amount of non-ionic surfactant (NIS), methylated seed oil (MSO), or methylated seed oil-organo silicate (MSO-OS) according to product label specifications, using only water as the herbicide carrier. For stem or cut stump applications, recommendations include using either triclopyr ester with a diesel or basal oil carrier or Invora (mesquite only) and an MSO-OS adjuvant with water as a carrier.

128 oz = 1 gallon



Bennett Trust Land Stewardship Women's Conference

“Building A Legacy of Environmental Stewardship”

October 10-11, 2022

Inn on Barons Creek
308 S. Washington St.
Fredericksburg, Texas

Conference Agenda

Conference includes :

Day 1: Presentations on Ag Law, Prescribed Burn,
Water Well Education, and more.

Day 2: Tours

For more information, please visit:

BennettTrust.tamu.edu

