

# Top of the Windmill News

## Spring 2020 Special Edition

TEXAS A&M  
**AGRI**LIFE  
EXTENSION

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*Roy Walston*

**By: Roy Walston – CEA-Ag/NR**

### Calendar of Events

THE FOLLOWING PROGRAMS HAVE BEEN CANCELLED DUE TO COVID-19

April 11 - Hill Country Master Gardener Blooms & Barrels Plant Sale

April 15 - Pecan Grafting & Production Workshop

April 23-24 - 6th Annual Hill Country Land Stewardship Conference



If you would like to receive the Top of the Windmill via email, please send an email to: [kerr@ag.tamu.edu](mailto:kerr@ag.tamu.edu) with the Subject title as: Top of the Windmill.

### Wildlife Damage Management Webinar Series

Texas A&M Agrilife Extension in Bexar County will be hosting an online Wildlife Damage Management Webinar series of three online classes beginning March 31, April 21, & May 19<sup>th</sup> from 12:00 noon – 1:00 p.m. These webinars will be available for you to participate in the comfort of your home or



office. If you are interested please call the Kerr County Extension office at 830-257-6568. Pesticide CEU's will be available to private, commercial or non-commercial applicators for \$20 for series or \$10 per class. We will furnish you the link once you have registered.

Topics include:

- **March 31** (Tuesday) Mice & Rats, Squirrels & Bats: Managing Small Mammals at Your House and on Your Land - *Dr. Maureen Frank, Extension Wildlife Specialist*
- **April 21** (Tuesday) Blackbirds, Cowbirds, House Sparrows, and More: Managing Nuisance Birds at Your House and on Your Land - *Dr. Maureen Frank, Extension Wildlife Specialist*
- **May 19** (Tuesday) Skunks, Coons, Opossums, and More: Managing Mesomammals at Your House and on Your Land - *Dr. John Tomecek, Extension Wildlife Specialist*



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## Can ticks and mosquitoes transmit the coronavirus?



**Laura Muntean**  
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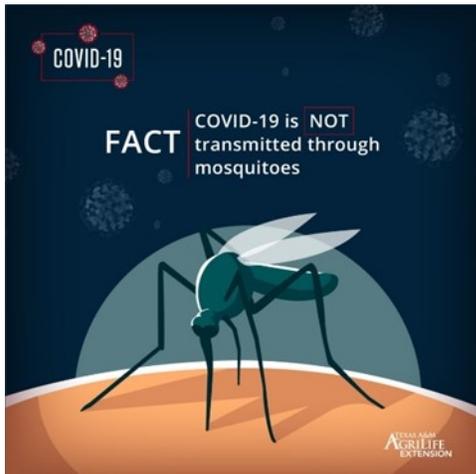
***No, but use good judgment in avoiding bites from mosquitoes and ticks.***

At this time, there is no scientific evidence that COVID-19 is transmitted by mosquitoes and ticks, explained Texas A&M AgriLife experts.

“Ticks, like mosquitoes, are blood-feeding external parasites,” said Pete Teel, Ph.D., Texas A&M University interim head for the Department of Entomology in the College of Agriculture and Life Sciences. “The viruses they are known to transmit to humans must survive and grow, or replicate, inside the tick as well as survive through tick developmental stages.”

Mosquitoes, ticks and other blood-feeding arthropods are vectors of other viruses and pathogens.

“People still need to exercise caution and good judgment in avoiding bites,” said Zach Adelman, professor in the Department of Entomology. “But there is no evidence that a coronavirus can survive being digested by a mosquito, let alone transmitted to another person.”



As a result of social distancing, people are also spending more time outside. This is understandable as many outdoor activities like running, biking, etc., are very compatible with social distancing, explained Kevin Myles, professor in the Department of Entomology.

“One unintended consequence of this trend is that people may be increasingly exposed to mosquitoes and other disease vectors as the weather warms. As a result, everyone should be reminded to wear appropriate clothing and insect repellent when spending time outdoors, as vector-borne diseases continue to pose a threat to public health, in addition to flu and COVID-19,” Myles said.

The virus is thought to spread mainly from person-to-person including people who are in close contact with one another—within about six feet—and through respiratory droplets produced when an infected person coughs or sneezes. These droplets can land in the mouths or noses of people who are nearby or possibly be inhaled into the lungs.

The World Health Organization has also reported there is no information nor evidence, at this time, to suggest that that novel coronavirus could be transmitted by mosquitoes.

The American Mosquito Control Association is monitoring the situation.

For more information regarding the Coronavirus, visit Texas A&M AgriLife’s Disaster Education Network.

To help prevent the spread and protect yourself, wash hands under soap and water for at least 20 seconds, use a hand sanitizer containing at least 60% alcohol, avoid close contact and practice social distancing.

## Coronavirus: Human strain causes fear, but domestic livestock strains are routine



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**While wildlife may be source of China outbreak, livestock coronaviruses are common worldwide.**

Many people are hearing about coronavirus for the first time as the China strain, COVID-19, affecting humans causes concern all across the world. But coronaviruses are not new to livestock and poultry producers, according to a Texas A&M AgriLife veterinary epidemiologist.



Strains of coronavirus can occur annually in domestic cattle herds. (Texas A&M AgriLife photo by Kay Ledbetter)

According to the Centers for Disease Control and Prevention, common human coronaviruses usually cause mild to moderate upper-respiratory tract illnesses, like the common cold. Most people get infected with one or more of these viruses at some point in their lives.

But the CDC is now responding to an outbreak of respiratory disease caused by a novel or new coronavirus that was first detected in Wuhan City, Hubei Province, China.

“Coronavirus is a common virus in livestock herds and poultry flocks seen routinely worldwide,” said Heather Simmons, DVM, Institute for Infectious Animal Diseases, IIAD, associate director as well as Texas A&M AgriLife Extension Service’s associate department head and extension program leader for Veterinary Medical Extension. IIAD is a member of the Texas A&M University System and Texas A&M AgriLife Research.

### **Wildlife in China may be human strain carriers**

“In wildlife, bats are known to carry over 100 different strains of coronavirus, and wild civets are the source of the coronavirus that causes SARS (Severe Acute Respiratory Syndrome), first reported in China in 2002-2003,” Simmons said. “Although our understanding is still limited, wild pangolins (a scaly anteater) sold at live markets may be associated with the recently reported coronavirus outbreak in China.”

Bats, civets and pangolins are all commonly sold at live markets in China, she said. Coronaviruses from wildlife are dangerous since they have the potential to mutate, adapt and spill over to new species, including humans.

“That is the concern now, this new strain of coronavirus has emerged to cause disease in humans,” Simmons said. “It is important to create an understanding of the difference between coronaviruses occurring in domestic livestock and poultry compared to coronaviruses that spill over from wildlife to humans.”

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## **Coronavirus in domestic livestock doesn't jump to humans**

Simmons said, to date, the coronaviruses in livestock are not considered reportable diseases because their main effect is as an economic burden to livestock producers.

They are known to occur worldwide annually, with some of the most common coronaviruses found in production animals to include the scours and winter dysentery in beef and dairy cattle, porcine respiratory coronavirus in swine and avian infectious bronchitis in poultry.

The World Health Organization has reported that while another coronavirus, MERS-CoV, is known to be transmitted from dromedary camels to humans, other coronaviruses circulating in domestic animals have not yet infected humans.

“That’s what is very important to understand at this time,” Simmons said. “We have been dealing with these diseases for a long time but as of yet, we have not seen cases worldwide transmitted from livestock to humans or vice versa.”

## **What does coronavirus look like in livestock?**

While coronaviruses have a high morbidity, or rate of illness, in livestock and poultry they are generally considered to have low mortality, rate of death, Simmons said.

Coronaviruses will affect either the respiratory system or the gastrointestinal system, depending on the species and the age of the animal.

### **Coronavirus in cattle**

In calves, diarrhea commonly occurs in animals under three weeks of age due to a lack of obtaining antibodies when the calf does not get enough colostrum from the mother in order to build up immunity. Clinical signs include severe dehydration and diarrhea. The severity of the clinical signs depends on the age of the calf and their immune status. This is often seen by producers in the winter months as the virus is more stable in cold weather. The second clinical syndrome, winter dysentery is found in adult cattle. Clinical signs include bloody diarrhea with decreased milk production, loss of appetite with some respiratory signs. Bovine coronaviruses can also cause mild respiratory disease or pneumonia in calves up to six months. The virus is shed in the environment through nasal secretions and through feces.

### **Coronavirus in swine**

There are multiple coronaviruses that affect swine. Like cattle, they affect the respiratory or gastrointestinal tract. In sows and piglets, porcine respiratory coronavirus usually presents with no clinical signs. If clinical signs do occur, it may be a transient cough within the herd and spread of this disease occurs through aerosolized methods.

### **Coronavirus in poultry**

Infectious bronchitis virus, or IBV, is a rapidly spreading respiratory disease in young chicks. Clinical signs in laying hens include reduced production, eggshell abnormalities and decreased internal egg quality.

## **How to treat**

Livestock producers should consult with a veterinarian for treatment, Simmons said. Treatment in livestock herds and poultry flocks typically includes supportive therapy of fluids. Antibiotics are not indicated for viral infections but may be used if a secondary bacterial infection occurs.

More information can be found through the Texas &M AgriLife Extension Disaster Education Network.

## Livestock guardian dog field day rescheduled to Sept. 25 in Fredericksburg

Tentative online LGD webinar planned for May 1

The Texas A&M AgriLife Extension Service has rescheduled their May 1 livestock guardian dog, LGD, field day. The event will now be held Sept. 25.



“We still want to be able to bring people the newest information about livestock guardian dogs and the latest from our LGD research here at the center,” said John Walker, Ph.D., Texas A&M AgriLife Research rangeland specialist, San Angelo. “So, we will be developing an online event for May 1 and will let everyone know the details when available.”

The LGD fall field day event will run from 8 a.m.-5 p.m. at the Roeder Ranch at 6918 White Oak Road in Fredericksburg.

The cost is \$25 per person or \$40 per couple if registered before Sept. 4; cost is \$40 per person and \$50 per couple after that date. Call the AgriLife Extension office of Gillespie County at 830-997-3452 to register.

“Surveys show past LGD field days we’ve held have been a great success with participants telling us they increased their knowledge regarding LGDs by about 40%, and they estimated the economic benefit to their operations at \$8.50 per head of small ruminant,” said John Walker, Ph.D., Texas A&M AgriLife Research rangeland specialist, San Angelo.

Scheduled presentations will cover LGD healthcare, dog behaviors, LGD breeds, LGD fact vs. fiction and the AgriLife LGD program.

“Successful LGD programs are highly effective at reducing, if not completely eliminating, sheep and goat predation,” said Reid Redden, Ph.D., Texas A&M AgriLife Research and Extension Center interim director and AgriLife Extension sheep and goat specialist, San Angelo. “However, developing a successful LGD program requires expertise, persistence and some adaptability.

“The upcoming AgriLife LGD Field Day will build upon our past events. Some of the basics of LGD management will be discussed by various speakers and Texas A&M AgriLife Research will present demonstrations and share the latest on the research we have going on at the center. This field day will also include ranch tours, hands-on demonstrations and LGD related vendors.”

Speakers will include Walker, Redden and Bill Costanzo, AgriLife Research LGD specialist, San Angelo. There will also be a veterinarian and a slate of other expert speakers, as well as a panel discussion comprised of experienced LGD producers.



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“This will be a great opportunity for current and prospective owners of livestock guardian dogs to see demonstrations, hear presentations and ask any questions they may have about caring for, owning and working with these dogs,” Costanzo said.

Coffee and donuts will be provided courtesy of Farm Bureau and Capital Farm Credit will be sponsoring the lunch for participants.

For additional information, call the AgriLife Extension office of Gillespie County at 830-997-3452 or email [donna.maxwell@ag.tamu.edu](mailto:donna.maxwell@ag.tamu.edu).



TEXAS A&M UNIVERSITY  
Soil & Crop Sciences

## PREEMERGENCE HERBICIDES FOR THE HOME LAWN

*A quick guide for homeowners*

DR. BECKY GRUBBS  
ASSISTANT PROFESSOR & EXTENSION TURFGRASS SPECIALIST

### FREQUENTLY-ASKED QUESTIONS

#### WHAT ARE PREEMERGENCE HERBICIDES?

A **preemergence herbicide** is an herbicide that is designed to control weeds by interfering with seedling **germination and emergence**. They are commonly referred to in the lawn care industry as "**weed preventers**", and essentially form a **protective barrier** on your lawn during critical seasons when weeds are most actively germinating. Conversely, **postemergence herbicides** will control established weeds that have already germinated and emerged. Some herbicides have both pre- and postemergence activity.

#### HOW DO THEY WORK?

Herbicides are classified by their **site of action** which refers to the location within the plant where the herbicide interferes with development. Different preemergence herbicides may have different sites of action or manners in which they work. However, many of the preemergence herbicides found in lawn care products for homeowners are classified as **mitosis inhibitors**. In simpler terms, these products **inhibit cell division**, resulting in seedlings that are **stunted, deformed, and unable to emerge as healthy plants**.

#### Common lawn weeds that can be prevented with the use of preemergence herbicides.



Large Crabgrass  
*Digitaria sanguinalis* (L.) Scop



Annual Bluegrass  
*Poa annua* L.



Spotted Spurge  
*Chamaesyce maculate* L.  
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## WHAT ARE THE POTENTIAL BENEFITS OF USING A PREEMERGENCE HERBICIDE?

- These herbicides provide protection during critical seasons when turfgrass may be less able to compete with weeds (spring and fall).
- Preemergence herbicides are generally the most effective chemical option for controlling **challenging annual weeds** like crabgrass (*Digitaria spp.*) and annual bluegrass (*Poa annua* L.).
- In some cases, preemergence herbicides can reduce the number of postemergence herbicide applications required to maintain a healthy lawn.
- When used as directed by the label, many preemergence products can be safer to use around established plants in the landscape compared with select postemergence products.

## WHAT OTHER FACTORS SHOULD I CONSIDER BEFORE PURCHASING AND USING A PREEMERGENCE HERBICIDE?

- Preemergence herbicides can injure newly-established or overseeded turfgrass lawns. Follow label recommendations and consult your **AgriLife County Extension Agent** when in doubt.
- Weed and feed products used for other purposes in the landscape may already contain preemergence herbicides. Application of separate preemergence herbicides in addition to these products may lead to over-application that can be harmful to your lawn.
- The performance of preemergence herbicides can be significantly affected by timing, precipitation, environmental conditions, and the specific weeds you are targeting. For the most effective program, work with your AgriLife County Extension office regarding their recommendations for your area.
- Avoid using weed and feed products during months when turfgrass is not actively growing, as this can lead to the application of nitrogen fertilizers at inappropriate times.



## WHEN DO I APPLY MY PREEMERGENCE HERBICIDE?

For best results, we recommend that you make **two** preemergence herbicide applications each year: one in the **spring** to target summer annual weeds and one in the **fall** to target winter annual weeds. Preemergence herbicides will often be the most effective when applied based on **soil temperature**, because soil temperatures play a critical role in weed seed germination. Per the recommendations above, apply your spring preemergence herbicide when soil temperatures reach approximately **55°F** for several days. Fall applications can be made several months later when soil temperatures decrease to approximately **70°F** for several days. Application timing in Texas can vary by several weeks based on **geographic region** and **annual weather conditions**. When in doubt, contact your local AgriLife County Extension office.

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## MONITORING SOIL TEMPERATURE

### WHEN DO I APPLY MY PREEMERGENCE HERBICIDE?

You can monitor soil temperature yourself using a **soil thermometer** or even a household meat **thermometer**. Measure the soil temperature for the **uppermost 1" of soil**, where most weed seeds will be concentrated. Be mindful that some seeds may be on the soil surface, which will warm more quickly leading to earlier germination. Soil temperatures are also generally monitored at different depths for many areas throughout the state of Texas. Contact your local AgriLife County Extension office for recommendations on the **most reliable sources** for soil temperature data in your county.

ACTIVE INGREDIENT	TARGET WEEDS	FOUND IN PRODUCTS LIKE	NOTES
<b>BENEFIN</b>	grasses, some small-seeded broadleaf weeds	Balan Herbicide; Amaze Grass & Weed Preventer; Fertlome A-Vert Plus Lawn Food	This product can be volatile and prone to loss if not watered in properly. Pay attention to label recommendations.
<b>CORN GLUTEN MEAL</b>	grasses	Green It Liquid Corn Gluten Weed Preventer; Preen Natural Weed Preventer; Others	An option for organic lawn care programs. Performance of this product is variable and may not offer the same level of control as some other products listed.
<b>DITHIOPYR</b>	grasses, some broadleaf weeds	Sta-Green CRAB-EX Crabgrass Control; Bonide Crabgrass Preventer; Others	Offers early postemergence control of crabgrass which creates some flexibility in application timing.
<b>INDAZIFLAM</b>	grasses and broadleaf weeds	BioAdvanced 3-in-1 Weed and Feed for Southern Lawns	This active ingredient is currently only available in a limited number of homeowner products that may be designed to do multiple things. Follow label recommendations carefully before use to ensure all parts of the product are appropriate for your circumstances.
<b>ISOXABEN</b>	broadleaf weeds	Fertlome Broadleaf Weed Control with Gallery; Snapshot Granular Preemergent; Others	Can be combined with grassy weed preemergence herbicides to broaden the spectrum of weed control.
<b>ORYZALIN</b>	grasses, some broadleaf weeds	Monterey Weed Impede, Green Light Amaze Grass & Weed Preventer, Surflan Herbicide	This herbicide thins overseeded grasses.
<b>PENDIMETHALIN</b>	grasses, some broadleaf weeds	Scotts Halts Crabgrass Preventer; Others	Can stain concrete areas. Use caution when applying to these areas.
<b>PRODIAMINE</b>	grasses, some broadleaf weeds	NutriScape Crabgrass Preemergent; Nitro-Phos Barricade Preemergence; Others	Can stain concrete areas. Use caution when applying to these areas.

### COMMON PREEMERGENCE HERBICIDES FOUND IN LAWN CARE PRODUCTS

*Looking for information on a different **active ingredient**? Some preemergence herbicides are not labeled for use for home lawns or may pose a potential risk to your turfgrass species and/or other plants in the landscape. When in doubt, contact your AgriLife County Extension agent first.*

#### OTHER TIPS:

- Check out [aggieturf.tamu.edu/turfgrass-weeds/](http://aggieturf.tamu.edu/turfgrass-weeds/) for assistance with **weed identification**.
- **ALWAYS FOLLOW THE LABEL**. Consider all parts of the label including recommended personal protective equipment (PPE), as well as appropriate application rates and timing.
- Download **A Homeowner's Guide to Herbicide Selection for Warm-Season Turfgrass Lawns** from [aggieturf.tamu.edu](http://aggieturf.tamu.edu) or the AgriLife Bookstore for a more thorough overview of turfgrass weed management.
- When searching for additional lawn care products, don't forget your local producer's co-op and/or feed store.

# 2020 South Texas Agriculture Symposium

## Advocating for Agriculture

2  
CEU's



TEXAS A&M  
AGRI LIFE  
EXTENSION

**Tuesday, April 14, 2020**

**7:30 am - 12:30 pm**

**Lee County Extension Office**

310 South Grimes  
Giddings

### AGENDA

- 7:30-8:00 REGISTRATION
- 8:00 The NOT Beef Burger—*Dr. Joe Paschal*
- 8:30 Update: Hemp Production Laws in Texas—*Dr. Josh McGinty*
- 9:00 Update: New Range & Pasture Herbicides—*Dr. Megan Clayton*
- 9:20 The Scoop on Glyphosate—*Dr. Josh McGinty*
- 9:50 Cattle, Sheep, or Goats? Fitting the Right Animal to your Situation—*Dr. Joe Paschal*
- 10:20 BREAK
- 10:35 Insect Update
- 10:55 Pesticide Safety & Environmental Health— *Dr. Mark Matocha*
- 11:25 Fertilizing: Options and Accurate Prescriptions—*Dr. Jamie Foster*
- 11:55 Cattle Fever Tick Update—*Dr. Joe Paschal*
- 12:10 The Sustainability Movement—*Dr. Megan Clayton*
- 12:30 FINAL QUESTIONS/ADJOURN

**All presentations will be conducted via Internet**

**RSVP by April 9**

**to 979-542-2753**

**\$10 / person**

**Gerri L. Kline, CEA AG/NR, Lee County**

The members of Texas A&M AgriLife will provide equal opportunities in programs and activities, education, and employment to all persons regardless of race, color, sex, religion, national origin, age, disability, genetic information, veteran status, sexual orientation or gender identity and will strive to achieve full and equal employment opportunity throughout Texas A&M AgriLife. Individuals with disabilities who require an auxiliary aid, service or accommodation in order to participate in this meeting are encouraged to contact the County Extension Office prior to the meeting to determine how reasonable accommodations can be made.

## Management Overview for Warm-Season Grasses

	Watering Requirement	Annual Nitrogen Requirement (lbs of N per 1000 ft <sup>2</sup> )	Mowing Height
Bermudagrass	Low - Moderate	2 to 4 lbs	1 to 2"
St. Augustinegrass	Moderate	2 to 4 lbs	2.5 to 4"
Zoysiagrass	Moderate	1 to 2 lbs	1 to 2"
Buffalograss	Low	0 to 2 lbs	2.5 to 4"
Centipedegrass	Moderate	1 to 2 lbs	1 to 2"
Seashore Paspalum	Moderate	2 to 4 lbs	1 to 2"

### Final Top of the Windmill

I want to take this opportunity to thank each and every one of you for being a part of our Texas A&M AgriLife Extension family. After 32 years with Texas A&M AgriLife Extension Service, I will be retiring effective April 30<sup>th</sup>, 2020. Sixteen of those years have been here in Kerr County serving the people of the Texas Hill Country. After I entered the Texas Agricultural Extension Service in 1987, I knew my ultimate goal would be to get back to the Hill Country and serve the area where I spent a large part of my childhood.

It has been a career I have enjoyed in all aspects. From working with ranchers and farmers helping them with the challenges they face, to working with homeowners on diagnosing turf and landscape problems, as well as, working with the hundreds of volunteers that have made this all possible. I would have to say the highlight has been working with the 4-H program and hopefully making a positive impact on the leaders of tomorrow. Having the opportunity to see 4-H members that are now adults and remembering them as first year 4-Hers and seeing how they have grown into successful contributing members of society has been a blessing.

I can honestly say it has been a joy working to help the people of the Hill Country. My wife, Serena, and I plan to continue to live in the area and work the ranch in Mason County that has been in my family for over 140 years. It is my turn now to get it in shape for the next generation. I would like to wish everyone the very best in your endeavors and would like to thank you for giving me the opportunity to serve you over the years. Hopefully, I have been of some help to you along the way and I know I am leaving you in good hands with the wonderful staff here at the Kerr County Extension office. If you have any questions related to the agriculture & natural resource programming please contact Stephen Zoeller in Kendall County at 830-249-9343 or Brad Roeder in Gillespie County at 830-997-3452. Until we meet again, "the good lord bless the trails you ride."

Thank you,

*Roy Walston*