GARFIELD COUNTY EXTENSION

AG NEWS

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Cattle producers are battling flies and ticks this summer

Increased rains in Oklahoma this past spring has brought some not-so-welcome friends.

Fly and tick populations have increased, which means cattle producers are fighting an uphill battle this summer with these blood-sucking pests. The cattle industry suffers $1.3 billion in losses annually from horn flies alone. They are considered the No. 1 external parasite for cattle across the country.

Justin Talley, Oklahoma State University professor and Extension specialist for livestock entomology, said horn flies and lone star ticks have ramped up this summer and are likely to get worse in July and August.

“Flies on a cow each take anywhere from 1.5 to 2 milligrams of blood, but multiply that by 300 to 1,000 flies, and that becomes severe irritation,” Talley said, adding that it’s important producers choose the correct control method.

“It’s not one-size-fits-all. Whatever works within a production system — whether it’s ear tags, pour-ons or sprays — producers need to understand the longevity of these methods,” he said.

Talley said ear tags will provide three months of adequate control, while sprays only provide one to two weeks and pour-ons provide two to three weeks’ worth of control.

The increased humidity in Oklahoma means fly and tick numbers are up this year. Cattle producers should take precautions to prevent illness and disease in their livestock. (Photo by OSU Agriculture)

“What our research shows is that the combination of an ear tag with a feeding supplementation of insect growth regulator (IGR) is what keeps fly populations down for the longest amount of time,” he said. “These are commercial products that cattle producers can buy, but they need to feed that consistently and early on.”

Ear tags kill adult flies while the IGR suppresses overall fly populations. Talley said it is best for producers to start the IGR feeding regimen in March, but that doesn’t mean they can’t start it now.

“It will be more of an uphill battle than if you started it in March, but you can still see a further reduction with this feed supplement versus just doing an ear tag,” he said.

Ticks are the more challenging parasite to combat.

“Sometimes, they go unseen unless you’re processing those animals through a cattle chute,” Talley said. “We will usually feel a tick before we see it by conducting a tick scratch, which any producer can do.”

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This entails running your hands around the brisket, between the legs and underneath the tail of the cow.

"That's where you'll usually find ticks, especially the American dog tick, which transmits the pathogen that causes anaplasmosis, a common cattle disease," he said.

Talley said producers are likely seeing several ear ticks, but those do not contribute to anaplasmosis. He added that some cattle producers make the mistake of relating anaplasmosis to only flies, but the disease is transmitted and amplified by ticks.

During the summer, producers will see an overlap of lone star ticks, American dog ticks and Gulf Coast ticks on their livestock. However, the main concern, for now, is the lone star tick, which causes different issues than the American dog tick.

"You see these on cattle, but as producers are interacting with their cattle, they need to make sure they are protecting themselves because the lone star tick also causes red meat allergy," he said.

When a lone star tick bites a human, a compound in the tick's saliva can cause people to develop an allergy to all red meat, known as Alpha-gal Syndrome.

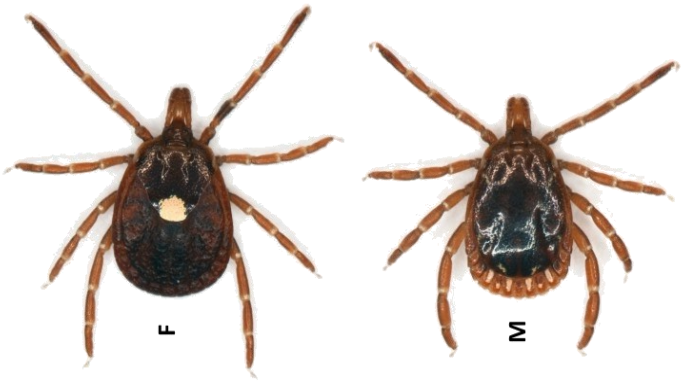
In July and August, producers will begin to see more seed ticks, which are the immature ticks fresh out of the egg stage.

"Any time you have areas with a lot of wildlife, especially white-tailed deer, you tend to see higher tick populations in a pasture," Talley said. "It's already a pretty bad tick and fly year, but if we keep getting a decent amount of moisture and humidity, it's going to get worse."

AMERICAN DOG TICK

Dermacentor variabilis -Under suitable conditions the life cycle from egg to adult may require only 3 months but usually takes over a year to complete. This is a colorful species, having spots of light colors (white, gray, silver) scattered and superimposed over the basic brown or black body color.

LONE STAR TICK



Amblyomma americanum— Active from early spring to late fall. The females is capable of laying 9-12,000 eggs. This tick is about 1/8 inch long and is dark brown. The tick receives its name from the lone white spot on the dorsal shield of the female. The male has nonconnected white markings around its posterior margin. Mouthparts are long compared to most other ticks.

DIVISION OF AGRICULTURAL SCIENCES AND NATURAL RESOURCES
NEWS RELEASE

Maintenance is key for irrigation system

Changing the oil, checking the spark plugs and ensuring the tires have plenty of air are just a few of the routine maintenance procedures people take when owning a car. For those with an irrigation system in the landscape, regular maintenance will help keep the system running in tiptop shape.

With July being Smart Irrigation Month, keep in mind that some tasks need to be done monthly, while others can be completed annually or simply periodically.

The sprinkler heads should be checked monthly. An irrigation system isn't useful if the sprinkler heads aren't putting the water where it is needed. Remove obstructions and adjust the heads to avoid watering sidewalks and other hardscapes. Make sure the sprinkler heads provide necessary clearance over growing plants.

Check the pressure of the system every month. If the pressure is too high, too much water will be applied too quickly and result in excess runoff or will be lost due to misting.

Take time each month to check for leaks in the system. A leaky pipe or sprinkler head can waste a lot of water. Look for leaks, broken or clogged sprinkler heads and other issues that can interfere with an efficient system.

Gardeners who live in colder climates will need to winterize the irrigation system each year. It's a good idea to bring in a professional irrigation specialist with the necessary equipment to flush out the pipes. Water left in the system can freeze and crack the pipes, valves and sprinklers, which can be a costly repair.

Periodically, hire a professional to audit the system and run uniformity tests to determine if zones are being watered evenly and appropriately. Irrigation audits can also be conducted by yourself, see Oklahoma State University Extension's fact sheet HLA-6610 Simple Irrigation Audit for Home Lawns in Oklahoma.

For those interested in upgrading their irrigation system, consider installing rain/freeze sensors. Most systems can be retrofitted, and these sensors will save money by turning off the system during a rain event or an unexpected freeze.

Smart controllers are another option for upgrades. Weather- or soil-moisture-based controllers evaluate weather or soil moisture conditions and automatically adjust the irrigation schedule to meet the specific needs of the landscape.

Check with the local water utilities offices for rebates on certain water-efficient products.

Examples of a short rain gauge (right) that can be used to conduct the simple irrigation audit procedure and a tall rain gauge (left) that should not be used to conduct the simple irrigation audit procedure.

Meating the workforce demand: FAPC launches Meat Mastery Program

Oklahoma State University's Robert M. Kerr Food and Agricultural Products Center recently hosted the first Meat Mastery Program. Organized in collaboration with Osage Nation, this hands-on program was designed to educate participants on various aspects of multi-species meat harvesting and value-added meat product processing.

Ravi Jadeja, associate professor and principal project investigator, said there is a growing demand for trained meat industry professionals to ensure a safe and quality meat supply in the nation.

"Several factors contribute to the increased workforce demand in food and agricultural products processing," Jadeja said. "Food production challenges include decentralization, demand for local meats, food safety and food security. To combat the critical shortage of meat industry workforce, FAPC developed a hands-on training to train the meat industry workforce."

Before the development of the training, FAPC investigated several teaching avenues, such as classroom-style workshops and videos. But direct industry engagement is critical for the meat industry workforce.

"The project's goal is to leverage OSU's existing relations with two-year colleges and meat industry partners to prepare the next generation of the meat industry workforce," Jadeja said. "For the next three years, a cohort of 60 students will receive hands-on meat processing training in federally inspected meat processing facilities located in OSU and the Osage Nation."

The project was funded through a USDA-NIFA workforce training grant.

"FAPC focused on a solution-oriented approach to successfully develop and execute a summer training program," Jadeja said. "Developing a hands-on training program comes with challenges, such as the purchasing of livestock and supplies. It's also critical to not interfere with the day-to-day operations of commercial meat processing facilities involved in training participants."

FAPC and Osage Nation joined forces to prepare the next generation of the meat processing workforce through a five-week Meat Mastery Program. (Photo by Kirsten Hollansworth)

The meat processing plant at FAPC is fully equipped for training capabilities and is student-operated throughout the entire process. The Meat Mastery Program participants worked closely with current student workers and assisted with daily operations such as harvest, fabrication, packaging and labeling.

Roy Escoubas, FAPC director, said the collaborative efforts led to a successful program.

"FAPC is pleased to be a part of such an important training that delivers technical information to the promising next generation of meat processors," Escoubas said. "The future of the industry is dependent on elevated and value-added educational opportunities."

Joel Jackson, meat pilot plant manager, said the diverse group of participants from across the state were introduced to a variety of experienced professionals who shared about their personal background and affiliation within the industry.

The program guests included Oklahoma Secretary of Agriculture, Blayne Arthur, of the Oklahoma Department of Agriculture, Food and Forestry; Scott Yates, director of food safety, ODAFF; Erica Hering, president, Ralph's Packing Co.; and Stephen Spurgeon, regional manager, Walton's Inc.

Faculty members from OSU's Department of Animal and Food Sciences served as co-project investigators including Gretchen Mafi, Morgan Pfeiffer, Ranjith Ramanathan and Patricia Rayas

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-Duarte. Additional collaborators included Pawnee Nation College, Murray State College, Connors State College and the Oklahoma Texas Meat Processors Association.

"We had an excellent group that was eager to participate, and we are looking forward to next year's Meat Mastery Program," Jackson said. "I look forward to seeing these young people go out and begin their career in the meat industry."

Participants received grant-funded housing at the OSU-Stillwater campus and a grant-sourced $2,000 stipend at the end of the program. The execution of the summer training program prepared participants for a successful career in the meat industry as they received formal training and certificates in Hazard Analysis and Critical Control Points, Good Manufacturing Practices and Sanitation.

FAPC, a part of OSU's Division of Agricultural Sciences and Natural Resources, helps to discover, develop and deliver technical and business information that will stimulate and support the growth of value-added food and agricultural products and processing in Oklahoma.

Pecan growers invited to free crop thinning demo

The Oklahoma Pecan Management Program will host two pecan crop thinning demonstrations to help growers improve the quality of this year's harvest and next season's return crop.

Demonstrations will be held July 27, 4-5:30 p.m. in Madill, and August 8, 4-5:30 p.m. in Perkins.

"The high yields we're expecting this fall can benefit from pecan thinning," said Becky Carroll, OSU Extension fruit and pecan specialist. "Many growers are hesitant to thin their crops, but demonstrating the process may give them more confidence to effectively manage their orchards."

Growers will learn the benefits, proper timing and equipment needed for pecan crop load management. Attendees will have the opportunity to participate in pecan crop load assessment and the thinning process in the orchard. Each demonstration will be followed by a question-and-answer session.

The event is free, and participants are encouraged to bring a lawn chair.

For more information, contact Carroll at becky.carroll@okstate.edu or 405-744-6139.

Regional Canola Production and Marketing Meetings in Oklahoma and Kansas

With canola planting rapidly approaching, it's time for a refresh on planting practices, varieties, marketing, and pricing. Two regional canola production meetings are being planned for August 9.

The first meeting will be in Enid, OK at the Hoover Building, 300 E Oxford Ave., starting at 10:00 am. Lunch will be provided so an RSVP is appreciated. Please contact Ron Sholar, 405-780-0113, jrsholar@aol.com**,** or Josh Bushong, 405-361-6941, josh.bushong@okstate.edu to RSVP.

The second meeting will be in Wichita, KS at the Sedgwick County extension office, Sunflower Room, starting at 5:30 pm. Dinner will be provided so an RSVP is appreciated. RSVP at the following link https://conta.cc/3rilSNy or to Nancy Richardson, Sedgwick County extension office, 316-660-0144, nancy77@ksu.edu.

Ron Sholar
Great Plains Canola Association

Mike Stamm
Kansas State University Canola Breeder

Mosquito Prevention

Oklahomans planning to work and play outdoors during the summer should protect themselves against mosquitoes.

“The life cycle of a mosquito all depends on water,” said Justin Talley, head of Oklahoma State University Department of Entomology & Plant Pathology. “They have to have water for their immature stages to develop, so anywhere there’s water, there could be mosquitoes developing in it.”

Around the house, the most important way families can prevent mosquito populations is by reducing the amount of standing water around the property.

“The main concern with standing water is its potential to serve as a breeding ground for mosquitoes, which could be infected with viruses such as West Nile virus and Zika,” Talley said.

In cases where the home has a water feature, property owners can put out mosquito dunks or granules to prevent mosquitoes from developing in the water.

Homeowners can also spray ornamental plants with an insecticide that repels mosquitoes from landing on them or, if they do land, leaves a residue that will prevent the population from growing.

When it comes to outdoor activities, wearing long sleeves and long pants can provide a first line of defense in terms of preventing mosquito bites.

However, the most effective protection comes from repellents containing at least 15% DEET. Some natural products, such as lemon eucalyptus oil, are also effective at repelling the pests.

“Mosquitoes are generally most active at dusk and dawn,” Talley said. “If you’re outside early in the morning or late in the evening, you need to put on some type of repellent. However, container breeding mosquitoes that can carry Zika and other viruses are active during the afternoon and will feed during the daytime.”

Repellents with DEET should not be used on children 3 years or younger and no repellent of any kind should be used on children 2 months or younger.

“When you’re putting repellent on a child, the best technique for application is for adults to put repellent in their hand and wipe it on to the child to ensure thorough coverage,” Talley said.

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