TIMELY TOPICS

OSU EXTENSION - NORTHEAST DISTRICT
October 2022 – Volume 42 – Issue 10

Fescue Foot

Barry Whitworth, DVM, Area Food/Animal Quality and Health Specialist for Eastern Oklahoma

Since most of Oklahoma experienced drought conditions and with fall fast approaching, producers with fescue pastures should closely observe their livestock for any signs of fescue toxicity. According to Mike Trammel, Pottawatomie County Ag Educator and Muti-County Agronomist, fescue toxins (ergot alkaloids) tend to increase in Kentucky-31 tall fescue pastures in the fall. Some reports indicate more problems with fescue toxins following a summer drought and limited fall rains. All of this may put Oklahoma cattle at a greater risk of fescue toxicity.

One issue that cattle experience with fescue toxins is fescue foot. Fescue foot is thought to be caused by ergot alkaloids such as ergovaline. These alkaloids are produced by endophyte fungus (*Epichloë coenophiala*) which is in tall fescue. Ergovaline has been proven to be a vasoconstrictor which might be responsible for fescue foot and heat intolerance also known as summer slump in cattle. Other issues that may be seen with the ergot fescue toxins are reduced milk production and reproductive issues.

Clinical signs of fescue foot appear within a few days of cattle being turned on to tall fescue pastures or it may take weeks if toxins in the pasture are low. Producers will initially observe cattle with arched back, rough hair coats, and sore feet. These symptoms are more noticeable early in the morning and with cold weather. This is followed by reddening and swelling in the area between the dewclaws and hooves. The lameness usually becomes more severe with time. If no action is taken, gangrene will result in loss of tissues distal to the coronary band and declaws. If the weather remains mild, other signs such as increase respiration rate, increase heart rate, and higher body temperature are more common. Other causes of lameness in cattle must be differentiated from fescue foot. One simple method that will help differentiate fescue foot from footrot is to check the temperature of the foot. If the foot is cold, this is an indication that the problem is more likely fescue foot.

Since there is not a specific treatment for fescue foot, the condition must be managed. Cattle need to be observed daily for any signs of lameness or stiffness during the first few weeks on fescue pastures. This should be done early in the morning before cattle walk off the stiffness. Producers should pay close attention during cold weather, especially when rain, snow, or ice are present. Any animal showing clinical signs of fescue foot should be removed from the pasture and placed in a clean environment. The animal should be fed a ration with no fescue toxins.

The best but most costly solution to reduce fescue toxicity is to renovate old pastures with new endophyte friendly varieties. If this option is not possible, producers might try interseeding fescue pastures with clovers or other grasses. This should dilute fescue toxins. Nitrogen fertilization may increase ergot alkaloids, so producers should avoid fertilizing fescue pastures with high amounts of nitrogen. Researchers have demonstrated that feeding a supplement while grazing fescue pastures reduces clinical symptoms. Some studies indicate a difference in susceptibility to fescue toxicity in some cattle. Selecting cattle based on genetic tolerance of fescue toxins is an option. (For more information go to www.agbotanica.com/t-snip.aspx)

With large areas in Oklahoma covered with Kentucky-31 fescue pastures, fescue foot as well as other fescue toxicities are not going away any time soon. Livestock producers will need to watch their livestock closely for any signs of fescue

toxicity and manage their pastures to keep toxins as low as possible. If producers would like more information on fescue foot, they should consult their veterinarian and/or visit their local Oklahoma State University Cooperative County Extension Agriculture Educator.

Nutrient Consideration for Beef Producers

Earl H. Ward, Area Livestock Specialist

I think everyone in Oklahoma would agree that 2022 has not been easy on beef producers. Sometimes it makes a person say "If it weren't for bad luck, I'd have not luck at all." We are suffering from drought conditions, high fuel costs, high forage costs, high feed costs, and low expectations for the future. Even as bad as it is, now is not the time to lose focus on the nutritional status of our animals.

Water – Of course we can all use some moisture to quench the soil, but many producers are now facing the shortage of water for the livestock to drink. With water being the most important nutrient in animal nutrition, it is imperative that producers evaluate their water situation and take action when needed. Not only the quantity of water but also the quality.

Forage – For almost everyone, forage is extremely short this year and this gets producers looking into options to stretch their forage. Many are going to have to consider limiting the amount of forage that they provide to their animals. The best way to maximize the efforts of your forage is to have a nutrient analysis preformed on each source of hay. By knowing exactly the quality of your forages, then an accurate nutritional plan can be derived. The forage analysis can be used in determining which supplement best fits that particular forage. Whether you have enough hay or are needing to limit the amount of hay fed, this information is crucial to developing the proper supplementation strategy.

Supplement – Numerous producers have called their OSU Extension office asking for information on different supplement options. Several of those calls are about low-cost by-products and an equal number of calls about using protein tubs. In either situation it is highly recommended to consult with a professional before committing to a purchase because many of the by-products that have been mentioned offer little to no nutritional value. The cheap supplement does not always turn out to be cheap. Several producers have mentioned trying to replace a large proportion of their forage with protein tubs. This is not a recommended strategy for a couple of reasons. First being it is highly unlikely that a couple pounds from a tub can replace the nutrients from many pounds of forage. Tubs are produced to limit the amount an animal consumes in a day, which means that there is a small chance that the animal would be able to consume enough of the tub to replace the nutrients it needs to meet its requirement. Second reason is that if a tub is doing its job, it is increasing the amount of protein into the rumen, which increases forage digestibility, which then results in higher forage intake when forage is already limited. Lastly make sure you or your nutritional advisor is evaluating supplement costs on a per nutrient basis.

The winter of 2022 has a bleak outlook but in times like this is when a producer must rely on their experience and management to mitigate the struggles that we are currently facing. However, producers are not alone, OSU Extension is here to help producers evaluate their options and offer recommendations to meet the producer's goals.

Fall Poultry Waste Management Trainings Set

Brad Bain, Coordinator-Oklahoma Poultry Waste Management Education Program and McCurtain Co. Ag

Oklahoma contract poultry producers and certified poultry waste applicators needing continuing education will have several opportunities to earn credit hours this fall.

Two "Initial-9" courses for new growers and applicators will be offered. Lunch will be provided so attendees will need to pre-register by calling the host county extension office at least 2 days prior to the meetings. Both courses will begin at 9:00 am and should conclude around 4 pm.

The first training will be at the Haskell County Extension office in Stigler, Thursday, November 3rd. To register, contact Brian Freking at (918) 976-4330.

A second training will be offered in Adair County at the Indian Capitol Technology Center in Stillwell, Tuesday, November 29th. To register, contact Jennifer Patterson at (918) 696-2253.

2-Hour continuing education meetings will be held in four locations this fall. All meetings will begin at 6 p.m. and pre-registration is not necessary.

The first will be Tuesday, October 11th, in McCurtain County at the Kiamichi Technology Center north of Idabel. Dr. Hailin Zhang, OSU Professor of Plant and Soil Sciences, will present "Techniques for Forage Testing and Soil Sampling" and Brad Bain, McCurtain County OSU Agriculture Educator, will present "Value of Litter from a Nutrient Standpoint."

Delaware County will host a training Tuesday, October 25th, at the Delaware County Fairgrounds in Jay. Dr. Barry Whitworth, DVM, Extension Food Animal Health Specialist, will present "Poultry Farm Biosecurity" and Brian Pugh will present "Value of Litter from a Nutrient Standpoint."

Adair County will host a training Tuesday, November 29th, at the Indian Capitol Technology Center in Stilwell. Dr. Doug Hamilton, State Extension Animal Waste Management Specialist, will present "Nutrient Content and Bedding Management" and Brian Pugh will present "Value of Litter from a Nutrient Standpoint."

The final meeting will be held Tuesday, December 6th at the Mayes County Event Center in Pryor. Dr. Barry Whitworth, DVM, Extension Food Animal Health Specialist, will present "Poultry Farm Biosecurity" and Dr. Doug Hamilton, State Extension Animal Waste Management Specialist, will present "Nutrient Content and Bedding Management".

Producers unable to attend the scheduled meetings may also make arrangements at their local county extension office to view a recording of the presentations. Recordings must be viewed at the extension office so attendees should plan on being there for two hours. The viewing will be available by appointment only and will be offered as needed from October 17th – December 15th.

Producers needing more information about any of these meeting can contact the host County Extension Offices or Brad Bain, Poultry Waste Management Training Coordinator at (580) 286-7558. Those needing to check their education training status can contact Bain or the Agricultural Environmental Management Services division of the Oklahoma Department of Agriculture, Food and Forestry at (405) 522-5892.

More information is also available online at www.poultrywaste.okstate.edu

Rabies in Farm Animals

Barry Whitworth, DVM, Area Food/Animal Quality and Health Specialist for Eastern Oklahoma

According to Dr. Rod Hall, State Veterinarian with the Oklahoma Department of Agriculture, Food and Forestry (ODAFF), during the month of September, four rabies cases were found in livestock, two horses and two cattle. In addition to the equine and cattle cases, rabies was diagnosed in dogs, cats, skunks, and bats as well as one fawn in 2022 in Oklahoma. Rabies is a virus in the genus *Lyssavirus* in the family *Rhabdoviridae*. Rabies does not survive in the environment for very long. Most disinfectants will kill the virus, but with very few exceptions the disease is fatal to animals and humans. Domestic animals are infected with the virus from wildlife reservoirs. According to Dr. LeMac Morris, State Veterinarian with the Oklahoma State Department of Health (OSDH), the most common reservoirs in Oklahoma are skunks and bats. Other reservoirs in the United States are foxes, raccoons, and coyotes.

It is estimated that worldwide 50,000 to 60,000 people die each year of the disease. Most of the human rabies cases in the world are caused by dog bites. According to the Center for Disease Control and Prevention (CDC), the leading cause of rabies in humans in the United States is exposure to bats. Unfortunately, many of those that die due to rabies are not even aware of being exposed to the virus. Dr. LeMac Morris recommends that anyone who has questions about exposure to rabies contact the OSDH at (405) 426-8710 and ask to speak with Epi-on-Call. The Epidemiologist is available 24/7 and will assist in determining if an individual needs Post Exposure Prophylaxis (PEP).

In order for an animal to be infected with the virus, it must come in contact with the saliva from a rabid animal. This normally occurs from a bite. The virus may gain entry by saliva coming in contact with a mucous membrane or a break in the skin. Aerosol transmission has been reported in laboratories and bat caves, but this is very rare. Once in the body, the virus replicates in the muscle tissue. Next, the virus enters the peripheral nerves and is transported to the spinal cord and to the brain. Once in the brain, the virus enters the systemic circulation which includes the salivary glands. The timeline for all this to take place is variable.

The clinical disease in animals will be in one of two forms, furious or paralytic. The furious form of the disease is the most recognized by people. Animals with this form will be restless, wander, vocalize, drool, and attack anything in sight. These animals are not afraid of anything. Nocturnal animals with rabies are often seen in the day. They will have convulsions in the late stages of the disease. They usually die 4 to 8 days after showing clinical signs.

The paralytic (dumb) form of the disease is a progressive paralysis. In these animals, the throat is paralyzed and the animal cannot swallow or vocalize normally. Cattle might have a high-pitched bellow or attempt to bellow with no sound being produced. Due to the progressive paralysis, rumination will cease which may result in bloat. They also may appear to be straining to urinate or defecate. These animals will have problems walking and will become recumbent. This form is often mistaken as a digestive problem. Some producers may think the animal is aborting or has a urinary problem. Unfortunately, many producers have been exposed to rabies because they do not recognize that this animal was infected with the “dumb” form of rabies. These animals usually die in 2 to 6 days from respiratory failure.

When an animal has neurological signs, rabies should be suspected. Producers should avoid contact with the animal and contact their local veterinarian. If the veterinarian suspects rabies, he/she will not treat the animal since the condition is fatal and the danger to humans is not worth the risk of treatment. To confirm the diagnosis of rabies, a veterinarian will submit the brain for testing.

Rabies can be prevented by vaccination and by preventing unnecessary exposure of domestic animals to wildlife. All pets should be vaccinated. Obviously, vaccinating a large herd or flock of animals would not be cost effective. However,

animals that are in constant contact with humans such as show animals, a family milk cow, or horses should be vaccinated. Preventing contact with wildlife is difficult but keeping the farm clean and free of food sources should discourage wildlife from entering areas where animals are kept.

Rabid animals are dangerous. If animals have the furious form, they may attack and injure producers. Animals with the dumb form of the disease can infect unsuspecting producers. Anytime an animal is suspected of having rabies a veterinarian should be contacted. As stated earlier, most people who are exposed and/or die of rabies in the US are not even aware that they have been exposed. More information about rabies is available at the CDC at https://www.cdc.gov/rabies/. For additional information on rabies, livestock producers should contact their local veterinarian and/or their local Oklahoma State University Cooperative County Extension Agriculture Educator.

Drought and Taxes

Scott Clawson, Area Ag Economics Specialist

Drought conditions in northeast Oklahoma have forced decisions to be made. Decisions on hay and feed purchases, early weaning, cow culling, etc. These decisions will impact the taxable income of ranchers in Oklahoma for 2022. If we look back to 2014/15, we had another period where a collection of events occurred that pushed us outside our normal tax comfort zone. In that period, we had high cattle prices and taxable drought relief payments. Today, our taxable income could be up again due to herd liquidation, early calf sales, and another round of taxable drought payments. Get with your tax preparer early this year and consult with them about your options and the tools that are available. Below are strategies and pieces of information that may be beneficial for ranchers in northeast Oklahoma. There are many caveats and nuances in these rules, this is just a guide to start the conversation. A deeper dive into your individual situation may be necessary.

Drought Related Sales

Calves: Stipulations may apply, but the income from drought forced sales of calves can be deferred for one year. As an example, if your customary practice was to sell spring born calves as yearlings (or just after the first of the year) and you were forced to sell them in this tax year instead, then you may be able to postpone that gain until 2023. However, only the portion of the income that was sold greater than the amount normally sold.

Cows: The story is similar to calves, but not the same with mature cows. If you normally culled 15% of your cowherd annually and instead were forced to cull 40%, the proportion of gain above your normal culling practice is eligible to be postponed. With breeding stock, there is a two-year period to replace those females initially (there are cases where this period could be extended). It must be used for the same type of asset like beef cows for beef cows, etc.

The issue in this case becomes the tax basis in the cows that you are culling and then the ones that you are replacing them with. Your tax basis in an asset (cow) is usually the purchase price of that asset minus all the of the depreciation that has been claimed over the life of the asset. Cows that were purchased would follow this rule. Cows that you have raised have a basis of zero. By deferring or postponing gain on cull cow sales, the tax basis of the cows sold due to drought would be the basis of the replacement cows purchased up to the amount of gain that was deferred. Any additional investment in the new cows would add to their basis. If you do not have a tax basis in the cows, then you will also not have depreciation to take in the future. Do not assume that minimizing your tax burden in 2022 is automatically the best option.

Be careful kicking the can down the road. There are several reasons to be bullish on cattle prices soon. It would be easy to build a situation where a larger tax liability in 2023 is possible. For example, receiving a drought relief payment, higher calf prices, and some deferred gains to 2023 could be a tough equation to solve taxwise. Remember that paying a little tax, while not fun, is sometimes the best option. For more information contact your local OSU Extension Office.

Resources:
https://extension.okstate.edu/fact-sheets/print-publications/agec/tax-consequences-of-weather-related-sale-of-livestock-agec-788.pdf
https://cap.unl.edu/finance/tax-consequences-drought

EXTENSION

Value of Gain Calculation

OK Weighted Average Report 10/7/22

Weight	$/lb	Value/hd	Added lb.	Added $	$/lb Added
329	$ 1.9913	$ 655.14			
376	$ 1.9397	$ 729.33	47	$ 74.19	$ 1.58
424	$ 1.8978	$ 804.67	48	$ 75.34	$ 1.57
476	$ 1.8407	$ 876.17	52	$ 71.51	$ 1.38
526	$ 1.7767	$ 934.54	50	$ 58.37	$ 1.17
572	$ 1.7428	$ 996.88	46	$ 62.34	$ 1.36
630	$ 1.7395	$ 1,095.89	58	$ 99.00	$ 1.71
674	$ 1.7373	$ 1,170.94	44	$ 75.06	$ 1.71
727	$ 1.7346	$ 1,261.05	53	$ 90.11	$ 1.70
776	$ 1.7193	$ 1,334.18	49	$ 73.12	$ 1.49
823	$ 1.7102	$ 1,407.49	47	$ 73.32	$ 1.56
867	$ 1.7058	$ 1,478.93	44	$ 71.43	$ 1.62

Long Stocker Run		**Short Stocker Run**		**Heavy Stocker Run**	
Starting		*Starting*		*Starting*	
329	$ 655.14	329	$ 655.14	630	$ 1,095.89
Ending		*Ending*		*Ending*	
867	$ 1,478.93	526	$ 934.54	867	$ 1,478.93
Total Gain	*Δ Value*	*Total Gain*	*Δ Value*	*Total Gain*	*Δ Value*
538	$ 823.79	197	$ 279.41	237	$ 383.04
VOG		*VOG*		*VOG*	
$ 1.53		$ 1.42		$ 1.62	

Brian C. Pugh, Area Agronomy Specialist

Earl H. Ward, Area Livestock Specialist

Barry Whitworth, DVM, Area Food/Animal Quality and Health Specialist

Scott Clawson, Area Ag Economics Specialist

This publication, issued by Oklahoma State University as authorized by the Vice President of the Division of Agricultural Sciences & Natural Resources, was printed at no cost to the taxpayers of Oklahoma. This publication is printed and issued by Oklahoma State University as authorized by the Vice President of the Division of Agricultural Sciences & Natural Resources and has been prepared and distributed at a cost of $4.10 for 10 copies.