



GARFIELD COUNTY
EXTENSION

AG NEWS

APRIL 2024

Forage Sorghum Production & Economics

Wednesday, March 27, 2024

Enid Livestock Market

11802 W. Owen K. Garriott

Enid, OK



12:00 Lunch

Provided by Johnston Seed Co.

1:00 Hay Bale Economics: What is Cost of Production and Implications of Relying on Harvested Forages?

Derrell Peel, OSU Extension Livestock Marketing Specialist

2:00 Improved Animal Performance With High Quality Sorghum Forage

Mark Kirk, Advanta Seed Forage Specialist

Lunch RSVP by March 25th to

580-237-1228

Garfield County OSU Extension

JOHNSTONTM
EST. Seed Co 1893



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Managing Anaplasmosis in Cattle



The occurrence of anaplasmosis, which was once considered to only be problematic in the southern portion of the United States, has been shown to be more widespread. In fact, 40 of the 50 states have reported incidences of anaplasmosis. The most severe outbreaks of the disease can result in death losses in up to 20% to 40% of herds. Thus, cattle producers need to be aware of the causes, symptoms, and prevention steps to help with mitigation of the disease.

Anaplasmosis is a bloodborne pathogen that results in the destruction of red blood cells by bacteria called *Anaplasma marginale*. Horn flies, stable flies, and mosquitos are often considered the primary vectors carrying the disease. The University of Illinois added ticks and cross-contamination of equipment that comes into contact with blood during processing or treating of infected animals to the list of primary vectors. Recently, many state and federal traceability studies have found vaccination needles contribute equally to the spread compared to external parasites. Additionally, ticks have garnered more focus as tick exposure is extended compared to that of flies. Although insects are a prevalent vector for the spread of the disease, face flies and other nonbiting insects do not contribute to the spread of anaplasmosis.

Once a cow contracts the *A. marginale* bacteria, it slowly begins to invade the animal's red blood cells where its immune system recognizes and seeks to destroy the bacteria. While trying to eliminate the pathogen, the animal's immune system inadvertently destroys the very thing it is trying to protect – red blood cells. Eventually, red blood cells are eliminated faster than the body can make them. A low red blood cell count can occur in two to six weeks post-infection, leading infected animals to become anemic and unable to transport crucial nutrients throughout the body. It is important to note that an animal's age may affect their ability to combat the disease, as the ability to refresh red blood cell supply slows with aging, thus increasing the animal's likelihood of succumbing to the disease. Industry data indicates that roughly 40% of animals over age three will not survive without preventive or intervening treatment.

Symptoms of anaplasmosis can vary amongst animals. Initially, animals may look weak, have a loss of appetite, contract a fever and/or become lethargic. Some may also have a change in complexion with the exposed skin around the eyes, nose and teats becoming pale. Prolonged or acute exposure can result in behavioral changes, such as becoming

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aggressive or agitated, in addition to heavy breathing, yellowing of the skin and rapid weight loss. Younger animals, however, are less likely to exhibit these severe symptoms as their bodies are able to replenish red blood cells more rapidly.

Animals showing signs of anaplasmosis should be treated as soon as possible. Cattle producers should consult with their veterinarian regarding proper diagnosis and treatment of animals suspected of the disease. A veterinarian may prescribe a pharmaceutical product such as chlortetracycline (CTC), which requires a veterinary feed directive (VFD) to the producer and feed supplier and can be incorporated into minerals fed on pasture.

The potential for significant economic losses makes anaplasmosis prevention a crucial aspect of herd health management. Implementing an Integrated Pest Management (IPM) program can reduce the probability of potential spread from biting insects. There are many products on the market to combat pests, including fly tags, pour-ons, rubs, feed-through pesticides, topical and feed-through repellants, and more. An IPM program combines these technologies with management practices like rotational grazing, burning and grazing exclusions for greater efficacy. For example, fly tags help dispel the immediate pressure, the feed-through pesticide prevents the next generation of flies from developing, CTC delivers a remedy for animals that may be infected, and rotational grazing assists in preventing harborage from overgrowth on some pastures.

More producers are opting to use combination strategies to relieve fly pressure on their herds. A strategy that is gaining popularity is using feed-through pesticides in combination with garlic derivatives. This combination mitigates the current fly pressure while allowing time for the pesticide products to reduce the insect population. Additionally, producers have observed fewer ticks on cattle when using garlic additives.

Research demonstrates the science behind usage of garlic repellents. In a two-year study conducted in Canada by Durunna and Lardner (2020), horn fly numbers were reduced by nearly 50% on cattle offered a free choice 2% garlic-infused salt, compared with an untreated group¹. Many other studies are looking at the impact of garlic and its derivatives on other pests, not only in cattle but across production and leisure species.

Regardless of which mitigation strategy is utilized, producers must have a strong collaborative working relationship with their veterinarian, nutritionist, and feed/mineral supplier to ensure the necessary pest management activities are in place to prevent significant losses when cattle are turned out to pasture.

References

¹Durunna, O., and Lardner, H. (2020). *Impact of Garlic-infused Salt Supplement on Fly Abundance, Salt Intake, and Defensive Behaviors in Grazing Beef Cows*. *Sustainable Agriculture Research*. 10(1):54

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Coffee Grounds for the Garden

Coffee grounds are commonly recommended to improve plant growth and repel pests. And it sounds like a good idea. Feed your plants while reducing waste. But, like many garden tips, the benefits tend to be exaggerated. Coffee grounds have their value, but it is nothing extraordinary—and can be overdone. Tossing handfuls onto the soil now and then will not be effective—good or bad. For larger volumes, it is best to compost them first.

What are coffee grounds?

When coffee—the beverage—is made, hot water is poured over ground coffee beans, releasing their flavor into the water. The spent coffee grounds are the leftover by-product.

Are coffee grounds good for fertilizing plants?

While not the magic beans some promise, coffee grounds can provide benefits to the garden if used properly. Coffee grounds are a source of plant nutrients including nitrogen (2%), phosphorus (0.06%), and potassium (0.6%), along with micronutrients like boron, calcium, copper, iron, magnesium, and zinc. One reason to compost coffee grounds prior to use is to release this nitrogen which only becomes available as the grounds decompose.

How to compost coffee grounds.

Despite their brown appearance, coffee grounds count as “greens” for composting. This has more information on greens and browns and how to make compost.

- Add used coffee grounds to your compost bin or pile along with your usual compostable materials like fruit and vegetable scraps (greens) and leaves (browns).
- The coffee grounds should be limited to around 20% or less of the total volume.

Compost is ready to use—or “finished”—when it has transformed it into an earthy substance, uni-



form in appearance with no unpleasant odors. Can I use coffee grounds as mulch?

It is not recommended to use fresh coffee grounds as mulch, but it is fine to use finished compost (that includes coffee grounds) as mulch. This explains how and why to mulch your garden beds. On their own, coffee grounds used as mulch can become compacted, blocking air and water from the soil below and may also negatively affect plant growth.

Do coffee grounds repel garden pests or diseases?

Despite what you may have heard, there is no evidence that coffee grounds will repel pests or attract beneficial insects or earthworms or prevent plant diseases.

Do coffee grounds change the pH of the soil?

Coffee grounds are sometimes recommended for acidifying soil. While coffee is acidic, spent coffee grounds are only mildly acidic and this acidity is temporary. If you are trying to lower soil pH for crops like blueberries, there are products made for this purpose including one with elemental sulfur. You can learn more about soil pH and why it matters here.

Do coffee grounds affect seedlings?

Coffee grounds have been shown to harm some seedlings and slow plant growth. This is another

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good reason to compost them first and avoid direct application.

Can I use coffee grounds to fertilize houseplants?

It is best to compost coffee grounds first before adding them to soil or potting mix—indoors or outdoors. You will not get the benefits of the nutrients until the grounds are decomposing. Coffee grounds also compact over time which will restrict the air and water flow to plant roots.

A Worldwide Problem

It is mind boggling to imagine the volume of coffee grounds generated around the world each day.

A report says that the average coffee shop produces over 40 pounds—of spent coffee grounds every day. That is just one shop! Much of that goes to landfills where it contributes to greenhouse gases and other problems. Any diversion from landfill is a start.

If you do use them in the garden, compost them first and be mindful of the recommended ratios.

Summary

- Lesser amounts of coffee grounds (1/2 inch thick or less) tossed onto your soil are not going to have any measurable effect (positively or negatively) on your garden.
- Larger amounts should be composted first, a process which makes the nitrogen available.
- Any acidity in coffee grounds is temporary. They will not lower the pH of your soil.

The idea that coffee grounds can repel pests or stop plant diseases lacks scientific evidence.

Expansion Comes With a Cost

Although he says forage supplies, calf prices and production costs are the primary determinants of herd expansion, Kenny Burdine, Extension livestock economist the University of Kentucky also notes interest rates also play a role.

“The expansion decision is really a tradeoff,” Burdine says in the most recent Cattle Market Notes Weekly. “A cow-calf producer choosing to expand makes a short-term investment (heifer retention or breeding stock purchase) in hopes of seeing higher profit levels in the future. Any time a short-term / long-term discussion is had, interest rates and inflation are likely to enter the conversation.”

When it comes to interest rates, Burdine explains the obvious impact is the interest cost or opportunity cost associated with buying or retaining more females. Less obvious, he says, is the time value of money.



“Money in the present is always preferred over money in the future and interest rates largely determine how significant that preference is,” Burdine says. “When a producer retains a heifer for replacement purposes, he/she forgoes her value as a calf (present) in order to see increased revenues from the sale of her calves after she enters the herd (future). The preference for money now, from the sale of the weaned heifer, is greater when interest rates are higher. At the same time, the real value of those future calves is lower due to higher interest rates. An economist might say those future returns are ‘more heavily discounted’ in a higher interest rate environment. This combination results in less desire to hold heifers for development purposes, and I think we are seeing some impact from this today.”



EXTENSION

DONATION CENTERS FOR WILDFIRE RELIEF

STATEWIDE

Oklahoma Cattlemen's Association Foundation
Oklahomacattlemensfoundation.com/wildfire-disaster-relief

Oklahoma Farm Bureau

Checks can be mailed to:

OKFB

Attn: Holly Carroll

2501 N. Stiles Ave.

Oklahoma City, OK 73105

American Famers & Ranchers

Checks can be mailed to:

Farmers Union Foundation, Inc.

P.O. Box 24000

Oklahoma City, OK 73124

Local veterinary practices treating cattle injuries will take monetary donations to go toward producer treatment costs. A few local vets accepting donations:

- Canadian Veterinary Clinic, Canadian, TX
- Wheeler Veterinary Clinic, Wheeler, TX
- Ellis County Animal Hospital, Shattuck, OK

BEAVER COUNTY

Beaver County Stockyards

506 W Main St., Beaver, OK

580-625-3051

Orphaned Calf Relief Project

Drop-off at the Beaver County Stockyards

620-629-0439

Facebook group: Orphan Calf Relief Program 2024

[Facebook.com/groups/927180938810586](https://www.facebook.com/groups/927180938810586)

- Needs: Milk replacer, bottles, nipples, corona cream (burn cream), vet wrap, starter feed, bedding, electrolytes

ELLIS COUNTY

Cattle Supplies

Gage Feed Store

102 Pecan St., Gage, OK

Ellis County Fairground

Feed donation drop-off point

822 5th St., Shattuck, OK

Woodward Livestock Auction

Livestock space availability and hay donation

900 N Lakeview Dr., Woodward, OK

918-256-0741

Donations to the nine families who lost homes

Oklahoma State Bank, Gage

506 N Main St., Gage, OK 73843

580-923-7541

Memo: wildfires

Shattuck National Bank, Shattuck

503 Main St., Shattuck, OK 73858

580-938-2571

Memo: wildfires

ROGER MILLS COUNTY

The Hitchin' Post

Robin Taylor

17202 Hwy 33, Durham, OK

580-983-2725

- T-posts, wire, bagged feed, mineral
- Visa cards or cash to donate diesel for hay trucks

Jennifer York

1-580-210-6321

- supplemental feeding, mineral tubs and salt, multi-min, lice treatment

CATTLEWOMEN'S BOOT CAMP

STILLWATER, OKLAHOMA
JUNE 10 – JUNE 12, 2024

LEARN ABOUT

This program is a three-day workshop that will combine traditional educational programming with hands-on demonstration and activities and classroom exercises. Topics will include cattle evaluation, calf management, herd nutrition, hay evaluation, forage production, marketing, production and financial records, farm transitions, general management practices, farm business planning, herd health and vaccinations, facility management and selection, reproduction management and calving management.



CONTACT

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Lahoma Field Day

May 17, 2024

9 am

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Rick Nelson
Extension Educator, Ag/4-H & CED

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Persons with disabilities who require alternative means for communication or program information or reasonable accommodation need to contact Rick Nelson, Ag Educator at (580)237-1228 or rick.nelson@okstate.edu at least two weeks prior to the event.