



McClain County Extension Ag News

September 2022



PREGNANCY TESTING COWS THIS FALL

Managing cattle for a profit has always included pregnancy testing your cows to determine not only whether she is bred, but to determine how far along bred she is. By pregnancy testing your cattle, it allows you to have information you may not otherwise have. This information will allow you to make some wise decisions that very well may save you during this drought.

An open cow may not consume as much forage as a bred cow because her nutrient requirements are less, but she will also not produce a sellable product during the next calving season. If you can determine that cow is not pregnant now and get her off of the feed bill, you will be able to save a considerable amount of money during this feeding season that very well may be starting now and continuing on until next spring. With the ever-rising cost of hay and feed during this drought feeding an unproductive cow will make good sense.

Pregnancy determination can be determined by various methods. The most commonly accepted is rectal palpation. This method has been used by technicians with a high degree of success. This method typically is the least expensive, costing between 5 and 10 dollars per head. Other methods include ultrasound and blood test to determine progesterone amounts. Both of these methods have a degree of positive and negative attributes associated with them.

Pregnancy determination has been taught by many organizations, so there are people out there that may be very well qualified to determine if your cows are bred. If you are in doubt use a licensed veterinarian. The vet has years of experience and more than likely he palpates several cows a week so they can



be very comfortable giving you a good answer. You may think you are saving a few dollars, but an inexperienced technician may cause you to sell some short bred cows and retain some open cows. Most technicians can determine pregnancy as short as 45 days.

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If a cow is going to maintain a calving interval of 1 year, she must rebreed at least 85 days after calving. Cows that extend this calving interval will begin to add expenses to the herd and reduce the amount of profit potential by extending the calving season. Extended calving seasons mean that you have fewer calves that will be market ready at one time.

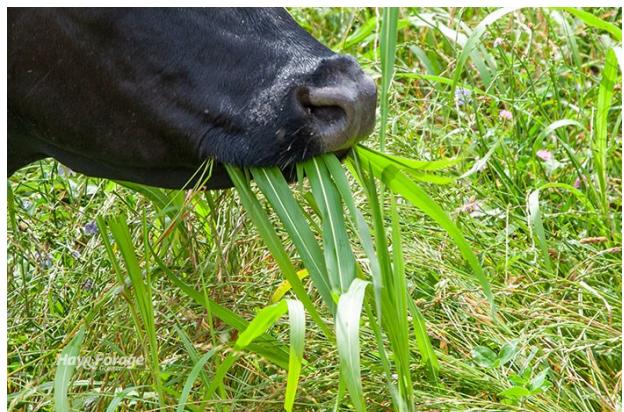
Cows can be open for a variety of reasons. The most common reasons are related to management of the herd. Probably the most common reason for a cow to be open is because she is in poor body condition at calving and does not return to estrus in time to rebreed. Cows that are in a minimum body condition score of 6 will normally rebreed in at least 85 days or sooner. Other factors are genetic makeup resulting in poor fertility, diseases, and ovarian cysts. Sometimes the reason a cow is open is not her fault. Bulls that have low or no fertility can result in a large number of open cows. With the extreme heat we have experienced in the past 90 days, a reduction or complete loss of fertility in bulls may be rather common. If you find a large number of open cows during pregnancy detection the bull is normally who receives the blame, but it can also be attributed to certain types of diseases.

The sooner you can determine if your cows are bred this fall, the sooner you can remove the cows that are not, which will allow you to focus your resources on the cows that are bred. Also, the quicker you market those open cows the better chance you have of marketing them before they lose body condition. Cows that are breeding now will have calves in about Mid-July so if they are not at least 45 days bred now you are looking at a summer calf, so now may be the time to send some of those cows with poor fertility packing.

Prussic Acid Poisoning in Cattle

As the year progresses, many producers look to move cattle to alternative pasture. Unfortunately, certain weather conditions, including drought or freezing, can set up some plants in the sorghum family, including Johnson grass, to become toxic. Even after limited grazing, deaths may be seen due to the ingestion of prussic acid, also known as hydrocyanic acid or cyanide. A classic call to the veterinarian is, "My cattle are dropping like flies!".

Prussic acid toxin is created when the harmless hydrocyanic glycosides in plants are stressed and breakdown. Once the hydrocyanic glycosides in the plants are damaged through actions like cattle chewing or a swather and crimper, they quickly convert to prussic acid. Following ingestion, the prussic acid is released in the rumen and rapidly absorbed into the blood stream.



Once in the circulatory system, the toxin prevents cells from taking up oxygen. The blood therefore becomes saturated with oxygen leading to blood that appears bright cherry red. The clinical signs most often seen include excitement, muscle tremors, increased respiration rate, excess salivation, staggering, convulsions, and collapse. Asphyxiation at the cellular level is the cause of death due to deprivation of oxygen.

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When producers encounter animals displaying clinical signs of prussic acid toxicity, they should immediately remove all the animals that appear normal to a new pasture and contact their veterinarian. The veterinarian will treat the sick animals with two drugs (sodium nitrite and sodium thiosulfate) that can reverse the toxicity. Treatment must be initiated quickly but can prove difficult due to the rapid progression of the toxin.

The drugs used to treat prussic acid toxicity can be difficult to obtain. It is advisable to contact your veterinarian before grazing potential toxic plants to make sure that your veterinarian will have availability to respond and the necessary drugs on hand to treat the cattle if a problem arises.

Cattlemen may want to take the following steps to prevent prussic acid toxicity:

- Never turn hungry cattle into a new pasture
- Take soil samples and fertilize accordingly
- Graze mature plants with 18 to 24 inches of height
- Wait until plants are cured before grazing after frost (usually at least 7 days)
- Rotate pastures to keep cattle from consuming lush regrowth
- Place 1 or 2 cows in a pasture and observe for problems before turning in all the cattle
- Test plants for the presence of prussic acid. Care should be taken though as false negatives can be seen if the test is not performed correctly.

Two types of tests exist for determining prussic acid levels. The first is quantitative and involves submissions to a diagnostic lab, such as the Oklahoma Animal Disease Diagnostic Lab. The second is a qualitative test which simply detects the presence of hydrocyanic acids and cyanide in fresh plant material. We do have access to these test supplies at the McClain County Extension Office.

Producers should be cautious that there are multiple toxins that can cause cattle deaths. It is recommended that appropriate veterinary diagnostics and testing be done to determine the ultimate cause of death.



McCLAIN COUNTY
EXTENSION

PESTICIDE APPLICATOR CEU SERIES

Make plans to attend our 3-part series on pesticide application. Each class will count as 2 CEU's (continuing education credit) towards your private applicator certification in categories 1a, 3a & 6.

December 6, 13, & 20, 2022

Meetings will begin at 6:00pm via Zoom. Register to receive the Zoom link

Contact McClain County OSU Extension Office to register
(405) 527-2174 or email
justin.mcdaniel@okstate.edu



MASTER CATTLEMAN PROGRAM



Begins Thursday, October 20, 2022 at 6:00pm at the
Mid-America Technology Center, Wayne, OK

Cleveland, Garvin & McClain Counties will be hosting a Master Cattleman's Class beginning on Thursday, October 20, 2022 at 6 p.m. at Mid-America Technology Center, Wayne, OK. You will be provided a brief overview of the class and schedule on October 20th.

You may be asking yourself what is the Master Cattleman's Class? It is a comprehensive educational curriculum designed to enhance your proficiency in production and business management dealing with cattle.

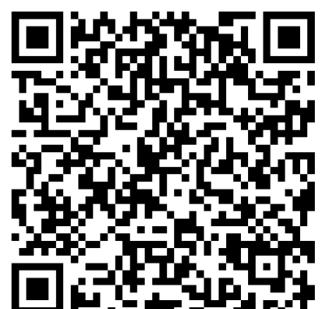
The object of the Master Cattleman's program is to enhance the profitability of the beef operation and enhance the quality of life for you—the beef producer. If you are equipped with the vital information that the Master Cattleman's Program provides you will be better equipped to face some of the challenges of the beef industry.

Certification to be a Master Cattleman requires successful completion of 28 hours of Master Cattleman's credit. These will be offered every Thursday night beginning October 20th. The core curriculum consists of 4 hours from each of the following disciplines: Nutritional Management, Quality Assurance and Animal Health, Reproduction, Natural Resources, Business Planning and Management, and Marketing and Risk Management. Approximately six specific topics are available within each discipline. Proficiency in each topic is demonstrated by successfully completing a brief quiz. All of the information will be coming out of the new Oklahoma Beef Cattle Manual, which you will be receiving for attending the class.

One of the best commitments producers can make to improve their beef cattle management skills is to participate in the OSU Master Cattleman Program. A good ranch manager has a plan for coping with ever-present risks, including those not under their direct control such as weather and the market. Whether you are just beginning or you are an experienced rancher, the OSU Master Cattleman Program can help you get the most out of your investments in time, energy, and money.

Now for the part we all hate to talk about, how much does it cost? The program costs \$175.00 and the fee is used to cover the costs of the course materials. Some of that material is the Beef Cattle Manual, a certificate, Master Cattleman gate sign, and a notebook with the Master Cattleman logo.

We are limiting this class size, so if you are interested, contact the Extension Office to register or you can scan the QR Code on the right with your smartphone camera to register.



Determining the Value of a Bale of Hay

As we rolled through summer months, many livestock producers were heavily involved in producing winter's hay. But, most are finding that hay production is only a fraction of normal yields. This is very concerning to most and many are facing the fact they may need to purchase some hay.

Determining the value of a bale of hay is sometimes tricky. Not all hay or hay bales are created equal. There are different sizes of hay bales, different density of hay bales, and different protein and TDN values. Then, there is supply and demand. It is hard to sell a product for X amount when your neighbor is selling a similar product much cheaper and/or a lot of your neighbors are selling similar products. Below are some considerations when determining the value of a bale of hay.

Supply and Demand

Many pastures may not be making as much they normally make due to drought and high fertilizer costs, which means most of our neighbors in close proximity to us are not going to have an excess amount of quality hay locally, and many of the states around us are facing similar situations, only serving to compound the problem, not to mention the high cost of fuel and transportation.

Bale Size and Density

It goes without saying larger and/or heavier bales should be worth more than smaller and/or lighter bales. But most hay bales are not weighed and are sold strictly on size of the bale. The smart decision is to always try to buy the hay on a ton basis. This is a way to ensure that the size of the bale is not as big a factor. The biggest factor with larger round bales is that many transporters do not like to haul them stacked two-wide on top because it takes longer straps and is harder to see around and may possibly be too tall. Large square bales are much easier to haul and are easier to feed when only a portion of the bale is being fed. The disadvantage of large square bales is they must be stored in a barn to keep them from molding. Small square bales can be very labor intensive and typically cost more per ton of forage.

Bale Quality

Although a majority of the hay purchased is done so without any type of quality analysis, it is important to note that hay with higher levels of protein and energy (TDN) should be valued more. Collecting a forage analysis is the best solution to determine the quality of the forage, especially if it is being shipped a great distance. The big problem with this is that when hay is scarce, it is a sellers' market, so the hay may not be there by the time the forage sample returns. If you have the chance to personally see the hay before you buy it, inspect the hay for weeds, foreign material, seed heads of forage grasses, and signs of mold. All of these will help to give you an insight to the quality of the forage that is in the bale.





Establishing a Wildlife Food Plot

Establishing food plots for wildlife is not a difficult process and can be done with minimal investment. A basic understanding of the soil, the wildlife species you wish to attract, and wildlife food preferences will help make your food plots successful. When done properly, food plots can provide opportunities to view wildlife or develop a healthier wildlife population. Establishing food plots can also be a great activity for a family or members of a conservation organization.

Goals of the Food Plot

Before investing time, labor, and money, ask yourself why you want to establish food plots. Do you hope to increase the health and quality of the animals on your property? Do you simply want to increase your chances of viewing more wildlife? Is there a particular species of wildlife you want to attract? Once these are identified, completing the project will be much easier.

Preparing the Site

Soil is the building block from which plants grow, and without proper soil nutrient levels, plants will not achieve their maximum yield. Sampling and testing the soil is the only way to know for certain the present nutrient levels and which nutrients must be added to achieve optimum plant growth. Using a shovel or a soil sampling tool and a plastic bucket, walk in a zigzag pattern through the area you wish to establish. Take random soil samples to a depth of six to eight inches and place the samples in the bucket. The key to soil sampling is taking random samples. The more samples you take, the more accurate your results.



Generally speaking, fields up to 30 acres in size can be sampled as one field. However, if there are varying soil types or obvious differences in a field that may be unique, you may want to consider isolating these areas and sampling them as separate units.

After completing the sampling process, thoroughly mix the soil in the bucket and take enough out to fill the sample bag provided by the lab. You should receive your soil test results within two weeks. The report will explain your present soil nutrient levels and make recommendations for lime and fertilizer based on the crops you intend to plant. As a rule of thumb, soil testing should be done once every three years. If you have questions about your soil test report, contact the Extension Office.

Sizing the Plot

As you consider your proposed site, give some consideration to the size of your food plots. Your plot can be any size, but it should be large enough to be functional to wildlife. To be effective, your plot should be at least 1,000 square feet. No more than 1/4 to 1/2 acre of food plot is usually needed for each 20 acres of land. If your food plot is expected to provide winter cover, then plots of an acre or more are necessary.

Food plots are usually planted in long strips adjacent to good winter and/or escape cover such as a brushy fencerow, field border, windbreak, woodland edge, or wetland. Strip width can vary, but the wider the strips, the more food and cover created for wildlife. The closer the food plot is to good dense cover, the more use it will have by wildlife.

What and When to Plant

Two factors will help determine which crops to plant in your food plot. The first is your goal(s) for the project. Wildlife species differ in the plants that they prefer. The second is the landscape around the proposed site. If acres and acres of corn and soybeans surround you, planting more of the same probably will not attract wildlife to your property. However, if there are none of these fields in your area, you may be able to attract wildlife that uses these crops.

Equipment

Many food plots can be established with a minimum investment in equipment. A small tractor, disk, and corn planter or grain drill will often do the job. If you own an ATV, there are several manufacturers of seeders, fertilizer spreaders, and other attachments designed specifically for use with an ATV.

For small areas, once the area has been prepared, planting the seeds by hand can be done successfully. Many soil and water conservation districts have seeding equipment for rent on a per-acre basis. In some cases, local farmers can be hired to complete the tillage and planting.

Common Errors

Here are some common mistakes made by people establishing food plots:

- More is better. Exceeding the seeding, lime, or fertilizer recommendation is a waste of both time and money and, in the case of lime and fertilizer, too much may negatively affect the crop. The recommendations for seeding and nutrient application have been researched and should not be exceeded.
- Not fertilizing. Most crops need applications of fertilizer to help them grow and achieve maximum productivity. Don't assume your soil doesn't need fertilizer. Soil test -- Don't guess.
- Using old seed. Seed that is old may not have been properly stored and handled. Make certain to use new, high quality seed in your food plot.
- Planting agricultural seeds in shaded areas. Plants grown for agricultural purposes require sunlight for energy and growth. Avoid placing these seeds in shaded areas such as woods.
- Not planting enough acres. Food plots that are too small are ineffective. Food plots can be any size, but should be at least 1,000 square feet. Food plots of 1/4 to 1/2 acre in size for every 20 acres are a good rule of thumb.
- Planting too late for maturity. All crops require a certain number of days to grow and mature. If the plants are planted too late, they will not mature and will fail to provide food to wildlife.





**McCLAIN COUNTY
EXTENSION**

1721 Hardcastle Blvd.
Purcell, OK. 73080

DATES TO REMEMBER

Door Prizes!



Drawing for Wood Buckboard Bench

What: Annual Banquet and Meeting

When: November 10th, Meal at 6:30

Where: McClain County Farm and Home Building

RSVP by Monday, November 7, 2022 to the

OSU Extension Office 405-527-2174

October 20, 27

Master Cattleman Class, 6:00pm

November 3, 10, 17

Master Cattleman Class, 6:00pm

November 10

McClain County Cattlemen's Annual Banquet, 6:00pm

December 1, 8, 15

Master Cattleman Class, 6:00pm

December 6, 13, 20

Pesticide Applicator CEU Series-Part 1, 6:00pm