



Ag Insights

From the Desks of Your Northwest Area Ag Specialists

Oklahoma Cooperative Extension Service - Division of Agricultural Sciences and Natural Resources - Oklahoma State University

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Bull Management during the Breeding Season

Britt Hicks, Ph.D., Area Extension Livestock Specialist

The spring breeding season is drawing near and producers need to properly manage both their cows and bulls. Herd reproduction and fertility are important for profitability to occur. A successful breeding season hinges on nutrition, vaccination, sire selection, breeding soundness exams, and management protocols to control the length of the breeding season.

The first step in preparing the herd for the breeding season is to assess the nutritional status of both cows and bulls. Body condition scoring (BCS) is a practical management tool to allow beef producers to distinguish differences in nutritional needs of animals in the herd. A cow should calve at a BCS of 5 to 6 and be bred at a BCS of 5 to 6. If a cow calves at a BCS less than 5 it will take her longer to return to estrus and thus, take longer to get her rebred.

A BCS of 5 to 6 for bulls is also recommended before the breeding season starts since bulls being too fat or too thin can impact fertility. If changes need to be made to the diet to achieve this BCS they should occur gradually. Ration changes prior to the breeding season can have effects on reproductive performance because mature sperm is produced over a 60-day period before ejaculation. During the breeding season producers should assess the BCS of the bull. It is not unusual for a bull to lose 100 to 200 lb during the breeding season. If the bull becomes too thin the producer should consider replacing him because his ability to breed cows will be reduced. After the breeding season adequate nutrition is needed to help the bull regain the weight lost.

Even if bulls have a proper BCS, have had adequate exercise, and have been with the other herd bulls to determine social dominance, ranchers need to continually observe and manage bulls. Young bulls have great potential to bring genetic improvement to your herd, however they will experience an acclimation period prior to breeding any females. In order to start calving on your selected date, it may be important to turn young bulls out a few days early, so they can get adjusted to their environment and be ready to breed cows when you would like them to start. Managing young bulls will be more challenging because they are still growing. Since they have higher nutrient requirements, they will likely lose condition faster than mature bulls.

Social dominance in pastures can also be a concern. Yearling bulls and older, mature bulls should be in separate pastures. If they are together, the yearlings cannot compete with the older bulls thus, resulting in limited genetic improvement, as well as possible injury to the younger bulls. If older bulls have been used more than two breeding seasons, they have a tendency to

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become territorial and may spend more time fighting and defending their territory than servicing cows. This is a situation where observation is key because bulls may not be getting the cows bred or could be injured or causing injuries. If you are observing animals closely, bulls that are either injured or lack desire can be removed.

Another important issue to address is how many bulls to put in each pasture. The traditional rule of thumb has been 25 to 30 cows per bull. However, research indicates this number could be increased to as many as 50 cows per bull without a negative impact on conception rate. In determining the proper bull power, several factors should be considered including the topography and size of the pasture, feed condition, age and condition of the bulls. It is recommended that a breeding soundness exam must be done 30 to 60 days prior to bull turn out.

In conclusion, a successful breeding season is not only dependent on the BCS of the cows but also on the success of the bulls. Bulls have more influence on the success of the breeding season and the herd's future genetics because a cow produces one calf a year, while a bull can potentially sire 25 to 50 calves annually. Breeding success is vitally important to the profitability of the beef operation.

Using a Pyrethroid for Fly Control this Year?

Dana Zook, Enid Area Livestock Specialist
Dr. Justin Talley, Extension Livestock Specialist

Horn Fly Season is upon us. Cooler temperatures have held the flies at bay but recent nighttime temperatures in the 60's and above are going to bring them on very quickly. Producers using fly control tags may be holding off tagging a few more weeks but those using other products may be implementing them in the next week or so.

Every year there are multiple questions about the efficacy and use of pyrethroid sprays and pour-ons. Pyrethroids are the most commonly utilized insecticides and can be found in every farm supply store across the state. Coincidentally, products that contain pyrethrins and pyrethroids might show slightly less control because insecticide resistance is usually a problem with these types of insecticides. This is especially true for horn flies that have been exposed to pyrethrins/pyrethroid products because of continual use over the years.

So what are pyrethrins? Pyrethrins have been registered for use as pesticides since the 1950's. They have since been used as models to produce longer lasting chemicals called pyrethroids, which are man-made. Let us review the other terms encompassed by Pyrethroids.

Pyrethrins are a botanical insecticide that are naturally occurring compounds extracted from the chrysanthemum flower and has seldom been used in livestock because of its cost as well as instability in sunlight. Permethrins are insecticides in the Pyrethroid group and one of the first pyrethroid compounds utilized for agricultural purposes. Pyrethroids have gone through several generations and the current generation includes products that have cypermethrin, cyfluthrin, lambda-cyhalothrin, and zeta-cypermethrin. These are more stable and less volatile than pyrethrin and some of the older generations of pyrethroids which means that products with lower concentrations of the pyrethroid can be used with some residual activity being maintained through at least 10 days. Regardless of name or source, each of these chemicals have the same target site on the insect and select for resistance the same way.

Some may ask why producers in other states are seeing efficacy with pyrethroids? The warmer conditions of the typical Oklahoma summer lead to increased horn fly populations and longer fly seasons than some states farther north. Because of the greater

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number of flies, there is more opportunity for resistance to build within the horn fly populations. With so many products containing pyrethroid type insecticides cattle owners need to be careful to not overuse these type of products or it can lead to resistance.

Pyrethroids still have a place in a horn fly control program. They can be utilized effectively in an ear tag rotation, never using them more than once every three years. Dr. Justin Talley, OSU Extension Livestock Entomologist, recommends using a pyrethroid product that is paired with a synergist such as PBO. This helps boost the efficacy compared to a pyrethroid-only product. Avoid using any pyrethroid products that are paired with an organophosphate. Organophosphates are very effective on their own but pairing the two can lead to cross-resistance. Organophosphates should be used only once every two years in an ear tag rotation.

Breaking down these chemical names can be confusing but it is essential to implementing an effective horn fly control program. For more information about horn fly control and chemical rotations to avoid resistance, contact your local Oklahoma Cooperative Extension Office.

Pasture Management

Josh Bushong, Area Extension Agronomy Specialist

It's that time of year that many producers are applying inputs to pastures and hay fields. The two main management decisions that are critical to achieving desired forage potential would be fertility and weed control. It is best to first determine some production goals, which can be different depending on use (graze vs hay).

There will be a higher probability of seeing a return of input investments when dealing with an introduced forage grown for hay. Bermudagrass is a great example to seeing a response from increased fertility and use of pesticides. While tonnage can be increased by adding fertility to native grass pastures, often it can be hard to justify economically since the season production is usually less than introduced species.

When deciding on how much fertilizer to apply it is always recommended to base the application rates off of a soil sample and a yield goal. A \$10 soil sample through the OSU Soil, Water, and Forage Analytical Laboratory collected every few years will almost always pay for itself. A yield goal will typically range between three to eight tons per acre in north central Oklahoma, depending on rainfall and soil type. Unfortunately, it is harder to determine yield goals under grazing.

In grazed pastures, forages are growing and being removed concurrently making it impossible to estimate forage production and yield goals. Less fertilization is expected in grazed pastures since some nutrients are returned to the soil. The general guideline is that grazing to produce 500 pounds of beef per acre will remove about 18 pounds of N, 9 pounds of phosphorus, and 1 pound of potassium. This 500 pounds of beef requires approximately a production of 4 tons of forage per acre.

In comparison, a hay pasture with a 4 ton yield goal will need 200 pounds of actual N per acre, while a grazed pasture that supports one cow for four months will only need 50 pounds of actual N per acre.

Research has shown no benefit to split applications of nitrogen (N) when total application rates are below 200 pounds of actual N per acre. If application rates are greater than 200 pounds of N, then split application can be economical. If applying N to farms with coarse, sandy soil types it is recommended to limit rates to 100 pounds of N as it is mobile in the soil and can be leached out of the system.

As for weed control, is all about proper identification and application timing. There are many pasture herbicides on the market and the price differences can be range widely. Knowing exactly which weeds are of significance in a particular pasture will deter-

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mine which herbicide options are appropriate and at what application timing are recommended.

Many annual broadleaf weeds can be controlled with less expensive herbicides, such as products containing 2,4-D or dicamba, if applied when weeds are only a few inches tall. Situations where more expensive herbicide products are warranted include; if there are brush or woody weeds present, winter weeds are abundant and summer weeds have yet to emerge, or if the target weed species are perennials.

Weed management is often more practical in haying operations. Heavy infestations of weeds in a grazing pasture is often a symptom of excessive grazing. Proper use of stocking rates and achieving adequate fertility in introduced pastures are the most economical weed management options for grazing pastures. While weeds can be unpleasant to the eye, many times weed infestations are below application thresholds. In addition, some weeds such as ragweed can often be utilized by cattle.

If inputs are trying to be reduced this year, keep in mind which inputs will help achieve the goals set at the beginning of the season. From OSU field trials, comparing doing nothing to only applying a herbicide, only fertilizing, or fertilizing with a herbicide application, we can generally predict forage production outcomes if inputs are removed. If broadleaf weeds are present, addition of fertilizer will increase total forage production, but mainly just from the weeds and not from the grass. If only an herbicide is applied, the trials showed that total forage production was the same as doing nothing. Every pound of weeds removed only increased grass production by one pound (1:1 ratio). In order to increase total grass production both fertilizer and an herbicide will need to be applied.

Contact your local extension office for more pasture management information, to assist in weed identification, to submit a soil sample, or to determine the best management practices for your operation.

Utilizing the Livestock Indemnity Program

Trent T. Milacek, NW Area Ag Econ Specialist, OCES

The Livestock Indemnity Program (LIP) provides assistance to producers who have experienced abnormal livestock mortality due to a number of eligible loss conditions. Some examples include adverse weather, some disease outbreaks and attacks by animals reintroduced by the government.

The recent wildfires in Northwest Oklahoma will qualify as an adverse weather related loss. LIP payments are made by calculating 75% of the market value of the affected livestock on the day before the date of death as determined by the CCC. The program is administered by the Farm Service Agency and notices of loss should be directed to your local county office.

In order for a producer to be eligible for LIP, they must have legally owned the livestock on the day they died and the loss must have occurred no later than 60 calendar days from the ending date of the disaster. Livestock must have been used for commercial use as part of a farming operation on the day they died. Excluded animals include free-roaming animals, pets or animals used for recreation such as hunting, roping, or for show.

Contract growers can be eligible for LIP if, on the day the livestock died, they had possession and control of the eligible livestock. Also, they must have had a written contract with the livestock owner detailing the terms and obligations of the respective parties regarding the production of the livestock.

Payments for LIP are calculated based on the national payment rate. This rate is multiplied by the number of eligible livestock. The LIP national payment rate is calculated using 75% of the average fair market value of the livestock. The LIP national payment rate for contract growers is figured using 75% of the average income loss sustained by the grower with respect to the lost livestock.

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It is important to gather the needed information to apply for LIP. Producers who have experienced a loss need to submit a notice of loss and an application for payment to their local FSA office. The notice of loss must be made within 30 calendar days following the producer's discovery of the loss of the livestock. Then an application for payment must be filed with FSA. Producers have to submit this application no later than 90 calendar days after the end of the calendar year in which the loss occurred.

Documentation of the livestock loss is very important in the application process. The number and kind of livestock that have died are required, supplemented if possible with the following: photographs or video documenting the loss with dates attached, purchase records, vet records, production records, bank and loan documents, written contracts, tax records, private insurance documents or other reliable documents. Remember that the records listed above are not all required. Supplemental documentation is not limited to what is listed above, but photographs with dates are a good way to quickly inventory losses while providing proof of the loss. Producers are encouraged to contact their local FSA office for further direction on documenting proof of the eligible livestock loss.

This information was summarized from the USDA Livestock Indemnity Program fact sheet. For further information on FSA disaster programs please visit <http://disaster.fsa.usda.gov> or contact your local FSA office. You are also encouraged to contact your local Oklahoma Cooperative Extension office for more information on these programs.

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