By Clinton Laflin,
Livestock Production Agent

Corner Post CONVERSATIONS

K-STATE Research and Extension | Midway District

"AS I SEE IT"

As we prepare for another grazing season in the Midway District, the wind continues to blow, rain showers are sparse, all while grass and crops alike are short. That said, we as producers will "go on like always," and continue to persevere through hardship.

As we turn the page to warmer weather, please remember to have a breeding soundness exam performed on each of your herd bulls, work alongside your veterinarian to maintain a sound vaccination protocol for your cows pre-breeding and the calves at side that are soon to be worked.

Another critical component of helping your cowherd perform throughout the summer is the implementation of a sound insect control program. A common fly issue in Kansas today is the horn fly. University research shows that the average horn fly consumes 24 to 38 blood meals per day.

The annual economic losses caused by this fly has been estimated at $1 billion in the U.S. When horn fly numbers are high, cattle experience annoyance and blood loss. The effect may be decreased milk production, reduced weight gains, changes in grazing patterns and bunching of animals.

Research studies have demonstrated calf weaning weights are negatively impacted from 4 to 15%, and stocker cattle and replacement heifers experience up to 18% impact in weight gains. In addition, horn flies can spread summer mastitis.

Economic loss can begin immediately with these pests, but are truly felt when the number of flies per animal reaches a level at or greater than 200. This can occur as quickly as May, so it's best to address these issues as soon as you observe them.

These observations are best taken between the hours of 8:00 AM to 11:30 AM when flies are generally located on the shoulders, topline and sides of animals. Observations made later in the day are less accurate because horn flies will generally move to the belly area where it is cooler, making it more difficult to accurately assess population numbers.

Work alongside your team to develop a control strategy, whether it's using insecticide tags, pour-ons, Insect Growth Regulators (IGR's) oilers or sprays. If you are using insecticide tags I would suggest putting them in in late May or very early June to have the most effectiveness. Try to switch insecticide classes every other year, so the local fly population does not build up an immunity to a certain insecticide.

If you need additional resources, or have questions my contact information is below. In the meantime work on your rain-dance skills. Until next time,

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This newsletter is designed to provide you with timely information on relevant issues facing livestock producers today. If I can assist you moving forward please contact me.
Looking forward to working with you!

K-State **RESEARCH** and Extention Midway District#15

SPRING COWHERD MANAGEMENT

Cow Herd Management:

1. If cows are marginal (BCS 4.0 – 5.0) going into breeding, possibly consider:
    a. Supplementing 2-3 weeks prior to and through 1st cycle.
    b. Using monensin (200 mg/hd/day) in feed supplements.
    c. Temporary calf removal or a CIDR to initiate estrus in anestrus females.
    d. Early weaning if BCS doesn't improve during the season.
2. Pregnancy check and cull fall calving cows, if not already done.
3. With higher costs, it's important to closely manage salt and mineral programs.
    a. Record date and amount of salt and mineral offered and calculate herd consumption.
    b. If consumption is 2X the target intake, then cost will be too!
    c. Properly store bags and pallets to avoid damage and product loss.
4. Continue to provide high magnesium mineral formulas to cows grazing high risk forages: wheat, rye, triticale, oats, bromegrass, and other cool-season forages.
5. Order your A.I. supplies well prior to starting your protocols.
6. Closely monitor bulls at the start of the breeding season for injury and to make sure they are aggressively covering cows.

Calf Management:

1. Calculate the value of gain relative to cost of gain for:
    a. Implanting nursing calves and grass cattle.
    b. Creep feeding nursing calves
2. Finalize health protocols for spring-born calves and cattle going to summer grass.
3. Consider supplementing or feeding replacement heifers for a period when initially turning to grass if they don't have post-weaning grazing experience and/or forage supply is limited

General Management:

1. Reconsider stocking rates and turn-out dates for drought stressed pastures.
2. Begin implementing early-season weed/invasive species control.
3. Employ multiple strategies and chemistries for controlling flies and insects.
4. With high feeder calf prices this spring, consider price risk management tools.
5. Make and evaluate important production calculations:
    a. Calving distribution (% 1st cycle, % 2nd cycle, % 3rd cycle)
    b. Calving interval
    c. % calf crop (# calves weaned/# cows exposed for breeding) for calves born in fall 2022.

By: Jason M. Warner, Ph.D.,
KSU Extension Cow-Calf Specialist

WATER CONSUMPTION OF THE MODERN BEEF ANIMAL

by Dr. Justin Waggoner, KSU Extension Beef Systems Specialist

Most cattle producers fully understand the importance of water. After all, providing an adequate supply of clean, fresh, water is the cornerstone of animal husbandry. There are very few things that compare to the feeling of finding thirsty cows grouped around a dry tank on hot day. Water is important, and in situations where the water supply is limited or we are forced to haul water, one of the first questions we find ourselves asking is “how much water do those cows need?”

The old rule of thumb is that cattle should consume 1 to 2 gallons of water per 100 pounds of bodyweight. Accurately determining the amount of water cows will voluntarily consume is difficult and is influenced by several factors (ambient temperature, moisture and salt content of the diet, body weight, lactation etc.).

Water consumption increases linearly as ambient temperature increases above 40° Fahrenheit such that cows require an additional gallon of water for every 10 degree increase in temperature. Additionally, lactation also directly increases the amount of water required by beef cows.

The table below summarizes the daily water requirements of beef cows of several different body weights, milk production levels and ambient temperatures (Adapted from Spencer, 2016).

		Average Daily Temperature, °F		
		40	65	90
Cow weight, lb	Milk Production, lb/d	Gallons of Water/day		
1100	0	8.2	10.8	13.4
	10	10.5	13.1	15.7
	25	12.8	15.4	17.9
1300	0	9.2	11.8	14.3
	10	12.2	14.8	17.4
	25	14.5	17.1	19.7
1500	0	10.2	12.7	15.3
	10	14.0	16.5	19.1
	25	16.3	18.8	21.4

Another question that often comes up related to water is “how much water will my tank hold?” The capacity of circular stock tank may be calculated using the equation below.

Circular tank capacity, gallons = [3.14 x radius2 (inches) x depth (inches)]/231

Using this formula a 12 foot stock tank with 24 inch sides would hold 1691 gallons of water, which is enough water for approximately 85, 1300 lb, lactating beef cows, producing 25 lbs of milk/day on 90°F day.

The third question that often follows Follows is how much tank access is required for a given number of cows. A minimum of 15 inches of linear trough space per head is recommended and at least 10% of the animals in the pasture should be able to drink from the tank at once if the distance to the tank is relatively close.

In a larger pasture, where cattle are traveling longer distances to water, providing linear trough space for 30% of the animals in the pasture is suggested to allow more animals to access the tank at once and avoid over-crowding. (Pfost et al., 2000). The circumference of a round stock tank may be calculated using the equation below.

Circular tank circumference inches = 3.14 x diameter (inches)

A 12 foot diameter round stock tank (144 inches) provides 452 linear inches of drinking space, and would provide drinking space for a maximum of 30 head (15 inches/head).

As we can see by working through these calculations, the amount of linear drinking space provided by a tank, rather than capacity or volume of the tank, often determines the number of tanks required for a pasture or grazing site.