GARFIELD COUNTY EXTENSION

AG NEWS

JANUARY 2023

Garfield County Feeder Calibration Clinic

Let OSU Extension test your feeder or cake box for accuracy to improve feeding efficiency this winter.

Hosted by:
Farmers Grain Co. of Kremlin

OSU Extension educators will be on hand to address supplementation and other beef cattle needs

Wednesday January 11th, 9AM-Noon
Farmers Grain Company in Kremlin

For questions contact: Garfield Co. OSU Extension 580-237-1228

Cattle Industry Dynamics Finally lining up

Derrell S. Peel, OSU Extension Livestock Marketing Specialist

The latest Cattle on Feed report pegs November 1 feedlot inventory at 11.706 million head, 98.0 percent of last year and the second consecutive monthly year over year decrease. The 12-month moving average of feedlot totals, which shows the average feedlot total for the previous year, peaked in September 2022 (Table 1). Feedlot inventories are expected to decrease year over year for the foreseeable future. Table 1 shows how cattle industry dynamics have developed since the last cyclical peak, with peak totals for each category highlighted in **bold**. The peak average cow herd and calf crop occurred in 2018 with the peak feeder supply noted on January 1, 2019.

The combination of effects from the pandemic in 2020 and drought since 2020 has pushed the peak in feedlot numbers and cattle slaughter into 2022, well past the cyclical peak in the calf crop in 2018. The pandemic in 2020 caused a backlog of cattle in feedlots and in the country. As a result, the estimated feeder supply on January 1, 2021 was higher than 2020. The drought in 2021 and 2020 caused cattle to be marketed earlier than usual and resulted in reduced heifer retention and increased heifer and cow slaughter in 2021 and 2022. Early marketing of cattle, reduced heifer retention and herd liquidation have kept feedlot inventories higher in 2022 and temporarily increased beef production. Beef production is projected at a record large 28.4 billion pounds in 2022 as a result of the highest total cattle slaughter in 15 to 20 years.

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As 2022 comes to a close, it appears that feedlot inventories have peaked and cattle slaughter should begin to decline in the next few months. On October 1, 2022, the inventory of heifers in feedlots was higher than the previous year, with the heifer percentage of total feedlot inventories the highest in 21 years. The number of heifers in feedlots should begin to decline and will drop sharply when herd rebuilding begins. Feedlot inventories are beginning to reflect the fact that feeder cattle supplies have been declining since 2019.

With drought conditions continuing, it is unclear when herd liquidation will cease and herd rebuilding can begin. However, it is clear that feedlot production, cattle slaughter beef production will fall in 2023. How much they will fall depends on when drought conditions will improve. Nevertheless, declining feedlot supplies mean that all levels of the cattle are finally on the same page and are reflecting the tighter cattle supplies in the country.

Table 1. Cattle Industry Dynamics, 2018-2022

	2018	2019	2020	2021	2022
Beef Cow Inventory* (avg.)	**31578.5**	31514.7	31091.2	30484.4	29635.6^
Calf Crop	**36312.7**	35591.6	35495.5	35085.4	34600˜
Feeder Supply**	26124.9	**26553.3**	25724	26214	25537.2
Feedlot Inventory, 12 month MA	11501	11612	11658	11771	**11804**
Month, max 12 mon. MA	Dec	Dec	Mar	Jun	Sep
Fed Slaughter	25803	26117	25302	25972	**26075^**
Beef Cow Slaughter	3024	3190	3268	3562	**3970^**

*$(Jan_t+Jan_{t+1})/2$; ^Projected; ˜July 1 estimate; **January 1 estimate; All numbers in 1000 head.

Energy Balance and Milk Production in Beef Cows

Dave Lalman, Animal Science, Professor

Extended periods of drought serve as a reminder of the importance to match cows to the ranch's forage resources. Genetic capacity for milk production is one major factor in creating a good match. Most producers recognize that too much genetic capacity for milk production can lead to thin cows resulting in reproductive failure or the need to intensify the use of expensive purchased or harvested feeds. While too little milk should result in cows staying in better condition during tough drought years, weaning weights are sure to decline in years when forage production is abundant.

The primary tools available to change the genetic capacity for milk in the cow herd are breed selection, milk EPD within each breed, and crossbreeding. Crossbreeding results in an increase in milk production through heterosis. Remember that within a breed, milk EPD reflects the "maternal influence" or an indication of the dam's influence on calf weaning weight. Certainly, a portion of her influence is the amount of milk energy she produces for her calf every day. However, a calf's mother could provide a lot of other things besides milk that may influence her calves' weaning weights. This is an interesting topic for another day. Regardless, when one continually purchases sires with higher milk EPDs, at least some of the increase in their daughters' calf weaning weights can be attributed to increased milk energy yield.

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(Continued from page 2) For perspective, during the last trimester, a 1,300 lb. cow in good body condition requires about 3.3 megacalories of net energy for maintenance (Mcal NEm)to support her pregnancy along with 9.4 Mcal NEm for maternal tissue maintenance. Peak milk yield generally occurs 4-6 weeks after calving. Assuming average genetic potential for milk production, about 8 Mcal NEm are required to support lactation. In addition, maintenance energy requirements increase by about 20% during lactation resulting in maternal tissue maintenance requirement of 11.3 Mcal NEm per day. Therefore, to produce 24 lb. milk and maintain maternal tissue, 19.3 Mcal NEm are required. This is about the same amount of energy contained in 47 lb. of average quality prairie hay or 20 lb. of rolled corn.

If diet quality or feed availability limit this lactating cow to lower daily energy intake for several days, two things will occur. First, average daily milk yield will decline. Milk yield is highly sensitive to the availability of energy. At the same time, the cow will begin to lose weight. On the other hand, if diet quality and availability allows greater than 19.3 Mcal NEm intake, milk yield should not change (assuming the cow is already at her genetic capacity for milk production) and she should gain weight. Interestingly, in all the work we have conducted here at OSU studying milk production in beef cows, we have never found a situation where increasing energy intake did NOT increase milk production. What does that tell us? It basically indicates that the grazing environment limits milk production. It is not the genetic capacity of the cattle that limits milk production.

Increased energy intake might be achieved by providing better quality hay, more concentrate supplement, shifting calving season to occur during pasture green up, etc. In some of our work, about 60% of increased energy intake (increased above that provided by lush spring forage) was partitioned to milk production and the remaining 40% was partitioned to maternal tissue gain. Clearly a genetic by environment interaction exists. In other words, with greater genetic potential for milk, a greater proportion of the "increased" or "supplemental" energy goes to prop up milk production and less goes to the cow to gain weight (or perhaps to keep her from losing weight).

Another important piece of the puzzle is the influence of genetic capacity for milk yield on forage intake. Feed or forage intake capacity is limited. Our recent data suggests that each one lb. increase in milk production is associated with 0.3 to 0.4 lb. increase in forage intake.

How do you know where the sweet spot in terms of genetic potential for milk production and your forage system? An excellent resource is the American Angus Association's Optimal Milk Module. You can access this online tool at angus.org/Performance/OptimalMilkMain With just a few inputs, this decision tool provides guidelines for sires with milk EPDs appropriate for your grazing and management system. For other breeds, across breed adjustment factors can be applied to these Angus-based EPD guidelines.

2022 Ends Out on a Dry Note

The statewide average precipitation total for the month was 1.85 inches, 0.26 inches below normal and ranked as the 47th wettest December since records began in 1895. Sallisaw had the highest total with 4.52 inches for the month, while Eva and Hooker brought up the rear with no measurable precipitation. Four other Panhandle locations also received less than a tenth of an inch. The 2022 statewide average finished at 29.42 inches, 6.94 inches below normal and ranked as the 31st driest year since records began in 1895. The Panhandle was particularly dry during 2022 at 7.57 inches below normal, their fourth driest year on record. Localized annual deficits ranged from 6-12 inches over most of the state. The only surpluses occurred in far east central Oklahoma where heavy rains led to amounts 6-10 inches above normal for the year. The Mesonet site at Sallisaw led the state for 2022 with 58.28 inches of rain. Breckinridge recorded 67% of normal precipitation while Lahoma saw 62% of normal. The Drought Outlook Map shows little improvement for the High Plains for January. **(See maps on page 4)**

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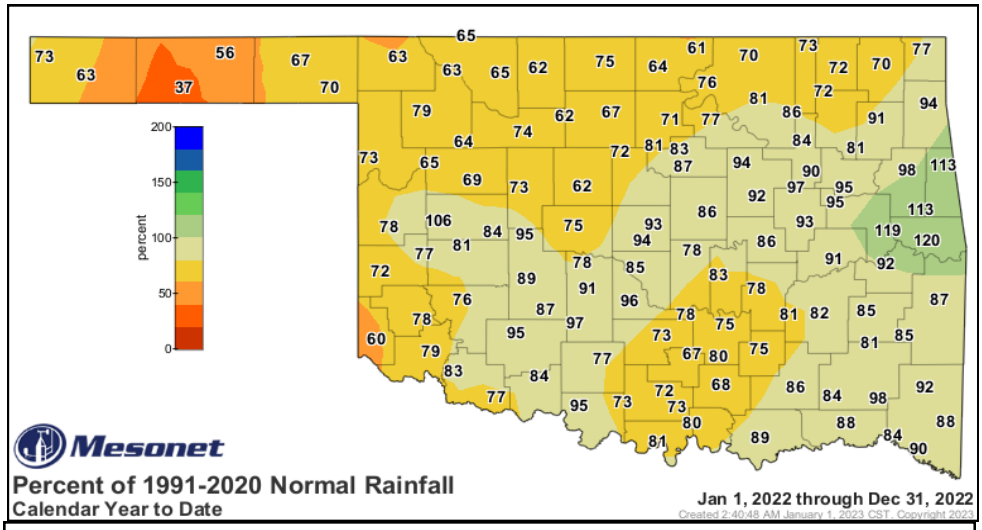

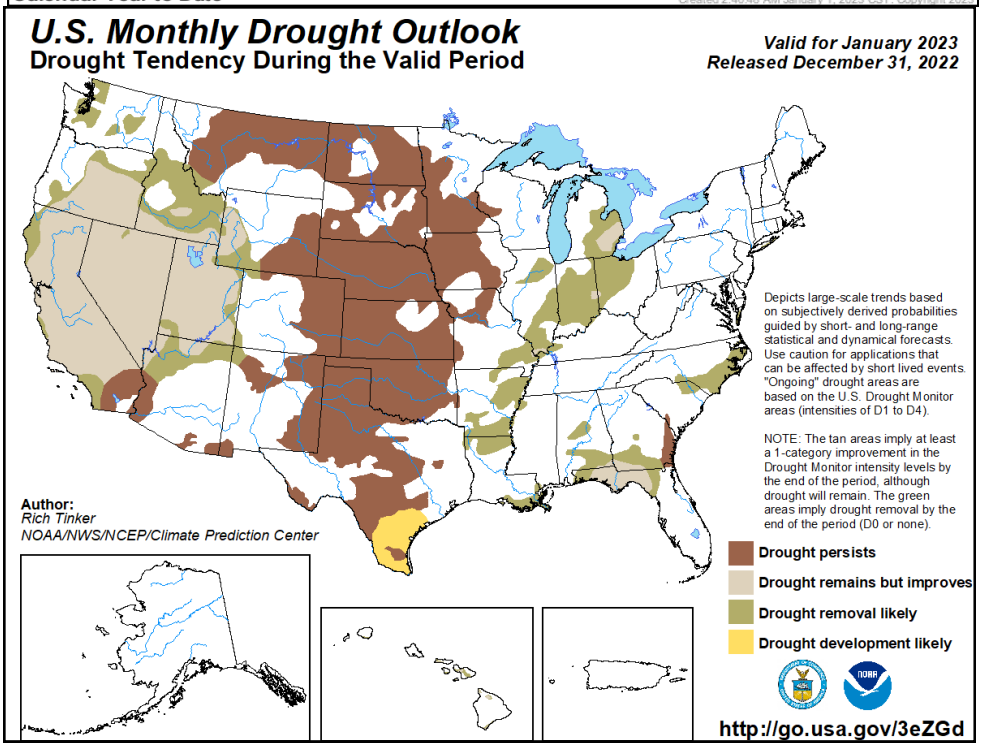

GARFIELD COUNTY EXTENSION

Office will be closed on
Monday,
January 16th, 2023
for
Martin Luther King, Jr. Day

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Rick Nelson, CED

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