COW/CALF CORNER

The Newsletter

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Rain is desperately needed in the Southern Plains; but how much would it help?

Derrell S. Peel, Oklahoma State University Extension Livestock Marketing Specialist

According to Oklahoma Mesonet data, the warm growing season to date this year (March 1- July 31) is the third driest on record with a statewide average of 10.39 inches of rain. That is down 8.29 inches, or 56 percent of normal. Regional, the western counties and the panhandle are about 30 percent of normal; central counties are about 50 percent of normal and the eastern counties are about 80 percent of normal. This is very dry but what makes it particularly devastating is that it follows a very dry fall and winter. The last year, from August 1, 2010 – July 31, 2011 is the driest on record for that 365 day period with an average of 22.47 inches of rain, less than the previous record of 23.19 inches of rain in 1935-36.

Many cattle producers have already destocked severely or totally. Many of the remaining producers who still have cattle are on the last dabs of water and forage and face destocking immediately. Current forecasts predict extremely hot temperatures for the next ten days and the longer range forecasts show no improvement in the drought situation. Of course, a rain is desperately needed, but the question is: how much would a rain really help? It is important to ask the question because the answer will depend on each producer's circumstances.

Initially, any change in the weather that results in significant rain is likely to also indicate a significant break in the temperatures that we have been experiencing. That would certainly improve morale among producers and comfort for animals but would not really change to overall predicament that most producers face. A heavy rain event could replenish some stock water ponds and this would provide immediately relief of limited water supplies for some producers. Some warm season forages would resend quickly with new growth if rain happens soon. However, in most cases, there would be a limited amount of forage growth and little if any hay production is possible at this late date. This would provide at most a small amount of time and

flexibility for producers with cattle. Destocked pastures have a chance to recover a bit but would not likely have much potential for restocking this year.

There is time for enough rain to make early planted wheat possible and this could provide forage for fall and winter. However, the current weather forecast makes it unlikely and early planted wheat will be extremely risky in the face of current dry soil profiles and hot temperatures. Late summer or fall rains might also produce some cool-season perennial forage but total production in likely to be limited.

The bottom line is that while any rain, any time will be welcome, at this point, rain will likely be of limited value for the fall and winter from a cattle perspective. For many producers, the question now is how to get to next April and that question does not, in many cases, depend on whether we get rain anytime soon. Of course, it takes rain to begin the process of replenishing ground water and stock water supplies and to begin pasture recovery and it would sure be nice to start that process so producers can begin to devise recovery plans.

Hot weather in late gestation affects fall birth weights

Glenn Selk, Oklahoma State University Emeritus Extension Animal Scientist

The summer of 2011 will have impacts on the cattle industry in many ways. One of the more subtle results from the extreme July and August heat will be a reduction in birth weights of fall-born calves. Oklahoma State University research (Selk and Buchanan. 1990 OSU Animal Science Research Report) in the late 1980's and early in the 90's provided information about the reduced birth weight of fall born calves versus spring born calves. The average difference was about 4.5 pounds and was similar to the overall difference between heifer and bull calves.

More recently, Oklahoma State University physiologists studied early fall (August) and late fall (October) calving cows. Data from two successive years were combined for 50 Angus X Hereford crossbred cows. The "early" and "late" fall calving cows had been artificially inseminated in early November or early January, respectively. Semen from the same sire was used for all cows. All cows were exposed to a single cleanup bull for 35 days at 4 days after the AI season. The weather prior to calving was significantly different for late pregnancy in the two groups. The average maximum temperature the week before calving was 93 degrees F. for the "early" fall group. The average maximum temperature the week before parturition in the "late" calving group was 66 degrees F. There was a 100% survival rate for calves in both groups and both groups of cows had very high re-breeding rates (93% and 96%, respectively). The average birth weight was 3.74 pounds lighter for the calves born to "early" cows as compared to the "late" cows in year 1 of the study. The average birth weight was a whopping 9.68 pounds lighter for the calves from "early" cows in year 2. (Source: Kastner, Wettemann, and co-workers. 2004 OSU Animal Science Research Report.)

The reason that early fall calving cows have lighter birth weights is generally attributed to the fact that the cows are gestating in hot weather. Blood flow patterns of cattle during periods of high temperatures change in an effort to dissipate heat from the body. Blood (and the nutrients that it carries) is shunted to the outer extremities during hot weather to dissipate heat. Therefore

less blood flow is sent to the inner core of the cow where the fetus is gestating. This subtle change in blood flow is commonly thought to be the reason that lighter birth weights occur to cattle that are in the last trimester of pregnancy in June, July, and August.

Producers with early fall-calving cows should expect lighter (and perhaps weaker) calves that will be born early this fall calving season.