

COW/CALF CORNER

The Newsletter

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Oklahoma February update

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

Oklahoma is receiving a reminder this week that winter is not over with cold temperatures and a mix of rain, freezing rain, sleet and snow across much of central and eastern Oklahoma. This follows several days of near record warm temperatures. The variable weather has implications for crops and livestock. Warm weather has accelerated First Hollow Stem (FHS) development in wheat with early wheat varieties at FHS in southern Oklahoma. Cattle will need to be removed from dual-purpose wheat in the next couple of weeks across much of the state.

Oklahoma auction prices for feeder cattle were stronger last week with lightweight feeder prices up \$3-\$5/cwt. Auction volumes were up sharply from year ago levels last week as more wheat pasture cattle are moving to market. Reported auction volumes are up 52 percent so far in February compared to the same two weeks last year. This past week 74 percent of auction volume was cattle over 600 with large volumes of heavy feeders holding prices steady. Cull cow prices increased this past week back to December and early January levels after dropping for a couple of weeks.

Cash cattle prices appear to have stabilized after pulling back in January from the highs late last year. Cattle prices are more likely to follow seasonal patterns this spring compared to the strong uptrend that dominated market prices last year. Lightweight feeder prices typically increase to a spring peak while the heavy feeders typically advance through the first half of the year before declining in the last half of the year. Cull cow prices typically increase to a peak in the second quarter before declining through the summer to fall lows.

Drought conditions continue to redevelop across Oklahoma this winter. The area of the state that is abnormally dry or regressing into marginal drought has increased in recent weeks. In the latest Drought Monitor, 98.5 percent of the state is abnormally dry or in some stage of drought, up from 78 percent three months ago. Dry conditions at this time of year are not a major concern

with the exception of impacts on the winter wheat crop. However, these expanding dry conditions will increase the vulnerability to serious drought impacts quickly this spring if moisture is reduced or delayed.

Re-warming methods for severely cold-stressed newborn calves

Glenn Selk, Oklahoma State University Emeritus Extension Animal Scientist

A very cold wet night in Oklahoma undoubtedly caused a few newborn calves to be cold-stressed.

Several years ago, an Oklahoma rancher called to tell of the success he had noticed in using a warm water bath to revive new born calves that had been *severely cold stressed*. A quick check of the scientific data on that subject bears out his observation.

Canadian animal scientists compared methods of reviving hypothermic or cold stressed baby calves. Heat production and rectal temperature were measured in 19 newborn calves during hypothermia (cold stress) and recovery when four different means of assistance were provided. Hypothermia of 86 degrees F. rectal temperature was induced by immersion in cold water. Calves were re-warmed in a 68 to 77 degrees F. air environment where thermal assistance was provided by added thermal insulation or by supplemental heat from infrared lamps. Other calves were re-warmed by immersion in warm water (100 degrees F.), with or without a 40cc drench of 20% ethanol in water. Normal rectal temperatures before cold stress were 103 degrees F.

The time required to regain normal body temperature from a rectal temperature of 86 degrees F. was longer for calves with added insulation and those exposed to heat lamps than for the calves in the warm water and warm water plus ethanol treatments (90 minutes and 92 minutes vs 59 minutes and 63 minutes, respectively). During recovery, the calves re-warmed with the added insulation and heat lamps produced more heat metabolically than the calves re-warmed in warm water. This represents energy that is lost from the calf's body that cannot be utilized for other important biological processes. Total heat production (energy lost) during recovery was nearly twice as great for the calves with added insulation, or exposed to the heat lamps than for calves in warm water and in warm water plus an oral drench of ethanol, respectively. By immersion of hypothermic calves in warm (100 degrees F) water, normal body temperature was regained most rapidly and with minimal metabolic effort. No advantage was evident from oral administration of ethanol. (Source: Robinson and Young. Univ. of Alberta. J. Anim. Sci., 1988.)

When immersing these baby calves, do not forget to support the head above the water to avoid drowning the calf that you are trying to save. Also it is important to dry the hair coat before the calf is returned to cold winter air. If the calf does not nurse the cow within the first few hours of life (6 or less), then tube feeding of a colostrum replacer will be necessary to allow the calf to achieve passive immunity by consuming the immunoglobulins in the colostrum replacer.

Obviously not every calf born in cold weather needs the warm water bath. However, this is apparently a method that can save a few *severely stressed* calves that would not survive if more conventional re-warming methods are used. With 2015 calf prices, saving every calf is important to the bottom line.

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