COW/CALF CORNER

The Newsletter

From the **Oklahoma Cooperative Extension Service**

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Storing Colostrum for Optimum Passive Immunity

By Glenn Selk, OSU Extension Cattle Reproduction Specialist

Cow calf producers are aware that natural colostrum (first milk) must be ingested by baby calves within 6 hours of birth to acquire satisfactory passive immunity. However some calves do not have ample opportunity to receive colostrum. Perhaps the mother is a thin two-year-old that does not give enough milk or the baby calf was stressed by a long delivery process and is too sluggish to get up and nurse in time to get adequate colostrum. These calves need to be hand fed stored colostrum in order to have the best opportunity to survive scours infections and/or respiratory diseases. Therefore stored frozen colostrum from a dairy or from other beef cows that lost calves at calving should be on hand to meet these needs. If colostrum is obtained from another farm, try to find out the health status of the cows from whom the colostrum is taken. If "Johne's Disease" has been identified on that dairy or farm, avoid colostrum from that operation. "Johne's Disease" can be transported in colostrum from one location to another.

Colostrum can be refrigerated for only about 1 week before quality (immunoglobulin or antibody concentration) declines. If you store colostrum, unfrozen be sure that the refrigerator is cold (33-35°F, 1-2°C) to reduce the onset of bacterial growth. If the colostrum begins to show signs of souring, the quality of the colostrum is reduced. The immunglobulin (very large protein) molecules in colostrum that bring passive immunity to the calf will be broken down by the bacteria, reducing the amount of immunity that the colostrum can provide. Thus, it is important that colostrum be stored (unfrozen) in the refrigerator for only a week or less.

How long can the frozen colostrum be stored? We often answer this question flippantly by saying, "just as long as you would store frozen fish to eat!" Colostrum may be frozen for up to a year without significant breakdown of the immunoglobulins. However this is one example where improved technology is not in our favor. Frost-free freezers are not the best for long-term colostrum storage. They go through cycles of freezing and thawing that can allow the colostrum

to partially thaw. This can greatly shorten colostrum storage life. Freezing colostrum in 1 or 2 quart bottles or 1 quart in 1 or 2 gallon zip-closure storage bags is an excellent method of storing colostrum. Many producers have had great success using the zip-closure bags. Use two bags to minimize the chance of leaking, and lay them flat in the freezer. By laying the bags flat, the rate of thawing can be increased, thereby reducing the delay between time of calving and feeding. The freezer should be cold (-20°C, -5°F) - it's a good idea to check your freezer occasionally. Much more information about colostrum use and transfer of passive immunity is available from the OSU Fact Sheet F-3358 "Disease Protection in Baby Calves" http://pods.dasnr.okstate.edu/docushare/dsweb/Get/Document-1937/ANSI-3358web.pdf

Feeder Cattle Market Incentives Continue to Develop

By Derrell S. Peel, OSU Extension Livestock Marketing Specialist

The November Cattle on Feed report confirms the continued evolution of cattle markets in the U.S. in response to a very different and dynamic feed environment. October placements were up 12 percent year over year as feedlots took advantage of available supplies of heavy yearling cattle coming off of summer grazing programs. Placements of cattle over 800 pounds were up 23 percent from last year and placements of cattle 600-800 pounds were up 15 percent from last year. I suspect that some of the 600-700 pound feeders and certainly most anything lighter than that would have stayed on winter pasture if forage conditions were better in the country. In Oklahoma, wheat pasture is limited, much of the state is quite dry and although considerable hay was harvested this summer, much of it is poor quality. All in all it isn't easy to put together a stocker or backgrounding program but the incentives to do so continue to build.

For several months we have seen the feeder cattle price/weight relationship continue to flatten out, that is to say, the reduce the roll-back in price for additional weight, resulting in improved stocker buy-sell margins. This week's 8-market average for Oklahoma shows that the cheapest feeder steer is one that weighs about 700 pounds. Steers averaging 770 to 850 pounds were priced higher than a 725 pound steer. In this example, there is a 50 pound window where the value of gain is $1.68/lb. That alone does not make a viable production program but it contributes the fact that, in this same report, a 600 pound steer gaining about 220 pounds has an average value of gain of $1.05/lb. Obviously, it takes time to put the weight on these animals and the market price will change but the general price relationship is likely to persist for several months at least.

This unusual feeder price relationship is occurring because 1) feedlots are demanding heavy feeders and 2) limited forage is making it difficult to put together stocker programs to meet that demand. The market will continue to offer incentives for forage based gains until enough producers respond. It is not easy, or cheap, at the current time to put weight feeder cattle but market is offering rewards for those creative producers who find the relatively cheapest way to do it.