COW/CALF CORNER

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Feed Cost Considerations for Cow-Calf Producers

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Hay production in 2013 reflected the improvement in drought conditions in the last half of the year. In the recently released USDA Crop Production 2013 Summary, all hay production was up 13.4 percent over record low productions totals in 2012. Nevertheless, while 2013 hay production was higher than drought reduced production the last two years, the 2013 total of 136 million tons is still 9.4 percent smaller than the 10 year average prior to the drought. Total U.S. hay stocks as of December 1 were up nearly 17 percent in the latest USDA Crop Production report compared to 2012 levels. Hay stocks were record low last year and, while the current level is a significant improvement, it is still the second lowest December 1 hay stocks level since 1976. In Oklahoma, 2013 hay production was up 13.6 percent and December 1 hay stocks were up 34.5 percent. Unless the remainder of winter is especially severe, producers should have adequate hay to maintain animal numbers until grazing season. However, it is clear that it will take another year or two for forage markets to completely recover from the 2011-2012 drought impacts.

Adequate hay is essential for cow-calf production relative to the climate in various locations. However, there is strong interaction between hay requirements and grazing that can often be improved with better management. Hay is more expensive than grazing but feeding hay is often an easy and convenient substitute for better grazing management. Minimizing hay needs with improved grazing management can lead to significant savings in annual cow cost of production. Data from Kansas (Dhuyvetter and Herbel) shows that feed cost (pasture and non-pasture) typically represents nearly 50 percent of total annual cost of production for beef cows. In this study using data for 2012, total feed cost averaged $487/cow. Pasture cost averaged $147/cow or just over 40 cents per cow per day on a year-round basis. Non-pasture cost, which include supplements, hay and other feed sources such as crop aftermath, made up the remaining feed cost of $340/cow or about 93 cents per cow per day. This data is not detailed enough to show the precise relationship between hay and pasture cost but the authors note that

producers who have a higher reliance on pasture and less on non-pasture feeds tend to have lower total feed costs.

This raises the question of whether there is excess hay in your operation that can be reduced with resulting cost savings. In Oklahoma, most beef cows are fed non-alfalfa hay (referred to as other hay in the data). The ratio of other hay production per beef cow provides a rough measure of hay use and some interesting changes over time. For the ten years from 2004-2013, other hay production per beef cow in Oklahoma was 2.08 tons per cow. By contrast, in the ten year period from 1974-1983, other hay production per beef cow was 0.9 tons per cow. This means that hay availability per cow has increased by 1.18 tons (2360 pounds) per cow (more than double!) over the last 35 years. There are several possibilities to explain this increase in hay use. One explanation is that cows are generally larger now and have increased feed requirements. The question of whether it makes sense to have larger cows is a different one but one that should be considered by producers. Nevertheless, larger cow size does not explain the more than doubling of hay use.

There are two other explanations for increased hay use over time; more hay is wasted and/or more hay feeding is being substituted for grazing. There is no way to know which of these is occurring but in either case it appears that feed costs can be reduced with better management. Most cow-calf operations rely on round bale technology which is easy and convenient. However, round bales require good management to avoid hay quantity and quality loss during storage and feeding. Hay loss during storage and feeding varies greatly according to feeding and weather conditions but losses in excess of 50 percent are common. On the other hand, if wastage is not the biggest problem, it may be that more hay is being fed in lieu of better grazing management to extend the grazing season. The 1.18 tons of extra hay would equate to over 90 day of extra hay feeding if it was all being used that way. I suspect that the reality in most cases is that it is some combination of hay wastage and extra feeding. Producers may not be able to do much at this point to change hay requirements for the remainder of this winter but planning now for 2014 grazing and hay management may provide cost savings in the coming year. (Source: Dhuyvetter and Herbel, "Feed costs: Pasture vs Non-pasture Costs." Agmanager.info.)

Passive Immune Status within 24 Hours of Birth and Long-term Health and Performance of Calves

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You have heard the warning: "What happens in Las Vegas, stays in Las Vegas!!!" Perhaps you have not heard: "What happens in the first 24 hours, impacts the rest of a calf's life"! Veterinary scientists, while with the USDA experiment station at Clay Center, Nebraska monitored health events and growth performance in a population of range beef calves in order to identify associations of production factors with baby calf passive immune status.

Blood samples were collected at 24 hours after calving from 263 crossbred calves to determine the amount of passive maternal immunity that had been obtained from colostrum. Colostrum is

the first milk produced by a cow upon giving birth. The baby calves were classified with "Inadequate" or "Adequate" Passive Immune status based on that blood sample at 24 hours of age. Growth performance and health events in the study population were monitored from birth to weaning, and after weaning throughout the feedlot phase.

The lowest levels of passive immunity were observed among calves that were sick or died prior to weaning. Calves with "inadequate" passive immunity had a 5.4 times greater risk of death prior to weaning, 6.4 times greater risk of being sick during the first 28 days of life, and 3.2 times greater risk of being sick any time prior to weaning when compared to calves with "adequate" passive transfer. Based on 24 hour proteins (most of which are antibodies or immunoglobulins) in the blood, the risk of being sick in the feedlot was also three times greater for "Inadequate" compared to "Adequate" calves. Passive immune status was also indirectly associated with growth rates through its effects on calf health. Sickness during the first 28 days of life was associated with a 35 pound lower expected weaning weight. Respiratory disease in the feedlot resulted in a .09 lb lower expected average daily gain.

Thus, passive immunity obtained from colostrum was an important factor determining the health of calves both pre- and post-weaning, and indirectly influenced calf growth rate during the same periods. Therefore, the cow calf producers can help themselves and the future owners of their calves, by properly growing replacement heifers, providing a good health program for cows and heifers, and providing natural or commercial colostrum replacers to calves that do not receive it in adequate quantities on their own. Remember that most of the transfer of antibodies from colostrum to the calf happens in the first 6 hours. The first day sets the stage for the rest of his life. (Source: Wittum and Perino. 1995. Amer. Jour. Of Vet. Research. 56:1149.)