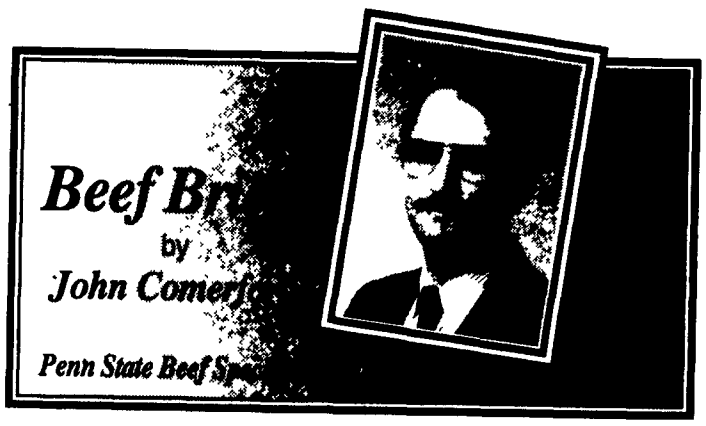

RESEARCH ROUNDUP

Hay And Corn Supplements For Wintering Beef Cows

Two trials recently have shown the value of using corn as an energy source of beef cows during the winter. We often see the circumstance where feed energy in corn may be priced more cheaply than the energy in hay. Since the cow presumably does not care where the energy comes from as long as she gets it, the corn diets may be cheaper.

Ohio workers (Leorch, et al, 1995) reported comparisons of calf productivity and cow condition scores for cows limit-fed corn with hay with cows that had ad libidum access to hay. Cows on corn diets were fed about 10 pounds of corn daily, 2.6 pounds of a protein supplement, and about 3 pounds of hay. Cows on hay only consumed 32 pounds of hay daily.

Their results indicated cows on corn gained more weight, but there was no difference in body condition score of cows or calf weaning weight for the two treatments. Feed costs per day were significantly lower for cows on corn with prices assigned at $2.00 per bushel for corn and $80 per ton for hay ($.77 vs. $1.50 per day for corn-fed and hay-fed, respectively.)

An Illinois study (Tjardes et al, 1995) compared whole and cracked corn with hay diets in a similar study. Their results showed whole corn would be just as effective as cracked corn for cows. There were also no differences in cow body condition scores, calf weaning weights, or subsequent rebreeding rates among the three treatments.

Early Weaning

An Ohio study (Johnson et al, 1995) has shown an advantage in calf gain for early-weaned beef steers. Early weaning is a useful management tool when the price of grain is relatively low, there is a restriction on forage availability for cows nursing calves, or there is a lack of milk production from cows for any reason.

Certain price and weather scenarios would encourage the use of early weaning. For example, a locally dry fall that would inhibit grass growth coupled with low grain prices would encourage weaning calves early, feeding them grain with or without pasture, and using alternative forage sources to maintain weight on cows.

The Ohio researchers found steers weaned early (100 days of age) and placed on feed gained faster and were fatter than calves that remained with their dams until normal weaning time. Heifers that were early weaned and fed a diet which would project 1.75 pounds per gain daily while on pasture until normal weaning dates actually gained 1.62 pounds daily, indicating adequate gains would require more grain than anticipated.

Our work at Penn State last year with early weaned calves showed that these calves have a relatively high energy and protein requirement if they are to grow at a rate similar to calves that remain with the cow. Our results showed that early weaned calves on high quality grass-legume pastures would gain about 1 pound daily less than calves on similar pastures with their dams.

The availability of good pasture and a feed delivery system for early weaned calves can be cost-effective when grain is priced lower and hay or grass for cows is at a premium.

Protein Source For Holstein Steers

We have been studying ways to make Holsteins more economical to feed for a number of years. A current project is investigating the role of pasture as a source of feed for growing Holstein steers and the subsequent effect on feedlot performance and carcass quality. Part of that work is comparing steers that have access to rumen bypass protein while on pasture.

The work done here by Brian House (1991) showed there was an advantage in carcass grade for steers fed bypass protein during the growing phase. Preliminary results in the current pasture study have shown this may again be true.

A study in Illinois (Hussein et. al., 1995) compared soybean meal and soybean meal + urea as protein sources, and compared 4 levels of rumen-protected methionine and lysine (amino acids that are usually limited in grain diets.) Their results indicated there was no difference in feedlot performance or carcass quality among the different protein and amino acid sources.

This implies that diets may formulated to use urea to provide part of the protein requirement, and this will usually be cheaper than when soybean meal provides all of the protein. Secondly, this also implies the advantage we have seen with rumen-bypass proteins in the growing phase on carcass quality may not be due to higher availability of certain amino acids. The reason for the advantage is not yet known.

Cattlemen's Field Day

The Pennsylvania Cattlemen's Association summer field day will be held at the Maytown Picnic Grounds in Lancaster County on Saturday, June 17.

Everyone is invited to attend.

The program will include tours of three local feedlots that are using some unique management and cost-saving practices. There will also be activities for children and tours of local attractions for those not interested in seeing the feedlots.

It will be a fun day for the whole family, so make plans now to attend. For more information, contact Joan Potter at the PCA office, (814) 692-4208.