

Introduction

Insulated calf jackets or coats have been used in the raising of young dairy calves for many years. The objective behind their use is to convert more of the calf's energy into weight gain rather than body maintenance. The intent of this study was to evaluate the use of the coats in beef operations.

Beef and dairy calves are raised differently. Beef calves are raised by their mothers usually outside in an open yard. Dairy calves are often bottle and bucket fed and housed in individual hutches. Beef calves tend to have thicker hides and hair coats than dairy calves, which may affect weight or maintenance results. Along with the potential physiological benefits of wearing the coats there maybe other practical concerns related to the differences in how the calves are raised and housed.



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EVALUATION OF CALF COAT USE IN BEEF CATTLE OPERATIONS



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Objectives

The objectives of the trial comparing calves with and without calf coats were:

- ☞ Determine possible weight gain response
- ☞ Monitor calf health conditions
- ☞ Assess the practical application of using calf coats in a beef operation

Method

The calf coat evaluation trial was conducted as an on-farm project. The coats used were the CRI (Genex) calf coats with a water repellent outer layer and an insulated quilted inner layer. The trial consisted of twenty-two calves from a commercial beef herd. Every other calf in the birth sequence wore a coat, which was put on the calf once it was dry and within twelve hours of birth. Birth dates and weights were recorded. Coats remained on the calves for four weeks. Each calf was weighed weekly for a period of eight weeks. If a coat came off a calf prior to four weeks, it was not put back on the calf and the pair was removed from the study (this occurred once). Average daily gain (ADG) was calculated on a weekly basis and for the overall eight-week trial period on each calf (Table 1.) The daily high, low and average air temperature was also recorded.

Results

The evaluation of the use of calf coats on beef cattle was done both quantitatively and qualitatively. The quantitative results determined whether there were significant weight gain differences

between the calves with coats and those without. The qualitative results were health implications and practical considerations for using coats.

The figures in Table 1 show the average daily gains (ADG) over the eight-week weigh period of calves with and without coats (2.46 lbs and 2.59 lbs respectively.) ADG between the two groups were also analyzed for differences based on air temperature and age of calf (ie. differences in ADG for 2 week old calves vs. 4 week old calves). No conclusions could be drawn across the two groups.

Since pounds of calf weaned and sold is of economic importance to the cow-calf operation, the adjusted 205 weaning weights which factors a calf's actual age in days at weaning, sex and age of dam were compared between the two groups. The calves from the no coat group had an adjusted 205 weight 10 pounds lighter than the coated calf group (no statistical difference.)

Table 1. Comparison of average daily gain (ADG) & adjusted 205 weaning weights - calves with & without coats

Item	Coat	No Coat
Overall ADG	2.46 lbs	2.59 lbs
Adjusted 205 Weaning Wts	675 lbs	665 lbs

During the course of the trial, there was no illness or health conditions with the calves; therefore no conclusions could be made about the effect of the coats on sick calves. It was observed that when it

was very cold and windy, the calves with coats appeared more comfortable than calves without coats.

Two specific areas were assessed for practical considerations of calf coat use on beef cattle operations. The first was the mother cow's acceptance of the coats. There was no incidence of cows trying to remove the coats from their calves; in fact, cows could be heard licking the coats as they tended to their calves.

Cleanliness of calves wearing coats was the second practical consideration. The trial was conducted under typical barnyard spring season conditions. The calves remained dry and the coats repelled water and did not soil easily.

Conclusion

Based on the results of this trial, there is no justification to purchasing and using calf coats for the sole purpose of enhancing calf performance and weight gain. Situations may occur during the calving season where using a coat on a sick or unthrifty calf, especially in extreme weather conditions will assist in the recovery and treatment of the calf.

