

A NOTE ON PERFORMANCE TRAITS OF CROSSBRED BEEF × DAIRY STEERS FINISHED ON FAST- AND SLOW-GAINING FEEDING REGIMES

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SUMMARY

A total of 178 castrated male cattle (steers), the progeny of Charolais, Hereford and Limousin bulls mated to Holstein-Friesian and Ayrshire cows, were raised from 8 months of age to 545 kg (slaughter weight) on fast- or slow-gaining regimes. The steers on the fast-gaining regime were fed a grain mixture with little hay, while those on the slow-gaining regime grazed all summer and were wintered on hay supplemented with a little grain.

The steers on the fast-gaining regime were more efficient in feed conversion ratio, had 0.42 kg per day higher live-weight gain, reached slaughter weight 306 days earlier, and had 2% higher dressing-out percentage, 5.7 mm thicker fat and 5 cm² larger area of *m. longissimus thoracis* than those on the slow-gaining regime.

Charolais-sired steers on both regimes had the fastest gain and were the first to reach slaughter weight. Limousin-sired steers raised on the fast-gaining regime had the highest dressing-out percentage, and the largest area of *m. longissimus thoracis* on both regimes. Hereford-sired steers had the thickest fat cover and the smallest area of *m. longissimus thoracis*. Little difference was found between the steers from Holstein and Ayrshire cows.

THERE is little information on the relative performance of different breeds for producing beef × dairy crossbreds for beef production, particularly under different environmental and management conditions. Relevant studies include a comparison of Charolais with Friesian and Hereford bulls mated to Friesian cows (Smith and Boyd, 1964) and of Charolais and Hereford bulls mated to Friesian and Ayrshire cows (Smith, 1965).

The purpose of the present study was to compare the performance of steers of six different beef × dairy crosses finished to market weight (545 kg) on 'fast' v. 'slow-gaining' feeding regimes.

The data came from 178 crossbred male calves, the progeny of Charolais, Hereford and Limousin males mated to Holstein-Friesian and Ayrshire females. The calves were purchased locally in the spring of 1971, and transported to the station at 3 to 10 days of age. For the first 6 weeks, they were fed whole milk *ad libitum* with access to good quality hay and a veal starter (20% crude protein, 2.5% fat, and 9.0% carbohydrate). After 42 days of age and up to the age of 4 months, the daily intake of veal starter was to a maximum of 1.8 kg per head, while hay was given free choice. After 4 months, the veal starter was changed to a calf grower (15% crude protein, 2.5% fat and 9.0% carbohydrate) and fed at the same daily intake (1.8 kg