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*Summary only*

BEEF PRODUCTION WITH FRIESIAN AND  
FRIESIAN-CROSS CATTLE

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RESEARCH and commercial farming practice have indicated that stock of dairy origin can be profitably utilized for beef production. Work at Lincoln in this field has centred on the performance of Friesian steers as compared with crosses from Friesian cows and by sires of beef breeds.

1965-7 TRIAL

A study was made of the growth rate and carcass characteristics of Friesian and of Hereford-Friesian cross steers, reared and grazed together under similar conditions and killed on the same date. Following weaning from milk at 8 weeks of age, post-weaning feeding consisted of pasture supplemented by hay only throughout the winter period of 120 days. The cattle were weighed at birth, weaning and at approximately two-monthly intervals thereafter until slaughter at 20 months of age. One side of each carcass was boned, and the cuts trimmed and weighed.

The cattle considered here were in two groups—the first born in the autumn of 1965 and slaughtered in spring, 1966, and the second born in spring 1965 and slaughtered in May, 1967. The second group suffered the disadvantage of a prolonged drought throughout the summer and autumn of 1966-7, and the growth rate suffered accordingly. A summary of the more important results from the trial, is given in Table 1. These results show that the Friesians had a superior growth rate without any loss in carcass grade or yield of trimmed cuts of meat.

1966-8 TRIAL

Currently, Friesian steers are being compared with Jersey-Friesian and Charolais-Friesian crossbred steers and with Aberdeen Angus and with Hereford stock. All were born in spring 1966, and will be slaughtered when 20 months old, in March 1968. Table 2 presents data for growth rates of the animals.

TABLE 1: SUMMARY OF DATA FOR CATTLE IN 1965-7 TRIALS

|                                      | <i>Group 1</i>     |   | <i>Group 2</i>     |   |
|--------------------------------------|--------------------|---|--------------------|---|
|                                      | <i>Friesian</i>    | <i>Hereford</i><br>×<br><i>Friesian</i> | <i>Friesian</i>    | <i>Hereford</i><br>×<br><i>Friesian</i> |
| Number of steers ....                | 5                  | 7                                       | 4                  | 4                                       |
| Liveweight at slaughter<br>(lb) .... | 1,165              | 1,131                                   | 1,083              | 933                                     |
| Average daily gain (lb) ....         | 1.92               | 1.83                                    | 1.69               | 1.47                                    |
| Carcass weight (lb) ....             | 651                | 634                                     | 527                | 457                                     |
| Carcass grade ....                   | All prime export   |   | All prime export   |   |
| Dressing % ....                      | 55.80              | 55.99                                   | 48.7               | 49.0                                    |
| Kidney and channel fat<br>(lb) ....  | 16.25              | 12.56                                   | 8.75               | 3.77                                    |
| Trimmed cuts % ....                  | 61.26              | 60.97                                   | 62.94              | 62.99                                   |
| Trimmed fat % ....                   | 17.70              | 17.68                                   | 11.17              | 11.97                                   |
| Bone % ....                          | 20.73              | 21.14                                   | 25.85              | 25.04                                   |
| Depth fat over ribeye<br>(mm) ....   | 8.0                | 15.0                                    | 2.6                | 4.4                                     |
| Ribeye area (sq. in.) ....           | 8.34               | 10.62                                   | 6.80               | 7.61                                    |
| Fat colour ....                      | Slightly<br>yellow | White                                   | Slightly<br>yellow | White                                   |

The apparently low average birthweight for the Charolais-Friesian cross steers is due to the inclusion of a set of twins. With these excluded, the Charolais-cross animals averaged 97 lb liveweight at birth.

Caution must be used in interpreting these results because inevitably in a trial of this kind, where nurse-reared calves are compared with bucket-reared calves, the rearing system used confuses the breed differences involved.

TABLE 2: COMPARISON OF GROWTH RATES OF CATTLE IN  
1966-8 TRIAL

| <i>Date of Weighing</i> | <i>Friesian</i> |                | <i>Jersey × Friesian</i> |               | <i>Charolais × Friesian</i> |               | <i>Hereford</i> |               | <i>Aberdeen Angus</i> |               |
|-------------------------|-----------------|----------------|--------------------------|---------------|-----------------------------|---------------|-----------------|---------------|-----------------------|---------------|
|                         | <i>Wt.</i>      | <i>A.D.G.*</i> | <i>Wt.</i>               | <i>A.D.G.</i> | <i>Wt.</i>                  | <i>A.D.G.</i> | <i>Wt.</i>      | <i>A.D.G.</i> | <i>Wt.</i>            | <i>A.D.G.</i> |
| Birth                   | 94              | —              | 76                       | —             | 82                          | —             | —               | —             | —                     | —             |
| 3.2.67                  | 233             | —              | 192                      | —             | 238                         | —             | 301             | —             | 389                   | —             |
| 20.6.67                 | 354             | 1.14           | 318                      | 1.19          | 353                         | 1.08          | 378             | 0.73          | 454                   | 0.61          |
| 29.9.67                 | 480             | 1.19           | 418                      | 1.09          | 478                         | 1.16          | 458             | 0.76          | 566                   | 0.86          |
| 21.12.67                | 756             | 1.80           | 663                      | 1.62          | 760                         | 1.80          | 725             | 1.43          | 815                   | 1.47          |

\*A.D.G. = Average daily gain from weaning.