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Summary Only

A COMPARISON BETWEEN FRIESIAN, JERSEY, AND
FRIESIAN-JERSEY CROSS STEERS

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AN ACCOUNT was given of the collection of 6- to 7-day-old calves from 45 dairy farms and their rearing together in one commercial unit at Moerewa, Northland. The numbers of male calves collected were 105 Friesians, 63 Jerseys and 106 Friesian-Jersey first cross. The calves were raised on a diet of reconstituted buttermilk powder, fed twice daily until the animals were 5 to 6 weeks old. They were then fed once daily until weaning when the average weights and ages of the groups were, respectively: 149 lb, 65 days (Friesian); 119 lb, 67 days (Jersey); 139 lb, 73 days (Friesian-Jersey cross). Except for the first two days at the rearing unit, the calves were grazed on pasture. Death losses to weaning amounted to 9%, and 5.8% from weaning to May 18, 1966, when the calves were 8 to 9 months old.

The liveweight growth of the animals to approximately two years of age was discussed. A sample of the 10 heaviest steers of each breed group was slaughtered at 22 to 23 months of age on June 30, 1967. The Friesian steers in this sample were 6.8% heavier in liveweight than the Friesian-Jersey cross steers and 33.4% heavier than the Jersey steers. The liveweight gain per day of age was 1.49 lb, 1.13 lb and 1.39 lb for the Friesian (mean age at slaughter, 688 days), Jersey (mean age at slaughter, 592 days), and Friesian-Jersey cross steers (mean age at slaughter, 688 days), respectively. These differences in liveweight gain per day of age were significant between groups.

The Friesian carcasses had a mean chilled weight of 532.6 lb, the Jersey carcasses 399.9 lb, and the Friesian-Jersey cross carcasses 497.5 lb. Carcass weight per day of age for these groups, respectively, was 0.77 lb, 0.58 lb, and 0.72 lb. These differences were highly significant. The export grading of the carcasses favoured the Friesians and this, together with their heavier carcasses, gave them an average monetary advantage of \$9.42 over the average Friesian-Jersey cross carcass and \$32.36 over the average Jersey carcass.

The proportional composition of boneless, trimmed meat, fat trimmings, and bone in the carcass side did not differ between breed groups. However, the proportion of hindquarter trimmed, boneless meat to total meat of the side was found to be significantly lower by 1.1% for the Jersey group compared with the Friesians. The boneless, trimmed meat production per day of age was highly significantly different between groups at 0.52 lb, 0.37 lb and 0.48 lb for the Friesian, Jersey, and Friesian-Jersey cross groups, respectively. The ribeye area per 100 lb carcass weight was 1.7 sq. in., 2.0 sq. in., and 1.8 sq. in. for the Friesian, Jersey, and Friesian-Jersey cross groups, respectively. In this parameter, the Jersey group was significantly different from the other two groups.

When fat colour was subjectively appraised on the "hot" carcasses, it was found that the Jersey carcasses were more yellow than those in the other two groups but some carcasses in the Friesian-Jersey group were also yellow. Much of the intensity of colour was lost when the carcasses were appraised following a 48 hr chill.

The kidney and channel fats were greater proportionately and absolutely in the Jersey group. These two fat depots in the Jersey and Friesian-Jersey groups were significantly heavier in the right side than the left side of the carcasses.

From the results obtained in this preliminary trial, it was concluded that the Friesian and Friesian-Jersey cross cattle are satisfactory for beef production in terms of their rate of liveweight growth and carcass characteristics. The Jersey steers, on the other hand, grew too slowly, and, when slaughtered before the age of two years, their carcasses were too light and more were graded boner because of yellow coloured fat. Confirmation of the above findings must wait the collection and analysis of further data to be obtained on a sample of the remaining cattle when these are slaughtered at about 34 to 35 months of age.