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REPRODUCTIVE EFFICIENCY IN TWENTY TOWN SUPPLY DAIRY HERDS

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Breeding and production data were collected for 20 town supply dairy herds in the Wellington-Hawke's Bay Livestock Improvement Association area. Herd size ranged from 75 to 300 cows. There were 12 056 calvings recorded, involving 4 050 cows, predominantly of the Friesian breed, between 1 January 1972 and 31 October 1976.

Calving interval, calving to 1st service interval, 1st service to conception interval (conception in this instance resulting in a calving), interservice interval, calving rate to 1st service and services per cow calving were 384, 85, 11 and 43 days, 51%, and 1.7, respectively, for the pooled population. The mean milk yield was 3 730 litres/cow, and the mean lactation length 291 days. Age, herd, season within the year and year had highly significant effects on reproductive performance, although the amount of variation that could be explained by these variables was small.

Reproductive performance was most efficient during the spring, irrespective of whether the cows calved and/or were bred at that time. The younger cows (2-year-olds), which make up a relatively high proportion of the herd, were the poorest performers. Days from calving to 1st service and from 1st service to conception accounted for 39 and 45% of the variation in calving intervals, respectively. A high incidence of cows (25%) returning to 1st service at more than 49 days after breeding was found.

It was concluded that the introduction of simple management procedures (*e.g.*, breeding each cow 46 to 66 days *post partum*, improving heat-detection techniques, routine pregnancy testing of all cows 6 to 8 weeks after they are bred), together with attention to the nutritional needs of the different groups making up the herd, would allow an economically desirable calving interval of 365 days to be achieved.

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