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Summary only

OBSERVATIONS ON THE FERTILITY OF THE TWO-TOOTH NEW ZEALAND ROMNEY EWE

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AN ACCOUNT was given of within-flock comparisons of lambing percentages of 2-tooth and 4-tooth ewes from several experimental flocks at Whatawhata and Ruakura Research Stations. Within each flock, whether well- or poorly-fed, randomly bred or selected for or against fertility, the youngest sheep showed the lowest lambing percentages.

Series of observations were made to determine the reasons for the lower lambing percentages of 2-tooth sheep. It appeared that ovulation rate was lower in 2-tooths than in older sheep, and that fertilization rate did not differ greatly. The majority of the 2-tooth ewes that returned to oestrus after mating had a normal cycle length, although a proportion had extended cycle lengths, suggesting embryonic death after day 12 of the cycle.

The effects of pre-mating shearing on the fertility of 2-tooth sheep was reviewed. It appears that shearing 2-tooth ewes (under specific conditions of liveweight and nutrition) made their pattern of reproductive performance similar to that of older sheep. Shearing in some way probably increased the chances of survival of fertilized eggs.

Preliminary observations were also made on an association between maximum ambient temperature on the day of mating and the conception rate in shorn and unshorn 2-tooth ewes. The findings were discussed in relation to published information on the effects of temperature and fertility. A possible explanation for the increase in fertility of shorn 2-tooth ewes due to removal of heat stress by shearing was suggested.

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