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Summary only

AGE AT PUBERTY, LENGTH OF BREEDING SEASON
AND OVULATION RATE IN ROMNEY MARSH AND
BORDER LEICESTER X ROMNEY MARSH HOGGETS

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RADDLED vasectomized rams were joined with a combined flock of Romney Marsh and Border Leicester \times Romney Marsh hoggets ($F_1 = \text{BL } \delta \times \text{RM } \text{♀}$; $F_2 = F_1 \delta \times F_1 \text{♀}$; $F_3 = F_1 \delta \times F_2 \text{♀}$) on March 29, in 1965 and 1966, and their oestrous behaviour recorded. Following pubertal oestrus (animals in 1966 only) the genital tract was briefly exposed through an abdominal incision and the number of corpora lutea on each ovary counted.

Preliminary results show that in both years oestrous activity commenced in early April, abating in late July, with a peak of activity in May. The number of oestrous cycles per animal for each year was greater in the crossbreds (range, 0-7 cycles) than in the Romney hoggets (range, 0-5 cycles). Of the ewe hoggets not exhibiting oestrus in 1966, 45% were Romneys and 21, 34 and 36% were F_1 , F_2 and F_3 crossbreds, respectively. For the previous year the figures were Romney, 37%; F_1 , 27%; F_2 , 23%; and F_3 , 43%. Animals exhibiting oestrus, when measured from a mid-point in the breeding season (day 132) tended to be heavier than animals not showing oestrus. Of the hoggets showing oestrus there was little difference between groups within years in the estimated mean age at first oestrus, although this was only determined to an accuracy of ± 7 days. The age of hoggets at puberty in each year was: 1965, 247 days; 1966, 256 days. Within groups the range in age at first oestrus was of the order of 100 days. Mean liveweight at first oestrus tended to be constant between years at 73 lb.

Mean ovulation rates at first oestrus were Romney Marsh 1.10 and for the respective crossbreds F_1 , 1.16; F_2 , 1.26; F_3 , 1.26. Arbitrarily dividing the breeding season into periods of 14 days revealed a tendency for multiple ovulations to occur more frequently in ewe hoggets reaching puberty early in the breeding season. Larger numbers of animals are needed to clarify this situation.