

## New Zealand Society of Animal Production online archive

This paper is from the New Zealand Society for Animal Production online archive. NZSAP holds a regular annual conference in June or July each year for the presentation of technical and applied topics in animal production. NZSAP plays an important role as a forum fostering research in all areas of animal production including production systems, nutrition, meat science, animal welfare, wool science, animal breeding and genetics.

An invitation is extended to all those involved in the field of animal production to apply for membership of the New Zealand Society of Animal Production at our website [www.nzsap.org.nz](http://www.nzsap.org.nz)

[View All Proceedings](#)

[Next Conference](#)

[Join NZSAP](#)

The New Zealand Society of Animal Production in publishing the conference proceedings is engaged in disseminating information, not rendering professional advice or services. The views expressed herein do not necessarily represent the views of the New Zealand Society of Animal Production and the New Zealand Society of Animal Production expressly disclaims any form of liability with respect to anything done or omitted to be done in reliance upon the contents of these proceedings.

This work is licensed under a [Creative Commons Attribution-NonCommercial-NoDerivatives 4.0 International License](http://creativecommons.org/licenses/by-nc-nd/4.0/).



You are free to:

**Share**— copy and redistribute the material in any medium or format

Under the following terms:

**Attribution** — You must give [appropriate credit](#), provide a link to the license, and [indicate if changes were made](#). You may do so in any reasonable manner, but not in any way that suggests the licensor endorses you or your use.

**NonCommercial** — You may not use the material for [commercial purposes](#).

**NoDerivatives** — If you [remix, transform, or build upon](#) the material, you may not distribute the modified material.

<http://creativecommons.org.nz/licences/licences-explained/>

*Summary only*

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

D. R. LANG AND G. K. HIGHT

*Ruakura Agricultural Research Centre, Hamilton*

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  $\pm 7$  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.