

## ABSTRACT

The 12 Merino ewes studied involved a control group of 3 non-pregnant, non-lactating ewes (group 1) and 3 groups comprising ewes that were 2, 4 and 8 wk *post partum* resp. All ewes were treated with a daily injection of 10 mg progesterone for 13 days, followed on day 14 by 1000 IU PMSG. All ewes were inseminated 54 h after PMSG injection, regardless of whether they showed signs of oestrus. Laparotomy was performed 4 days after AI. In the 4 groups resp., the number of ewes showing oestrus was 3, 2, 1 and 2, and the av. interval from PMSG injection to the onset of oestrus 44, 42, 48 and 45 h; the mean number of corpora lutea per ewe was 4.0, 3.7, 2.3 and 3.3, and the mean diameter of the corpus luteum 0.8, 0.4, 0.3 and 0.6 cm ( $P<0.05$ ). Plasma progesterone concentrations averagee 0.5, 0.4, 0.4 and 0.3 ng/ml resp. on day 0 of the oestrous cycle, 3.6, 1.7, 1.5 and 2.1 ng/ml on day 6 ( $P<0.05$ ), and 6.6, 2.5, 2.8 and 3.3 ng/ml on day 11 ( $P<0.05$ ). In the 4 groups, the total number of ova recovered was 9, 7, 5 and 8 resp., and the number of fertilized ova recovered 6, 0, 0 and 0.