

OESTRUS AND OVULATION FOLLOWING LUTEOLYSIS BY PROSTAGLANDIN ANALOGUE IN SHEEP OF FOUR BREEDS OF DIFFERENT PROLIFICACY. — B. M. BINDON, M. R. BLANC, J. PELLETIER, M. TERQUI, J. THIMONIER. *I. N. R. A., Nouzilly (France)*.

Prostaglandin analogue (ICI 80996) was administered (100 µg IM) on day 10 or 11 of the oestrous cycle in 8 *Romanov* (*R*), 10 *Romanov* × *Prealpes* (*R* × *P*), 8 *Prealpes* (*P*), 8 *Ile-de-France* (*IF*) ewes. Ovulation rate before treatment was 2.9 (*R*), 2.9 (*R* × *P*), 1.7 (*P*) and 1.5 (*IF*). The mean ovulation rate in the induced cycle was not significantly different from that in the cycle before treatment (*R* = 2.7; *R* × *P* = 2.4; *P* = 2.0; *IF* = 1.6). Delay (hr) between PG injection and onset of oestrus was significantly ($P < 0.01$) shorter in the *Romanov* than in the other genotypes *R* = 36 (range = 34-40); *R* × *P* = 43 (38-52); *P* = 43 (32-50); *IF* = 44 (36-54). Mean duration of oestrus (hr) was longer in the breed of high prolificacy (*R* = 53; *R* × *P* = 45; *P* = 39; *IF* = 31); this was also the case in the cycle before PG treatment.

It appears that luteolysis induced by this dosage of PG analogue is equally effective in animals with 1, 2 or 3 corpora lutea; but it is also evident that the delay between injection and onset of oestrus can be breed dependent.

THE USE OF GONADOTROPHIN RELEASING HORMONE (GnRH) ASSOCIATED WITH PROGESTAGEN FOR INDUCING OESTRUS IN SUCKLING COWS. — F. DELETANG. *U. N. C. E. I. A., Maisons-Alfort (France)*.

Oestrus was induced in 180 suckling cows in *post partum* anoestrus by progestagen treatment (SC 21009, 6 or 12 mg by implant) during 10 days.

The first group (100 cows) was injected subsequently with PMSG (700 UI) and the second group (80 cows) with GnRH (0.25 mg).

35 cows in group I and 36 in group II were inseminated on exhibiting oestrus. The remaining cows were systematically inseminated 48 and 72 hours after removal of the implant.

While the synchronization was better after PMSG (91.4 p. 100 vs 69.4 p. 100), fertility data (respectively 39.0 p. 100 vs 50.0 p. 100 after insemination on exhibiting oestrus) are too scarce to permit a definitive conclusion.

The fertility after systematic insemination was similar in both cases (44.6 p. 100 and 43.1 p. 100).

FERTILITY OF FRIESIAN CATTLE INSEMINATED AT PREDEFINED TIMES AFTER LUTEOLYSIS WITH PROSTAGLANDIN ANALOGUE ICI 80996.

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Sixty-nine heifers were given luteolytic doses of ICI 80996; 90 p. 100 showed oestrus 2-4 days later. All were inseminated (AI) 72 h, or 72 h and 96 h, after the prostaglandin treatment. Fertility was near to normal.

Lactating cows, three groups of 40 respectively 6, 9 and 12 weeks after calving, were each given two doses of ICI 80996 at an interval of 11 days and inseminated 72 h after the second. From plasma progesterone levels 87 p. 100 may have been in the normal pre-ovulatory state on the day of AI and 52 p. 100 pregnant 21 days later.