SYNCHRONIZATION OF OESTRUS
IN COWS USING INTRAVAGINAL SILASTIC
COILS CONTAINING PROGESTERONE

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Progesterone, given by silastic implant or pessary for 18 or 20 days will synchro-
nize oestrus but fertility to AI at the controlled heat is lower than normal (SREENAN,
1972; ROCHE, 1974 a). Reducing the period of administration of progesterone down
to 10 days by giving an injection of 5 mg oestradiol benzoate at time of insertion of
implants, increased fertility but less heifers showed a synchronized heat (ROCHE,
1974 b). Injecting 50 mg of progesterone with the 5 mg oestradiol benzoate given at
time of insertion of implants increased the oestrous response to a 10-day progesterone
treatment without affecting fertility (ROCHE, 1974 b). To facilitate large scale farm
trials, intravaginal silastic coils consisting of stainless steel strips coated in silastic
rubber were impregnated with progesterone. Both retention rate and synchronizing
efficiency were high.

Farm trials were conducted using silastic coils for 12 days with an injection of
5 mg oestradiol benzoate and 50 mg progesterone given at time of insertion of coils.
Of 367 Friesian dairy cows treated, coils were retained in 340. Of these 340 cows,
310 were observed in oestrus 2 to 6 days post-removal of the coils and were insemi-
nated once with frozen semen. Fertility, based on pregnancy diagnosis or on 150-day
non-return rates, was not different between treated and similar control cows in the
same herds.

Injecting 100 μg GnRH (Abbott Labs) 30 hours after removal of the silastic
coils following the 12-day progesterone treatment resulted in 66 p. 100 of animals
ovulating 30 hours post GnRH while 90 p. 100 had ovulated at 35 hours post GnRH.
Fertility, following a fixed time insemination at 48 hours with GnRH or at 56 and
74 hours without GnRH is not significantly different from controls. Thus, it appears
that silastic coils impregnated with progesterone and inserted for 12 days with the
oestrogen-progesterone injection given at time of insertion, give high synchroniza-
tion rate, result in normal fertility and will allow animals to be inseminated on a
fixed time basis with or without GnRH.
SYNCHRONISATION DE L’OESTRUS CHEZ LA VACHE GRACE A UN SERPENTIN DE SILASTIQUE CONTENANT DE LA PROGESTÉRONE

Sur 340 vaches, on a obtenu une fertilité normale et une bonne synchronisation des oestrus (91 p. 100 en 4 jours), en injectant 5 mg de benzoate d’estradiol et 50 mg de progestérone le jour de la mise en place vaginale d’un serpentin de silastique imprégné de progestérone qu’on retire 12 jours plus tard.

REFERENCES

