

LONG-TERM SUPPRESSION OF OESTRUS IN COWS
USING A SINGLE INJECTION OF MEDROXYPROGESTERONE ACETATE

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Poor and seasonal nutrition of cattle in the harsh environment of the North of Western Australia is often incapable of supporting lactating cows and their calves unless the cow has had time to build up reserves for the next lactation. This problem is exacerbated in heifers and cows suckling their first calf, which need to grow as well as lactate. Therefore a simple means of preventing or delaying pregnancy would assist the long-term performance, or often the survival, of cattle in the region. Nevertheless such a technique must not impair fertility, must be suited to the management practices used in the area and ideally should involve little labour or financial cost.

Medroxyprogesterone Acetate (Promone-E; Upjohn) has been reported to suppress oestrus successfully in heifers. A single subcutaneous injection of 150 mg Promone-E prevented oestrus in Aberdeen Angus heifers for the 120 day duration of the experiment (Arano and Arano 1980).

An experiment using pregnant Shorthorn type cows from the north of Western Australia was conducted to determine the effect of dose of Promone-E on the duration of suppression of oestrus and on subsequent fertility. Cows were allocated to one of the three treatment groups (0, 100 or 200 mg Promone-E). Single subcutaneous injections of Promone-E were given after the first post-partum oestrus and the animals were then run with a fertile bull. Oestrus was determined by daily inspection and by the techniques of chin-ball harness and tail painting. Pregnancy was confirmed by rectal palpation on day 50 to 60 after service. The effectiveness of the treatment was measured by the length of the interval between the first and subsequent oestrus. Results are given in the table.

Effect of dose of Promone-E on the interval between the first and second oestrus post-partum (means \pm S.E.)

Group	No. of Animals	Interval between oestrous periods (days)
Control	15	20.0 \pm 0.6
100 mg Promone-E	12	67.8 \pm 3.5
200 mg Promone-E	12	112.8 \pm 9.3

It is clear that Promone-E is highly effective in delaying oestrus in lactating cows. Furthermore the treatment has no effect on the subsequent fertility of the cows as all the treated cows were pregnant - 67% from first oestrus, 21% from second oestrus and 12% from third oestrus.

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ARANO, A. and ARANO, E. (1980). Technical Report Agric. Res. Development Lab. The Upjohn Co.

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