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## Summary only

# OESTROGENIC ACTIVITY IN NEW ZEALAND PASTURES AND SOME EFFECTS OF OESTROGEN INJECTIONS ON MASTITIS AND FERTILITY

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THE OCCURRENCE of oestrogenic activity in New Zealand pasture species and the techniques of bioassay of oestrogenic pastures were reviewed. Following the report of oestrogenic activity in New Zealand ryegrass and white clover (Brookbanks *et al.*, 1969) the cervical mucus assay in ovariectomized ewes (Lindsay and Francis, 1968) was used in an attempt to detect the presence of oestrogenic activity in pasture samples. The assay method was found to be unsatisfactory because of the number of false positive results which were recorded in untreated ewes.

Some observations on the effects of oestrogen injections on mastitis in cattle and oestrous cycle length in sheep and cattle were presented to indicate possible symptoms in animals grazing pasture with oestrogenic activity. Injections of 20 mg stilboestrol each day for three days into 24 cows caused clinical mastitis in six. When the injections were repeated a fortnight later, six cows again showed clinical mastitis. Only two of the cows showed clinical mastitis after both treatments. In sheep (Tervit and Welch, 1970) it was found that, depending on the amount of stilboestrol injected and the stage of the oestrous cycle when it was injected, stilboestrol either shortened or lengthened the cycle. Cows injected with 40 µg oestradiol on days 2 or 3; 10 or 11; 17 or 18 of the oestrous cycle showed no disturbance in behavioural oestrus, cycle length or ovarian structures.

## REFERENCES

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