

ABSTRACT

THE EFFECTS OF PHYTOESTROGEN CONSUMPTION ON CATTLE REPRODUCTION

Naturally occurring plant estrogens called phytoestrogens have been implicated in livestock reproductive problems. The objective of this thesis was to explore the effects of the consumption of phytoestrogenic clover on the reproductive performance of 80 yearling beef heifers. Heifers were separated into either a clover pasture or a control pasture. Additionally, half of the heifers in each pasture were synchronized with a controlled internal drug releasing (CIDR) device with progesterone and gonadotropin-releasing hormone (GnRH). Upon detection of estrus, heifers were artificially inseminated and placed into a third non-phytoestrogenic pasture. Monitored reproductive traits for all groups were similar, however, recorded numerical differences indicated lower estrous response but a high pregnancy rate in phytoestrogen exposed females. Also, heifers synchronized with CIDR + GnRH had higher estrous responses but lower pregnancy rates. Therefore the effects of phytoestrogenic consumption on reproduction could not be substantiated.

Key Words: Phytoestrogens, Reproduction, Synchronization, CIDR

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