Kansas Agricultural Experiment Station Research Reports

Volume 0
Issue 1 *Cattleman's Day (1993-2014)*

Article 1108

1983

Comparison of two testosterone treatments for heat detector cows (1983)

M.D. Heekin

G.H. Kiracofe

Comparison of Two Testosterone Treatments for Heat Detector Cows

M.D. Heekin and G.H. Kiracofe

Summary

Testosterone propionate and testosterone enanthate treated cows were equally effective as heat detectors but the testosterone enanthate treatment required at least 9 fewer injections and less time from first injection until the cow was active as a detector.

Introduction

Cows in heat can be missed during regularly scheduled heat observations due to large pasture size, short daylight, and high frequency of mounting between midnight and six a.m. Detector animals can detect cows in heat that would otherwise be missed.

Testosterone treated cows are generally more active, mount more often, have more libido, and maintain their libido longer than gomer bulls. Cull cows are also more readily available, safer, easier and less expensive to prepare than gomer bulls.

Previous KSU Cattlemen's Day reports (Laaser, 1977 and 1978) have shown the effectiveness of treating cows with testosterone propionate. Testosterone enanthate has been shown to be effective for preparing detector cows. Our research compared the effectiveness of the two testosterone forms.

Experimental Procedure

Eight cull open Hereford cows (four per year) were prepared with 10 injections of 200 mg of testosterone propionate every other day for 20 days, then maintained during heat detection with 200 mg testosterone propionate every 7 to 10 days. Eight more cows (four per year) were prepared with 2 gm testosterone enanthate (.5 gm intramuscularly and 1.5 gm subcutaneously in two locations) 3 days before use, then maintained with .5 to .75 gm of testosterone enanthate subcutaneously every 10 days to 2 weeks.

One testosterone propionate and one testosterone enanthate treated cow, with different color of dye in their chinball marker, was placed in each pasture. The number of cows marked by each testosterone treatment, or marked by both, was recorded. All cows were checked at least once a day.

Results

Three hundred and seventy-one markings were recorded over 2 years. The number of cows found in heat was almost identical between the testosterone propionate and the testosterone enanthate cows.

Testosterone enanthate saved time and labor and is now available[1] and ready to use at lower cost per cow than testosterone propionate. Both hormones are available by prescription only from a veterinarian as an "extra-label" use.

Proper management of testosterone-treated cows is vital. Select cows at least three years old or older in moderate to good condition. Use cows with sound feet and legs, with no prolapse history, and gentle enough to handle regularly. One testosterone treated cow can detect heat in 30 cows, during continuous use. More than one cow can be used in a pasture, but they will mount each other when no other cows are in heat.

Testosterone treated cows will show dominance over nontreated cows, but treated cows maintain a social relationship among themselves. Occasionally one treated cow will dominate another treated cow when paired together. The subordinate cow may not mount as often unless she is placed by herself. Treated heifers do not perform as well as mature cows, especially when paired with an older cow. Check detector cows frequently for soundness and chinball marker retention and operation. We found markers with leather straps more durable and less abrasive to the cow than those with nylon straps.

An additional use of testosterone treated cows is for artificial insemination practice, but avoid exposing them to bulls since some of them remain fertile.

[1]Henry Schein, Inc., Port Washington, NY.