Implant Comparisons in Grazing and Finishing Spayed Heifers[1]

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Summary

Heifers that were flank-spayed plus rumen-ovarian autografted (FS+A) responded similarly to Ralgro®, Synovex-H®, and Synovex-S® implants on pasture. Grazing heifers spayed by the Kimberling-Rupp technique also responded similarly to Synovex-H and Synovex-S implants.

During the finishing phase, heifers implanted with Synovex-S gained 5.7% faster than heifers implanted with Ralgro, and those implanted with Synovex-H were intermediate in performance. There was no statistical interaction between spaying method and implant treatment during either the grazing or finishing phases.

Introduction

Previous research has shown that spayed heifers must be implanted in order to maintain acceptable grazing and finishing performance. Little research has been reported on the use of Synovex-S® implants in spayed heifers. This trial was conducted to compare the pasture and feedlot performance of spayed heifers implanted with Synovex-S®, Synovex-H®, and Ralgro®.

Experimental Procedures

One hundred and fifty-six mixed breed heifers averaging 378 lbs were randomly allotted by breed type in an incomplete block design to two spaying treatments, Kimberling-Rupp (K-R) or flank spay plus rumen-ovarian autograft (FS+A), and to three pasture implant treatments: Ralgro, Synovex-H, or Synovex-S. The incomplete design did not include K-R spayed heifers implanted with Ralgro. All heifers were individually identified and weighed before grazing native pasture in Clark County for 156 days.

At the end of the grazing season, all heifers were hauled approximately 110 miles to a commercial feedyard and individually weighed. At this time, the heifers were reallotted by breed type to three finishing implant treatments (Ralgro, Synovex-H, and Synovex-S) within each spaying method and previous grazing

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implant treatment, such that one-third of the heifers in each grazing implant group received Ralgro, Synovex-H, or Synovex-S. Cattle were implanted only once at the beginning of the finishing period.

All heifers were fed in the same pen and handled similarly. Following a 143-day feeding period, all heifers were slaughtered. Individual carcass weight divided by the group dressing percentage (64.0%) was used to estimate individual live slaughter weight.

All data were evaluated by Analysis of Covariance to remove effects of initial weight variation.

Results and Discussion

Comparative performance of heifers spayed by the two methods can be found in a companion paper on page 77 of this publication.

Pasture gains of the FS+A spayed heifers implanted with Ralgro, Synovex-H and Synovex-S are shown in Table 24.1. There were no differences in heifer gains among the implant treatments.

There was no statistical interaction between spaying method (K-R and FS+A) and implant (Synovex-H and Synovex-S) during the grazing phase. Therefore, the data were combined across spaying treatments and are shown in Table 24.2. No gain difference was found between the Synovex-H and Synovex-S implanted heifers spayed by the K-R and FS+A techniques.

Similarly, the interaction between spaying method and implant treatment was not significant during the finishing phase, so the data were combined and are reported in Table 24.3. Synovex-S implanted, spayed heifers gained 5.7% faster (P=.13) than those implanted with Ralgro. Synovex-H implanted, spayed heifers were intermediate in gain between those implanted with Ralgro and Synovex-S.

Table 24.1. Grazing Performance of Flank-Spayed + Autografted Heifers Implanted with Ralgro, Synovex-H or Synovex-S

Item	Ralgro	Synovex-H	Synovex-S
No. Heifers	34	35	38
Initial Wt., lb	370	359	374
Final Wt., lb	588	567	594
Daily Gain, lb	1.39	1.33	1.40

Table 24.2. Grazing Performance of Spayed Heifers Implanted With Synovex-H or Synovex-S

Item	Synovex-H	Synovex-S
No. Heifers	67	70
Initial Wt., lb	376	380
Final Wt., lb	585	596
Daily Gain, lb	1.34	1.38

Table 24.3. Feedlot Performance of Spayed Heifers Implanted With Ralgro, Synovex-H or Synovex-S

Item	Ralgro	Synovex-H	Synovex-S
No. Heifers	58	52	46
Initial Wt., lb	590	596	588
Final Wt., lb	965	983	986
Daily Gain, lb	2.63[a]	2.70[ab]	2.78[b]

[ab]Means not sharing a common superscript are different (P=.13).