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Effect of Lasalocid on the Sexual Development of Beef Heifers

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Larry Corah and Jack Riley

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Summary

Lasalocid (Bovatec®) improved daily gain of replacement heifers by .20 lb per day and reduced the time to first heat in heifers fed on a lower level of energy, but had no significant affect in the higher energy group. Feeding Lasalocid did not affect conception rates.

Introduction

Use of Lasalocid in stocker and feedlot cattle diets has improved daily gain and feed efficiency. No research data are available on the effect of Lasalocid fed to replacement heifers from weaning until breeding as yearlings. This study was conducted to determine the effect of Lasalocid fed in two energy levels on sexual development of replacement heifers.

Experimental Procedure

One hundred twenty Angus and Angus X Hereford heifers, born February to April, 1981, were allotted randomly by weight to the following four treatments:

1. Control - fed to gain approximately .75 pound/day (low energy)
2. Control - fed to gain approximately 1.25 pound/day (high energy)
3. Lasalocid - fed same rations as control (projected gain of approximately .75 pound per day) plus 200 mg/head/day lasalocid
4. Lasalocid - fed same rations as control (projected gain of approximately 1.25 pound per day) plus 200 mg/head/day lasalocid

Lasalocid was added to the protein supplement to provide 200 mg per head per day for treatments 3 and 4.

Rations used in the 168-day trial consisted of silage and grain, with extra grain fed to those heifers where the projected daily gain was 1.25 pounds per day. Rations for the control and Lasalocid treatments were identical except for the inclusion of Lasalocid. To determine the onset of puberty, heifers were checked twice daily for estrus activity. Heifers were artificially inseminated for a 60-day period utilizing one inseminator and semen from a single ejaculate. Pregnancy was determined by rectal palpation approximately 60 days after the end of breeding.

Weight, frame and pelvic measurements were monitored. Daily health observations were made, with individual records of treatment or post-mortem examinations, if necessary.

Results and Discussion

As shown in Table 26.1, the observed daily gain for the control heifers was close to that desired. Feeding Lasalocid improved the daily gain by approximately .20 pounds per head per day in both the low energy and high energy group.

Feeding Lasalocid to the low energy group hastened the onset of puberty but had no significant effect in the higher energy group. Lasalocid did not affect conception rates during the 60-day breeding season, and did not affect animal health.

The results of this trial indicate that Lasalocid will cause a significant improvement in the onset of puberty in heifers on a low level of nutrition.

Table 26.1. Effect of Lasalocid on Sexual Development of Beef Heifers

Treatment	No. of Heifers	Projected Daily Gain, lb.	Actual Daily Gain, lb.	Days from start of trial to where following % were cycling		Starting Weight lb.	Final Weight lb.	Pregnant %
				50 %	75 %			
Lasalocid	30	.75	1.02	94	108	478	649	96.7
Lasalocid	30	1.25	1.44	106	125	480	722	86.2
Control	30	.75	.81	115	140	475	612	86.7
Control	30	1.25	1.24	99	115	476	685	86.7