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Abstract

Lutalyse aborted 86.7% of heifers 40 to 100 days pregnant. Of four heifers tested at 101 to 150 days pregnant, all aborted. Open heifers gained faster (P<.05) than heifers that either were aborted or pregnant at slaughter. Those pregnant at slaughter had lower (P<.05) dressing percentages than either open or aborted heifers.

Keywords

Cattlemen's Day, 1983; Report of progress (Kansas State University. Agricultural Experiment Station); 427; Beef; Lutalyse®; Heifers; Dressing percentage

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Efficacy of Lutalyse® as an Abortifacient in Feedlot Heifers[1]

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Summary

Lutalyse aborted 86.7% of heifers 40 to 100 days pregnant. Of four heifers tested at 101 to 150 days pregnant, all aborted. Open heifers gained faster ($P<.05$) than heifers that either were aborted or pregnant at slaughter. Those pregnant at slaughter had lower ($P<.05$) dressing percentages than either open or aborted heifers.

Introduction

Recently, Lutalyse ($PGF_2\alpha$) was approved as an abortifacient in feedlot heifers. The purpose of this field trial was to study its effectiveness, and evaluate the effect of pregnancy on heifer performance, dressing percentage and carcass characteristics.

Experimental Procedure

Three hundred six beef heifers entering a commercial feedlot were rectally palpated during processing; 20.9% were in various stages of pregnancy. Forty-nine pregnant heifers were injected with 5 ml (5 mg $PGF_2\alpha$ /ml) of Lutalyse to induce abortion. Individual, non-shrunk weights were taken at the beginning and end of the 112 day trial. All cattle were fed and handled in the same manner. The heifers also were used in an implant trial, so the data were adjusted to eliminate implant effects.

Results

Lutalyse aborted 39 of 45 heifers (Table 10.1) that were 40 to 100 days pregnant. That was very close to what we expected based on previous research. Lutalyse has been shown to be less effective as the length of gestation increases. However, of four treated heifers 101 to 159 days pregnant, all aborted.

[1]Appreciation is expressed to Jerry Kobler, Riverside Feeders, Inc., Penokee, KS for supplying cattle and facilities, and Iowa Beef Processors, Holcomb, KS for slaughter and carcass data assistance.

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Heifers that were open at arrival gained faster (P<.05) than heifers that were aborted or pregnant at slaughter (Table 10.2). Open heifers yielded carcasses that were 13 lbs heavier than aborted heifers (N.S.) and 41 lbs heavier than pregnant heifers (P<.05). As might be expected, the dressing percentage of pregnant heifers was lower (P<.05) than open or aborted heifers. There were no significant differences in ribeye area, backfat thickness or quality grade among treatments.

Table 10.1. Effectiveness of Lutalyse as an Abortifacient in Feedlot Heifers

Stage of Pregnancy	No. Injected	No. Aborted	% Aborted
40-100 days	45	39	86.7
101-159 days	4	4	100.0

Table 10.2. Effect of Pregnancy on Daily Gain and Dressing Percentage of Heifers

	Pregnancy Status		
	Open	Aborted	Pregnant
No. Heifers	249	43	14
Initial wt., lb	673.6	672.8	673.5
Final wt., lb	1001.8	970.7	970.3
Total gain, lb	328.2	297.9	296.8
Avg. daily gain, lb	2.93^{a}	2.66^{b}	2.65^{b}
Carcass wt., lb	607.8^{a}	594.5^{ab}	566.4^{b}
Dressing percent	60.7^{a}	61.3^{a}	58.5^{b}

^{a,b}Values with different superscripts differ significantly (P<.05).