

LIMOUSIN vs SALERS AS A TERMINAL SIRE: BIRTH AND WEANING CHARACTERISTICS

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Story in Brief

Limousin and Salers sires were evaluated for use as terminal cross sires to produce calves to weaning. Twelve different sires of each breed were used over a two-year period (six sires per breed per year) to produce 335 calves. Calves were born in the spring and raised by their dams, without creep feed, on native and bermuda grass pastures. Weaning occurred at an average age of 205 days, and calves were weighed and scored for conformation and condition at that time. Birth weights of calves were similar for the two sire breeds, averaging 82.3 lbs, and calves were born with very little difficulty. Daily gain from birth to weaning, 205-day adjusted weaning weight and weaning condition score were similar for the two sire breeds, with averages of 2.23 lbs/day, 539 lbs and 5.8 (5=average), respectively. Limousin-sired calves had slightly higher weaning conformation scores (13.5 vs 13.2, 13=average choice). These preliminary results indicate the Salers breed is as useful as the Limousin breed as a terminal sire for producing calves to weaning age.

(Key Words: Crossbreeding, Terminal Sire, Limousin, Salers)

Introduction

The economic climate in the cow-calf industry necessitates that producers become as efficient as possible. One method of increasing efficiency is utilization of specialized breeding programs. Inclusion of a "terminal sire" breed into a breeding program will increase the growth rate of calves, thus providing more pounds at sale time, although heifers may not be as desirable as replacements.

Selection of an appropriate sire breed to use as a terminal sire is an important step when using such a system. Many new breeds have been introduced into North America in recent years, with little information available on how they can best be used in a breeding program. Some of these may have merit as a terminal sire breed. The purpose of this study was to compare calves from Salers bulls, one of the recent breed introductions, with calves from Limousin bulls, a breed known for its usefulness as a terminal sire.

Materials and Methods

Two different cow herds were used in this study. Calves born in 1986 were from 11-, 12- and 13-year-old cows of eight different breed groups: Hereford x Angus, Angus x Hereford, Simmental x Angus, Simmental x Hereford, Brown Swiss x Angus, Brown Swiss x Hereford, Jersey x Angus and Jersey x Hereford. Due to their age, these cows were sold following

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weaning. The 1987-born calves were produced by 4-, 5- and 6-year-old cows comprising six breed groups: Hereford x Angus, Angus x Hereford, Brahman x Angus, Brahman x Hereford, 1/4 Brahman:1/4 Hereford:1/2 Angus and 1/4 Brahman:1/4 Angus:1/2 Hereford.

Bulls used in the study were selected by the North American Limousin Foundation and the American Salers Association, with semen donated by the owners of the bulls. Six different bulls of each breed were used in each breeding season, for a total of twelve bulls from each breed. Cows were randomly assigned to bulls, with semen from each bull inseminated into approximately the same number of cows from each crossbred group and age.

Calves were born primarily from February to April at the Lake Carl Blackwell Research Range west of Stillwater. All calves were weighed, tagged, dehorned and bulls were castrated within 24 hours of birth. Calving difficulty scores (1=no difficulty, 2=little difficulty, 5=caesarean) were assigned by the herdsman. Calves received no creep feed and were raised by their dams on native and bermuda grass pastures. When calves averaged 205 days of age they were weaned, weighed and scored for conformation (muscling; 13=average choice, 14=high choice) and condition (fatness; 1=thin, 5=average, 9=fat).

Results and Discussion

A total of 335 calves were born in the two years of the study. Sire breed means were averaged over years, crossbred dam groups and sexes. Birth weights of the calves were very similar for the two sire breeds (83.1 lbs for Limousin and 81.5 lbs for Salers), and calves were born with very little difficulty. Daily gains from birth to weaning

Table 1. Crossbred calves sired by Limousin and Salers bulls.

Trait	Breed of sire ^a	
	Limousin	Salers
Number of animals	172	163
Birth weight, lb	83.1	81.5
Calving difficulty score ^b	1.02	1.03
Preweaning ADG, lb/day	2.23	2.23
205-day weaning weight, lb ^c	540	538
Weaning conformation score ^{cde}	13.5	13.2
Weaning condition score ^{cf}	5.9	5.8

^aLeast squares means with adjustments for years, crossbred dam groups and sexes.

^bCalving difficulty: 1=no difficulty, 2=little difficulty.

^cTraits adjusted for age of calf.

^dConformation score equivalents: 13=average choice, 14=high choice.

^eAverage scores of sire breeds significantly different (P<.05).

^fCondition score equivalents: 1=very thin, 5=average to 9=very fat.

averaged 2.23 lbs/day for calves sired by both breeds, so 205-day adjusted weaning weights were also similar (540 lbs for Limousin-sired calves and 538 lbs for Salers-sired calves). Condition scores of calves at weaning were comparable (5.9 and 5.8 for Limousin-sired and Salers-sired calves, respectively), but calves from Limousin sires had slightly higher conformation scores (13.5 vs 13.2).

These results provide preliminary indication that the Salers breed is useful as a terminal sire as the Limousin breed when considering birth and weaning traits. Continuing research with these sire breeds will provide more data for a better comparison of the two breeds and will also furnish information on feedlot and carcass characteristics of cattle produced during this study.