

EVALUATION OF SALERS IN A COMMERCIAL COW HERD

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Story in Brief

A study was initiated for the purpose of evaluating the Salers breed as a component of a commercial cow herd. Fifty females each of Hereford, Hereford x Angus and Salers x Hereford were identified for this study and were managed together. Hereford females calved later in the calving season and, as two-year olds, required more assistance at calving than did Hereford-Angus or Salers-Hereford cows. There were no significant differences in birth weight among calves out of the three cow groups. Salers-Hereford cows weaned the heaviest calves both as two- and three-year olds and Hereford-Angus two-year cows weaned heavier calves than Hereford two-year old cows. At the time the calves were weaned, Salers-Hereford cows had lower condition scores than Hereford-Angus cows as two-year olds. There were no significant differences in condition score among the cow groups for three year old cows.

(Key Words: Beef Cattle, Breeds, Birth Weight, Weaning Weight, Salers.)

Introduction

The Salers (pronounced Sah-lairs) is a breed of beef cattle with a relatively short history in the United States. Its place of origin in a mountainous region of France suggests that it should be a hardy breed with good performance, even in rigorous conditions. As with many other breeds previously, Salers need careful evaluation in this country before general recommendations can be made about their utility. This research was initiated with the intent of evaluating the breed, as a component of a crossbred cow herd, under range conditions. This report is an update from a preliminary report presented last year (Buchanan et al., 1989).

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Materials and Methods

Pregnant females, representing three breed groups, were set aside from the herd at the Pitchfork Ranch near Meteteese in northwest Wyoming. Fifty females each of Hereford, Hereford x Angus and Salers x Hereford were identified for this study and were managed together. All Salers x Hereford females were two years of age at the initiation of the study while some of the females in the other groups were three or four years old and had calved previously. Results presented here are from two calf birth years. Only calves out of two- or three-year old cows were included in these comparisons.

Calves were born in January, February and March. Each calf was weighed within 24 h of birth and a calving ease score was assigned (1 = no difficulty, 2 = minor difficulty, 3 = major difficulty). Calves were weaned at approximately eight months of age. A weaning weight was obtained and all weights were adjusted to 205 days. At weaning, pregnancy status of each cow was determined and cow condition score was evaluated (1 = emaciated to 9 = obese).

Data were analyzed by ordinary least squares procedures with breed of female, year, sire breed, sex, age of the dam and appropriate two-way interactions in the model.

Results and Discussion

Calving and weaning percentages were over 90% for all groups and no apparent differences were observed between the three breed groups. Average date of birth was calculated as days after January 1 (Table 1). For both two- and three-year old cows, the Herefords calved later in the calving season. Salers-Hereford cows calved slightly earlier as two-year olds and slightly later as three-year olds than did Hereford-Angus cows. Salers-Hereford and Hereford-Angus two-year old cows had easier births than Hereford cows (Table 2). As three-year old cows, there were no differences observed between the groups.

Table 1. Average date of birth (days after January 1).

| Age of Cow | Hereford | Hereford-Angus | Salers-Hereford |
|------------|-------------------|-------------------|-------------------|
| Two | 56.3 ^a | 43.3 ^b | 41.6 ^b |
| Three | 66.1 ^a | 53.3 ^b | 59.6 ^b |

^{a,b} Means in the same row with different superscripts differ ($P < .05$).

Table 2. Average calving score^a (1=no difficulty, 2=minor assistance).

| Age of Cow | Hereford | Hereford-Angus | Salers-Hereford |
|------------|-------------------|-------------------|-------------------|
| Two | 1.73 ^a | 1.43 ^b | 1.49 ^b |
| Three | 1.15 ^a | 1.13 ^a | 1.15 ^a |

^{a,b} Means in the same row with different superscripts differ ($P<.05$).

Birth weights were not substantially different between the cow groups (Table 3). Salers-Hereford cows did have heavier calves as two-year olds, but this extra weight did not cause a difference in calving difficulty. Salers-Hereford cows had significantly heavier calves at weaning (Table 4). There was a large advantage over both Hereford and Hereford-Angus cows for both two-year old and three-year old females.

Salers-Hereford cows had slightly lower average condition scores than Hereford or Hereford-Angus (Table 5). However, the average was certainly sufficient for cows of these ages under these conditions.

An additional year of data will be obtained. To date, the Salers-Hereford females have been superior in weight of calf at weaning and have been at least as good or better than the Hereford and Hereford-Angus cows for reproductive performance. These results suggest that Salers crossbred cows may have a place in the U.S. cow-calf industry.

Table 3. Average birth weight (lb).

| Age of Cow | Hereford | Hereford-Angus | Salers-Hereford |
|------------|-------------------|-------------------|-------------------|
| Two | 63.0 ^a | 62.3 ^a | 65.3 ^a |
| Three | 69.7 ^a | 69.7 ^a | 68.7 ^a |

^a Means in the same row with different superscripts differ ($P<.05$).

Table 4. Average 205 day weight (lb).

| Age of Cow | Hereford | Hereford-Angus | Salers-Hereford |
|------------|--------------------|--------------------|--------------------|
| Two | 366.2 ^a | 401.4 ^b | 421.8 ^c |
| Three | 412.6 ^a | 435.3 ^b | 447.0 ^b |

^{a,b,c} Means in the same row with different superscripts differ ($P<.05$).

Table 5. Average cow condition score (1=emaciated, 9=extremely obese).

| Age of Cow | Hereford | Hereford-Angus | Salers-Hereford |
|------------|-------------------|-------------------|-------------------|
| Two | 4.67 ^a | 4.89 ^b | 4.63 ^a |
| Three | 5.27 ^a | 5.06 ^a | 5.05 ^a |

a,b,c Means in the same row with different superscripts differ (P<.05).

Literature Cited

Buchanan, D.S. et al. 1989. A preliminary evaluation of the Salers breed in a commercial beef herd. Okla. Agr. Exp. Sta. Res. Rep. MP-127:1.