

ASPECTS CONCERNING THE BREEDING OF LIMOUSIN CALVES IN ALTERNATIVE SYSTEM

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Abstract

The aim of the research was to monitor the growth process of the Limousin calves from birth to weaning (six months old). The research was performed on S.C.TAOS.S.R.L situated in Covasna. In this farm, the rearing of the calves was not made by a technological guide. The maintaining system was outdoor, during summer on pasture, and in the winter season, in free stabulation. The calves had been grown along with the mother cows, having free access to the paddock. The base of feeding was represented by semi-hay, corn silage, barley straw and cereals (barley, wheat and corn) and grazing is made on lowland meadow. The introduction of vegetal food into the calves ration is done at 3 weeks old. In the first period (first month old), the daily gain was 666.7 g at heifers and 800 g at calves. In the second period (from one month old until weaning), the daily gain was 1120 g at heifers and 1200 g at calves. The stress of weaning was present only to the young females; for ten days, these were restless, having the desire for sucking and the appetite for feed has decreased. Their bodyweight has decreased with 12%, the differences being significantly ($p \leq 0.05$).

Keywords: *Limousin calves, alternative system.*

Introduction

Limousin breed is originated in France and was formed over several centuries in the central and west central region around the city of Limoges in Limousin [2; 3]. Limousin breed was imported to Spain in 1965, Italy in 1968, Holland in 1969, Denmark in 1970 and the United Kingdom in 1971. In this moment, the breed is widespread in 70 countries [4; 6]. In Romania, the breed has been introduced since 2001 [7]. Unfortunately, Romanian farmers prefer to raise other meat breeds like Charolais and Blue White Belgium.

Limousin cattle are adapted to diverse climates and the widest range of management systems. This breed is efficient, the animals have moderate mature size and are excellent foragers walking long distances for food. Because it is a

rustic meat breed, the calving problems can occur at less than 6% [3]. The Limousin stamps its characteristics on other breeds when used in crossbreeding programs, especially its superior carcass characteristics [6].

Material and methods

The aim of the research was to monitor the growth process of the Limousin calves from birth to weaning (six months old).

The study was conducted on S.C.TAOS.S.R.L from Covasna country.

The study was conducted on a group of 28 calves from birth to 6 months of age when they were weaned.

The rearing of the calves was not made by a technological guide. The maintaining system was alternative mixed, during summer on pasture, and in the winter season, in free stabulation. The calves had been grown along with the mother cows, having free access to the paddock. The base of feeding was represented by semi-hay, corn silage, barley straw and cereals (barley, wheat and corn) and grazing is made on lowland meadow. The introduction of vegetal food into the calves ration is done at 3 weeks old.

The data were statistically processed using the variance analysis method.

Results and discussion

It was observed that the cows had an easy calving and did not require supervision. 83% of cows calved in the paddock. At calving, the heifers had 40 kg weight and the calves' 47 kg weight (table 1). Comparing with other breeds, Limousin calves had low birth weights, which lead to minimum calving problems when Limousin bulls are used over females of other breeds, in particular dairy cows [5].

In the basement of calving, calves stayed three days, after which they were moved with adult animals.

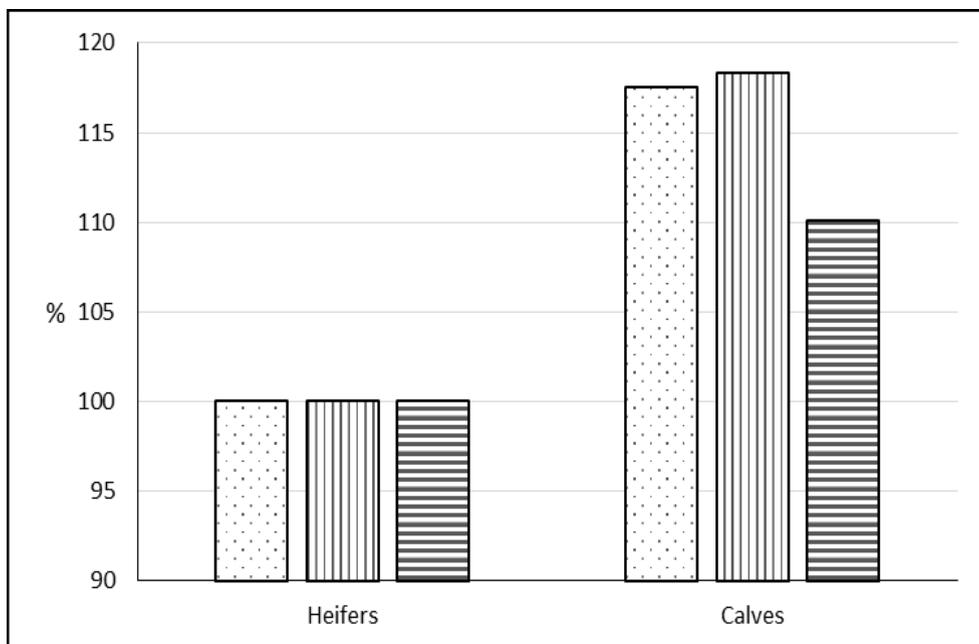
Table 1

Dynamic of weight (kg)

Sex	1 day	1 month	6 months
Heifers	40	60	228
Calves	47	71	251

At one month old, the heifers had 60 kg and the calves 71 kg, with a daily gain of 666.7 g and, respectively 800 g (graphic 1).

At six months old, the heifers had 228 kg and the calves 251 kg, with 10.1% more than the heifers.



Graphic 1. *Dynamic of weight (%)*

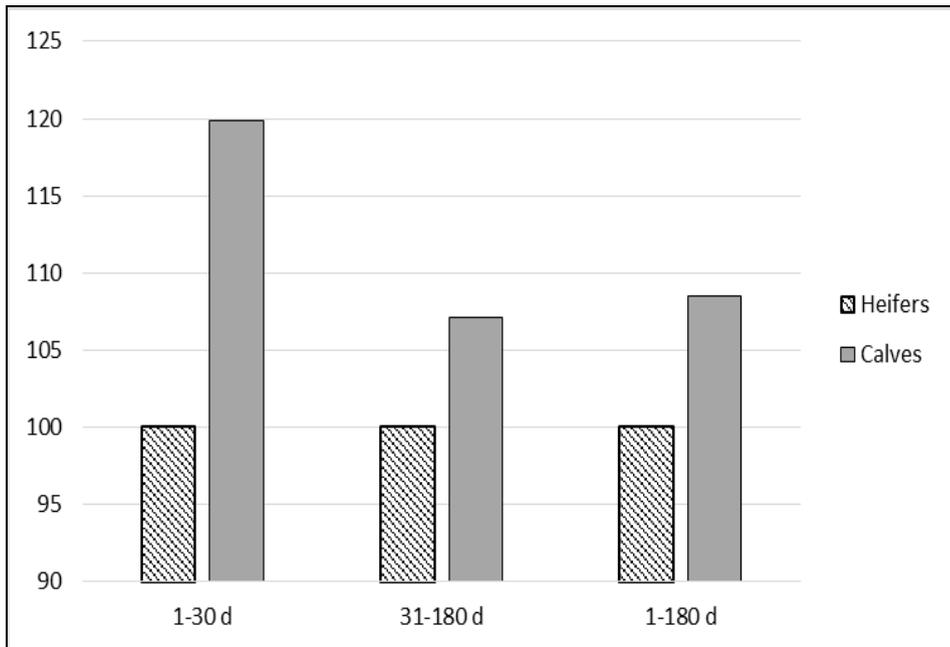
Data concerning the daily weight gain are shown in table 2.

Table 2

Daily weight gain (g)

	Period 1 1-30 days	Period 2 31-180 days	1-180 days
Heifers	666.7	1120	1044
Calves	800	1200	1133

In the first period, the daily weight gain was 666.7 g at heifers and 800 g at calves, with 19.9% more than females. The differences were significant ($p \leq 0.05$).



Graphic 2. Daily weight gain (%)

In the second period, the daily weight gain was 1120 g at heifers and 1200 g at calves, with 7.1% higher. The differences were not significant ($p \geq 0.05$).

From calving to weaning, the daily gain was 1044 g and, respectively 1133g, the differences being insignificant ($p \geq 0.05$).

In the literature it was shown that the live weight gain was 1300 g [1]; in the S.C.TAOS.S.R.L.farm the potential of this breed is not fully exploited.

After weaning, the weight has decreased with 5% at calves and 12% at heifers, the differences being significant ($p \leq 0.05$). It has been observed that the stress of weaning was present only to the young females; for ten days, these were restless, having the desire for sucking and the appetite for feed has decreased.

Conclusions and recommendations

1. The farm was located in a geographical area allowing the growth of cattle for meat.
2. The calves (males and females) had low weight at calving, enabling the crosses with all breeds, in particular dairy cows.
3. From calving to weaning, the daily gain was insignificant higher at calves, comparing with heifers.
4. The stress of weaning was present only to the young females; for ten days, these were restless, having the desire for sucking, the appetite and daily weight gain have decreased.
5. The raising of calves is done outdoor, in summer the feeding being done by grazing.

6. Limousin breed does not require specially equipped shelters, being resistant to environmental conditions.

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