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## Body weight and body condition score of crossbred primiparous dairy cows during the first 56 days of lactation

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After calving, the cows adapt its metabolism to sustain milk production. Generally, the energy expenditure is higher than energy intake, thus the cows experience a time of negative energy balance (NEB). Thus, the cows can lose body condition score (BCS) and use the body fat reserves to sustain energy demands. For primiparous, the NEB can be more severe due to the requirements of energy to growth. The objective of the present study was to evaluate the body weight and BCS of Holstein-Gyr crossbred dairy cows fed two levels of energy during early lactation. The experiment was conducted in the experimental station of Embrapa Dairy Cattle in Coronel Pacheco, MG. Fifteen 3/4 Holstein-Gyr crossbred and thirteen 7/8 Holstein-Gyr crossbred primiparous dairy cows (initial body weight, 452.00 ± 37.88 kg; initial BCS, 3.18 ± 0.27) were randomly assigned to two treatments after calving: fed at high level of energy (HE: 1.93 Mcal/ kg of net energy for lactation and 0.168 kg of crude protein/ kg) or fed at low level of energy (LE: 1.68 Mcal / kg of net energy for lactation and 0.170 kg of crude protein/ kg). The diets were based on corn silage, grounded corn and soybean meal. The body weight was evaluated weekly in two consecutive days and BCS was determined once a week during the first 56 days of lactation. The data was submitted to ANOVA using the proc GLM of SAS. The fixed effects of diet, bred and their interaction were considered. The means were compared using the Student's t test (P<0.05). The 3/4 Holstein-Gyr crossbred presented higher body weight (P < 0.05) than the 7/8 crossbred cows during the first 56 days of lactation (456.72 ± 3.04 kg and 426.32 ± 3.29 kg, respectively). In relation to the calving weight, the 7/8 crossbred primiparous cows lost weight while the 3/4 cows maintained the calving weight. However, the BCS presented a different pattern. The 3/4 cows fed the high energy diet presented the highest BCS (3.18 ± 0.02) during the first 56 days of lactation, followed by the 3/4 cows fed the low energy diet (3.08 ± 0.02). The 7/8 primiparous cows presented the lowest (P < 0.05) BCS, that was 2.91 ± 0.03 and 2.98 ± 0.03, respectively, for the animals fed high and low energy diets, respectively. Thus, despite the energy level of diet, the 7/8 primiparous cows seem to be more susceptible to body reserves mobilization than the 3/4 primiparous cows. These results can be related to the higher Holstein fraction of the crosses, since Holstein cows present a great ability to mobilize body reserves to sustain milk production during the lactation.

**Keywords:** negative energy balance, body reserve, crosses.

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