



Thesis Abstract

Body Condition Score and Calf Management in Dairy Production

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The study involved two experiments. Experiment 1 determined the relationship of body condition score (BCS) on calf health status, production of milk, and reproductive performance. Experiment 2 compared the effect of feeding whole milk with that of milk replacer on the weight gain performance of the calves.

Three (3) levels of BCS were compared. The low BCS group (2.0-2.75), medium BCS group (3.0-3.75), and high BCS group (4.0-4.75) were monitored both at the Dairy Training and Research Institute (DTRI) and Batangas Dairy Cooperative (BADACO) farms.

A total of 50 pregnant dairy cows were used, 33 of which were from BADACO while 17 were from DTRI herd. In the BADACO herd, the highest number of healthy calves was found in the low BCS group with 10 (100 %) healthy calves, followed by high BCS group with 12 (92 %) healthy calves, and the medium BCS group with six (60 %) healthy calves. In DTRI, herd the highest number of healthy calves was found from high BCS group with five (100 %) healthy calves, followed by medium BCS group with five (83 %) and low BCS group with three (50 %).

The effect of BCS on the production of milk and reproductive performance were available only at DTRI farm. In DTRI herd highest milk production was shown by the medium BCS group with 1896 kg, followed by high BCS group with 1444 kg, and low BCS group with 1223 kg after 120 days of lactation. In reproductive performance, the limited data indicates that cows in the medium and high BCS group have better reproductive status than the low BCS group 30 days after parturition. Low BCS group did not show estrus while the medium and high BCS groups have 30%, showing estrus after 30 days.

Two treatments were used to raise calves. Treatment I (TI) refers to whole milk at 8 % of body weight + calf starter + roughage. This is the usual farm practice of calf management at BADACO serving as control. Treatment II (TII) refers to milk replacer at 10 % of body weight + calf starter + roughage. The calf starter and roughage were common to both treatments fed ad libitum. Ten (10) dairy female calves were used to determine the effect of feeding whole milk and milk replacer on body weight gain. The highest average daily gain 0.5 g was obtained from whole milk group and 0.3 kg for milk replacer. To gain one kilogram of body weight gain, the cost is PhP 191.20 for milk replacer and PhP 140.07 whole milk. Calves can be weaned from either whole milk or replacer if consumption of calf starter reaches 600 to 700 g for three consecutive days.