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Effects of different weaning strategies on the body weight and blood parameters of Holstein female calves (1)

Szu-Han Wang (2) (4) Chun-Ta Chang (3) and Jen-wen Shiau (2)

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Abstract

The purpose of this study was to investigate the effect of different weaning strategies on the body weight and blood parameters of Holstein female calves. The 30 female calves were divided into three treatment groups, the control (milk replacer 4 L per day from birth to 39 d and gradually reduced until weaning on 49 d), T1 (milk replacer 8 L per day from birth to 39 d and gradually reduced until weaning on 49 d), and T2 (milk replacer 8 L per day from birth to 60 d and gradually reduced until weaning on 70 d). The average weight of claves in the T2 on 8, 9 and 10 weeks were significantly ($P < 0.05$) higher than that of control and T1. Nonetheless, the weight of female calves in the three groups at other weekly age did not show significant difference. The concentrations of GLU and TG in blood decreased gradually as the calves aged. In contrast, the concentrations of BUN, GOT and GPT in blood were increased as the calves aged. Blood Na, K, and Cl in the blood were all in normal concentration ranges regardless the treatment groups between three groups. The average daily weight gain was 0.77, 0.78 and 0.95 kg and the cost of milk replacer until weaning was 3,583, 6,566 and 9,380 NTD for the control, T1, and T2, respectively. The daily intake of milk replacer and the time of weaning have influences on average body weight at weaning and cost of milk replacer until weaning, but not on biochemical parameters in the blood.

Key words: Weaning strategy, Female calf, Body weight, Blood parameters.

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(2) Hsinchu Branch, COA-LRI, Miaoli 36841, Taiwan, R. O. C.
(3) Animal Industry Division, COA-LRI, Tainan 71246, Taiwan, R. O. C.
(4) Corresponding author, E-mail: shwang@mail.tlri.gov.tw.