ABSTRACT

Effects of Different Weaning Age on the Growth Performances of Holstein-Friesian Calves

Zeynep DOĞAN

M.Sc. Thesis, Department of Animal Sciences

Supervisor: Assoc. Prof. Dr. Atakan KOÇ

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In this study, the effects of different weaning age on the growth performances of Holstein-Friesian calves were investigated. In this study 36 calves were used. The study repeated twice in winter calving and summer calving season and the calves were housed there different system: individual calf hatch, group barn and individual calf hatch + group barn. The calves were weaned 5 weeks and 8 weeks weaning program. In addition to dry period of the cows, the quality of the colostrums produced by cows was determined by colostrometer after calving. And, during calving and after calving some behaviors of cows and calves were also determined. The body weight and body measurement at birth and weakly age up to the weaning were determined. After the weaning these measurements were done monthly up to the 6 month of age. The averages of colostrum quality, standing up time of calf from birth, separation of calf from the cow after birth and time of placenta drop from birth was found to be 95.44±3.74 g/ℓ, 101.3±10.30 dk, 170.56±8.57 dk and 345.3±75.60 dk, respectively. The average birth weights of winter and spring born calves were 43.99±0.89 kg and 40.90±0.91 kg, respectively and the body weights at 6^{th} month of age in these groups were found to be 99.83±2.07 kg and 115.76±1.90 kg and spring born calves had 19.1 kg higher body weight than that of winter born calves ($P<0.05$). The average birth weight of calves for the 5^{th} and 8^{th} weeks weaning groups were 43.14±0.90 kg and 41.75±0.91 kg, respectively and the body weight at 6^{th} month of age were found to be 108.99±2.14 kg and 106.60±1.89 kg ($P>0.05$). In individual calf hatch, free and individual+free housing systems, the average body weights at 6^{th} month of age were found to be 105.77±2.35 kg, 107.94±2.56 kg and 109.69±2.52 kg ($P>0.05$), respectively. In conclusion it is determined that the quality of colostrums is changed significantly among cows and early weaning of the calves did not have a

significant effect on the later performances of the calves. Instead of individual calf hutch, housing the calves in the individual calf hutch+ group barns is an important practice for animal welfare.

Key words: Early weaning, colostrum quality, housing, birth weight, weight gain, body measurements.