

Effect of colostrum feeding on the serum immunoglobulin level in Saanen crossbred kids

ABSTRACT

Generally the immune system of ruminant neonates is poorly developed and even during the pregnancy period maternal antibodies are unable to pass to the fetus. The offspring will be protected from the diseases if they received enough immunoglobulin present in the colostrum. The objective of the study was to determine the serum immunoglobulin G concentration in kids fed with single or divided doses of good quality colostrum. Ten newborn Saanen crossbred kids were divided equally into two groups fed with 200 ml of colostrum once within the first hour (0 hr) post kidding (C200-1, n=5) or 100 ml colostrum twice within the first hour and eight hours post kidding (C100-2, n=5). The amount of colostrum collected from the doe offered to the kids was calculated based on 10% of the kid's body weight. Results showed that the mean body weights of kids were not significantly different ($P>0.05$) among the feeding groups. There was also no significant difference ($P>0.05$) between C200-1 and C100-2 groups for Ig G concentration in blood serum at kidding, 8, 24, 40, 192, 288, 360 and 720 hours post kidding and calculated Apparent Efficiency Absorption (AEA) after 40 hours of first feeding. Concentration of Ig G in blood serum and AEA after 40 hours of first feeding of C100-2 group were higher ($P>0.05$) than those of C200-1 group. This study recommends that Saanen crossbred neonates be fed with colostrum twice (0 and 8 hours) on the first day of their life to make sure they received adequate amount of Ig G for their later immunity.

Keyword: Colostrum; Immunoglobulin G; Apparent efficiency absorption