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Effect of Probiotic Feeding on Weight Gain, Blood Biochemical and Hematological Indices of Crossbred Dairy Goat Kids

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Abstract : The study was conducted to evaluate the effect of probiotic feeding on weight gain, blood biochemical and hematological indices of crossbred dairy goat kids. Sixteen (16) crossbred Anglo-Nubian x Saanen dairy goat kids, 3 to 4 months old, ranging from 19 to 23kg were randomly assigned into four treatments fed with 5x109 cfu/ml probiotic supplements; Treatment 1 – control; Treatment 2 – lactic acid bacteria (L. plantarum BS and P. acidilactici 3G3); treatment 3 – S. cerevisiae 2030; Treatment 4 – multi-strain probiotics (L. plantarum BS, P. acidilactici 3G3, and S.cerevisiae 2030). Feed ration provided daily for each of the experimental animals were composed of 1kg mixed concentrate feed ((Leucaena leucocephala dried leaves and pollard), and 4 kg fresh Pennisetum purpureum and Gliciridia sepium leaves (50:50). The experimental feeding trial lasted for 9 weeks. Result revealed that treatments fed with probiotics had significantly (P≤0.05) higher weight gain compared to the control. Significant effect on plasma urea nitrogen (PUN) and triglyceride were noted during 30th and 60th day of probiotic feeding. White blood cell counts were significantly affected by probiotic feeding during the 60th day. Concentrations of glucose and cholesterol remained unchanged throughout the experimental period. The findings suggests, under the condition of the experiment, that live probiotic feeding could have a significant role in improving weight gain and metabolism of crossbred dairy goat kids.

Keywords : probiotics, weight gain, blood biochemical indices, crossbred dairy goat kids
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