

Effect of Probiotic (RE3) Supplement on Growth Performance, Diarrhea Incidence and Blood Parameters of N'dama Calves

Authors : Y. Abdul Aziz, E. L. K. Osafo, S. O. Apori, A. Osman

Abstract : A sixteen week trial was conducted at the Research Farm (Technology Village) of the Department of Animal Science, School of Agriculture, University of Cape Coast, Cape Coast, Ghana. This study sought to investigate the effects of Probiotic (RE3) on growth performance, diarrhea incidence and blood parameters of N'dama calves. Sixteen N'dama calves aged 3 months of an average initial weight of 44.2 kg were randomly assigned to one of four dietary treatments according to their body weight, age, and sex. Treatment 1 (T1) serve as a control animal (No RE3 supplementation). Treatment 2 (T2) receives 0.03 ml RE3 per kg body weight. Treatment 3 (T3) receives 0.06 ml RE3 per kg body weight, and Treatment 4 (T4) also receives 0.09 ml RE3 per kg body weight in a Completely Randomize Design (CRD). There were 4 replicates per treatment. The calves were allowed access to feed and water ad libitum. The body weight of the calves was recorded at the start of the experiment and thereafter regularly at two weeks interval. Weighing was done early morning before the calves are allowed to access feed and water and were also observed in their pens for occurrence of diarrhea and faecal scores recorded. Blood samples were obtained from each calf at the end of the study through jugular vein puncture. Supplementation of RE3 to calves had showed a beneficial effect by reducing the incidence of diarrhea. The highest faecal score was recorded in T1 and the least faecal score was recorded in T3. There was significant difference ($P < 0.05$) in the faecal score between the treatment group and the control after two weeks of the experiment. There was no significant difference ($P > 0.05$) in the average daily gain of the animals. Hematological and biochemical indices of calves were all within the normal range except in treatments (1, 3 and 4) which recorded high White Blood Cell (WBC) count with no significant difference ($P > 0.05$).

Keywords : probiotics (RE3), diarrhea incidence, blood parameters, N'dama calves

Conference Title : ICANM 2018 : International Conference on Animal Nutrition and Management

Conference Location : Rome, Italy

Conference Dates : September 17-18, 2018