

The effect of different feed formulation based on local feed resource on performance and stress parameter in breeder goat

ABSTRACT

Balanced nutrition is essential for health and performance of livestock. It is best when feed is formulated according to production stages of goat. However, as the goat grows, it may undergo transition of different feed formulation to meet its daily requirement. The transition may affect the performance of animals as well as it is a stressful condition. In this study, body weight gain and feed intake were used as indicators on performance, whereas hematological stress leucograms were used as indicator of stress parameter during implementation of different feed formulation among does. Eighteen adult does with similar body condition score and body weight approximately 20 kg were selected and divided into three groups equally ($n = 6$) and fed with different feed formulations, which were formulated using local feed source in the farm for a period of four weeks. Body weight was measured before implementation, on week 2 and week 4, blood sampling was conducted before implementation and during week 4 for comparison and feed intake was measured every day. All data were statistically analyzed using SPSS. Does fed with Diet 3 showed highest body weight gain and feed intake, followed by Diet 2 and Diet 1. There was significant difference ($P < 0.05$) on body weight gain for all groups. Stress parameter on leucocyte counts for Diet 1 showed the highest number as compared to the other groups but no significant difference ($P > 0.05$) as compared to normal value. Neutrophils:lymphocytes ratio for all groups were within normal range and no significant difference ($P > 0.05$). The implementation of feed formulation according to production stages is recommended as it increases performance and prevents from nutritional stress.

Keyword: Body weight gain; Feed formulation; Feed intake; Neutrophils:lymphocytes ratio; Stress leucogram