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Extended Abstract
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Carcass Characteristics of Menz Ram Lambs Fed Grass Hay Basal Diet and Supplemented Wheat Bran and Lentil Broken Screening

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Abstract

An experiment was conducted to evaluate carcass characteristics of Menz ram lambs fed grass hay basal diet and supplemented different combination of wheat bran and lentil broken screening. The treatments were T1 (30 g wheat bran 133 g lentil broken screening), T2 (235 g lentil broken screening only), T3 (285 g wheat bran only), and T4 (227 g wheat bran and 120 lentil broken screening). Twenty-four Menz ram lambs of 8 to 10 months of age were grouped into six blocks based on their initial body weight and treatments were randomly distributed to each block of four animals. Six animals per treatment were used for feed intake and body weight change evaluation. Five lambs from each treatment were randomly picked and slaughtered for carcass evaluation. Wheat bran and lentil screening combination affected ($P \leq 0.01$) the daily total dry matter intake (TDMI), final body weight, total weight gain and average daily weight gain ($P \leq 0.001$) of lambs with the highest value recorded from T4 diet categories. The experimental lambs showed lower ($P \leq 0.01$) feed conversion efficiency (0.06) for the diet containing 30 g wheat bran and 133 g lentil screening (T1) than the values recorded from T2, T3 and T4 groups. The slaughter body weight was lower ($P \leq 0.001$) for those lambs were assigned in T1 than in T2, T3 and T4. The higher ($P \leq 0.001$) empty body weight (19.56 g) was recorded for lambs assigned to T4 diet than T1 followed by T2 and T3 diet. The carcass yield of lambs was increased ($P \leq 0.01$) at T4 supplemented groups than at T1 and T2 diets. The concentrate combination effect was non-significant ($P \geq 0.05$) on dressing percentage, and proportions of carcass lean, fat and bone. Lambs assigned to T4 diet had higher weight of kidney fat and ureo-genital tract ($P \leq 0.01$) as well as respiratory tract and blood ($P \leq 0.05$) than seen for other treatment categories. Except the dry matter percent of carcass fat ($P \leq 0.001$), all carcass quality parameters were not affected ($P \geq 0.05$) by the concentrate diet combinations.

Feed ingredients and experimental diets

The feed ingredients used for feeding the experimental lambs were native pasture grass hay, wheat bran; lentil broken screening locally called “ymiser kik bitari (Elet)” and salt, which were among commonly available feed ingredients, where the experimental animals are predominantly found. Experimental diets were formulated by reviewing of different literatures about the energy and protein requirements of dietary energy and protein for growing lambs. The combination of these dietary energy and protein source concentrates were determined based on nutrient recommendation guides for other breeds. Wheat bran and lentil broken screening combination was set (Table 1) the total offered feed to be contained around 8 to 9 MJ ME per kg DM and 10% to 12% CP considering the energy and protein the animals can also get from grass hay ad libitum feeding.

Feeding of experimental lambs

Lambs were fed individually during the experimental period by offering grass hay basal diet ad libitum ensuring a refusal of 20%, based on previous day’s intake. Concentrate supplements were offered twice a day in two equal portions at 08:00 and 16:00 hours. There was an adaptation period of 15 days to the experimental feeds before the commencement of data collection. Water was given ad libitum. **Conclusion**

The study was conducted to evaluate dry matter intake, growth performances and carcass characteristics of fattening Menz ram lambs fed grass hay basal diet and different mixtures of wheat bran and lentil broken screening supplement. Final body weight, TWG, DWG, FCE and nutrient utilization were significantly affected by the concentrate feed combinations with the higher values recorded for the lambs assigned to T4 diet. The concentrate feed combinations affected the slaughter body, empty body, hot and cold carcass weights and the values of these parameters were higher at T4 than were at T1, T2 and T3 diets. Except more value of kidney fat, blood, respiratory and ureogenital tract weights recorded from the animals assigned to T4 than to other diet groups, the effect of wheat bran and lentil split screening combinations was non-significant for all non-carcass components. The wheat bran and lentil split screening combinations effects were non-significant for all carcass quality parameters except for carcass fat DM%.

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