Effects of Different Production Systems on Growth Performance and Carcass Quality of Lohi Lambs in Pakistan

Muhammad Tariq

1Department of Livestock Management, University of Agriculture, Faisalabad, Sub-Campus Toba Tek Singh, Pakistan
Email: tariqlm@uaf.edu.pk

Introduction

- Pakistan ranks 11th in sheep population with 29 million sheep
- There are 28 distinct and recognized breeds of sheep and are mainly raised for meat and wool
- Sheep would continue to have importance for increased mutton and wool production in Pakistan

Goal: Evaluation of the effects of different systems of production and sexual status (entire or castrated) on growth performance and carcass composition of lambs

Methodology

- 64 Lohi lambs were divided in 2 groups (A and B) @32 lambs in each group and kept in sub-groups of 8 in 4 pens and half of the lambs were castrated
- Group A was offered a Conc. diet (85 g of DM/ kg of metabolic body weight/day) containing 15% of CP and 3010 kcal kg-1 of ME along with hay (100 g /lamb /day)
- Group B was offered fresh green forage ad libitum and supplemented with a concentrate (400 g per lamb per day) containing 20% of CP and 2940 kcal kg-1 ME.
- Feed offered and refused were sampled and their DM contents determined
- Feed intake was measured/day, animals weighted/week and at the end the feeding period, all animals were slaughtered; a half carcass was sampled from each pen for carcass composition determination

Results

- The concentrate diet significantly affected daily DM intake (P=0.001), FCR (P<0.05), daily weight gain DWG (P<0.05), final live weight (P<0.001), carcass weight (P<0.001) dressing % (P<0.001), conformation scores (P<0.05), total bones (P<0.05), buttck (P<0.05) and fat score (P<0.001) as compared to the fodder fed lambs.
- However fodder fed lambs had longer finishing period (P<0.001), heavy total bones (P<0.05), weight of M. longissimus dorsi (P<0.05), Lean:bone ratio (P<0.05) and more leaner carcasses (P=0.06) than concentrate fed lambs.
- Entire lambs had significant daily DM intake (P=0.001), FCR (P<0.05), DWG (P<0.05) and Lean:bone ratio (P=0.05) than castrated lambs however the castrated lambs had longer finishing periods (P<0.05) and more total fat contents but these values were non significant.

Conclusions

- In general, the concentrate feeding system showed good results for growth performance and carcass composition but economic decisions and intensive management must be regarded
- The results of this trial show that the sex had an effect on growth and carcass composition and castration may only increase the fatness of carcass but lean remains lower

Fig. 1: Lohi Sheep Male

Fig. 2: Diagram of Standardized lamb carcass joint s for dissection