

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

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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



Fig. 1: Lohi Sheep Male

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 ($P<0.05$), buttock ($P<0.05$) 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.

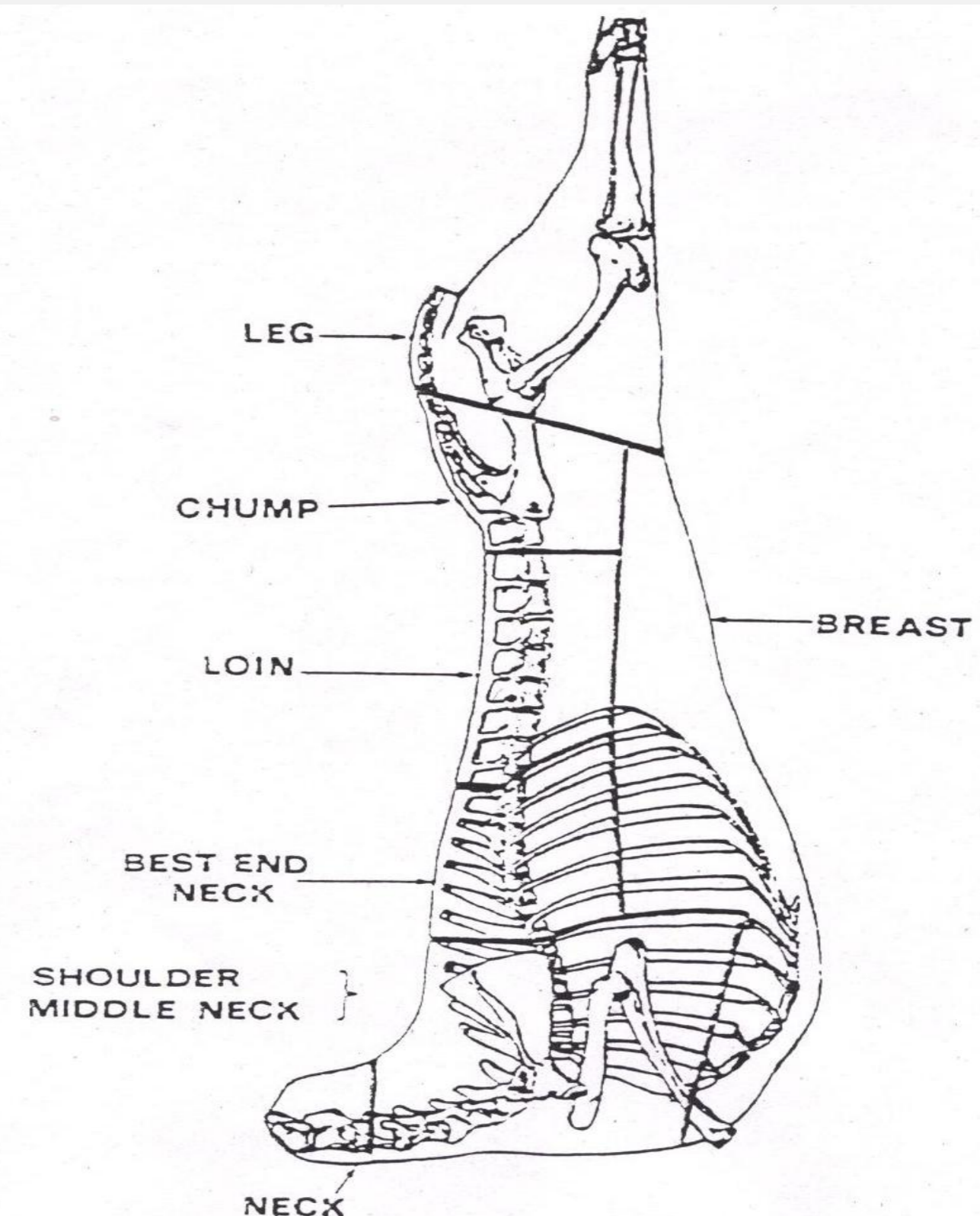


Fig. 2: Diagram of Standardized lamb carcass joints for dissection

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

