

INFLUENCE OF BREED OF SIRE ON THE PRODUCTION OF LIGHT AND HEAVY MARKET LAMBS

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ABSTRACT

Data were taken on 396 lambs born to crossbred ewes to compare New Zealand-type Southdown (NZS), American-type Southdown (AS), and Suffolk (SU) rams as sires of light and heavy market lambs (20 and 40 kg liveweight respectively). Ewes mated to AS rams had 7% ($P > 0.05$) higher lambing rate than those mated to SU or NZS rams. Preweaning mortality rate of NZS sired lambs was 3.7 ($P < 0.10 > 0.05$) and 11.8% ($P < 0.01$) lower than those by AS and SU rams, respectively. Suffolk-sired lambs were heavier at birth and 28 days. Lambs sired by AS, NZS, and SU were 88, 82, and 83 days old at 20 kg, and 187, 172, and 166 days old at 40 kg liveweight respectively. Carcass finish score and classification were higher in NZS- and AS- than in SU-sired lambs marketed as light lambs, whereas the opposite was ob-

served in heavy lambs. Dressing percentage was not significantly affected by breed of ram, but the lambs sired by AS rams had significantly higher pelt percentage. Lambs sired by NZS rams had generally higher lean percentage. Suffolk-sired lambs had larger bones, longer cuts, and heavier organs than those by the Southdowns. Carcasses from lambs marketed as heavy were classified 1.5 grade better, scored 2.7 points higher but dressed 0.22% lower than lambs marketed as light. Males were superior to females in growth rate and produced wholesale cuts higher in lean and lower in fat percentages. Females, however, were 8.3% ($P < 0.01$) higher in carcass classification than males. Other factors having significant effects were age of dam, type of birth, year, and station.

RESUME

Dans la production des agneaux de marché (poids vif 20 et 40 kg), nous avons comparé 396 sujets issus des béliers Southdown de la Nouvelle-Zélande (SNZ), Southdown Américain (SA), et Suffolk (SU). Les résultats ont démontré que le pourcentage d'agnelage des brebis accouplées aux béliers SA a été de 7.0% ($P > 0.05$) plus élevé. Avant le sevrage, le taux de mortalité des agneaux issus des béliers SNZ a été moindre de 3.7% ($P < 0.10 > 0.05$) et 11.8% ($P < 0.01$) comparativement aux agneaux issus des béliers SA et SU. A la naissance et à 28 jours, les poids des agneaux Suffolk étaient plus élevés. Pour atteindre le poids vif de 20 kg les agneaux provenant des croisements (SA, SNZ, et SU) ont pris respectivement 88, 82, et 83 jours; alors que pour se rendre à 40 kg, ils ont pris 187, 172, et 166 jours. La classification et le fini des carcasses des agneaux légers SNZ et SA ont été supérieurs aux agneaux SU. Par contre, nous avons observé le contraire dans

le cas des agneaux lourds. La race de bélier n'a pas influencé de façon significative le rendement à l'abattage. Les agneaux SNZ avaient un plus haut pourcentage de maigre. Les agneaux SU avaient une plus forte ossature, de plus longues coupes, et des organes plus lourds que ceux issus des Southdown. En comparaison avec les agneaux légers, la classification des carcasses des agneaux lourds a été supérieure (1.5, catégorie meilleure) et un pointage (2.7 plus élevé); alors que le rendement à l'abattage a été 0.22% inférieur. Les mâles ont fait des meilleurs croûtes que les femelles et ils ont donné des carcasses plus maigres. Par contre, la classification des carcasses des femelles fut 8.3% ($P < 0.01$) supérieure à celle des mâles. Finalement, d'autres facteurs tels que l'âge des brebis, le type de naissance, l'année et la station ont eu des effets significatifs dans la production des agneaux de marché.

INTRODUCTION

It is recognized that crossbreeding is advantageous in a commercial sheep operation when the main objective is the production of lambs for market. An accepted practice derived from practical experience as well as from experimental evidence is to breed crossbred ewes to Down rams, with the larger breeds being generally preferred.

Recently there has been a good market for lambs of about 20 kg liveweight. Information on this type of production using various breed crosses is scanty.

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