

Technical Note

Effect of diet on ovarian and uterine measurements of ewe lambs with or without Finnsheep breeding

M.H. Fahmy

Lennoxville Research Station, Agriculture Canada P.O. Box 90, Lennoxville, Québec J1M 1Z3, Canada

(Accepted 3 July 1991)

ABSTRACT

Fahmy, M.H., 1992. Effect of diet on ovarian and uterine measurements of ewe lambs with or without Finnsheep breeding. *Small Rumin. Res.*, 7: 271–276.

Ewe lambs with different genetic background were fed either a high energy (HE) or low energy (LE) ration until slaughtered at 31 or 42 kg liveweight. Number of follicles of different sizes, ovulation, weight of ovaries and uterus, and length of uterine horns were examined.

Diet had no effect on any trait except diameter of the largest and second largest follicles, being larger in ewes on the LE diet. Ewes with Finnsheep breeding had more large (>6 mm) and small (<4 mm) follicles, and more ovulations than Suffolk ewes, with DLS and Suffolk×DLS ewes being intermediate. Length of uterine horns and weight of ovaries and uterus were similar in the different genetic groups. Advance in age at slaughter brought about an increase in number and diameter of large follicles ($P>0.05$), number of ovulations ($P<0.01$) and a decrease in number of small follicles ($P<0.01$). Weight of ovaries adjusted for number of follicles and ovulations did not change with diet, advance in age or increase in weight, indicating that ovaries mature early in life unlike uteri which continued to grow in size with age and increase in weight.

INTRODUCTION

Ewe lambs with Finnsheep breeding are known to reach sexual maturity earlier than lambs from non-prolific breeds (Maijala and Österberg, 1977). To reach sexual maturity, ewes should attain both a certain age and a certain weight (Dýrmundsson, 1981). Feeding ewe lambs high energy diets could result in attaining sexual maturity at younger ages (Keane, 1974, Quirke, 1979).

The present data collected while investigating genotype×management interaction on growth and feed efficiency (Fahmy et al., 1989), were analyzed