

Effect of Transportation Stress on Ovarian Activities and Reproductive Performance of Ewes During the Anoestrous Period

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ABSTRACT

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Sixty-six DLS ewes were involved in a study carried out over a period of two years to investigate the effect of transportation stress on ovarian and reproductive activities during the anoestrous season. Trucking ewes for 360 km (4 h) was found to have no effect on the date of first ovarian activity, date of first mounting or litter size. It was concluded that change in environment was probably more important than stress of transportation or that the stress applied in the present study was not intense enough to induce changes in the ovarian activity of the anoestrous ewe.

INTRODUCTION

Three studies conducted previously at Lennoxville Research Station required transporting sheep 360 km from la Pocatière Experimental Farm to Lennoxville (Dufour et al., 1982; Fahmy and Dufour, 1985; Fahmy, unpubl. data, 1976). The studies which were designed to evaluate reproductive performance of DLS sheep showed that reproductive behavior of ewes during the anoestrous season following transportation was considerably different from that during the anoestrous season of the following year when the animals had time to adapt and adjust to their new environment. A study conducted in the U.S.A. (Hulet et al., 1974) which also involved transportation of sheep showed similar results. In all these studies the anoestrous season just following transportation has been characterised by higher ovarian activity manifested by continuous presence of large follicles, ovulation and behavioral oestrus in ewes which otherwise would be in deep anoestrus. In the following year the ewes resumed their normal anoestrous pattern and none of the signs mentioned earlier could be observed for the majority of ewes. In a series of studies con-