

THE EFFECT OF FASTING ON LIVE WEIGHT, CARCASS WEIGHT AND
FAT LOSS IN SECOND-CROSS LAMBSW.J. O'HALLORAN*, J.M. THOMPSON**, T.J. MAY...
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Accurate assessment of live weight, carcass weight and fat loss in lambs fasted pre-slaughter is an essential component of any sale-by-description system. This experiment examined the pattern of live weight, carcass weight and fat loss in 250 weaned second-cross lambs, fasted for up to 96 hours on water at Gunnedah N.S.W. during summer. Five groups, each of 50 lambs were slaughtered at 24 hour intervals. Live weights were recorded at regular intervals and fat scores assessed at the initial weighing and immediately prior to slaughter. Carcass measurements included hot and cold carcass weight and carcass fat depth measured at the "C" and "GR" sites.

The patterns of percentage live weight and carcass weight loss were curvilinear, and were affected by fat score, but not by live weight. Lean lambs lost a greater proportion of live weight and carcass weight than did fatter lambs. After a 48 hour fast, score 3 lambs had lost 4.5% of their initial carcass weight, which is higher than suggested by earlier work. Losses in fat depth were small and were mostly associated with carcass weight loss. The results highlight the need to minimise the period of pre-slaughter fasting in lambs.

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PREGNANCY RATE IN SHEEP IS INFLUENCED BY AN INTERACTION BETWEEN
NUTRITION AND PROGESTERONE AFTER MATINGR.A. PARR, I.F. DAVIS, R.J. FAIRCLOUGH, E.M. PILATTI,
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Progesterone (prog) supplementation in early pregnancy can significantly increase lamb percentage (Peterson et al. 1984) or have no effect (Peterson pers. comm.). Since nutrition in early pregnancy and peripheral prog are inversely related (Williams and Cumming 1982), this study investigated the relationship between nutrition, prog supplementation and pregnancy rate of ewes. Merino ewes (n=330) were joined at a synchronized oestrus after CIDR (Controlled Internal Drug Release) devices (9% prog) were withdrawn. At day 2 after joining ewes were placed in a feed-lot and given low (L), medium (M) or high (H) rations (25%, 100% or 200% maintenance respectively). A second CIDR was placed in treatment ewes from Day 8-14 after mating. Ewes were returned to pasture at Day 14 and returns to oestrus were recorded. The pregnancy rate of H ewes (48%) was significantly reduced ($P < 0.05$) when compared with M and L groups (68% and 67% respectively). However when given a CIDR the pregnancy rate in H ewes was increased to 76% ($P < 0.01$). Prog supplementation did not increase pregnancy rates in the L and M groups (60% and 65% respectively). It is postulated that a high plane of nutrition leads to a decrease in peripheral prog by raising metabolic clearance rate. The resultant prog insufficiency appears to be related to embryonic mortality.

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