THE RESPONSE OF PREGNANT EWES TO DROUGHT AFFECTED PASTURES

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In 1976 at Wagga, autumn/winter rainfall (55mm) was 20% of the 79 year mean. Evaluation of the response of pregnant ewes to restricted pastures and validation of drought feeding recommendations was possible from a continuing grazing experiment with Border Leicester x Merino ewes on lucerne (Medicago sativa)/clover (Trifolium subterraneum) pasture mixtures.

During autumn/winter, there were few differences between mixtures or stocking rates (9.6 and 12.7 ewes/ha) and all data is pooled. Three subdivisions in every plot were each grazed for 21d and spelled for 42d. Two oesophageally fistulated wethers grazed on four typical plots to determine diet quality over three 21d periods. The ewes lambed on 19 Aug. ± 5 days (d150) and of the 144 Seined, nine died, 37 were dry, and 29, 65 and four produced single, twin or triplet lambs respectively.

For grazing periods d16-36, 58-78, and 100-120, green pasture availability in kg DM/ha averaged 137.27 and 11; in vitro digestibility (%) of the diet averaged 53.53 and 43.1; and the crude protein content of the diet (%) was 14.14 and 14. On d99 there was 2564±1464 kg/ha of dead herbage. Pasture intake (estimated from faecal output of 20 ewes) was 347±182 g/h/d, (36% DOM) for d111-121. Ewes were in good condition at d100, (58±26.9 kg) after losing 4.1±2.9 kg from d16, but supplementation was necessary because of poor pasture growth and the stage of pregnancy. From d106-153, after an introductory period of 5d, ewes were supplemented with 600 g oats grain/h/d, a value intended to provide two thirds of the energy requirements of 50 kg ewes in the last six weeks of pregnancy and in addition for d129-153, 570 g/h/d of clover hay was fed to provide an estimated total of 100% of energy requirements (Clark 1977).

After deducting the energy consumption of the dry ewes (which gained 176 g/h/d over d121-142), it is estimated (Anon 1975) that for d105-128, and for d129-150 the supplements provided 75 and 83% respectively, of the pregnant ewes energy requirements. For d111-121 the pasture consumed was 16% of the pregnant ewes requirements.

For d100-142 twin bearing ewes gained 5.4±3.0 and single bearing ewes 5.7±3.3 kg/h/d, values approaching the accepted 7 kg for d105-150. Lambing % was 117, twins each weighing 3.8±0.61 and singles 4.8±0.93 kg. However, during Jul. and early Aug., nine ewes died as a result of pregnancy toxaemia and/or hypocalcaemia/hypomagnesia.

The overall performance of the ewes approached that expected from supplementation. The results broadly validate the drought feeding standards (Clark 1977) which are based on men feeding experiments. There is a need to identify and separate pregnant from dry ewes since it was observed that dry ewes competed strongly for the supplement and gained weight at the expense of the pregnant ewes.


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