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Minnesota Sheep Research Notes

The following 9 items are condensed summaries of research projects conducted recently by University of Minnesota researchers R. M. Jordan, H. E. Hanke, W. E. Rempel, B. Singh, G. C. Marten, and F. D. Enfield.

1. Crossbreeding in sheep resulted in an average increase of 8% in weaning weight of lambs at 100 days of age.

2. Heritability of ewe productivity tends to decrease with the ewe's age, so records of younger ewes should receive more emphasis in selection programs than records of older ewes.

Lambs fed supplements containing urea gained decidedly slower during the first 2-3 weeks on feed than did lambs fed supplements with soybean meal. Thereafter, the weight gains were equal. The only advantage of urea-containing supplements for lambs is that they cost much less than oilseed meals such as linseed or soybean meal. A formula containing as much protein equivalent as soybean meal can be made with 84% ground corn, 14% urea, and 2% dicalcium phosphate.

3. Dehydrated alfalfa additions to lamb rations were advantageous when compared with rations containing low quality forages but had no advantage when compared with high quality, green alfalfa hay.

4. Steam rolled, cold rolled, or whole barley were not equal in feed value to shelled corn when fed to fattening lambs. Lambs fed whole barley gained as rapidly and efficiently as those fed steam or cold rolled barley. Pelleting barley of three different bushel weights (52, 45, or 35 lbs. per bushel) resulted in less gain than when lambs were fed the respective barley as whole grain. When fed as whole grain, heavy barley was superior to pelleted heavy barley.

5. Poultry litter built on wood shavings contained 85% dry matter, 15-18% protein, stored well, and when mixed with equal weights of ground corn, it was consumed readily by gestating ewes. Wool and lamb productivity were not adversely affected when poultry litter was added to ewe rations.

6. Grazing ewes do not need as much forage as they desire. Restricting forage consumption, by limiting the time ewes are permitted to graze to 50% of normal, increases the carrying capacity of oats-rape-pasture more than 100%. The ewe's wool and lamb production are not reduced.

7. Drylot feeding of ewes during summer was accomplished with as little as 2 lbs. of alfalfa-bromegrass hay per head daily. This amount

maintained ewes in satisfactory condition and at a cost comparable to what would have been entailed if ewes had been on pasture. Drylot feeding simplifies the problem of water availability, reduces parasite problems, and minimizes the amount of fencing required.

8. Lambs can be weaned at 8 weeks of age if they then go on alfalfa-brome-grass pasture. In each of three trials, lambs weaned at 8 weeks and placed on pasture gained more rapidly than lambs weaned at 12 weeks. Both 8-and 12-week weaned lambs gained significantly faster when they were self-fed ground corn in addition to pasture forage.

9. Evaluation of lamb carcasses should be done with caution unless carcass weight is held constant due to the high association of various carcass traits with carcass weight.