Feeding crops to sheep

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Erratum
Fig 2 is attached to next article Rationing Standing Crops To Sheep H.E. Fels Vol 11 No 11 P247
WESTERN AUSTRALIA’S 1969-70 drought provided the need for agricultural research workers to investigate methods of feeding stock under severe environmental conditions. This report presents brief descriptions of two such investigations. Further details of the experiments can be obtained by contacting the authors.

FEEDING CROPS TO SHEEP

Four methods of conserving crop material for use in mid or late-summer were compared in a cooperative experiment at Muresk involving the Western Australian Institute of Technology and the Department of Agriculture. The experiment included 128 Merino sheep and 11 acres of drought affected Gamenya wheat which produced 9.4 bus. per acre.

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Results and conclusions

The amounts of feed on the plots when mowing took place on October 28, and at the beginning of both grazing periods is shown on Figure 1. The amounts shown include all material on the plots, plus the material conserved from each plot as hay or grain. The figure applies to both grazing periods and indicates that leaving the crop untouched provided most plant material, despite two inches of cyclonic rain in mid-February.

Figure 2 summarises changes in the bodyweights of sheep during both grazing periods and with all conservation methods. No method was significantly better or worse than the others tested. The rapid weight increase at the beginning of the midsummer use period was due to “gut fill” as the sheep had been on a drought ration.

Rainfall before and during the experiment was; September—37 pts., October—nil, November—24 pts., December—2 pts., January—nil, February—201 pts. (including 200 pts. on February 16-17), March—nil, April—nil, May 1 to May 29—79 pts.

The results indicate that with a drought-affected crop, leaving the crop standing is as effective a conservation method as any of the other methods tested. Obviously it would be a more economic method under wheatbelt conditions, especially as mown crops would respond less than unmown crops to rain after mowing, or to moisture in the ground at mowing time.

In high rainfall areas, or in exceptionally dense wheatbelt crops, shaded parts of the crop use up sugars as fast as lighted parts produce them. In such situations mowing might increase the production of nutrients by allowing “aftermath” growth. Even so, it is doubtful whether the benefits of mowing would exceed its costs.

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