Don't crop areas liable to waterlogging

Department of Agriculture, Western Australia
DON'T CROP AREAS LIABLE TO WATERLOGGING

The increasing areas of crops being sown in high rainfall districts make it likely that many crop areas include sections liable to severe waterlogging. This report presents results of a 1970 trial* which clearly show that sowing such sections is not economic.

Method

Forty 600 x 10.5 link plots were sown on May 21, 1970, at Mt. Barker Research Station with the crops and seeding rates shown in Figure 1. There were four replications of each treatment. Each plot sloped from a well-drained hilltop down into a valley liable to waterlogging and, before seeding, was top-dressed with 180 lb superphosphate per acre, and 300 lb urea per acre. (Figure 1).

The bottom half of the whole site was severely waterlogged during July and August, to a maximum depth of about 2 in.

Dry matter production and grain yield were measured by considering the bottom 200 lk of each plot as the waterlogged treatment, and the top 200 lk as non-waterlogged. Dry matter was measured on August 10 from a 9 x 10.5 lk sample area at each end of each plot. Similar areas were harvested to determine grain production on each treatment.

Results

Results for dry matter production and grain yield for each crop are summarised in Figures 1 and 2. As there were no differences between replications, the results for each crop are the average of its four plots.

Discussion

The results clearly indicate that sowing areas liable to waterlogging can be an uneconomic proposition. Even with barley, the crop whose

* Trial supervised by M. L. Poole, Research Officer, Plant Research Division.

Fig. 1.—Average dry matter production from waterlogged and unwaterlogged crops—300 lb urea/acre.

Fig. 2.—Average grain yields from waterlogged and unwaterlogged crops—300 lb urea/acre.
yield was least affected by waterlogging, grain production on the waterlogged area would not have repaid the cost of sowing and harvesting. The very poor performance of rape and linseed under waterlogged conditions should be noted.

Dry matter production was also considerably reduced for all crops. Wheat and oats were least affected by waterlogging, but it is doubtful if the dry matter production from their waterlogged areas would have equalled pasture production from the areas if they had been left unsown.

Acknowledgments
The trial was carried out with financial assistance from the State Wheat Research Committee.

SIMPLIFIED SHEEP SKIN TANNING

Most people would agree that a white sheepskin rug adds a touch of luxury to any home.

The following method will produce dressed, woolly sheep skins with chemicals and equipment available to any householder.

1. If possible, select the pelt according to fibre quality, density, degree of staining and firmness of skin. Trim off any loose skin and flesh.

2. Soak for 24 hours in cold water with wetting agent or detergent at 1 cup to 20 gallons.

3. Scrape the softened skin with a fairly blunt knife to remove excess tissue.

*4. Scour, using 2 cups soap flakes and 1 cup washing soda to 20 gallons of warm water. Keep the skin immersed for 1 hour and then rinse in warm water.

*5. Repeat step 4 without the washing soda.

*6. Rinse in warm water.

7. Immerse the skin for 24 hours in a bath containing 18 lb. alum and 40 lb. salt per 100 gallons of water, poleing every 20 minutes for the first few hours. Hang up to drain and, when just damp, brush the skin side with neatfoot or a vegetable oil if the former proves too odorous.

8. Following natural drying, which may take several days, the skin should be dragged over a fairly blunt edge to give the desired suppleness to the tanned skin. Follow this with combing.

Although the simplest to carry out, alum tanning will not withstand washing or dry cleaning and great care must be taken to keep the skin away from excessive heat.

* It is essential that agitation of the skin during wet processing is kept to a minimum to avoid felting of the wool. Use a relatively large amount of water and pole the skin every 5 to 10 minutes.

Provided by the Australian Wool Board.