

WEED CONTROL IN THE SUNRAYSLIA AREA

by

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The chief weeds of economic importance in vineyards in the Sunrayslia district are in order of importance.

Hard Head (*Centaurea picris*)

Johnson Grass (*Andropogon halepense*)

Paspalum (*Paspalum dilatatum*)

Three Cornered Jack (*Emex australis*)

Bindweed (*Convolvulus arvensis*)

Hoary Cress (*Cardaria draba*)

Couch Grass (*Cynodon dactylon*)

Camel Thorn (*alhagi camelorum*)

Nut Grass (*Cyperus rotundus*)

Annual weeds such as milk thistles, mustard and fat hen.

Under the usual cultural practices annual weeds can readily be kept under control whereas perennials such as Hard Head and Bindweed can be checked but cannot be killed by cultivation.

Johnson Grass, Paspalum, Couch Grass and Nut Grass are problems beneath the vines and along fences where cultivation is difficult, and the first three cause difficulties with earth channels.

On the "drying greens" on which the dried fruit is spread to finish off the drying process Three Cornered Jacks become a problem. Rubber tractor tyres are responsible for spreading the weed on to the vineyard.

Hard Head, a vigorous growing perennial with a liking for heavier limy soils and apparent salt tolerance, is by far the most extensive and hardy weed in the Sunrayslia district.

Cultivation before and after each of five or six irrigations keeps the weed in check but the effect of its competition with the vine for water can be seen at times in the loss of vigour of the vines. Experiments with hormone weed-killers showed that the alkanolamine type was most effective. When the weeds were sprayed at the rosette stage the tops and some part of the roots were killed. A lighter second spraying to catch the later emerging plants was necessary. The above programme reduced the number of plants to a low level where they apparently did not compete with the vine. It was found advantageous to apply the weedicide as soon as the weed grew after the first irrigation in spring and allow at least six weeks free of cultivation by applying the second irrigation water down the same furrows and only cultivating after the second irrigation.

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Weeds beneath the vines can be treated in the same way. With careful application of the spray on calm days no damage occurred to the leaves or fruit. Volatile hormones however cannot be used as damage will occur to the vines.

Variable results have been obtained with chlorate sprays on grasses such as Paspalum and Johnson Grass and the newer weedicides such as T.C.A. and Dalapon may prove to be of greater benefit provided they are not toxic to the vines. Their use may solve the problem of weeds on channel banks and along fences away from vines.