

NO.18 THE PROBLEM OF HARDHEADS (CENTAUREA REPENS L.) IN

VINEYARDS

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The herbaceous perennial Centaurea repens L. is widespread in some vineyards in the Sunraysia area. There are good grounds for supposing that it competes seriously with vines but the exact effect, if any, on yield has not been determined. Reasonably effective control using the amine salt of 2, 4-D was described by Webster at the first Weed Control Conference in 1954. No damage to vines has been reported but the use of 2, 4-D in vineyards introduces an element of risk and further work on the problem seems justified. Although a fair amount of overseas information on this weed is available it is proposed to carry out studies under Sunraysia conditions in terms of Resolution 1 of the first Weed Control Conference.

In particular information is desired on such points as the relative importance of rhizome extension, of seedlings, and of pieces of rhizome carried on tillage implements in the spread of the weed, and the nature of the competition between weed and vine. Initially six lines of attack have been planned.

1. The rate of spread by rhizome extension will be studied by marking the position of aerial growth in one season and relating it to the position in the following season.

2. The germination of seed will be tested at intervals and under various conditions.

3. The amount of growth which can be produced by isolated pieces of rhizome will be investigated.

4. The growth made following cutting or treatment with the amine salt of 2, 4-D will be compared in detail with the growth of control plants.

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5. An attempt will be made by suppressing weed growth in plots in an infested area to determine what reduction in vine yield and growth the weed causes.

6. The behaviour of vine cuttings grown in soil from adjacent infested and clean areas will be studied.

The accumulation of information along these lines should help to determine what degree of control is required and what is the most economical way of achieving it.