ACULUS HYPERICI - A POTENTIAL CONTROL AGENT FOR ST. JOHN'S WORT

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Abstract. The results of field trials in southern France showed a dramatic decrease in stem and seed production of *Hypericum perforatium* due to attack by the eriophyid mite, *Aculus hyperici*, in combination with the stem boring beetle, *Agrilis hyperici*. Survival of large and young plants was also significantly reduced over a period of a year, the effect on young plants being almost solely due to *Aculus hyperici*.

Host specificity tests have shown that *Aculus hyperici* is specific to the genus *Hypericum* , but the two native *Hypericum* species are not considered to be in danger. Ornamental *Hypericum* species were not significantly affected by the mite with the exception of *Hypericum pulchrum*. The potential benefits of this control agent are extensive and far outweigh any possible risk of attack on this ornamental species under natural conditions.

A PROGRAMME FOR THE BIOLOGICAL CONTROL OF HOREHOUND IN SOUTHERN AUSTRALIA

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Abstract. Horehound (*Marrubium vulgare* L.) (Labiatae) is an erect, spreading, long-lived perennial plant that is not grazed by stock and is invasive in Mallee vegetation. It was first proclaimed a noxious weed in Victoria in 1906 and in South Australia it is proclaimed. Horehound can be controlled with herbicides and does not persist with regular cultivation, however these control methods are either uneconomic or unsuitable in pasture and conservation areas. Biological control is considered to be potentially a more suitable control method in these areas.

The biological control programme has been divided into three main phases;

1) A two year study of the invasiveness of horehound in native ecosystems and agricultural land in north-western and central Victoria.
2) A survey of appropriate areas in the native distribution of horehound to discover the most effective candidate agents for biological control
3) The introduction, testing for host specificity in quarantine, rearing, release and evaluation of candidate agents.

It is expected that the first release of biological control agents could occur in 1992.