

94/V04



Producer Research Support

Variable success with clearwing moth as dock bio-agent

St Helens Shelterbelters



The clearwing dock moth used by the St Helens Shelterbelters group (C. Doryliformis) has shown itself to be useful in helping eradicate the dock R. Cripus. But it is unsuitable for the main dock found in the district R. Coglomeratus.

Key points

• Clearwing dock moth is useful in controlling the dock *R. Cripus* but is unsuitable for the control of the main dock *R. Coglomeratus*.

The project

The clearwing dock moth used by the St Helens Shelterbelters group (C. Doryliformis) has shown itself to be useful in helping eradicate the dock R. Cripus. But it is unsuitable for the main dock found in the district R. Coglomeratus.

These findings are supported by research done originally by Scott (CSIRO, WA) and Saglicca (Montepellier, France) in 1991 on all dock varieties found in Australia.

Their research showed that the moth larvae of *Bembecia Chrysidiformis* was marginally better in its impact on *R. Coglomeratus* species.

The third report into biological control of dock moth by Ian Faithfull, Keith Turnbull Research Institute, in September 1997showed that *R. Coglomeratus* type dock at Woorndoo and Coleraine hadn't established, while the other sites with *R. Cripus* types showed more promise of establishing.

Objectives

- 1. Release a bio-control agent of dock in south-western Victoria; and
- 2. Monitor establishment of clearwing moth at release sites.

What happened?

The St Helens Shelterbelter Committee decided to stop the trial in light of previous research and the results obtained in June 1997 (August 1997 Report) where the majority of larva were found in *R. Cripus*.

No moths were observed at any of the sites in the November-December 1997 hatching season.

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He said there appeared to be no real advantage in spraying a paddock with insecticide and using seed coating technology.

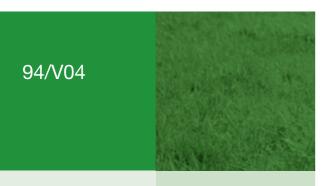
"It is best to use the seed coating treatment as this is far more economical and also far more convenient," he said.

Using coated fodder seed rape costs about \$4-6/hectare (seed coating only) completed with an insecticide that costs about \$12/ha plus application costs.

Coated seed works in direct drilled forage rape.

Contact details

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Discussion

The use of insecticide coated seed when direct drilling fodder rape crops will significantly increase plant establishment and dry matter produced.

There was, however, no real advantage in using both the treated seed and an insecticide when direct drilling fodder rape.

Trial consultant Alan Barrett said it was far more cost effective and convenient to use coated seed.

He said there was no real advantage in using coated seed or insecticide when establishing fodder rape on conventionally prepared seedbeds. But it should be noted that the summer of the trial in Tasmania was wet and considered ideal for fodder crop growth.

Mr Barrett said in a dry summer it was thought these techniques would assist in improving plant establishment and dry matter production when plant growth was not vigorous.

"If conditions are good and the paddock can be cultivated for fodder rape establishment it would have to be concluded that better crops would be established more reliably than direct drilling."

"However there are many regions throughout the Tasmanian pastoral region that are not suited to cultivation. In these cases fodder rape can be established successfully by direct drilling and coated seed should be used."