

## PROGRESS TOWARDS BIOLOGICAL CONTROL OF THISTLES IN VICTORIA

E. Bruzzese  
 Keith Turnbull Research Institute,  
 Department of Conservation, Forests and Lands,  
 P.O. Box 48, Frankston, Victoria, 3199

*Abstract.* Thistles are the major noxious weed component of Victorian pastures. Spear thistle (*Cirsium vulgare*), slender thistles (*Carduus pycnocephalus* and *C. tenuiflorus*) and variegated thistle (*Silybum marianum*) infest respectively 9.7, 8.2 and 4.7 million ha of land, much of which is pasture. Thistles cost Victorian farmers about \$9/ha in control costs and lost production. A programme for biological control of thistles commenced in Victoria in 1985. Encouraging overseas results have led to the importation of the thistle receptacle weevil (*Rhinocyllus conicus*) from Europe. The larvae of this insect destroy the developing seeds in the flower head. A strain adapted to variegated thistle has been released and strains adapted to slender and spear thistles are being reared under quarantine conditions and may be released in Spring 1990.

## THE BIOLOGICAL CONTROL OF HARRISIA CACTUS IN NEW SOUTH WALES

G.E. Ryan, P.J. Hodge, L.R. Tanner, and K.R. Whitton  
 N.S.W. Agriculture & Fisheries,  
 P.O. Box 1 Bingara NSW 2404

*Abstract.* *Harrisia cactus*, *Eriocereus martinii*, is a major weed in central Queensland(1), and a problem weed in southern Queensland near the border town of Goondiwindi. It is also a problem in north-western New South Wales near Boggabilla, adjacent to the Queensland border. The plant, which seeds prolifically, was spread to New South Wales from Queensland by birds and animals.

A chemical control programme was begun near Boggabilla in 1971 by the NSW Prickly -pear Destruction Commission. The programme was pursued vigorously between 1971 and 1986 but failed to contain the spread of *Harrisia cactus*.

A mealybug, *Hypogeococcus festerianus*, was released in Queensland in 1975. The mealybug established readily and became the basis of a biological control programme which superseded chemical and mechanical control methods in 1979(2). The mealybug was released in three sites near Boggabilla in December 1984.

## REFERENCES

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