

PROGRESS TOWARDS BIOLOGICAL CONTROL OF THISTLES IN VICTORIA

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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

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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 The mealybug established readily and became the basis of a biological control programme which superseded chemical and mechanical control methods in 1979(2).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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