

Scotch Thistle (*Onopordum* spp.) Survey - Harden District

Peter Holst, Cameron Allan and David Stanley

NSW Agriculture
Agricultural Research Station, Cowra, NSW, 2794

Scotch and Illyrian thistle (*Onopordum* spp.) are vigorous weeds of pastures on the central and southern tablelands of NSW. In eastern Australia it is estimated that they infest 995,000 ha, with 288,000 ha being of moderate to severe infestation (Briese *et al.*, 1990). These thistles are biennial plants which are propagated by seed. In 1993 a postal survey of farmers in the Harden district was undertaken to establish the extent of the thistle problem on individual farms and farmers attitudes to control procedures.

Methods

A questionnaire was sent to each property (80) on the Harden-Murrumburrah Landcare mailing list. Farmers were asked for details of property size and enterprises, and the extent of the thistle problem at flowering in December 1993. A question on management procedures for thistle control preceded questions on whether they thought biological control with the seed weevil (*Larinus latus*) was the solution and, if so, over how many years. The final series of questions related to the use of goats for the control of these thistle species.

Results and Discussion

Fifty eight percent of the farmers returned com-

pleted questionnaires. The range of property sizes is shown in Figure 1.

Taking a subsample of 37 properties between 300-5000 ha in area, average statistics are as follows:

Total area	1081 ha	Cattle numbers	103
Area to crops	321 ha	Sheep numbers	4330
Stocking rate	6.8 DSE/grazing ha		

From this sample, 90% of properties were infested with thistles (average 400 ha). These properties all had dense infestations (average 109 ha) and 38% had areas (average 79 ha) where control was not being practiced (possibly due to excessive infestations frequently on non-arable country).

Chemicals were considered by 32% of farmers and

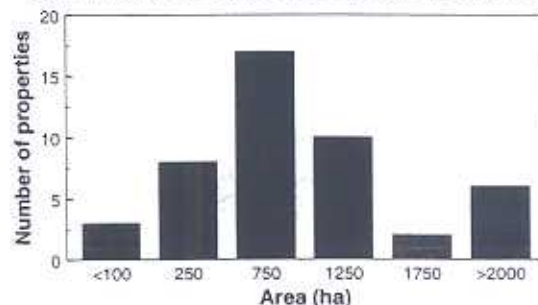


Figure 1. Area of properties included in survey (ha)

pasture/crops by 65% as the best control method, but essentially all used chemicals in their control programmes. If money was not a limiting factor, more chemical (57%) and less farming (38%) would be practiced. 92% of farmers considered biological control could provide the solution and 6, 23 and 71% estimated it would take 10, 15 and 20 or more years respectively to be effective. Comments on the use of goats for thistle control indicated that farmers needed more information on goat management before this strategy would be adopted.

This survey of Scotch and Illyrian thistle in the Harden district clearly shows that the thistle is endemic and difficult (expensive) to contain. Unsolicited comments revealed the frustration of all farmers.

These farmers said that they had contained the problem only by years of dedicated integrated control procedures. It was the hope of all the respondents that classical biological control would provide the solution, while maintaining a cautious attitude to the potential role of goats.

Acknowledgments

We wish to thank Mrs. L. Hufton and the Directors of the Harden-Murrumburrah Landcare Group for their excellent support with the survey.

Reference

Briese, D.T., D. Lane, B.H. Hyde-Watt, J. Crocker and R.G. Diver (1990). Distribution of the genus *Onopordum* in Australia. *Plant Protection Quarterly*, 5: 23-27.