

LANDHOLDERS' PERCEPTION OF THE WORST WEEDS IN
THE CENTRAL WEST OF N.S.W.

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Summary. In a mail survey in the central west of N.S.W. in late 1984, landholders were asked to rank the importance of Paterson's curse, *Echium plantagineum* L., with respect to other weeds on their property. The results showed that throughout the area surveyed, landholders considered Paterson's curse to be the worst weed. Landholders in a pastoral district perceived a larger proportion of pastoral weeds as being their major weed problem, compared with mixed farming enterprise districts where crop and crop/pasture weeds were considered more important.

INTRODUCTION

In late 1984 a mail survey was conducted throughout the Oberon, Cabonne and Cowra shires in the central west of N.S.W. to ascertain landholders' attitude to Paterson's curse and its impact on their agricultural enterprises. In the Oberon shire the main agricultural industry is intensive grazing/prime livestock production based on temperate perennial and subterranean clover pastures, while Cabonne and Cowra shires are more diverse with mainly mixed farming enterprises based on winter cereal production.

METHODS

Two hundred survey questionnaires were sent to landholders in each of the three shires. In one section of the questionnaire, landholders were asked if they considered Paterson's curse a problem and to rank it in seriousness with other weeds on their property. The weeds were scored in order of importance i.e. 8 points for 1st ranked weed; 7 points for 2nd ranked weed and so on down to 1 point for the 8th ranked weed. The ratio of each weed total score to the shire total score (expressed as a percentage) gives an index of importance of each weed. The weeds nominated were classified as being pasture weeds (P), crop weeds (C) or crop/pasture weeds (C/P).

RESULTS AND DISCUSSION

A total of 268 landholders gave their ranking of the worst weeds on their property (75 from Oberon, 87 from Cabonne and 106 from Cowra shires). Up to 8 individual weeds were nominated. Overall, 45 weed species were nominated as being important weeds by the survey respondents, including 17 species considered noxious weeds under the Local Government Act, 1919.

Table 1 indicates the 10 worst weeds for each shire. The index of importance is the ratio of the total score of each weed to the shire total score (percentage). There appears to be no relationship between status as a noxious weed and the species nominated.

Paterson's curse was ranked as the worst weed in each of the three shires, corresponding with the abundance of that plant at the time of the survey. The high ranking of Paterson's curse could also be influenced by the survey design seeking specific information on the plant. Landholders of the pastoral district of Oberon perceived a larger proportion of pasture weeds as being their major weed problem compared to the other two shires. In the more

mixed farming enterprise shires of Cabonne and Cowra a larger proportion of both crop and crop/pastoral weeds were nominated.

Table 1. Ranking and classification of weeds in the Oberon, Cabonne and Cowra shires of central west N.S.W.

Scientific name	Common name	Class ^a	Index (%) ^b
<u>Oberon shire</u>			
<i>Echium plantagineum</i> L.	Paterson's curse	P	29.5
<i>Silybum marianum</i> (L.) Gaertn	Variegated thistle	C/P	16.0
<i>Nassella trichotoma</i> (Nees) Arech.	Serrated tussock*	P	12.1
<i>Carduus nutans</i> L.	Nodding thistle*	P	11.4
<i>Rubus</i> (<i>fruticosus</i> agg.) spp.	Blackberry*	P	9.8
<i>Carthamus lanatus</i> L.	Saffron thistle	C/P	9.0
<i>Xanthium spinosum</i> L.	Bathurst burr*	C/P	2.5
<i>Cirsium vulgare</i> (Savi) Ten.	Spear thistle	P	1.7
<i>Chondrilla juncea</i> L.	Skeleton weed	C	1.1
<i>Rumex acetosella</i> L. s.lat.	Sorrel	P	.9
<u>Cabonne shire</u>			
<i>Echium plantagineum</i> L.	Paterson's curse	P	31.1
<i>Carthamus lanatus</i> L.	Saffron thistle	C/P	14.2
<i>Xanthium spinosum</i> L.	Bathurst burr*	C/P	13.3
<i>Silybum marianum</i> (L.) Gaertn	Variegated thistle	C/P	9.7
<i>Alternanthera pungens</i> Kunth	Khaki weed	P	4.6
<i>Tribulus</i> spp.	Cathead	C/P	3.0
<i>Arctotheca calendula</i> (L.) Levyns	Capeweed	C/P	2.8
<i>Chondrilla juncea</i> L.	Skeleton weed	C	2.5
<i>Raphanus raphanistrum</i> L.	Wild radish*	C	2.1
<i>Fumaria</i> spp.	Fumitory	C	1.5
<u>Cowra shire</u>			
<i>Echium plantagineum</i> L.	Paterson's curse	P	37.2
<i>Carthamus lanatus</i> L.	Saffron thistle	C/P	10.6
<i>Xanthium spinosum</i> L.	Bathurst burr*	C/P	10.5
<i>Silybum marianum</i> (L.) Gaertn	Variegated thistle	C/P	6.4
<i>Raphanus raphanistrum</i> L.	Wild radish*	C	4.2
<i>Onopordum</i> spp.	Scotch thistle*	P	3.9
<i>Sorghum halepense</i> (L.) Pers.	Johnson grass*	C	3.1
<i>Arctotheca calendula</i> (L.) Levyns	Capeweed	C/P	3.0
<i>Alternanthera pungens</i> Kunth	Khaki weed	P	2.2
<i>Rumex acetosella</i> L. s.lat.	Sorrel	P	1.4

*A declared noxious plant in N.S.W.

^aP=pasture weed, C=crop weed, C/P=crop and pasture weed

^bIndex of the weed's importance derived by ratio of weed's score to shire table score (percentage)