

QUESTION	COMMENTS	REFERENCE	RANKING
<b>Social</b>			
1. Restrict human access?	“A prostrate summer-growing annual herb.” Even in dense infestations, its presence does not hinder human access.	P & C (2001)	<b>L</b>
2. Reduce tourism?	Its presence is likely to affect recreational activities. The fruit is a woody burr with sharp rigid spines to about 6 mm long. It splits into five segments each with two spines. The spines on the fruit and segments can easily penetrate human flesh causing discomfort. Infestations may limit recreational activities.	P & C (2001)	<b>MH</b>
3. Injurious to people?	The fruit and resultant segments present rigid spines to about 6 mm long. Fruit are formed continuously through the summer and autumn. In India, plants have produced up to 1000 fruit.	P & C (2001)	<b>MH</b>
4. Damage to cultural sites?	In dense infestations in NSW the plant is known to provide cover of up to 45 cm deep for several months of the year. Also, in shaded areas or when competing with taller plants the stems will grow erect. The physical structure of site is not affected, but dense infestations would seriously affect the aesthetics of an area.	P & C (2001)	<b>ML</b>
<b>Abiotic</b>			
5. Impact flow?	Terrestrial species.	P & C (2001)	<b>L</b>
6. Impact water quality?	Terrestrial species.	P & C (2001)	<b>L</b>
7. Increase soil erosion?	“It occurs mostly on dry sandy soils where there is little competition.” Its presence may help to reduce soil erosion marginally during its growth and flowering period.	P & C (2001)	<b>L</b>
8. Reduce biomass?	Grows best in disturbed areas with minimal vegetation. Invader replaces biomass.	P & C (2001)	<b>ML</b>
9. Change fire regime?	A summer annual it adds little if any fuel load. Dry matter would present little or negligible effect on fire risk.	P & C (2001)	<b>L</b>
<b>Community Habitat</b>			
10. Impact on composition (a) high value EVC	EVC=Plains grassland (E); CMA=North Central; Bioreg=Victorian Riverina; VH CLIMATE potential “...caltrop is most frequently found in the north of the State...where it occurs in railway yards, nature strips, parks and waste areas in almost every town.” “Prefers dry sandy soils where there is little competition.” Allelopathic. Major displacement of grasses or ground covers.	P & C (2001)	<b>MH</b>
(b) medium value EVC	It is not likely to occur in medium value EVCs.		<b>L</b>
(c) low value EVC	It is not likely to occur in low value EVCs		<b>L</b>
11. Impact on structure?	Grows best in disturbed areas with minimal other vegetation. It is reported to have allelopathic properties which inhibit the growth of grass seedlings, and its extensive root system can compete effectively for moisture and nutrients. In dense infestations it can dominate the ground flora.	P & C (2001)	<b>ML</b>
12. Effect on threatened flora?			

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<b>Fauna</b>			
13. Effect on threatened fauna?			
14. Effect on non-threatened fauna?	The areas where <i>T. terrestris</i> inhabit (railway yards, nature strips and waste areas) would not be a significant food source for grazing fauna. Its presence may have a minor effect in reducing food source.	P & C (2001)	<b>ML</b>
15. Benefits fauna?	No known benefits.		<b>H</b>
16. Injurious to fauna?	“Spines on the fruit damage the feet of animals.” When eaten, the fruit can damage the mouth and possibly the lining of the stomach and intestines. It is toxic to sheep and may present similar properties to native fauna.	P & C (2001)	<b>H</b>
<b>Pest Animal</b>			
17. Food source to pests?	Not known as a food source to pests.		<b>L</b>
18. Provides harbor?	A prostrate annual herb with spiny fruit, it is unlikely to provide habitat for pest animals.	P & C (2001)	<b>L</b>
<b>Agriculture</b>			
19. Impact yield?	A significant pest in crops, it is able to extract soil moisture from great depth. This allows it to offer severe competition under very dry conditions. In pasture situations, in the absence of other suitable fodder, animals will graze new growth of <i>T. terrestris</i> , which may cause stock losses. The level of impact is not documented but losses in New South Wales and Western Australia have been reported.	Holm <i>et al</i> <sup>1</sup> P & C (2001)	<b>MH</b>
20. Impact quality?	It contaminates harvested product, particularly in the dried fruit industry, and is a vegetable fault in wool. However, presence of the seed does not affect wool processing.	P & C (2001) AWTA Ltd <sup>2</sup>	<b>MH</b>
21. Affect land value?	The weed causes some agricultural loss, but it can be readily controlled with suitable mechanical and chemical controls. Its presence may affect land value somewhat.	Holm <i>et al</i>	<b>M</b>
22. Change land use?	The potential threat to grazing animals presented by the weed may dictate a temporary change to land use. In NSW grows exceptionally well on farms with a system of winter cereal crops and sheep grazing. A period of continuous cropping may be required until the weed is controlled.	P & C (2001)	<b>M</b>
23. Increase harvest costs?	Seeds and seed segments are a nuisance causing painful injury to fruit pickers and shearers. Continuous interruption (to remove the offending spine) may increase the time to harvest.	P & C (2001)	<b>M</b>
24. Disease host/vector?	None evident		<b>L</b>

<sup>1</sup> Holm, L., Plucknett, D., Pancho, J., Herberger, J. (1977) *The World's Worst Weeds*. University of Hawaii.

<sup>2</sup> Australian Wool Testing Authority Limited. [http://www.awta.com.au/Publications/Marketing/Raw\\_Wool\\_Services/major\\_vegetable.html](http://www.awta.com.au/Publications/Marketing/Raw_Wool_Services/major_vegetable.html) Last accessed 27/03/03