

QUESTION	COMMENTS	REFERENCE	RANKING
Social			
1. Restrict human access?	Erect annual herb, commonly 30 to 60 cm high. Unlikely to affect human access.	P & C (2001)	L
2. Reduce tourism?	In Victoria, it occurs in medium to large populations in riparian situations. Dense infestations would have a major effect on aesthetics. The leaves produce an unpleasant odour when crushed and the fruit is armed with spines; some recreational activities may be affected.	Carr <i>et al</i> (1992) P & C (2001)	MH
3. Injurious to people?	“All parts of the plant, particularly the seeds, are poisonous.” The seed capsule bears approximately 100 slender spines.	P & C (2001)	H
4. Damage to cultural sites?	Dense patches likely to create a negative visual effect.		ML
Abiotic			
5. Impact flow?	Terrestrial species.	P & C (2001)	L
6. Impact water quality?	Terrestrial species.	P & C (2001)	L
7. Increase soil erosion?	“Dense infestations occur in pastures and on river flats, producing a complete ground cover. As an annual, bare ground left when plant dies would be subject to erosion.	P & C (2001)	L
8. Reduce biomass?	“Thornapples now occur...in Victoria in the irrigated cropping areas close to Melbourne, at Orbost, along the Murray River, and I the tobacco crops of the north east.” In these situations the weed would replace biomass.	P & C (2001)	ML
9. Change fire regime?	“The plants die in the cooler autumn weather, but dead plants bearing capsules may remain standing through winter into spring.” Potential for a minor change in the frequency of fire risk within dense patches.	P & C (2001)	ML
Community Habitat			
10. Impact on composition (a) high value EVC	EVC=Riparian woodland (E); CMA=North Central; Bioreg=Victorian Riverina; VH CLIMATE potential. Compete strongly with summer species for moisture and nutrient. In Victoria, it occurs in medium to large populations. Major displacement of annual grasses/ground covers.	P & C (2001) Carr <i>et al</i> (1992)	MH
(b) medium value EVC	EVC=Riverine grassy woodland (D); CMA=Murray Goulburn; Bioreg=Murray Fans; VH CLIMATE potential. Impact as in 10(a) above.	P & C (2001) Carr <i>et al</i> (1992)	MH
(c) low value EVC	Does not occur in any low value EVC in Victoria.		L
11. Impact on structure?	“Dense infestations occur in pastures and on river flats, producing a complete ground cover. <i>D. stramonium</i> has an allelopathic effect on other species,...and it is probable that this property contributes greatly to its competitiveness with many crops.” Likely to have a major impact on <60% of the lower stratum.	P & C (2001)	ML
12. Effect on threatened flora?			

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Fauna			
13. Effect on threatened fauna?			
14. Effect on non-threatened fauna?	In Victoria, it is widespread in medium to large populations in riparian vegetation. Likely to reduce available fodder for fauna species in those areas.	Carr <i>et al</i> (1992)	ML
15. Benefits fauna?	No known benefits.		H
16. Injurious to fauna?	“All parts of the plant, particularly the seeds, are poisonous.”	P & C (2001)	H
Pest Animal			
17. Food source to pests?	Not known as a food source to pests.		L
18. Provides harbor?	Not known to provide harbor for pest animals.		L
Agriculture			
19. Impact yield?	“Thornapples...are of most importance in Queensland and northern New South Wales where they compete with many crops. Mung beans and soybeans are seriously affected and yield losses of up to 90% have been recorded.” Serious impact on quantity.	P & C (2001)	H
20. Impact quality?	“Thornapple seeds are difficult to separate from seeds of grain sorghum...and contaminated samples are downgraded or rejected.” Produce rejected for sale.	P & C (2001)	H
21. Affect land value?	Primarily a weed of cropping, control can be achieved by repeated cultivations. However, as <i>H. stramonium</i> plants can produce up to 30,000 seeds and seeds remain viable for more than 30 years, control is a long-term exercise. With the serious impact this plant can have on agricultural production, land values may be greatly affected.	P & C (2001)	M
22. Change land use?	Normal farm practices in cropping situations may be sufficient to control the plant, and a change in land use does not appear necessary. Grazing land may be temporarily unavailable while control efforts are undertaken.		M
23. Increase harvest costs?	“The plants being large and coarse also interfere with harvesting equipment.” Greater time and labor required to conduct harvest.	P & C (2001)	M
24. Disease host/vector?	“They [<i>Datura</i> spp.] act as alternative hosts of insect pests and diseases of solanaceous crops such as tomatoes, tobacco, and potatoes but the significance of this is not known in Australia.” Potential impact?	P & C (2001)	H