Scientific Name: *Solanum elaeagnifolium* Common name: Silverleaf nightshade

QUESTION	COMMENTS	REFERENCE	RANKING
Social			
1. Restrict human access?	"An erect summer-growing perennial herb, commonly 30 to 45 cm high." The low growth habit would not restrict human access.	P & C (2001)	**L**
2. Reduce tourism?	"The stems are usually armed with numerous slender prickles 2 to 4 mm long. Aerial growth dies at the end of summer but the dead stems usually remain standing for several months." The prickly property of the plant may affect some recreational activities.	P & C (2001)	**ML**
3. Injurious to people?	See comment in 2 above. Prickles present for much of the year. Potential for minor injury.	P & C (2001)	**ML**
4. Damage to cultural sites?	Dense patches may create a negative visual impact.		**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?	Root system comprises deep, much branched, vertical and horizontal roots to 2 metres deep and wide. However, aerial growth dies at the end of summer leaving bare areas of soil. Potential for moderate probability of large scale soil movement.	P & C (2001)	**ML**
8. Reduce biomass?	"An erect summer-growing perennial herb, commonly 30 to 45 cm high. Silverleaf nightshade competes directly with summer-growing crops and pastures." Replaces biomass.	P & C (2001)	**ML**
9. Change fire regime?	"In Victoria…it usually occurs in discrete patches." Although aerial growth dies at the end of summer and dead plants remain standing, the plant would not influence fire regime.	P & C (2001)	**L**
Community Habitat			
10. Impact on composition (a) high value EVC	EVC=Plains grassland (E); CMA=North Cental; Bioreg=Victorian Riverina; VH CLIMATE potential. A weed of open pasture/cropping situations. Not known in natural ecosystems in Victoria. Minor displacement of grasses/forbs.	P & C (2001)	**ML**
(b) medium value EVC	EVC=Grassy dry forest (D); CMA=North Cental; Bioreg=Goldfields; VH CLIMATE potential. Impact as in 10(a) above.	P & C (2001)	**ML**
(c) low value EVC	EVC=Grassy dry forest (LC); CMA=Goulburn Broken; Bioreg=Highlands – Northern Fall; VH CLIMATE potential. Impact as in 10(a) above.	P & C (2001)	**ML**
11. Impact on structure?	Primarily a weed of cropping, it also occurs in summer-growing pasture and, " perennial pasture does not check its growth." The extensive root system enables the plant to draw moisture and nutrients from a large volume of soil and thus compete effectively against other species. Although it infests broad areas, the infestations tend to be populated as discrete patches. Infestation aided by cultivation. Minor effect on 20–60% of the floral strata.	P & C (2001)	**ML**
12. Effect on threatened flora?			

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QUESTION	COMMENTS	REFERENCE	RANKING
Fauna			
13. Effect on threatened fauna?			
14. Effect on non-threatened fauna?	Primarily a weed of agriculture. Limited threat due to fauna not co-existing within infested area.	P & C (2001)	**L**
15. Benefits fauna?	"Birds and animals eat the fruit." Minor food source.	P & C (2001)	**MH**
16. Injurious to fauna?	"Feeding trials have confirmed that all parts of the plant, but particularly the fruit either green or ripe, is toxic to animals."	P & C (2001)	**H**
Pest Animal			
17. Food source to pests?	"Birds and animals eat the fruit." Possible limited food source for minor pest animals.	P & C (2001)	**ML**
18. Provides harbor?	A summer-growing perennial. Not known to provide harbor.	P & C (2001)	**L**
Agriculture			
19. Impact yield?	"Silverleaf nightshade competes directly with summer-growing crops and pastures, and reduces production of winter crops such as cereals because of the depletion of nutrients and moisture from the soil in the previous summer. In Texas…it considerably reduces cotton and grain sorghum yields." Major impact on yield	P & C (2001)	**MH**
20. Impact quality?	"…the plant's spiny leaves and coarse stems may lower the quality of hay taken from infested areas." Contaminated hay may be rejected for sale outside infested area.	WSNWCB[1]	**H**
21. Affect land value?	"Silverleaf nightshade is one of the most difficult weeds to kill." The value of land infested with this plant would be reduced due the weed's persistence and its potential impact on agricultural production.	P & C (2001)	**M**
22. Change land use?	In cropping situations, land use may not need to change depending upon the impact on production. In pasture situations, however, as "sheep are more resistant to the toxins and goats are unaffected," choice of grazing animal may change.	WSNWCB	**M**
23. Increase harvest costs?	Not known to affect harvest costs.		**L**
24. Disease host/vector?	None evident		**L**

[1] Washington State Noxious Weed Control Board, 1999, *Silverleaf nightshade*, http://www.nwcb.wa.gov/weed_info/sleafnightshade.html, viewed 29/04/03