



Government
of South Australia

Declared Plant Policy

This policy relates to natural resources management under section 9(1)(d) of the Landscape South Australia Act 2019 (the Act), enabling co-ordinated implementation and promotion of sound management programs and practices for the use, development or protection of natural resources of the State. Specifically, this policy provides guidance on the use and management of natural resources relating to the prevention or control of impacts caused by pest species of plants that may have an adverse effect on the environment, primary production or the community, as per object s7(1)(f) of the Act.

Italian buckthorn (*Rhamnus alaternus*)

Italian buckthorn is a fast growing shrub that originates from the Mediterranean area and has been widely planted in gardens and hedges in Australia. It is very hardy and can grow in full sun, or partial or almost full shade.

Management Plan for Italian Buckthorn

Outcomes

- Displacement of native shrub species from native vegetation by Italian buckthorn prevented.

Objectives

- Prevent the spread of Italian buckthorn to uninfested areas due to planting.
- Control high priority infestations according to regional management plans.
- Locate small, isolated infestations threatening high priority sites for control action.
- Contain larger and low-priority infestations of Italian buckthorn.

Best Practice Implementation

- Regional landscape boards and Green Adelaide to respond to any reports of sales or dumping that involve Italian buckthorn.
- Regional landscape boards and Green Adelaide to map the extent of infestations adjacent to or within significant native vegetation sites and prioritise them for action.
- High priority infestations that threaten native vegetation assets to be controlled as detailed in regional management plans.

Regional Implementation

Refer to regional management plans for further details.

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Region	Actions
Alinytjara Wilurara	Limited action
Eyre Peninsula	Protect sites
Green Adelaide	Protect sites
Hills and Fleurieu	Protect sites
Kangaroo Island	Eradicate
Limestone Coast	Protect sites
Murraylands and Riverland	Eradicate
Northern and Yorke	Limited action
South Australian Arid Lands	Limited action

Declaration

To implement this policy, Italian buckthorn is declared under the *Landscape South Australia Act 2019* throughout the whole of the State of South Australia. The sale of the plant by itself or as a contaminant is prohibited. Green Adelaide and the Eyre Peninsula, Hills and Fleurieu, Limestone Coast, Kangaroo Island and Murraylands and Riverland Landscape Boards may require land owners to control Italian buckthorn plants growing on their land. These authorities are required to control plants on road reserves in their regions, and the Limestone Coast Landscape Board may recover costs from the adjoining land owners.

Italian buckthorn is declared in category 3 under the Act for the purpose of setting maximum penalties and for other purposes. Any permit to allow its sale can only be issued by the regional landscape boards or Green Adelaide pursuant to section 197.

Under the *Landscape South Australia (General) Regulations 2020*, Regulation 28 specifies conditions under which a person is exempt from the operation of section 188(2) and may sell wool, grain or other produce or goods carrying Italian buckthorn. Note that certain produce or goods may be excluded from this general sale exemption by Gazettal Notice of the Chief Executive of the Department for Environment and Water.

The following sections of the Act apply to Italian buckthorn throughout each of the regions noted below:

Sections of Act	Region									
	AW	EP	GA	HF	KI	LC	MR	NY	SAAL	
186(1) Prohibiting entry to area										
186(2) Prohibiting movement on public roads										
188(1) Prohibiting sale of the plant	X	X	X	X	X	X	X	X	X	X
188(2) Prohibiting sale of contaminated goods	X	X	X	X	X	X	X	X	X	X
190 Requiring notification of presence										
192(1) Land owners to destroy the plant on their properties										
192(2) Land owners to control the plant on their properties		X	X	X	X	X	X			
194 Recovery of control costs on adjoining road reserves						X				

Review

This policy is to be reviewed by 2025, or in the event of a change in one or more regional management plans for Italian buckthorn.

Weed Risk

Invasiveness

The plant is a copious seed producer, with seeds produced in small berries on female plants. Each fruit has between two and five seeds. Seed production has been reported as very variable; however fruit production per plant has been estimated at up to 11,000 berries per plant.

The fruits have been reported to be eaten by starlings and blackbirds in New Zealand and are possibly also spread by foxes and possums. In Europe ants have been observed dispersing seed. The starling has been reported to have a seed dispersal range of 40 km.

While Italian buckthorn is reported to prefer disturbed soil, it has been shown to be capable of establishing within vegetation and is invasive in heath land.

Impacts

Italian buckthorn has been used as a hedge and could therefore pose a major physical barrier to people and animals where it establishes. The plants ability to sucker could also impose on access to land and is reportedly difficult to control requiring significant works with follow up treatments.

Italian buckthorn's vigorous growth shades out ground flora altering the floral composition. It can prevent regeneration of shrubs and trees and lead to species poor stands.

Potential distribution

It is generally found in areas receiving greater than 500mm of rain. However the plant is described as drought tolerant. Taking into consideration its current distribution, it potentially could invade the majority of the arable areas of South Australia. It has been recorded as far north as Orroroo and Melrose and as far south as Mount Gambier.

The plant is extremely hardy and can grow in full sun, or partial or almost full shade; it is frost tolerant to -15°C. It tolerates drought, salt spray and can survive intense fire as it has lignotuber, from which it can regrow.

Feasibility of Containment

Control costs

Seedlings are best hand pulled. However, if the stem is removed above the ground it will re-shoot from the taproot. Removal of larger plants is possible with appropriate equipment such as a tree puller.

Mature plants can be controlled by either the cut and swab or drill and fill techniques using a non-selective herbicide. This is best done in spring and follow-up treatments are required, as plants will re-shoot.

Persistence

Given the ability of the plant to re-shoot, and the labour intensive control techniques needed to kill mature plant, Italian buckthorn can be viewed as a persistent weed.

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The longevity of the seed bank is unknown.

Current distribution

It has been recorded as far north as Orroroo and Melrose, on Kangaroo Island and in the Limestone Coast, southern Eyre Peninsula, the Adelaide Hills and Fleurieu Peninsula.

State Level Risk Assessment

Assessment using the Biosecurity SA Weed Risk Management System gave the following comparative weed risk and feasibility of containment scores by land use:

Land use	Weed Risk	Feasibility of control	Response at State Level
Native vegetation	low 38	medium 36	limited action

Considerations

Risk assessment indicates a management action at State level of limited action in native vegetation. However, the local weed risk of Italian buckthorn in coastal vegetation is much higher, up to 135 in the Green Adelaide, Hills and Fleurieu, Eyre Peninsula and Limestone Coast regions where a site protection strategy is justified. Regional management plans vary according to regional habitats and presence of the weed. In the Kangaroo Island and Murraylands and Riverland regions, eradication is being attempted as the most effective way to protect vulnerable sites as Italian buckthorn is very localised. The Alinytjara Wilurara, South Australian Arid Lands, and Northern and Yorke regions require limited action as they have little or no vulnerable habitat.

Prevention of further sale of Italian buckthorn in South Australia is necessary to limit the problem of new infestations.

Synonymy

Rhamnus alaternus L., Sp. Pl. 1: 193 (1753)

Taxonomic synonyms:

- Alaternus angustifolia* Mill., Gard. Dict., ed. 8. n. 3. (1768)
- Alaternus balearica* Duhamel ex Steud., Nomencl. Bot. 685 (1821)
- Alaternus glabra* Mill., Gard. Dict., ed. 8. n. 2. (1768)
- Alaternus hispanicus* Steud., Nomencl. Bot. 685 (1821)
- Alaternus latifolia* Mill., Gard. Dict., ed. 8. n. 4. (1768)
- Alaternus phyllica* Mill., Gard. Dict., ed. 8. n. 1. (1768)
- Alaternus rotundifolia* Steud., Nomencl. Bot. 685 (1821)
- Alaternus variegata* Steud., Nomencl. Bot. 685 (1821)
- Rhamnus clusii* Willd., Enum. Pl. [Willdenow] 1: 250 (1809)
- Rhamnus myrtifolia* Willk., Linnaea 25: 18 (1852)

Other common names include buckthorn and blowfly bush.

Hon David Speirs MP
Minister for Environment and Water

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