

Declared Plant Policy
under the Natural Resources Management Act 2004



Government
of South Australia

may (Crataegus monogyna)

May is the common species of hawthorn that was introduced from England as a hedge plant; it still occurs only as isolated infestations and has not reached its ecological limits in the State.

Management Plan for May

Outcomes

- Maintain the integrity of native vegetation in high rainfall regions.
- Maintain the amenity of recreation areas susceptible to invasion by may.

Objectives

- To prevent any further naturalisation of may.
- To remove high priority infestations of may in the control areas.
- To contain any intractable infestations in these areas.
- To prevent the further spread of may.

Implementation

- NRM authorities in the active control areas to ensure all high priority infestations, as determined by the authority, on private or public land are controlled.
- These authorities to control infestations on road reserves.
- Any infestations too large for immediate destruction in these areas to be the subject of plans for containment and progressive reduction.
- NRM authorities and the Chief Officer to enforce the prohibition on sale of plants of may.

Regional Implementation

Refer to regional management plans for further details.

NRM Region	Actions
Adelaide and Mount Lofty Ranges	protect sites
Alinytjara Wilurara	limited action
Eyre Peninsula	destroy infestations regional alert
Kangaroo Island	protect sites
Northern and Yorke	protect sites
South Australian Arid Lands	limited action
South Australian Murray Darling Basin	protect sites
South East	monitor

Declaration

To implement this policy, may is declared under the *Natural Resources Management Act, 2004* throughout the whole of the State of South Australia. The movement or transport of the plant on a public road, by itself or as a contaminant, or the sale by itself or as a contaminant is prohibited. NRM authorities in the Adelaide and Mount Lofty Ranges and Kangaroo Island regions may require landowners to control may plants growing on their land; in these regions, NRM authorities are required to control plants on road reserves and may recover costs from the adjoining land owners.

May is declared in category 3 under the Act for the purpose of setting maximum penalties and for other purposes. Any permit to allow its movement or sale can only be issued by the regional NRM Board pursuant to section 188.

The following sections of the Act apply to may throughout each of the NRM regions noted below:

Sections of Act	Region								
	AMLR	AW	EP	KI	NY	SAAL	SAMDB	SE	
175(1) Prohibiting entry to area									
175(2) Prohibiting movement on public roads	X	X	X	X	X	X	X	X	
177(1) Prohibiting sale of the plant	X	X	X	X	X	X	X	X	
177(2) Prohibiting sale of contaminated goods	X	X	X	X	X	X	X	X	
180 Requiring notification of infestations									
182(1) Landowners to destroy the plant on their properties									
182(2) Landowners to control the plant on their properties	X			X					
185 Recovery of control costs on adjoining road reserves	X			X					

Review

This policy is to be reviewed by 2020 or in the event of a change in one or more regional management plans for may.

Rationale

May forms infestations on roadsides and in disturbed bush where it can compete with native regrowth and form spiny thickets that harbour rabbits. In Victoria, it has been found that may can spread over neglected perennial pastures from former hedge plantings; in this situation it would cause a similar problem to briars.

Weed Risk

Invasiveness

May invades a broad range of vegetation communities including riparian and coastal areas. It has slow early growth with its competitive ability low at the seedling stage but high once the bushes are established.

May reproduces by seed and suckers. They produce large amounts of seed in the edible fruit (haws), which is spread long distances when consumed by birds and mammals. Over 2,000

fruits containing one seed each would be produced on a mature tree. Seed takes two or more years to germinate as it is enclosed in a hard pit. Spread can occur to a lesser extent via mud and fruit adhering to machinery, vehicles and animals. A lot of the spread in the past was by deliberate plantings for hedges, but this has ceased.

Impacts

May is a deciduous, dense shrub or small tree which can grow to 6 metres high and wide. May forms dense thickets that seriously impede movement of stock and dense infestations are likely to be a major impediment to humans.

May can have a major impact on bushland habitats, shading out ground-flora and affecting the growth and regeneration of overstorey plants.

Dense patches of may provide good cover for rabbits and other pests. In the British Isles, May and other hawthorns are an important reservoir of the fire blight bacterium, which affects pears and apples. May also is known to host Mediterranean fruit fly and light brown apple moth.

Potential distribution

May grows in humid and subhumid temperate regions, growing well in most soils and has the ability to colonise shallow, stoney sites. Hawthorn infestations are restricted to areas within the 650mm annual isohyet, but could also develop along streams near former plantings in drier areas. Potential habitats occur in parts of the Adelaide and Mount Lofty Ranges, Eyre Peninsula, Kangaroo Island, Northern and Yorke and South East regions.

Feasibility of Containment

Control costs

There are a variety of control methods for may. Mature stands can be controlled using cut and paint or stem injection. Small plants are susceptible to spot spraying, or seedlings can be hand-pulled.

Persistence

Individual may plants are very long-lived, to 700 years or more in their native range. Like other hawthorns, they are tolerant to the levels of frost encountered in SA, and to moderate levels of drought and salinity.

Current distribution

Currently there are known infestations in the Mount Lofty Ranges and the Mid North of the state. There are also scattered infestations in the lower South East region.

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 13	very high 2	monitor
Urban	negligible 1	very high 1	monitor

Considerations

May occurs in isolated infestations at present and has not reached its ecological limits in the State. Where infestations are neglected they have the potential to invade bush in the Adelaide Hills and similar high rainfall areas, reducing the amenity value of these sites. Because hawthorns are slow-growing shrubs, they were not been given a high priority by boards and there has been no significant change in their abundance since 1990. Risk assessment at the State level implies monitoring infestations; may scores low on weed risk and very high on feasibility of control, due to its limited potential range. In the Eyre Peninsula region, which has habitats where it is absent but could potentially spread, may is a regional alert with an option of destroying incursions as necessary.

May was used as a hedge plant in the 19th century following traditional practice in England, and may still be regarded as having some ornamental value on Hills properties.

Some *Crataegus* plants in the Adelaide Hills have characters intermediate between azarola and may, and are believed to be F₁ hybrids of these two hawthorns. Hybridisation among *Crataegus* species, especially involving *C. monogyna*, is very frequent overseas.

Synonymy

Crataegus monogyna Jacq., Fl. Austriac. (Jacquin) 3: 50, t. 292 (1775)

Nomenclatural synonyms:

Mespilus monogyna (Jacq.) All., Fl. Pedem. 2:141 (1785)

Oxyacantha monogyna (Jacq.) M. Roem., Syn. Rosifl. 107 (1847)

Taxonomic synonyms:

Crataegus maura L.f., Suppl. Pl. 253 (1782)

Crataegus oxyacantha L., Sp. Pl. 477 (1753) *nomen ambiguum*

Other common names include biancospino, hawthorn, majuelo, maythorn, quickthorn and whitethorn.

Hon Ian Hunter MP
Minister for Sustainability, Environment and
Conservation

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