

# African boxthorn (*Lycium ferocissimum*)

March 2015



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African boxthorn, (*Lycium ferocissimum*), is a large perennial shrub from southern Africa. African boxthorns were originally planted in Australia as hedges for shelter and barriers to stock movement. The weed has spread into pastures and native vegetation from these hedges and is now a declared weed in South Australia.

Across other areas of Australia it has become a significant weed and has been listed as a Weed of National Significance.

Within the Adelaide and Mount Lofty Ranges Natural Resources Management (NRM) region it is primarily found in the lower rainfall areas and along the coastal strip.

African boxthorn is a declared plant under the *Natural Resources Management Act 2004* (NRM Act). Its sale or transport is prohibited throughout the state and landholders are required to control African boxthorn on their properties.

## Description

African boxthorn is an erect, deep-rooted perennial shrub growing to 5 m high and 3 m across. The densely tangled twigs end in spines that can reach 8 cm long. Leaves are oval, 3.5 cm long and 2 cm wide, light green and fleshy in texture. Flowers are white with purple dots and about 1 cm in diameter, with five small petals and stamens hanging downwards. They are

followed by round orange-red berries 5 to 10 mm diameter, each containing 30 to 70 irregular seeds. Boxthorn has an extensive, deep and branched root system that can produce sucker shoots if broken.

It is important not to confuse African boxthorn with native Australian boxthorn (*Lycium australe*). Australian boxthorn has very small leaves (3-25 mm x 1.5-3 mm in size) that are relatively narrow and thick and fleshy. Its relatively small berries (2-5 mm across) are oval (ellipsoid) or egg-shaped (ovoid) and contain only 5-20 seeds.

## Ecology

Boxthorn seeds germinate at any time of the year and seedlings are competitive with other shrub species. Plants can start to flower at 2 years old and bear mainly fruit in summer, but flowering and fruiting can occur throughout the year. Plants are sometimes deciduous in winter or during drought; if so, new leaves appear in spring or after rain.

Seeds are the main method of reproduction of boxthorn and are carried by birds and mammals that eat the fruits. Seeds may also be moved by flood waters and in contaminated soil or produce.

African boxthorn also has the ability to regrow from root segments. Care must be taken during manual removal to remove all sections of the root system.

## Impacts

Where neglected the thorny bushes will form dense impenetrable thickets. The plant becomes a nuisance along fences, creeks, floodouts and around dams and leaking troughs where it blocks passage along roads and prevents stock access to watering points. Boxthorns also provide excellent harbour for vertebrate pests such as foxes and rabbits. Due to the sharp spines, boxthorns are not grazed heavily by stock and therefore replace desirable pasture plants. They also invade native vegetation after disturbance.

## Management and control

The best form of weed control is prevention. Weed infestations should be treated when small to prevent large-scale establishment. Control can include mechanical and chemical methods. The method chosen should suit your particular situation.

### Mechanical

Mechanical removal and stacking of plants, using a tractor and blade, is an immediate way of cleaning up boxthorn infestations. Plants are easier to remove if the ground is moist. Push the plants into heaps well away from desirable trees, ready for burning. Be mindful of fire regulations and restrictions.

Once plants have been removed, the area will need to be monitored for regrowth from root sections left behind, or germinating seedlings. Continue to remove seedlings or chemically treat new growth until the plants eventually give up.

### Chemical

There are a variety of herbicides and application methods available. Please refer to the *Weed control handbook for declared plants in South Australia* for advice on chemical control. You can find it on Biosecurity SA's website at: [www.pir.sa.gov.au/biosecuritysa](http://www.pir.sa.gov.au/biosecuritysa)

Chemical treatment should only be carried out when plants are actively growing. Late winter/early spring is usually the best time to control boxthorn, as long as the plants are not moisture-stressed. When spraying plants complete coverage is required for effective control.

After application of herbicide, African boxthorn often loses its leaves and appears to have died. Quite often the plant survives this period and then produces new foliage. If left unchecked, the plant can regenerate quickly. If this occurs, follow up chemical applications will be required to completely kill the plant. These should be done when a significant amount of regrowth has occurred, allowing adequate uptake of the herbicide.



African boxthorn fruit

## Declarations

The following sections of the NRM Act apply to African boxthorn in the Adelaide and Mount Lofty Ranges region:

**175 (2) Cannot transport the plant or anything with the plant in it**

**177 (1) Cannot sell the plant (2) Cannot sell any produce/ goods carrying the plant**

**182 (2) Land owner must control the plant on their land**

**185 NRM authority may recover costs for control of weeds on roadsides from adjoining land owners**

## More information

For further information on the management and control of this weed please contact your nearest natural resources centre.

### Gawler

8 Adelaide Road, Gawler South 5118  
T: 08 8523 7700

### Lobethal

1 Adelaide Lobethal Road, Lobethal 5241  
T: 08 8389 5900

### Willunga

5 Aldinga Road, Willunga 5172  
T: 08 8550 3400

For more information on weeds visit [www.naturalresources.sa.gov.au/adelaidemtloftyranges](http://www.naturalresources.sa.gov.au/adelaidemtloftyranges) or [www.pir.sa.gov.au/biosecurity](http://www.pir.sa.gov.au/biosecurity).

Method	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Mechanical												
Spraying												
Cut and swab												

 Secondary timing  Optimum timing

