

African Boxthorn

African boxthorn (*Lycium ferocissimum*) is a fast-growing, destructive weed invading roads, pastures, bushland and waterways.

WHAT IS AFRICAN BOXTHORN?

This tree was brought to Australia from South Africa in the mid-1800s as a hedge plant and has spread from around old homesteads and urban areas. The plant:

- Has large thorns that can injure livestock;
- Forms impenetrable, spiny thickets that block access for vehicles, livestock and people;
- Invades pastures, roadsides, reserves, remnant bushland and waterways;
- Provides shelter and food for pest animals including foxes, rabbits and starlings;
- Prevents livestock from accessing shade;
- Is poisonous to humans;
- Is a host for pest insects including fruit fly, tomato fly and house fly.

Human poisoning

African Boxthorn berries, leaves, stems and roots are toxic to humans. Symptoms include nausea, vomiting, breathing difficulties and unconsciousness. Eating plant parts will cause discomfort and irritation but is not usually life-threatening.

HOW TO IDENTIFY

African Boxthorn is a woody, thorny shrub that can grow up to 5m high and 3m wide. Young plants grow quickly. Plants sometimes drop their leaves and appear dead during drought or in winter.

Leaves are:

- Oval with a rounded tip;
- Smooth and fleshy;
- 10-40 mm long;
- Bright green;
- In clusters along the branchlets;
- Larger and more succulent on regrowth from damaged roots.

Flowers are:

- White to purple with 5 petals;
- 1cm in diameter;
- Tubular at the base with purple or pale blue markings;
- Fragrant;
- Single or in pairs in the leaf axils;
- Usually present in spring and summer but can occur year-round.

Stems are:

- Rigid;
- Very branched;
- Thorny, with thorns up to 15cm long on the main stem and stout thorns on the ends of branches.

Seeds are:

- Light brown to yellow;
- Irregular-shaped;
- Flattened;
- Smooth with small, raised dots;
- 2.5mm long and 1.5mm wide.

Fruits are:

- Round berries;
- Green when young;
- Orange-red when ripe;
- 5-10mm in diameter containing 20-70 seeds;
- Usually present in autumn but can be present year-round.

Roots

- African Boxthorn has an extensive, deep, branched taproot that will sucker and produce new growth when broken.
- Roots on seedlings grow rapidly, allowing them to compete with other plants.

HOW DOES IT SPREAD?

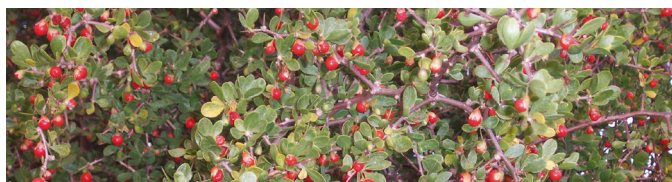
By seed

African boxthorn plants are at least two years old before they flower and produce fruit. Seeds can germinate at any time of the year if there is adequate moisture and warmth.

Seed is mainly spread by animals. Birds and foxes eat the fruit and spread the seed, and plants are often found beneath bird perches such as trees, poles and powerlines. Seeds can also be spread in contaminated mud or agricultural produce.

By plant parts

The extensive branched taproot will sucker and produce new growth if broken.



CONTROL AND MANAGEMENT

Successful weed control relies on follow-up after the initial efforts. This means looking for and killing regrowth or new seedlings. Using a combination of control methods is usually more successful.

To manage African Boxthorn:

- Treat mature plants and follow up to suppress regrowth;
- Kill young plants before they are two years old to prevent seed set;
- Follow-up until African boxthorn is eradicated;
- Promote vigorous perennial pastures to resist invasion.

Cultivation

After physical removal of plants when regrowth appears, deep rip the soil to bring remaining root fragments to the surface. Rake and burn the root pieces. Cultivation may cause deeper root fragments to shoot. Check and treat above ground regrowth.



Root application

This method uses a residual herbicide that will remain active in the soil for some time. Many desirable trees e.g. eucalyptus, are susceptible to the residual herbicides. Do not use this method within a distance of at least twice the height of adjacent desirable trees or shrubs.



Pasture management

Vigorous native perennial pastures compete with African boxthorn. Establish pastures as soon as possible after weed removal. Consult an agronomist for advice on pasture establishment and management for your location.



Chemical control

Herbicides can make the plants lose their leaves and appear dead. New leaves may appear and the plant begins to recover. This may happen several times before the plant dies.



Foliar spray

Ideally use spray in spring, after rain when the plant is actively growing. Follow-up in autumn when new seedlings appear. Use other methods to control regrowth or wait until regrowth is over 50cm high (approximately 18 months old) to repeat spraying.



Basal bark treatment

All year-round when regrowth appears use basal barking in environmentally sensitive locations. It is a successful strategy best for small bushes with stem diameters up to 5cm. Cover the base of every stem to a height of 30 to 40cm above the soil surface.



Cut stump treatment

This technique is appropriate for large plants with stem diameters greater than 5cm. Cut each stem off 15 cm above the soil surface. Cover the cut surface with herbicide immediately.



Physical removal

Remove by machine all year round especially after rain when the soil is moist. It is important to destroy all plant material after physical removal as dead thorny branches still pose a problem.



YOUR RESPONSIBILITY

Landowners under the Biosecurity Act 2015 have a General Biosecurity Duty (GBD) where they are expected to, within reason, know about any weeds which may impact their land.

Regional Recommended Measure – ASSET PROTECTION

Land managers should mitigate the risk of the plant being introduced to their land. Land managers should mitigate the spread of the plant from their land. A person should not buy, sell, move, carry or release the plant into the environment. Land managers should reduce the impact of the plant on assets of high economic, environmental and/or social value.

GET THE FREE WEEDS APP

NSW Department of Primary Industries have developed an app that provides key information to help users reduce the impact of over 320 weeds in NSW, called NSW WeedWise.

Users can search or browse weed names (common or scientific), recognise a weed by its physical description and image gallery, and find out about its impacts, where it occurs, how it spreads and its preferred habitat.

NSW WeedWise is a free smartphone app through the app stores



FOR MORE INFORMATION

Visit Council's website midwestern.nsw.gov.au, or the NSW DPI website dpi.nsw.gov.au and search 'weeds'. Council's Weeds Team are available to assist on 6378 2939 or at weeds.admin@midwestern.nsw.gov.au.

DISCLAIMER

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