



CALTROP

(*Tribulus terrestris*)

A declared plant under the Natural Resources Management Act, 2004

DESCRIPTION

- ◆ Prostrate, hairy, summer-growing annual.
- ◆ **Stems:** thin, wiry, green to reddish-brown; to 1 m long radiating from a central taproot.
- ◆ **Leaves:** in opposite pairs, each divided into 3-8 pairs of leaflets; upper surface darker than lower.
- ◆ **Flowers:** solitary on slender stalks at base of leaves; about 1 cm wide with 5 yellow petals.
- ◆ **Fruit:** a cluster of 5 burrs, straw-coloured when ripe. Each burr wedge-shaped, 6-9 mm long, with 2 long sharp spines and 2 shorter ones.

DISTRIBUTION

Widespread throughout the Adelaide and Mt Lofty ranges region. A weed of cultivated crops, overgrazed pastures, stockyards, roadsides and neglected areas, particularly where there is little competition with other groundcover plants.

ECOLOGY

Seeds germinate after late spring and summer rains and plants grow rapidly, producing a deep root system within a few weeks. First flowers may be formed when plants are only 3 weeks old, and first fruits at 5-6 weeks. Flowering and fruiting can continue for several months through summer and autumn. Buried seed remains viable for several years.

Summer rains can produce a succession of germinations, which makes control difficult.

PROBLEM

Burrs injure feet of humans and sock, cause internal injuries if swallowed, damage tyres, contaminate wool and other produce such as dried fruit.

Unpalatable, can cause nitrite poisoning and photosensitization if grazed by sheep.

STATUS

Caltrop is a declared plant for the whole of SA. Landholders are required to control plants on their properties and to pay for control on adjoining road reserves. Sale or movement of the plant is prohibited throughout the State.



CONTROL

Aim: Prevent seed production and stop spread of seeds. Exhaust seed reserves in soil.

Prevention: Stop spread of seed to uninfested areas. Remove all burrs from footwear, tyres, clothing, etc before leaving infested areas. Prevent plants from setting seed. Encourage ground cover to provide competition for caltrop seedlings. Ensure purchases of fodder, produce, stock and soil are free of weed seeds. Be vigilant for new outbreaks.

Mechanical: Grub individual plants. Hand hoe small patches or cultivate larger patches at the seedling stage (before flowering). Repeat for each successive germination. Gather and burn all fruiting plants (check with your local council for burning permissions). A prickle roller can be used to gather mature fruits. Re-establish ground cover once control has been achieved.

Herbicides:

To first flowering:

#dicamba/#MCPA (340+80 g/L formulation) at 4 L/ha (boom-spray) or 190-270 mL/100 L water (spot-spray). Add wetting agent.

Glyphosate (360 g/L formulation) at 2-3 L/ha (boom spray) or 670 mL/100 L water (spot-spray), 75 – 100ml/15L knapsack. Glyphosate is suitable for use in urban and horticultural areas, including home gardens, but is non-selective. Spray the target plant only. Destruction of the surrounding ground cover will create bare soil conditions that favour the re-establishment of caltrop.

Pre- germination:

Oxyfluorfen – for residual control, apply a 240g/L oxyfluorfen product to soil under **dormant** fruit trees and grape vines (at least 3 years old) at 3-4 L/ha in 300 – 500 L water.

CAUTION: OFF-TARGET DAMAGE

Some crops are very susceptible to damage from small quantities of herbicide that may drift from the target area. For further information, refer to the publication on spray drift produced by the Farm Chemicals Program Education Unit of Primary Industries and Resources (SA).

WARNINGS:

HORMONE TYPE HERBICIDE – use with caution near sensitive crops.

*** OFF LABEL TREATMENT – seek advice from manufacturer.**

+ SOIL ACTIVE HERBICIDE – may damage desirable vegetation.

Use is at the reader's discretion but must conform to the requirements of the Agricultural Chemicals Act, and no warranty is implied.

**Read and understand the herbicide label before use.
Ensure Spray equipment is correctly calibrated and maintained.**

MORE INFORMATION

For further information please contact your nearest Natural Resource Management Board office:

Willunga 85564500

Salisbury 82852033

Lobethal 83896166

Lyndoch 85244603