



Government
of South Australia

WEED IDENTIFICATION NOTES

ANIMAL AND PLANT CONTROL COMMISSION

CALTROP



Caltrop spreads over bare ground



Caltrop flowers



Caltrop burrs and leaves

Caltrop, *Tribulus terrestris*, is a summer growing weed introduced from southern Europe. As it is a major contaminant of produce, it is important to keep caltrop off clean properties and to recognise and destroy plants before they become established.

Distribution

Eyre Peninsula	- widespread with broadacre infestations
Northern pastoral	- common in most towns
Northern ag districts / Yorke Peninsula	- widespread
Murray Mallee	- widespread
South East	- common in all towns and in north, scarce in south
Central region	- widespread on the Adelaide Plains

Impacts

The burrs of caltrop can damage the feet of animals and injure humans. They are a particular nuisance in amenity areas like parks. Burrs can also contaminate produce such as dried fruit and wool. Caltrop is toxic to stock and can cause nitrate poisoning, photosensitisation and staggers. Caltrop may also chemically inhibit the growth of some other plants.

Recognition

Caltrop is a prostrate annual herb that reproduces from seed. Stems are green to red-brown and may be smooth or covered in fine hairs. Numerous stems radiate for up to 2 metres from the central taproot, but they do not take root to form new plants. Each leaf consists of 3 to 8 pairs of opposite leaflets, which are 5 to 12 mm long and 3 to 5 mm wide and may be hairy or almost smooth. The upper surfaces of the leaves are grey-green and the undersides are paler.

Flowers are 8 to 15 mm in diameter with five bright yellow petals. The flowers open in the morning and either close or shed their petals that afternoon. The fruit is a woody burr about 1 cm diameter with sharp rigid spines, which can reach 6 mm long. When the fruit is ripe, it splits into 5 wedge shaped segments each with two pairs of spines and containing up to 4 seeds. The seeds are yellow, ovoid in shape and 2 to 5 mm long. The taproot is long, slender and branched and there are many fibrous lateral roots.

Biology

Caltrop is most abundant on light sandy soils but will grow on almost any soil type.

Seeds germinate after late spring and summer rains and the plant grows rapidly. Flowers may appear within three weeks of germination and produce fruits within 5 to 6 weeks. Flowering continues for several months but the plants die off in autumn or early winter, as they are very sensitive to frost. Caltrop seeds germinate in several batches (staggered germination) throughout the summer, which makes control very difficult.

Caltrop is mainly spread by seed, which gets moved when the fruits attach to animals, humans and machinery.

Further Information:

Parsons, W.T. & Cuthbertson, E.G. (2000). *Noxious Weeds of Australia*. 2nd edn. Inkata Press.

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For more advice on recognising and controlling caltrop, contact your local Animal and Plant Control Board :