

Tropical soda apple

(*Solanum viarum*)

Regional priority weed objective: Eradicate

A 'Biosecurity (Tropical soda apple) Control Order 2017' is in place for this weed.

Penalty for noncompliance with this control order is \$2,000.

Tropical soda apple (TSA) is a native of north-eastern Argentina, south-eastern Brazil, Paraguay and Uruguay. Although first identified in Australia in the upper Macleay Valley NSW in 2010, it is believed to have been present in this area longer. Subsequent surveys found infestations at Casino, Bonalbo, Wingham, Grafton, Bellingen, Coffs Harbour and Wauchope. The smaller infestations have been eradicated and the larger infestations are subject to active control programs. TSA has the potential to spread in coastal regions of NSW and Queensland, and inland through cattle movements.

Stages of growth:

Left: Immature fruit. Centre: Mature fruit. Right: Ripening fruit.



Control methods

Tropical soda apple reproduces via seed and can regenerate from root material. Remove all seed and bag it for disposal prior to any treatments. Young seedlings and older plants can be manually removed making sure that the roots are grubbed out. For large areas, an overall spray is recommended in conjunction with spot spraying for smaller patches or more inaccessible plants.

For registered chemicals to treat TSA, visit: <http://permits.apvma.gov.au/PER12942.PDF>

Tropical soda apple

If you have seen, or think you have seen, Tropical soda apple, please contact Rous County Council on (02) 6623 3800 for positive identification.

Description: An erect shrub to 2m covered in cream coloured prickles to 12mm long on stem and leaves.

Leaves: It has densely hairy-lobed ovate leaves (10-20cm long and 6-15cm wide).

Flowers: White flowers.

Fruit: Immature fruit is pale green with dark green stripes. The mature fruit is yellow and approx. 20-25mm in diameter. Plants can produce an average of 45,000 seeds.

Dispersal: TSA reproduces via seed and can regenerate from root and stem material. The fruit are sweet and cattle will smell and seek them out, spreading viable seed in their manure for up to 6 days after consuming the fruit. After 6 days any consumed seeds that are passed are no longer viable. In NSW cattle movements are currently the major vector of spread and infestations have been found by tracing cattle movements from infested properties using the National Livestock Identification Scheme database. Horses have also been observed to eat the fruit and seedlings have germinated in horse manure.

Seed is also moved when the pithy fruits float in water, and infestations along waterways and flood zones have occurred.

The sticky seeds can also be spread by feral animals and birds that feed on the fruit, and via contaminated fodder, produce, soil and equipment.

Habitat: It invades open to semi-shaded areas including pastures, forests, riparian zones, roadsides, recreational areas, horticulture and cropping areas.

Impact: It reduces biodiversity by displacing native plants and disrupting ecological processes. Its foliage is unpalatable to livestock, thus reducing carrying capacities, however cattle eat the fruit and spread viable seeds in manure. Thorny thickets of this plant create a physical barrier for animals preventing access to shade and water. The plant is a host for many diseases and pests of cultivated crops, and it contains solasodine, which is poisonous to humans. TSA is spread when cattle eat the fruit or the fruit float and move in water. If not controlled a few plants will form a hectare-sized thicket in 6 months, with each plant producing 150 fruit containing 45,000 seeds each year. Herbicides kill the plants, but do not kill the seeds inside the fruit. In the USA, this plant infested over half a million hectares in 5 years. In NSW it is critical to achieve site-based eradication of this plant before it becomes widespread.

Similar weeds in the Solanum family:



Apple of Sodom
(*Solanum linnaeanum*)



Devil's apple
(*Solanum capsicoides*)



Giant devil's fig
(*Solanum chrysotrichum*)



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