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# SILVERLEAF NIGHTSHADE



1. Flower 2. Vegetative stage 3. Fruit

(continued overleaf)

# SILVERLEAF NIGHTSHADE

**S**ILVERLEAF nightshade (*Solanum elaeagnifolium* Cav) also sometimes known as Tomato weed and Whitehorse nettle is a member of the Solanaceae (potato family). It is a native of central north America. From there it has spread to become an important weed in California, South Africa and Australia.

Silverleaf nightshade is found mainly on loam or clay loam soils between the 300 mm and 500 mm rainfall isohyets, in the cereal growing districts of eastern Australia.

Only a few infestations, probably introduced in contaminated Sudan grass seed, are known in Western Australia.

Silverleaf nightshade is a declared noxious weed in New South Wales, South Australia and Victoria. It is a declared plant (noxious weed) throughout Western Australia.

## **Significance:**

Silverleaf nightshade is a weed of low rainfall cereal growing areas of New South Wales and Victoria, it is also found in irrigated and summer moist crops, pastures and market gardens. In eastern Australia, it reduces the benefits of summer fallow by depleting stored water and nitrogen. It may be a nuisance in dryland lucerne and in stubble after cropping.

Silverleaf nightshade is only eaten by stock which are very hungry. No reports of stock poisoning have

come from Australia although cattle are known to have died from eating the ripe berries in north America. Sheep appear to be less susceptible than cattle. Foliage and unripe berries are less toxic than the ripe fruit.

## **Ecology:**

Silverleaf nightshade is a deep rooted perennial plant. The top dies off in winter and new plants regenerate from the creeping root system, forming colonies which slowly spreads in years with wet summers. The seed will only germinate in alternating 20-30°C temperatures together with heavy rainfall or flooding to remove germination inhibitors from the seed coat. New plants may regenerate from root fragments as little as 12 mm in length. Consequently, cultivation may lead to wider spread of the weed.

Silverleaf nightshade may also spread by seeds. The berries may be carried in wool or may be eaten by birds which void the seeds. They may also be eaten by sheep and deposited elsewhere on the farm. Ingestion by sheep increases the germination rate.

Seeds may also spread when the mature plant breaks off at the base and is transported by wind or flood.

## **Description:**

Silverleaf nightshade is a woody herbaceous plant 0.3 to 1 m high.

The stems are usually covered with sharp spines.<sup>2</sup>

The leaves are lance shaped 25-100 mm long by 6-25 mm wide.

Both leaves and stem appear grey green due to a dense covering of fine hairs. The leaf edge varies from entire to very crinkly.

Silverleaf nightshade flowers from November to February if seasonal conditions are suitable. The flowers are five lobed and usually purple, but occasionally white in colour, with yellow centres.<sup>1</sup> They are about 25 mm in diameter and form singly or in small groups at the end of branches.

The fruit consists of smooth globe-shaped berries about 12 mm in diameter.<sup>3</sup> Initially green, they change to orange-yellow on ripening. The seeds are smooth, shiny and nearly spherical. Many seeds are formed cemented together in each berry.

It is essential to prevent the spread of Silverleaf nightshade to further properties.

*For advice on Silverleaf nightshade recognition and control, contact the Agriculture Protection Board, Jarrah Road, South Perth, 6151, Telephone (09) 367 0111 or any country officer of the Agriculture Protection Board or the Department of Agriculture.*