

There is a distinct possibility that the number and depth of origin of the 'long' laterals are affected by soil type but this has still to be confirmed.

### SILVERLEAF NIGHTSHADE - ANOTHER PERENNIAL PROBLEM

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Silverleaf nightshade, *Solanum elaeagnifolium*, a native of southern U.S.A. and Mexico, is causing concern through its establishment in the cereal-growing areas of southern Australia. This summer-growing perennial, which is poisonous to stock, reduces moisture and nutrients in land set aside for cropping.

Recent surveys have emphasized the confusion between silverleaf nightshade and the native 'quena' (*Solanum esuriale*). These surveys have indicated approximate infestations of the former totalling 14 000 ha in South Australia, 6 000 ha in New South Wales and 1 800 ha in Victoria. Commonly, infestations on agricultural land account for more than 90% of the total. Although silverleaf nightshade is at present only of local importance in Victoria, it appears to have the potential to infest much of the cereal-growing area of southern Australia.

Silverleaf nightshade adapts well to the spasmodic summer-rainfall conditions of north western Victoria. Generally the weed commences growth in late October, and grows to a height of 30-60 cm before flowering in December. Such plants produce 20-30 berries, which mature by April/May. Each berry contains approximately 75 seeds. However in wet seasons plants up to 1.2 m tall, producing about 50 berries are more usual. When little rain falls during early summer, the plant's life cycle is shortened and 0-10 mature berries per plant are produced by January. In February 1973 when about 75 mm of rain fell after a very dry spring/summer period, the weed produced new topgrowth from the rootstock and set berries for a second time in that season. Seedlings also were numerous following these rains.