CONTROL OF BLACK NIGHTSHADE AND OTHER WEEDS IN POTATOES

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Black nightshade (*Solanum nigrum* L.) is believed to be a problem in 80% of potato crops. The weed causes yield losses due to competition, and may cause further losses by acting as a host plant for several potato diseases and insect pests. Californian research has shown that as few as ten black nightshade plants per metre of row may lead to the annual production of three billion seeds per hectare.

During the 1998-99 season, the third year of a three-year, Horticultural Research and Development Corporation (HRDC) and agribusiness funded project on control of black nightshade in potatoes, trials were conducted in Western Australia, South Australia, Queensland and Tasmania. Trials were carried out on a range of potato cultivars across a number of soil types, with a variety of weeds and climates. Experimental products were investigated alone and in mixes with currently registered products. From this, a number of strategies are being developed to control black nightshade and a broad spectrum of other weeds.

Results from the initial assessment of these trials indicate that treatments including the experimental products, F6285, SAN 582, and clomazone (Command), provide effective weed control, particularly when used in mixtures with currently registered products such as Gesagard (prometryn), Bladex (cyanazine) and metribuzin (Lexone or Sencor). Registration of the new herbicide Command is expected before the end of the year. This product, mixed with currently registered products, has provided excellent control of a range of common weeds, including black nightshade.