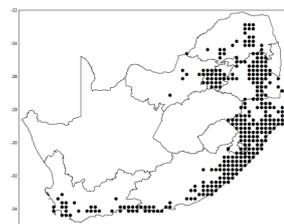


ARC-PPRI FACT SHEETS ON INVASIVE ALIEN PLANTS
AND THEIR CONTROL IN SOUTH AFRICA

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BUGWEED (*Solanum mauritianum* Scop.) is a branched shrub or small tree that can be anything from 2–10 metres in height. Except for older stems, the entire plant is covered with soft, white hairs. The leaves are a dullish green, about 250 mm long and 100 mm wide (i), and are pungent when crushed. Smallish purple flowers are borne in terminal clusters throughout the year (ii). These are followed by green berries that ripen to become yellow (iii). Flowers and fruit are often present on plants at the same time. Bugweed is native to South America, and was first recorded in South Africa in the early 1860s. It is unclear whether it was brought in by accident, or whether it was imported as an ornamental. It has since become invasive in the warmer, higher rainfall regions of the country, is a category 1 declared weed, and must be controlled or eradicated where possible.



THE PROBLEM

Bugweed is an aggressive invader of disturbed areas such as plantations and forest margins, pastoral land, roadsides, watercourses, and savannah, forming dense stands that block out light and displace indigenous species or forestry plants (iv). In this way, bugweed is capable of dominating an ecosystem and transforming the habitat. Plants fruit prolifically throughout the year and, although the unripe fruit is poisonous, ripe fruit is eaten by a variety of birds and other animals, which greatly aids in its distribution. However, since bugweed is self-pollinating, even isolated plants are capable of forming new populations fairly rapidly. Plants begin producing seed within a year of germination, and the number of seeds produced increases linearly with height. A plant of 3 m high is capable of producing up to 200 000 seeds per year. Germination of seeds is stimulated by floods, fire and clearing operations. Plants are also capable of vegetative reproduction - suckering and coppicing when plants are cut back but not treated, or treated incorrectly, with herbicide.

THE SOLUTION

Although mechanical and chemical control can be used, both methods are labour-intensive and costly, and require regular, specialised follow-up treatments. Also, if the clearing operations are not done correctly, they often aggravate infestations and encourage germination of seed. The only sustainable solution is biological control. However, since bugweed is in the same plant family as potatoes, tomatoes, peppers and aubergines, it has proved difficult to obtain an insect agent that does not also feed on these important plants. But decades of research and host-specificity testing eventually led to the release of two agents from South America, a leaf-sucking lace bug and a flowerbud-feeding weevil. A separate fact sheet is available on the flowerbud-feeding weevil *Anthonomus santacruzi*.



environmental affairs

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Environmental Affairs
REPUBLIC OF SOUTH AFRICA

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