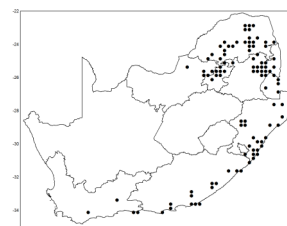


ARC-PPRI FACT SHEETS ON INVASIVE ALIEN PLANTS AND THEIR CONTROL IN SOUTH AFRICA

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YELLOW BELLS is an attractive, evergreen shrub or a tree that may reach as high as 10 metres in ideal conditions. The pinnate leaves are bright green above and paler below, with serrated margins. Bunches of bright yellow, trumpet-shaped flowers (i) are borne in summer, or even year-round in certain areas. Flowering is followed by long, green flattened seed pods that become brown as they mature (ii), and split to release light, winged seeds. The young stems are green, smooth, and glabrous, while mature stems are brown to grey and roughly textured (iii). The plant is native in the tropical Americas (i.e southern USA, Mexico, the Caribbean, Peru and Ecuador), and was brought into South Africa as an ornamental on account of its attractive, yellow flowers. Yellow bells is used as a shade plant or even as a boundary hedge in some areas. It is a category 1 declared weed in South Africa, and must be controlled or eradicated where possible.



THE PROBLEM

Yellow bells is a popular garden plant in South Africa, but has become seriously invasive - invading roadsides, suburbia, watercourses and rocky areas in many parts of the country, as well as in neighbouring states. Plants produce high numbers of clustered seed pods, and the winged seeds are easily dispersed by wind - sometimes over several kilometres - but are also dispersed by birds, mammals and rain run-off. The seeds are highly viable, with a germination rate as high as 90 percent. In addition, when plants are felled, they coppice vigorously, and so become difficult to control. Owing to its ease of spread and wide ecological tolerance, yellow bells has the potential to form dense stands (iv) and alter ecosystem structure and functioning.

THE SOLUTION

Currently, there are no herbicides registered specifically for use on yellow bells, and plants must be controlled with a general herbicide or mechanically, or both. However, since the plant tends to coppice when felled, this is expensive and labour intensive. Biological control is the only long-term, sustainable solution and, to this end, a number of potential biocontrol agents have been imported into quarantine in South Africa. As these are tested for host specificity and found to be suitable biocontrol agents, application will be made for their release on yellow bells infestations throughout the country. One biocontrol agent, a leaf-feeding lady beetle, was released on a number of infestations in the country during the summer of 2013/2014. Information on the lady beetle is contained in a separate fact sheet.



environmental affairs

Department:
Environmental Affairs
REPUBLIC OF SOUTH AFRICA



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Compiled by: Lin Besaans (2014) © ARC
Plant Protection Research Institute
infoweeds@arc.agric.za