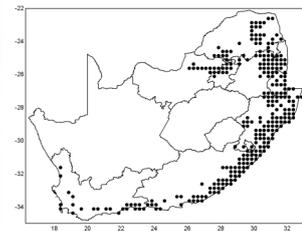


ARC-PPRI FACT SHEETS ON INVASIVE ALIEN PLANTS AND THEIR CONTROL IN SOUTH AFRICA

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LANTANA is a complex of hybrid shrubs, bred from parents native to tropical America. Young stems are prickly, and almost square. The serrated, opposite leaves are rough, and pungent when bruised. Flower-heads (i) are multi-coloured, with florets opening yellow or white and becoming pink, orange or red. Clusters of berry-like fruits turn blackish when ripe (ii). Lantana is a category 1 declared weed in South Africa and must be controlled, or eradicated where possible.

THE PROBLEM

In the 1600s, various *Lantana* species from the West Indies, Mexico and Brazil were introduced into Europe, where they were cultivated as garden ornamentals. Plant breeders selected and hybridised them into hundreds of different varieties. These horticultural hybrids were distributed worldwide.

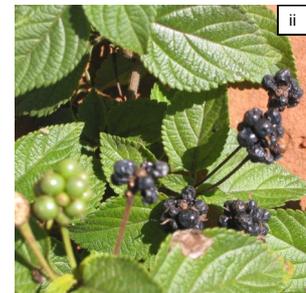
Lantana escaped from gardens into natural ecosystems and agricultural land, chiefly through the movement of frugivorous birds and mammals. It is now a weed in more than 60 tropical and warm-temperate countries in Africa, southern Asia, Australia and Oceania. Lantana was introduced into Cape Town in 1858, and into Durban in 1883 from where it spread rapidly (map). In 1954, it was declared a noxious weed throughout South Africa.

Owing to the fact that it is tolerant of herbivory, drought, frost and fire, and secretes chemicals that suppress competitors, it has the ability to dominate pre-existing vegetation (iii). In agriculture, impenetrable thickets of lantana replace natural pasturage and reduce the productivity of stock farming. Since most of the plant is toxic, it can also poison cattle. Furthermore, lantana suppresses biodiversity and lowers land values.

Since each variety differs in physiology, toxicity, susceptibility to herbicides and natural enemies, lantana is extremely difficult to control or kill. After slashing or spraying herbicide, the plants may die back and appear dead, but seeds in the ground germinate and grow, the stumps soon re-sprout, more seed is produced, and the infestation becomes denser and more widespread.

THE SOLUTION

While biological control is the only potentially sustainable solution, the agents collected from the wild lantana species thus far are not sufficiently effective in controlling the weedy hybrids. The only way to get rid of lantana is to apply a rigorous combination of mechanical plus chemical control (iv) and annual follow-up treatment. The established agents slightly reduce the rate at which the weed grows, reproduces, spreads and becomes denser. Consequently, the biocontrol agents reduce the frequency and cost of essential control activities.



environmental affairs

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