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

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Coelocephalapion camarae The lantana petiole-galling weevil



The lantana petiole-galling weevil, Coelocephalapion camarae Kissinger, has very recently been released into lantana's northern and eastern range in South Africa, since this is where it is most likely to establish. As soon as the insect's establishment has been confirmed, the distribution map on this fact sheet will be updated accordingly.

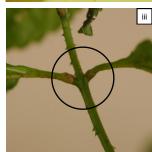
DESCRIPTION

The adult insect is a small (2-3 mm), black snout-beetle (i) with characteristically elongated rostrum (snout). There is little morphological distinction between males and females. Adults move around actively on the leaves and flowers, and are able to fly. The larvae (ii) feed and develop inside galls induced on petioles (leaf-stalks) and, occasionally, in the base of receptacles (thickened part of flower-stalk).



LIFE CYCLE

In summer months, the adult female lays an average of an egg per day. She usually chews a small cavity in the petiole or at the base of the receptacle, lays her egg in it, and seals it with a plug of faeces. Once the egg hatches, the larva tunnels a short way towards the stem, where it feeds on the vascular tissue. This feeding stimulates the plant to produce excess tissue, which causes a dark, gall-like swelling (iii). The larva pupates inside this gall, and the adult emerges by chewing its way out. In summer, the life cycle from egg to adult is about 35 days, and adults live for over 5 months. Feeding and reproduction slows during winter, when the weevils tend to take shelter in curled-up leaves or in leaf litter.



FEEDING DAMAGE

Adults chew small holes alongside the veins in leaves (iv) or, sometimes, in the flower corolla. However, larval feeding causes the most significant damage by severing vascular tissue and inducing galls. Larval damage also frequently causes leaf desiccation and abscission.



IMPACT ON LANTANA

Larval and adult feeding causes a loss of photosynthetic area. As a result, the plant draws on its nutrient reserves and produces new leaves. As more leaves are lost and replaced, the stored reserves become depleted. Thus, persistent galling by larvae diminishes plant reserves, and restricts the plant's growth and competitiveness. Laboratory studies showed that when 20% of petioles were galled, root growth ceased in favour of leaf production. At galling intensities approaching 40%, all plant growth was halted.







