

BIOLOGICAL CONTROL AGENTS OF *Lantana camara* IN SOUTH AFRICA

A summary of common biological control agents for *Lantana* and their damage.

Lantana camara has traditionally been a difficult species to control biologically. This is because the *Lantana* genotypes we have here, in South Africa, are derived from horticultural selections (*Lantana* was originally considered an attractive garden plant in countries where it is now a serious weed). The host-specific nature of biological control agents collected from *Lantana*'s native country (parts of South America) has meant that they often do not recognise our *Lantana* varieties as their host species, and so they do not feed or breed in South Africa.

Lantana in South Africa can vary greatly, resulting in some agents being more successful than others in different parts of the country. There have been 18 insects and one pathogen introduced to South Africa for the biological control of *Lantana camara* since 1961. Of these, only 10 have so far established to the point that you may see their effects in the field.



THIS LEAFLET AIMS TO HELP IDENTIFY THE PRESENCE OF LANTANA BIOLOGICAL CONTROL AGENTS BY SHOWING YOU NINE OF THESE INSECTS AND THEIR DAMAGE TO LANTANA.

LANTANA BIOLOGICAL CONTROL AGENTS AND THEIR ASSOCIATED DAMAGE

1. *Teleonemia scrupulosa*

SAP SUCKING BUG



Teleonemia adults and nymphs



Damage caused by *Teleonemia* is similar to that of *Falconia* however leaves turn silver or brown rather than white. Eggs cause the leaf tip to curl down.

2. *Hypena laceratalis*

LEAF CHEWING MOTH CATERPILLAR



Hypena larva on leaf



Hypena larva damage (windows in the leaf) (*Salbia haemorrhoidalis*, a leaf-chewing caterpillar, has an appearance and damage very similar to that of *Hypena*. The only obvious difference is the presence of silk underneath the *Salbia* damaged leaves.)

3. *Octotoma scabripennis*

LEAF MINING BUG



Octotoma adult on leaf



Damage: adults chew the leaves while larvae make internal leaf mines.

4. *Orthezia insignis*

SAP SUCKING BUG



Adult *Orthezia insignis*.



While feeding on young shoots, *Orthezia* secretes honeydew, which encourages the growth of sooty mildew, characterised by the presence of a sticky black powder.

5. *Uroplata girardi*

LEAF MINING BEETLE



Adult *Uroplata* on leaf damage.



Leaf mining damage caused by *Uroplata* larvae is difficult to distinguish from *Octotoma*. Localised feeding by adults cause the leaf to curl upwards around the adult.

6. *Calycomyza lantanae*

LEAF MINING FLY



Adult fly on leaf.



Leaf blotch mines caused by larvae.

7. *Ophiomyia camarae*

HERRINGBONE LEAF MINING FLY



Adult fly.



Herringbone mines in leaves, caused by *O. camarae* larvae. This fly and *Calycomyza lantanae* are very similar, differing mainly in the shape of their leaf mines – blotch mines as opposed to herringbone mines.

8. *Ophiomyia lantanae*

SEED FEEDING FLY



Damage to seeds caused by *O. lantanae* larva. Adults are very similar to *Ophiomyia camarae*.

9. *Falconia intermedia*

SAP SUCKING MIRID



Adult mirid on leaf.



Adults and nymphs suck sap from the leaves, causing them to whiten.

Author: PENNY GILLESPIE - Plant Protection Research Institute, Private Bag X5017, Stellenbosch 7599

ADDITIONAL INFORMATION IS AVAILABLE. PHONE: Weedbuster Toll-free Helpline: 0800 005 376

WEBSITE: PPRI website is located via links from the Agricultural Research Council website: www.arc.agric.za

