

**CITRUS LOOPER /
MEASURING WORM**

Ascotis selenaria reciprocaria Wlk.

1 PEST PROFILE**1.1 Distribution and status**

This insect is a sporadic pest in most production areas except the Western Cape. Attacks can reach serious dimensions in western Mpumalanga and the south-western parts of Limpopo Province.

1.2 Description

This moth is comparatively large with a wingspan of about 45 mm. The colour is grey-white with an uneven pattern of dark brown flecks on the fore and hind wings. It is a nocturnal pest and cannot be readily seen during the day. The oval eggs are less than 1 mm long and are laid in groups of 10 to 20 in protected areas on the tree such as under loose bark or in bark cracks. There are five larval stages which progressively increase in size from 2 to 50 mm. The locomotion of all larval stages is similar and characteristic. The rear end of the body is brought forward and tucked up against the forelegs. The abdominal legs then take hold of the surface and the front part of the body is projected forwards. The movement looks like a measuring action and is the source of the insect's popular names, i.e. citrus looper and measuring worm.

1.3 Infestation sites on tree

The larval stages or instars attack leaves, blossoms and fruitlets. Sometimes they remain within the tree and are not readily seen on the outer canopy.

1.4 Damage**1.4.1 Symptoms****1.4.1.1 Leaves and blossoms**

First instar larvae can cause superficial damage to the top and bottom epidermis of young leaves as well as eat small holes in such leaves and blossoms. Older larvae make progressively larger holes in these plant organs and destroy

them entirely. However, the damage to foliage is usually not of economic importance.

1.4.1.2 Fruit

As with young leaves and blossoms the damage to fruit can vary somewhat in appearance. Fruitlets drop as a result of feeding damage. Larger larvae can consume entire fruit or cause deep holes in the fruit. This damage is subject to culling in the packhouse.

1.4.2 Seasonal occurrence

Citrus looper larvae are usually only a problem during spring and early summer. However, damage can also be done to larger fruit later in the season.

2 MANAGEMENT ASPECTS**2.1 Infestation/damage assessment**

This pest is only a commercial problem on bearing trees.

2.1.1 Inspection

Growers must determine the commencement and extent of citrus looper infestations with the aid of weekly orchard inspection during the danger period, which usually stretches from blossom to December. Inspection must be directed towards noting first signs of larval presence and damage to young leaves, blossoms and fruitlets. Inspection should receive increased attention in production areas that have a history of infestation by citrus looper.

2.1.2 Treatment threshold

There are no formal infestation criteria on which to base the application of a special treatment for citrus looper control. The progressive, general occurrence of damaged young leaves, blossoms and/or fruit blemish symptoms will indicate the necessity for applying treatment.

2.2 Control options**2.2.1 Biological**

Many dipterous and hymenopterous parasitoids including *Rogas* spp. attack the larvae. A protozoan organism has been identified that

can cause significant larval mortality in orchards. The foregoing natural enemies can make a significant contribution to citrus looper control in a particular season. However, they will not be able to effect commercial control where larvae are already well established in orchards.

2.2.2 Cultural

There are no cultural options that can be used to suppress or control citrus looper larvae.

2.2.3 Plant protection products

No product has been specifically registered for the control of citrus looper. Most of the materials used for the control of bollworm will also suppress citrus looper larvae. This includes Dipel 2X at 12.5 g/hl water.