



# MAURITIUS SUGAR INDUSTRY RESEARCH INSTITUTE

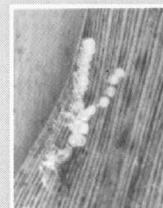
## Recommendation Sheet

March 2005, No. 147\*

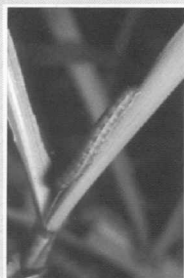
### Sugar cane armyworms, *Mythimna* spp.

Sugar cane armyworms, *Mythimna* spp., may occur in machine-harvested sugar cane fields. Trash blanket favours the development of the insect pest.

Eggs are laid in batches on cane trash and above ground parts of cane stubbles, usually about 10 days after harvest. Eggs hatch after approximately four days and young larvae first feed on their egg cases and then on young sprouts of sugar cane. The larval stage lasts approximately 24 days and pupation takes place in the soil at a depth of 2 to 4 cm. Adults emerge some 10 days later and feed on cane juice and dew. Egg laying starts after four days.

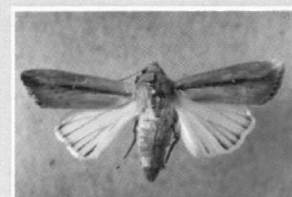


Eggs



Larva

The adult female can lay up to 700 eggs and has a life span of 10 to 12 days. The adult moths are capable of flying great distances. They are attracted by fermentation odours emitted from cane pieces, rotting trash and juice droplets spread in the field during mechanical harvest. Larvae move from one feeding site to the other in search of food. Larval movement and feeding occur only at night. During daytime, larvae stay hidden under the trash blanket.



Adult

### Symptoms and damage

Armyworm larvae are leaf feeders and may cause severe or total defoliation of young regrowths. Damage is apparent usually about 3 to 4 weeks after harvest. Significant reduction in cane growth occurs only in fields that are damaged after October.

### Control measures

#### Natural

Several species of parasitoids and pathogenic fungi have been recorded on the larvae *Mythimna* spp. in Mauritius. Predatory birds, such as the Mynah (Martin) and the Village Weaver bird (Serin du Cap), also prey upon larvae and cause significant mortality.

#### Chemical

***In order to preserve non-target organisms, widespread use of insecticides is not recommended.***

- Insecticides should not be applied to fields damaged before October.
- After October, fields should be surveyed for the presence of larvae. The threshold for insecticide application is 5 medium-sized larvae/m<sup>2</sup>.
- Application of insecticides when most plants have been totally defoliated would be a mere waste of resources, as most of the larvae would have either migrated to undamaged parts of the field or would have pupated.

### Recommended insecticides

A single application of any of the following products would suffice:

Insecticide (a.i.)	Rate (per L)	Rate of application
Steward® 240 SC (indoxacarb)	0.25 g	125 L/ha (55 L/arp) applied to cane rows only, using sprayers fitted with hollow nozzles.
Larvin® 375 F (thiodicarb)	2.0 mL	
Karate Zeon® 5 CS (λcyhalothrin)	1.0 mL	

\* This Recommendation Sheet cancels Recommendation Sheet No. 27 of November 1984

Published by the MAURITIUS SUGAR INDUSTRY RESEARCH INSTITUTE



454 1061, 466 8800, 250 1243 - Web Site: <http://webmsiri.intnet.mu>