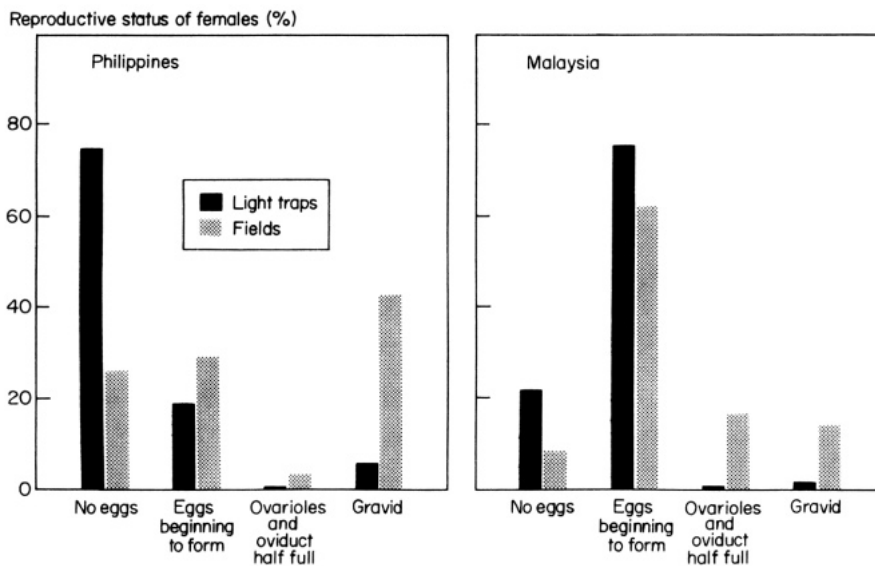


only 40% of those collected on lights were females. In both countries, the most eggless females were in light traps (Fig. 1).

The lower percentage of gravid females in light traps indicated that adults that migrate or disperse are mainly newly emerged adults that may be moving to colonize new habitats or females that already have laid their eggs. More gravid females and those with ovarioles and half-full oviducts were collected from rice fields in the Philippines (Fig. 1a) and Malaysia (Fig. 1b).

Light trap collections were not typical of the total populations in an area. It is unlikely that light traps could be used to monitor the activity of reproductively active black bugs, which usually were found in the field. *☞*



Reproductive status of female black bugs collected from light traps and rice fields in the Philippines and Malaysia.

## Occurrence and control of rice black bug at Coimbatore

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In early Jul 1985, population of black bug *Scotinophara coarctata* (F.) adults and nymphs reached 10 bugs/hill on most rices grown at the Paddy Breeding Station, TNAU. Population density on IR60, IR36, Vaigai, ADT36, IR56, PY3, IR50, ADT31, TKM9, Rasi, and PY2 ranged from 6 to 12 bugs/10 hills. There was no significant difference in numbers on different varieties at 30 d after transplanting.

### Efficacy of 5 insecticides in reducing black bug population in rice, Tamil Nadu, India.

Insecticide	Concentration	Reduction of black bug population over control <sup>a</sup> (%)
Monocrotophos	0.04%	91 a
Endosulfan	0.05%	66 b
Phosalone	0.15%	61 b
Quinalphos	0.05	59 b
Dichlorvos	0.05	58 b

<sup>a</sup> Mean of 5 replications, in a randomized block design. Plot size was 20 m<sup>2</sup>. Separation of means by DMRT at the 5% level.

We evaluated the efficacy of 5 insecticides for black bug control on 45-d-old IR50. Adult black bugs were counted on 20 randomly selected hills

per plot 1 d before and 2 d after treatment. Monocrotophos reduced black bug population most effectively (see table). *☞*

## Pest Control and Management

### OTHER PESTS

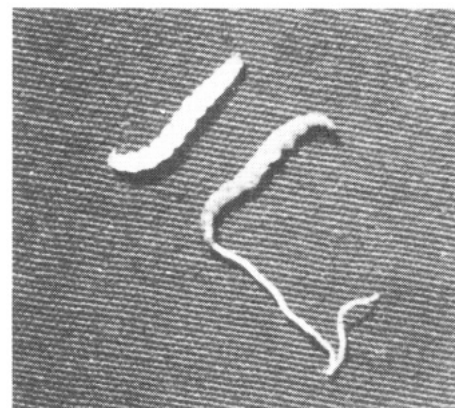
#### Entomophagous nematode infection of leafroller (LF)

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During a survey to identify natural enemies of rice pests in North Arcot District of Tamil Nadu, we noted a natural infection of entomophagous nematode *Agamermis* in LF *Cnaphalocrocis medinalis* G. (see figure).

Fifty larvae per week were collected from fields to study the level of infection and other gross pathological symptoms. The larvae and 5-cm-long rice leaf sections were kept in 1km petri dishes with moist filter paper. The cut ends of the leaves were covered with moist cotton to prevent drying.

Infection rate was highest, averaging 14%, in Dec-Jan. Nematode infection



Healthy (left) and nematode infected (right) LF larvae, Vellore, India.

changed larvae from green to yellow, reduced feeding rate, lessened response to external stimuli, and increased flaccidity. Only one nematode emerges from the cadaver and the pathogen emerges mostly from the anal end of the host larva. *☞*