

THE PADDY BUG – *Oebalus poecilus*

Pest Status: The Paddy Bug, commonly known as ‘Ghandi’ is considered one of the most serious pests of rice in all rice growing areas of Guyana. It is a major pest because of the extensive damage caused by the newly-hatched growing insects and adults. Juvenile and adults insects have needle-like piercing and sucking mouth parts. They bore into young juicy grains and extract the milky material needed to form the grain. If the attack is severe the grain fails to develop and ‘wind rice’ is produced. As the grain matures, feeding continues and results in malformation and discolouration. Upon being milled damaged grains produce at best, blemished or broken grains and at worst, grains which are crushed to produce fine chips and bran. Where rice has been parboiled, damaged grains have black spots that reduce the quality of the product. The net effect of serious attack by this insect is reduced field yields, a lower quality of rice and an overall drop of expected income.

Description: The adult bug is about 9-11 mm long and dark reddish-brown to light brown, two yellow markings are found on the scutellum; the front part of the forewing has a pale yellow spot. Shoulder spines point outwards.

The adult Paddy Bug does not live more than a month. While many generations are possible yearly, in most cases 1-2 generations will develop on a rice crop. Remaining generations are completed on the seeds of wild grasses such as Flower Grass, *Echinochloa crusgalli*, Bird Seed Grass, *E.colonum* and Bamboo Grass, *Hymenachne amplexicaulis*.

These grasses provide a breeding ground for this insect and frequently it is from this reservoir that crop attack is launched. The weed Red Rice which matures earlier than normal rice can also serve as hosts for Paddy Bugs.

Control Measures for Paddy Bug Control

Weed Control: Since it is known that Paddy Bugs migrate from weeds, it is important to control the weed species concerned. Such control measures include the removal of alternate hosts by cleaning of meres, dams and trenches, removal of old rice plants from field, early planting, and the use of late-maturing cultivars.

Block Sowing: Sowing paddy seeds of the same maturity period in large acreage blocks can help in several ways in the fight against this insect. This practice primarily means that an area where block sowing is practiced, there is only one window of opportunity for the insect to feed and multiply (i.e. when the plants have flowered to the time the grain has first reached maturity. Synchronous or block planting can also be sprayed very quickly, if necessary by aircraft. On large farms block sowing is actually practiced and combined with complementary measures gives satisfactory control over the Paddy Bugs.

Crop Rotation: Changing the host crop can help in preventing pest build-up. Blackeye has been tried occasionally, but the benefits and the risks must be carefully evaluated.

Chemical Control: Before applying chemical control, the crop must be monitored for the incidence of the pest using a suitable net during the cool part of the morning or after 5:30pm. Monitoring must be continued from late tillering onwards to maturity of the grain. The current recommendations are if the number of bugs per crop exceeds 10 per 5 sweeps, then chemical control must be initiated.

The Guyana Rice Development Board has issued the following recommendations shown in Table 3.1.

Chemical	Dosage	Period of Protection (Days)
Fipronil (Regent)	100 ml (3.5 oz)	11
Fenitrothion + Osbac (sumibas)	200 ml (2 oz)	3-6
Monocrotophos	225 – 284 (8-10 oz)	10-13
Imidacloprid	Read the label for recommendations	14-21

Table 3.1: Guyana Rice Development Board’s Chemical recommendations for the control of Paddy Bugs.

It should be noted that normally operated knapsack sprayers are not efficient against the paddy bug, since the required chemical is not deposited on the insect by the sprays. The mist-blower is recommended, with about 4 gals spray per acre. Repeated sprays may be necessary upon re-infestation. Avoid spraying between 8:30 am to 11:00 am since this affects pollination in a negative way.