

Plant host range of the rice bug (RB)

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RB *Leptocoris oratorius* (Fabricius) comprises 80% of the *Leptocoris* RB collections from wetland and dryland rice in the Philippines. *L. acuta* (Thunberg) and *L. palawanensis* Ahmad also are found in significant numbers.

Only plants in the milk or dough stage are nutritionally acceptable to *L. oratorius*. It survives by being long-lived (adults can live over 3 mo) and dispersive, seeking late maturing rice or alternative grassy weed hosts. We

studied RB survival on rice and some commonly reported weed hosts.

Neonate nymphs were placed on ripening-stage rice and eight common weeds. All nymphs died on *Eleusine indica* (L.) Gaertn., *Paspalum conjugatum* Berg., and *Dactyloctenium aegyptium* (L.) Beauv (see table).

Oryza sativa L. was the most suitable host, with the most favorable growth index, greatest fecundity, and highest number of stylet sheaths. *Echinochloa* species, led by *E. colona* (L.) Link, were acceptable hosts, but with significantly lower growth indices, fecundity, and number of stylet sheaths. Nymphal development ranged from 21 d with rice to 36 d with *Paspalum scrobiculatum* L.

Paspalidium flavidum (Retz.) A. Camus and *P. scrobiculatum* can be considered marginal hosts. □

Effect of three neem products on brown planthopper (BPH) oviposition

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We evaluated the effect of three neem products on BPH oviposition. Neem oil at 1% and 2% were prepared in water containing 1% Teepol. Neem seed kernel extract at 5% was prepared from 50 g of powdered neem seed kernel soaked in 1 liter water for 12 h, filtered, and Teepol 1% added to the filtrate. Neem cake at 5% was prepared from 50 g neem cake soaked in 1 liter water for 12 h, filtered, and Teepol 1% added to the filtrate.

Ten gravid BPH females were caged for 12 h on 40-d-old plants. Eggs were counted visually under a stereoscopic microscope. Treatments with all three neem products significantly reduced BPH oviposition (see table).

Eggs/treated plant ranged from 12 to 44, compared to 143 eggs/control plant. □

Growth and development of *L. oratorius* on rice and common ricefield grassy weeds. IRRI greenhouse, 1986.^a

Plant ^b	Growth index ^c	Insect dry weight (mg)	Fecundity (eggs/female)	Stylet sheaths (no./panicle)
<i>Oryza sativa</i>	1.9 a	18 a	65 a	1.3 a
<i>Echinochloa colona</i>	1.1 b	14 ab	51 b	1.2 ab
<i>E. glabrescens</i> Monro ex Hook f.	0.9 c	12 b	41 bc	1.2 ab
<i>E. crus-galli</i> ssp. <i>hispidula</i> (Retz.) Honda	0.9 c	12 b	45 c	1.2 ab
<i>Paspalidium flavidum</i>	0.4 d	8 b	21 d	0.7 b
<i>Paspalum scrobiculatum</i>	0.2 e	3 c	5 e	0.5 c

^aAv of 4 replications, 10 rice bugs/5 panicles. In a column, means followed by a common letter are not significantly different at 5% level by DMRT. ^bNymphs failed to develop on *Eleusine indica*, *Paspalum conjugatum*, and *Dactyloctenium aegyptium*. ^cGrowth index = survival (%) / developmental period (d).

Effect of three neem products on BPH oviposition. Tamil Nadu, India.

Treatment	Eggs/plant ^a
Neem oil (1%)	19
Neem oil (2%)	12
Neem seed kernel extract	38
Neem cake extract	44
Control	143

^aMean of 5 replications. Means followed by common letter are not significantly different at 5% level by DMRT.

Pest Control and Management WEEDS

Agronomic and economic evaluation of herbicides in transplanted rice

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In 1984, we studied the effect of five granular and two liquid herbicides and hand weeding on weed control in transplanted rice in a randomized block design with four replications. Jaya seedlings at 21 d were transplanted on 24 Jun.

Weed infestation was high. Dry weight in nonweeded control was 397

g/m² (see table). *Echinochloa colona* (L.) and *E. crus-galli* (L.) predominated (85% total dry weight). Other weeds were *Cyperus iria* (L.), *C. difformis* (L.), *Scirpus grossus* (L.), and *Fimbristylis miliacea* (L.). Broadleaf weeds were negligible.

Thiobencarb at 1.5 kg ai/ha controlled weeds effectively (biomass