Table 1. Mortality of *Lissorhoptrus brevirostris* adults caused by *Beauveria bassiana* and *Metarrhizium anisopliae* fungi, Sur del Jibaro, SanctiSpiritus, Cuba, 1978.

Fungus and strain	Rice water weevil mortality (%) 20 days after infection	
	Female	Male
Beauveria bassiana 24	92	16
Beauveria bassiana 32	99	92
Metarrhizium anisopliae 12	83	79
Metarrlliziurn anisopliae 4	61	51

drobacilin, and Dipel) controlled rice water weevil when applied to 35-day-old rice plants as a foliar spray at 0.6, 1.2. and 2.4 kg/ha.

When *Neoplectana* nematodes were broadcast on the water surface in the laboratory, adult mortality was 82% between 8 and 18 days after application. In another test, three dosages of the nematode were applied. Rice water weevil damage was lowest with 36 nematodes/ml water which caused 77% adult mortality (Table 2). When the same test was done on rice water weevil larvae, mortality ranged from 73 to 83% 12 to 15 days after application. □

Table 2. Mortality of rice water weevil adults caused by different rates of *Neoplectana* nematode, Havana, Cuba, 1981.

Dosage (nematodes/ml water)	Rice water weevil mortality (%)
3550	80
355	82
36	17

Insecticide-resistant brown planthopper populations at the IRRI farm

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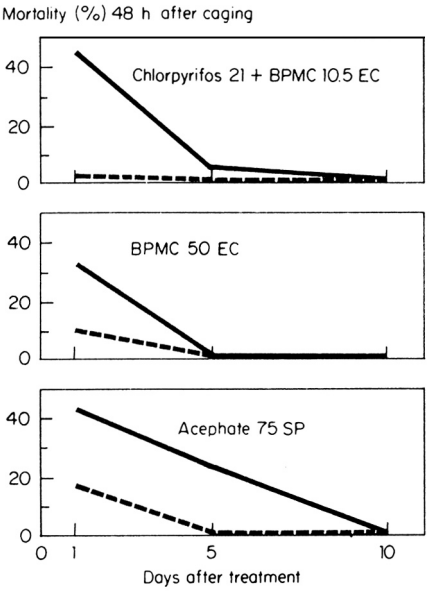
Brown planthopper (BPH) may develop resistance to some insecticides applied repeatedly. This has occurred in Japan and Taiwan, China. We found insecticide-induced BPH mortality to be much lower for populations collected from the IRRI research farm than for greenhouse colonies (see figure).

Chlorpyrifos + BPMC has been used at IRRI since 1978, and acephate has been used since 198 1. For 10 years BPH-susceptible cultivars usually received two granular and six foliar insecticide applications per season. Using such quantities of insecticide has undoubtedly hastened the development of insecticide-resistant BPH populations at the farm. □



Comparative mortality of greenhouse insecticide-free populations (---) and field populations (—) collected from IRRI farm in Apr–Jun 1982 when treated with foliar sprays at 0.75 kg ai/ha.

A new gall midge parasite in M. P., India

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Rice gall midge *Orseolia oryzae* (Wood-Mason), a destructive rice pest in India, Sri Lanka, Thailand, Vietnam, and Indonesia, has a large natural enemy complex. *Platygaster oryzae* is a dominant egg-larval gregarious parasite of gall midge. *P. oryzae* parasitism in Madhya Pradesh was 14.3% in the summer rice crop in Apr and May 1977.

During 1980 wet season a hymenopterous grub was found feeding on the pupae of *O. oryzae.* Adults were identified as *Neanastatus gracillarious* Masi (Eupelmidae: Hymenoptera) (identified by Z. Boucek). This is the first record of the parasite on *O. oryzae* in Madhya Pradesh. □

Influence of planting time on rice leaf-folder incidence

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Rice leaffolder (LF) *Cnaphalocrocis medinalis* Guenée is a serious rice pest in samba season (Jul-Aug to Dec-Jan) at Tirur. We studied the effect of planting time on LF incidence.

IR20 was planted in 10-m^2 field plots on 7 dates with 4 replications during 1981-82 at PES, Tirur. Insecticide was not used. Total leaves and LF-damaged leaves on 25 randomly selected hills from each plot were counted 60 days after transplanting and damage percentage was calculated (see table).

Leaf damage was significantly lower (below the 20% economic threshold level) on crops planted from 20 Sep to 5 Nov. The early crop (5 Aug to 5 Sep) had heavy LF damage because maximum tillering and early flowering coincided with peak LF population (Oct–Nov).

Effect of planting time on rice leaffolder incidence, 1981–82 samba, Tirur, India.

Planting date	Mean leaf damage[a] (%) 60 DT
05 Aug 1981	39.7
20 Aug 1981	39.3
05 Sep 1981	41.7
20 Sep 1981	08.5
05 Oct 1981	13.2
20 Oct 1981	15.3
05 Nov 1981	13.6
CD	5.8

[a]DT = days after transplanting.

Natural enemies of rice insect pests in Chhatisgarh (M.P.), India

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Natural enemies substantially reduce insect pest populations in rice fields. We began an intensive rapid roving monitor-