trap and the Robinson trap (see table). The Robinson trap may have trapped fewer midges because the high-intensity light attracted many kinds of insects, including large ones, which made it difficult for fragile, smaller gall midges to reach

the trap. It also may be that the photokinetic response of gall midge is greater toward the infrared range.

Brown planthopper biotypes in Korea

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Brown planthopper (BPH) populations come to Korea on prevailing low-pressure winds from southern China during the crop growing season. We studied the distribution of migrating BPH biotypes in Korea. Seventy-eight BPH females were collected from the southwest coast of the Korean peninsula 23-27 Aug 1982. They

were individually reared for two to three generations on susceptible rice variety Milyang 23 in the greenhouse.

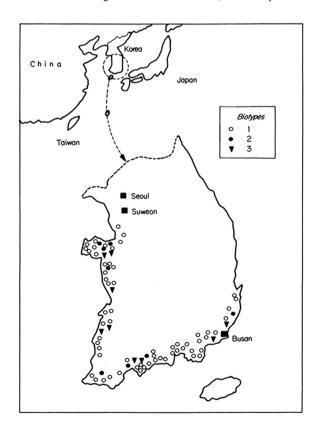
Differential varieties were Milyang 23 with no resistance gene, Cheongcheongbyeo with Bph 1 resistance gene, and Milyang 63 with bph 2 resistance gene (see table).

BPH biotypes from each local collection were differentiated using the seedling bulk testing method. Results showed 61 local collections were BPH biotype 1, 8 were biotype 2, and 9 were biotype 3 (see figure). □

Reaction of different rice varieties to BPH biotypes and local collections in Korea in 1982.

| Variety | Resistance gene | Damage rating ^a | | | | | |
|--|------------------|----------------------------|-------------|-------------|------------------------|-------------|-------------|
| | | Biotype | | | Local collections from | | |
| | | 1 | 2 | 3 | Ashan | Hongseong | Boseong |
| Milyang 23 Cheongcheongbyeo Milyang 63 | None Bph 1 bph 2 | S R R | S S R | S R S | S R R | S S R | S R S |

Based on seedling bulk test. R = resistant, S = susceptible.



Distribution of brown planthopper biotypes in Korea.

A simple technique for rearing rice thrips in the glasshouse

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Identification of varietal resistance to rice thrips Stenchaetothrips (Baliothrips) biformis (Bagnell) requires a mass screening technique that can be used in the glasshouse. We tested techniques for mass rearing rice thrips.

Rice seedlings heavily infested with thrips were uprooted from the field and planted in groups of 5 in shallow 15- × 27- × 6-cm plastic planting flats in the glasshouse. Each group of infested seedlings was surrounded by 4 groups of 1week-old Bg 34-8 uninfested seedlings. Distance between seedling groups was 3-5 cm.

Thrips moved from the infested seedlings to the uninfested ones and reproduced. The colony was maintained by uprooting newly infested seedlings and planting new seedlings. A colony was successfully maintained for more than 4 months (about 6 generations) and each flat of infested seedlings could be used to infest 3 to 5 trays of uninfested seedlings. It took about 30 minutes to plant one flat of seedlings. \square

Neem (Azadirachta indica A. Juss) products for control of rice stem borers

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The insect antifeedant properties of neem Azadirachta indica A. Juss) oil seed are well known. In addition to phagodeterrence, insect growth-disrupting properties have also been attributed to several neem derivatives. Cake made from neem seeds after oil extraction has been reported to be an excellent insect repellent, organic