

## Rice Aster Leafhopper (*Macrostelus fascifrons*)

### Biology

- The adult hoppers are about 0.125 inch long, with transparent wings that are strongly veined, and body background colors of gray and black.
- Adults deposit their eggs into tender plant tissues.
- The nymphs have small wing pads in color from yellow to dark green.



Fig 1. Adult hopper on rice tiller (IRRI Rice Knowledge Bank)



Fig 2. Pale green adults with black markings feed on rice tiller  
Source: IRRI Rice Knowledge Bank

### Geographical Distribution

- The leafhopper occasional occurs in all rice growing areas.

### Damage on rice crop

- The leafhopper feeds on rice plants by sucking up plant fluids, giving leaves a whitened, mottled appearance.
- Flecking, yellowing and drying of leaves.
- Young plants or new growth is stunted and/or deformed.
- In mature plants, leaves and stems turn yellow (chlorotic) and become stunted and twisted.
- Flowers are discolored, mottled, distorted, and sterile.
- High populations of this pest are associated with weedy rice fields.
- The pests transmits the aster yellows virus.



Fig 3. Rice leaf hoppers attacking rice tillers.  
Source: IRRI Rice knowledge Bank

### Management Strategies

#### 1. Cultural Control

- Inspect regularly for presence of insect pest.
- Destroy and discard infested plants to prevent spread.
- Timely control of weeds that may act as reservoirs for the pest.
- Plant companion crops (e.g. marigold and geraniums) around rice fields to deter pests.
- Reduce rice crops to two per year and synchronize establishment across farms to reduce infestations.
- Use sticky green traps at a distance of 10m apart to trap the hoppers.
- Intercrop upland rice with soybean to reduce the incidence of leafhoppers on rice.
- Encourage predators through conservation of patches of natural vegetation

#### 2. Chemical control

- Spray with Acetamiprid 35g/L + Lambda Cyhalothrin 15g/L (e.g. KINGCODE ELITE 50EC 10ml/20l); Lufenuron (e.g. LEGACY 50EC at 12-26ml in 20L of water) when 1 insect/10 hills/m<sup>2</sup> is noticed.