

MANAGEMENT OF RICE STEM BORER

Rice stem borer causes damage by reducing the number of tillers and yield. Approximately six major species of stem borer cause significant damage to rice cultivation. In Cauvery deltaic region four species of stem borer that is *Scirpophaga incertulas* (yellow stem borer), *Chilo suppressalis* (striped borer), *Chilo auricillus* (golden fringed borer) and *Sesamia inferens* (pink borer) cause damage at varying growth stages at varying proportions in a crop year based on the research findings of Tamil Nadu Rice Research Institute, Aduthurai.

Damage results from larvae feeding within stem, severing the vascular system and results in dead hearts before flowering and white head or white ear after flowering.

Conducive factors

Conducive factors for pest survival at varied environmental conditions were high nitrogen, soil deficit in silica, cold dry weather with high humidity and low temperature and presence of stubble of previous crop.

Management measures

Integrated pest suppression include cultural, biological and behavioural approaches as follows:

- Selecting early maturity high tillering varieties in respective seasons.
- Application of 2.5 kg of *Pseudomonas fluorescens*/ PGPR consortia along with 25kg of Neem cake and 250 kg of well decomposed farmyard manure per hectare when the soil pH is more than seven and similarly with *Trichoderma viridie* if the pH of the soil is less than seven after last ploughing.
- Seed treatment - Treating the seeds with *Pseudomonas florescens*/ PGPR consortia at 10g per kg of seeds / dipping the seedlings reserved for one hectare with 2.5 kg of consortia *P. florescens*.
- Remove the stem borer egg mass in the seedling before transplanting.
- Field should be necessarily be scouted during the vulnerable crop growth stages for early detection of dead hearts and white ear.
- Release of egg parasitoid *Trichogramma japonicum* thrice at weekly interval starting 28 days after transplanting followed by the release of *Trichogramma chilonics* at 37, 44 and 51 DAT.

Source : www.hindu.com/seta/2010/04/29/stories/2010042950671500.htm