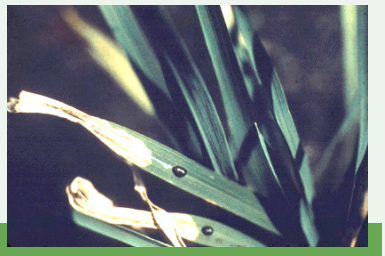
Spiny Beetle/Rice Hispa

Adult Rice hispa



Damage symptom (B). (Photo by S.V. Fowler)

Infested field (Photo by M. P. Ali)

Clipping of leaf tip before transplanting
(Photo by Rudra Narayan Borkakati)

INTRODUCTION

Rice hispa, is a significant pest of rice crops in India. It is widely prevalent in Assam, West Bengal, Punjab, Bihar, Uttar Pradesh, Andhra Pradesh, Kerala, Manipur, Odisha, and Madhya Pradesh. In Assam, major endemic districts include Sibsagar, Lakhimpur, Nalbari, Barpeta, Cachar, and Shreebhumi. The rice hispa, appears periodically and significantly affects rice cultivation. This beetle, has a body covered with spines.

UNDERSTANDING THE BACKGROUND OF THE PEST

Both larvae and adults primarily feed on the green tissues of tender rice leaves. Larvae mine within the leaves, eventually pupating there. It takes around 3–5 weeks for the pest to complete its life cycle from egg to adult. It is noteworthy that this pest can also breed on certain wild grasses (like Dol, Uridol, etc.) in the absence of paddy, thus maintaining its population throughout the year. Usually, the pest first appears on such weeds during February–March and then spreads gradually to paddy fields. Rice hispa is one of the important pests of Sali rice in Assam. It can causes up to 28% Yield losses under normal infestation where in severe outbreaks.

SYMPTOMS AND DIAGNOSIS PROCEDURE

Both larvae and adults primarily feed on the green tissues of tender rice leaves. Larvae mine within the leaves, eventually pupating there. It takes around 3–5 weeks for the pest to complete its life cycle from egg to adult. Severely infested fields appear scorched and whitish from a distance. Both larvae and adults can easily migrate from one field to another and can attack all rice varieties to varying degrees.

ECONOMIC THRESHOLD LEVEL (ETL)

2 adult beetles/hill

MANAGEMENT MEASURES

- Continuous field surveillance is essential and monitor field regularly
- Destroy crop residues and alternate hosts/ weeds,
- Follow deep ploughing during March/April.
- Practice closer spacing while transplanting
- Leaf tip clipping before transplanting
- Flooding the rice nursery beds and collection and destruction of the floating beetles
- Encourage predatory birds, spiders etc.
- Allow ducks to graze in the infested fields.
- Spraying of *Azadiractin* 1 % @ 300 ml per acre
- Spraying of *Beauveria bassiana*, @ 1 kg per acre.
- Spraying of Emamectin benzoate 5 SG @ 100 gm per acre

Norway
Norwegian Embassy
New Delhi

This project has received funding from the Ministry of New Foreign Affairs, Norway/ the Norwegian Embassy, New Delhi, under Grant Agreement No. IND-15/0010