

Narrow Brown Spot of Rice



Narrow Brown Spot of Rice (Photo by Nur Alom, AAU, Jorhat)

INTRODUCTION

Narrow brown spot of rice is a significant fungal disease in tropical and subtropical areas of rice growing tracts. This disease occurs during the later growth stages like panicle initiation and extends up to crop maturity.

UNDERSTANDING THE BACKGROUND OF THE DISEASES

Narrow brown spot is caused by the fungus *Sphaerulina oryzae* (syn. *Cervospora janseana*, *Cervospora oryzae*). Potassium deficient soil and a temperature range of 25–28°C favors the disease development. Symptoms are mainly observed during booting and heading stage of the crop.

SYMPTOMS AND DIAGNOSIS PROCEDURE

The characteristic linear lesions of narrow brown spot differentiate it from the spindle shaped brown spot of rice. In narrow brown spot, brownish linear lesions of 2-10 mm long and 1-1.5 mm width appear on leaves and upper leaf sheath that advances parallel to the veins. Short lesions also appear on glumes and pedicels. The characteristic net blotch symptom appears due to the discolouration of the leaf sheath. Brown linear necrotic lesions appear in highly susceptible variety. Severe infestation causes lodging of plants and premature ripening of grains.



Field View of Narrow Brown Spot of Rice. (Photo by Nur Alom, AAU, Jorhat)

MODE OF SPREAD

The disease spreads primarily through fungal spores carried by wind, water and infected seeds.

MANAGEMENT MEASURES

PREVENTIVE MEASURES

- Seed treatment with *Bacillus subtilis* @ 5gm per kg of seed
- Regularly monitor the fields on weekly intervals to detect the narrow brown spots.
- Sowing of resistant varieties viz., Ranjit, Luit and IR-64
- Maintain field sanitation and remove alternate hosts



MANAGEMENT MEASURES

- LCC based nitrogenous fertilizer application
- Spraying of *Bacillus subtilis* @ 500ml per acre
- Spraying of Propiconazole 25EC @ 250ml per acre (WHO class II)