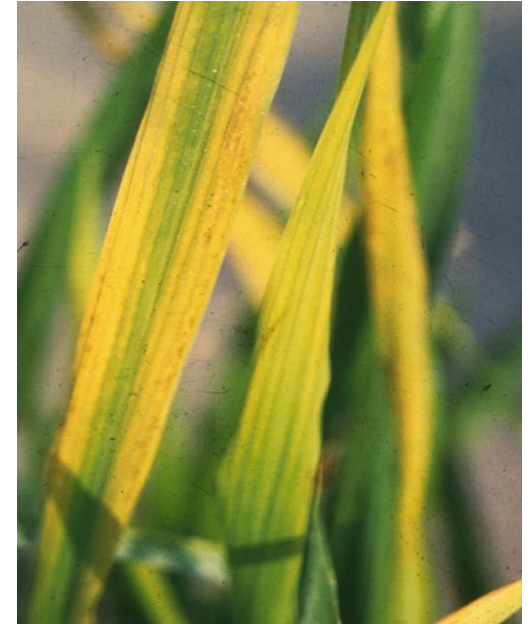


Rice Tungro disease

- This is a viral disease

Symptoms

- Stunting of the plants occur with reduced tillering
- Discoloration of leaves from yellow to orange color and rusty spots spreading from leaf tip to downwards
- Young leaves become mottled and slightly twisted while old leaves become rusty colored
- In severe infection in early stages the plant dies before flowering





Causal organism

- Rice Tungro Bacilliform Virus (RTBV) and Rice Tungro Spherical Virus (RTSV)
- RTBV contains ds DNA and RTSV contains ssRNA

Disease Cycle

- **Primary infection** – virus surviving in collateral hosts (*Eleusine indica*, *Echinochloa colonum*, *Echinochloa crusgalli*)
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- **Secondary infection** – carried by leafhoppers, the most efficient being *Nephotettix virescens*. Other vectors are *N. nigropictus*, *N. parvus*, *N. malayanus* transmit the virus

- **Management**

- Destroy weed hosts of the virus and vectors.
- Grow disease tolerant cultivars like MTU 9992, 1002, 1003, 1005, Suraksha, Vikramarya, Bharani, IR 36, IET 2508, RP 4-14, IET 1444, IR50 and Co45.
- Control the vectors in the nursery by application of carbofuran granules @10kg/ac in main field
- Spray Dimethoate @ 0.2% in the main field 15 and 30 days after transplanting to control leaf hoppers.

Khaira disease

