

RNAi Technology for Sheath Blight Resistance and Tungro Disease Resistance in Rice

Sheath blight

- ✓ Pathogen gene-derived RNAi constructs targeting critical metabolic pathway of pathogen.
- ✓ The RNAi rice lines exhibits high levels of resistance to sheath blight disease, confirming successful silencing of target fungal genes and reduced pathogen virulence.

Tungro disease resistance

- ✓ An RNAi construct designed using highly conserved partial sequences of the *Coat Protein 3 (CP3)* gene of Rice Tungro Spherical Virus (RTSV).
- ✓ The RNAi rice lines exhibits highly resistant phenotypes against tungro disease with an inability to transmit virus complex.

Technology has been certified by ICAR on 16th July 2025

Salient Features & Advantages

- ✓ Durable and specific resistance by efficient RNAi gene constructs
- ✓ Environmentally safe and sustainable biotechnological solution
- ✓ Potential to reduce chemical fungicide and insecticide dependence