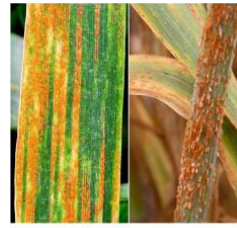


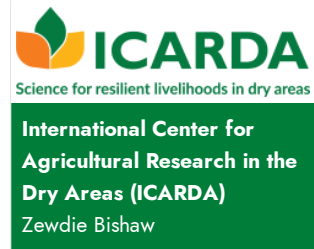
# Yellow Rust and Stem Rust Resistant wheat

## Rust-Resistant Wheat for a Flourishing Future

Rust-resistant wheat varieties use All-stage resistance (ASR) and Adult plant resistance (APR) genes to combat rust fungi. ASR provides strong protection but can be overcome by evolving fungi. APR offers partial, longer-lasting, broad-spectrum resistance. Combining ASR and APR enhances resistance.



Symptoms of yellow rust (left) and stem rust (right)



This technology is **TAAT1 validated**.



Scaling readiness: idea maturity: 7/9; level of use: 7/9

**4.1 Ton/ha**

average grain yield

**440 USD**

Total farming operational costs

### Problem

- **Rust Epidemics:** Yellow and stem rust cause significant yield losses and devastate wheat crops in Sub-Saharan Africa.
- **Rapid Spread:** These diseases spread rapidly through wind-borne spores, leading to massive losses.
- **New Strains & Native Infections:** Continuous emergence of new strains and infections in native grasses make control and eradication challenging.

### Solution

- **ASR and APR Genes:** Provide strong and broad-spectrum protection against rust fungi at all plant stages.
- **High Yield Potential:** Maintain high yield despite rust resistance.
- **Robustness:** Exhibit resistance to other diseases and environmental stresses like drought.

### Key points to design your business plan

For seed multipliers:

1. **Partnership & Training:** Collaborate with institutions and train staff on rust-resistant varieties.
2. **Selection & Multiplication:** Choose suitable varieties and plan multiplication.
3. **Quality Control & Distribution:** Ensure seed health and develop a distribution network.
4. **Assessment & Financial Planning:** Regularly assess performance and estimate costs.

For seed resellers:

1. **Partnership & Planning:** Collaborate with institutions and plan stock based on demand.
2. **Quality Assurance & Distribution:** Ensure seed health and develop a robust distribution network.
3. **Marketing & Support:** Develop a marketing strategy and provide agronomic advice.
4. **Cost Estimation:** Estimate costs and develop a financial plan.

For farmers:

1. **Education, Selection, & Procurement:** Understand benefits, select suitable varieties, and plan seed procurement.
2. **Field Management & Sales:** Plan cultivation and develop a sales strategy.
3. **Financial Planning:** Estimate costs for each step and develop a financial plan.

Technology from

[ProPAS](#)

Commodities

Wheat

Sustainable Development Goals



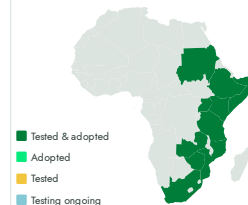
Categories

Production, Improved varieties,  
Disease resistance, Yield improvement

Best used with

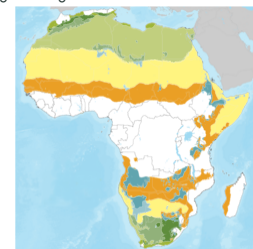
- [Integrated Management of Insects, Diseases and Weeds in Wheat >](#)

Tested/adopted in



Where it can be used

This technology can be used in the colored agro-ecological zones.



Gender assessment

4

Climate impact

7



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<https://taat.africa/dlt>

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