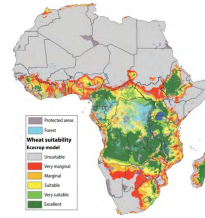


# Heat and Drought Tolerant Wheat Varieties

Wheat cultivation in high temperature regions

These wheat varieties mature in 90 days, withstand temperatures 4°C above normal, maintain 75% yield under extreme conditions, resist diseases like yellow stem rust, and have high water use efficiency. They also good for bread flour with a protein content of 14-15%. Ideal for challenging environments like Sub-Saharan Africa.



Science for resilient livelihoods in dry areas

**International Center for Agricultural Research in the Dry Areas (ICARDA)**  
Zewdie Bishaw

This technology is **TAAT1 validated**. **7•8** Scaling readiness: idea maturity 7/9; level of use 8/9

Gender assessment **8 4**

Climate impact **8 7**

### Problem

- Heat Stress:** Yield loss due to temperatures 4°C higher than normal.
- Drought Conditions:** Poor performance with less than 200mm of moisture.
- Low Productivity:** Traditional varieties yield much less than 6 tons/ha.
- Limited Cultivation Zones:** Unsuitable for high temperatures and low rainfall areas

### Solution

- Heat Tolerance:** Withstand temperatures 4°C higher than normal.
- Drought Resistance:** Perform well with less than 200mm of moisture.
- Higher Yields:** Achieve up to 6 tons/ha.
- Expanded Cultivation Areas:** Suitable for high-temperature and low-rainfall regions

Cost: \$\$\$

**4 - 6 tons/ha** increase in yield

**100 kg/ha** Planting rate

**IP** Unknown

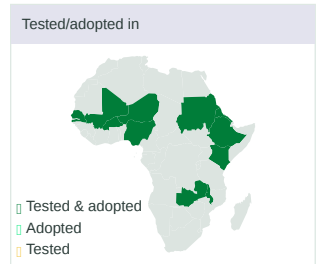
Technology originally documented by **ProPAS**

Commodities  
Wheat

Sustainable Development Goals

Categories  
Production, Improved varieties, Drought tolerance, Heat tolerance

- Best used with
- [Expanded Production of Irrigated Wheat >](#)
  - [Furrow Irrigated Raised Bed Wheat Production >](#)
  - [Yellow Rust and Stem Rust Resistant wheat >](#)



Where it can be used

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

