

# Adapted rice varieties for Africa Advanced rice varieties for Africa



AfricaRice

**Africa Rice Center**  
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Arica rice, the high yield, disease and stress tolerant rice

Hybrid ARICA lines are advanced rice varieties with high yield potential and resistance to diseases and environmental stresses. They are developed using a three-line or a two-line breeding system, involving backcrossing, test-crossing, and microsatellite screening. To be classified as ARICA, a breeding line must outperform benchmarks in seed yield and grain quality over three seasons. Fiel...

This technology is **TAAT1 validated**.

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

Gender assessment **4**

Climate impact **7**

**Problem**

- **Low Productivity:** Traditional rice varieties in Africa yield inadequately.
- **Susceptibility to Pests and Diseases:** Common rice diseases and pests diminish yields and threaten food security.
- **Abiotic Stresses:** Environmental variability poses significant challenges, affecting crop growth and productivity.
- **Limited Adaptation:** Traditional rice varieties struggle to adapt to diverse agroecosystems, resulting in suboptimal performance.

**Solution**

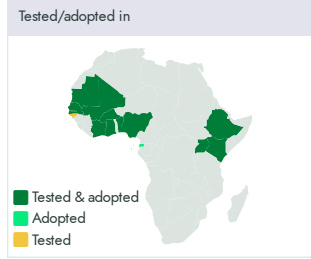
- **High Yield Potential:** ARICA varieties offer increased productivity and profitability.
- **Disease and Pest Resistance:** ARICA lines resist common rice diseases and pests, ensuring stable yields.
- **Abiotic Stress Tolerance:** ARICA hybrids withstand environmental stresses, ensuring consistent yields.
- **Adaptability:** ARICA varieties thrive in diverse agroecosystems, providing flexibility to farmers.
- **Specialty Traits:** Some ARICA lines possess traits like drought resistance and iron toxicity tolerance, addressing specific challenges.

Technology originally documented by  
**ProPAS**

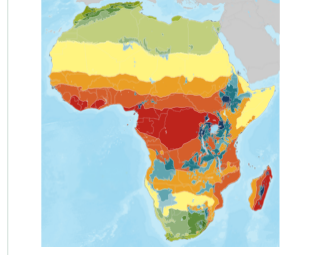
Commodities  
Rice

Sustainable Development Goals

Categories  
Production, Improved varieties,  
Yield improvement, Quality improvement



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



Target groups  
Breeders, Farmers, Seed companies

Cost: <b>\$\$</b> <b>0,8 - 1,2 \$/Kg of seed</b>	ROI: <b>\$\$\$</b> <b>40 %</b>
Initial cost of the seed	Increase in yield (income)
<b>356 USD</b>	<b>50 - 111 %</b>
Planting, maintenance, harvesting and winnowing	Potential yield
	<b>IP</b> Open source / open access

