

Furrow Irrigated Raised Bed Wheat Production

Smart Irrigation, Bountiful Harvests

This technique involves creating raised beds with furrows for planting crops, which ensures even irrigation and optimal soil moisture while reducing soil erosion and preventing waterlogging. It is effective with specific irrigated wheat varieties. In Ethiopia, suitable varieties include Amibera, Ga'ambo, Kakaba, Fentale-2, Shorima, Dandaa, and Ogolcho. In Nigeria, the varieties are Attila,...



International Center for Agricultural Research in the Dry Areas (ICARDA)
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✓ This technology is **TAAT1 validated**.

7-7

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

Cost: \$\$ **300 USD**

labor and input per ha

360 USD

sheet plastic per ha

100—250 USD

water from planting to harvest



Open source / open access

Problem

- **Flooding wastes water:** Raises production costs.
- **Scattered fertilizer:** Costs more, harms environment.
- **Uncontrolled moisture:** Lowers yields, hurts productivity.
- **Limited freshwater:** Weakens drought resistance, hurts yields.

Solution

- **Saves water:** Targets furrows for optimal soil moisture.
- **Protects crops:** Raised beds prevent waterlogging and improve drainage.
- **Reduces waste:** Precise fertilizer application minimizes cost and environmental harm.
- **Boosts harvests:** Rainwater harvesting and controlled irrigation maximize water use for resilient crops.

Key points to design your business plan

For Farmers

Furrow-Irrigated Raised Bed Wheat Production involves creating raised beds and furrows in your field (slope < 3%).

Key considerations:

- Land suitability: Sandy, loamy, and clay soils are ideal.
- Labor: Use hand tools or rent a tractor-drawn bed shaper.
- Crop selection: Choose wheat suited for furrow irrigation and your climate.
- Planting: Research best planting times for your region.
- Inputs: Secure seeds, fertilizers, and pest control in advance.
- Irrigation: Implement a system to direct water to furrows (ditches or pipes).
- Training: Look for programs to learn best practices.
- Marketing: Plan how you will sell your wheat crop at harvest.

Technology from

PropPAS

Commodities

Wheat

Sustainable Development Goals



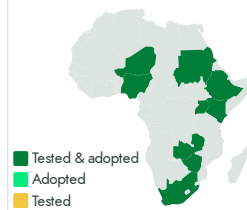
Categories

Production, Practices, Water management

Best used with

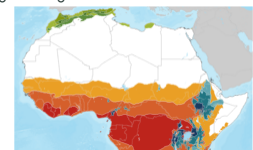
- [Wheat Cultivation in Dryland through Winter Irrigation >](#)
- [Minimal Tillage and Surface Mulching of Soils >](#)

Tested/adopted in



Where it can be used

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



Gender assessment

Climate impact



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<https://e-catalogs.taatafrica.org/com/technologies/furrow-irrigated-raised-bed-wheat-production>

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