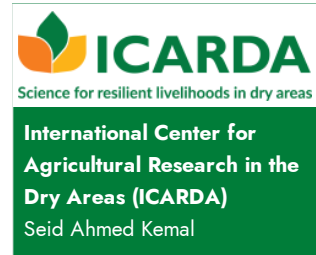


Integrated Orobanche Management on Faba bean: Resistant Faba Bean and Low-Dose Herbicide Package

Restoring faba bean productivity by defeating Orobanche.

Integrated Orobanche Management (IOM) is a sustainable weed management package that integrates host plant resistance with targeted herbicide application to control *Orobanche crenata* while minimizing environmental impact. By improving productivity, restoring infested farmland, and supporting smallholder resilience through collaborative research and inclusive dissemination, the technology contributes to sustainable agricultural development and long-term food security.



Technology from

[PRMS](#)

Commodities

Faba bean

Sustainable Development Goals



Categories

Production, Improved varieties, Weed resistance

Tested/adopted in



Where it can be used

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



Target groups

Breeders, Farmers, Seed companies, Researcher center, Advisory and Extension Services

This technology is **pre-validated**.

9-9



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

Inclusion assessment

12

12

12

Climate impact

7

Problem

- **Vulnerable smallholder livelihoods:** Orobanche-driven crop losses increase food and income insecurity.
- **Unsustainable farming systems:** Reduced faba bean cultivation weakens soil fertility and crop diversity.
- **Limited access to improved technologies:** Farmers lack effective solutions, quality seed, and technical support.
- **Weak research-to-farmer linkages:** Limited knowledge transfer slows adoption of proven management practices.

Solution

- **Builds resilient livelihoods:** Reduces crop failure risks and restores productivity of Orobanche-affected farmland.
- **Promotes sustainable intensification:** Integrates resistant varieties, targeted herbicide use, crop rotation, and field management for long-term control.
- **Strengthens inclusion and capacity:** Improves access to improved technologies, supports women farmers, and builds local knowledge through participatory approaches.
- **Advances collaborative innovation:** Demonstrates successful partnerships between research institutions, extension systems, and farming communities.

Key points to design your program

The technology reduces crop failure risks and strengthens smallholder farmers' ability to maintain productive farming systems.

- **Sustainable intensification:** Combines resistant varieties, targeted herbicide use, and cultural practices for long-term Orobanche management.
- **Food and nutrition security:** Increases production of a nutritious pulse crop and improves household dietary quality.
- **Inclusive development:** Enhances access to improved seed and technologies, benefiting women farmers and vulnerable groups.
- **Partnership-driven innovation:** Supports SDG 17 through collaboration among **ICARDA, EIAR, ARARI, extension services, and farming communities**.
- **Scalable approach:** Suitable for agricultural development programs using participatory extension models such as Farmer Research Extension Groups (FREGs).



Open source / open access



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<https://taat.africa/oqm>

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