

GIFT "Genetically Improved Farmed Tilapia" All Male Tilapia Fingerlings with Greater Yield and Uniformity



WorldFish
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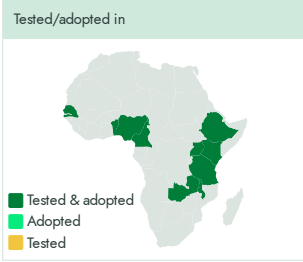
Technology originally documented by
[ProPAS](#)

Commodities
Fish

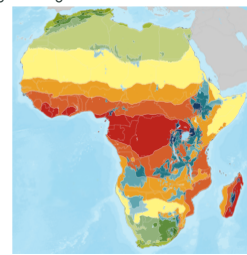
Sustainable Development Goals

Categories
Production, Practices, Yield improvement

Best used with
• [Hapa Nets for Fingerling](#)



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



Target groups
Breeders

Greater yield and uniformity in tilapia farming

The technology involves predominantly growing male tilapia. This can be achieved through various methods such as manual selection, hormone treatment, or natural techniques. Specifically bred tilapia (GIFT) is recommended for commercial farming.

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

Cost: \$\$\$ **100 USD**
ROI: \$\$\$ **30 %**

Stocking rate of 1,000 fish per cubic meter of water Harvest volume increased

IP
Patent granted

Problem

- Mixed-sex tilapia culturing often leads to lower yields and non-uniform harvests.
- Manual sex selection at the beginning of the production cycle is time-consuming.
- Hormonal alteration of fry involves the application of α -Methyltestosterone, which may pose concerns regarding its use in feed and its impact on fish health and the environment.

Solution

- Utilizing improved lines of tilapia breeds can enhance the effectiveness of manual selection, hormonal treatment, YY male technology, and GIFT.
- Crossbreeding strategies can produce 100% male offspring, improving mono-sex tilapia production efficiency.
- Careful management of brood stock selection in hatcheries, focusing on younger brooders free from wounds and parasites, ensures high-quality and abundant fish seed production.

Key points to design your business plan

This technology benefits manufacturers, resellers, and users:

- Manufacturers can boost profitability and efficiency with up to 98% all-male tilapia stocks. Strategic collaborations with research institutions and genetic breeding programs can refine production traits.
- Resellers provide access to high-quality, genetically improved mono-sex tilapia broodstock. Collaborative opportunities exist with equipment suppliers and distributors to expand market reach.
- Users, particularly fish farmers, benefit from reliable growth rates, disease resistance, enhancing productivity and profitability. Comprehensive training programs and collaborations with support services ensure successful tilapia farming practices.

Gender assessment 4

Climate impact 7

