



Aflasafe®: Aflatoxin management

Aflatoxin-safe fields and crops for safer food in Africa

Aflasafe® is a biocontrol technology for aflatoxins management that uses harmless types of the fungus Aspergilus flavus which do not and cannot produce the toxins. The atoxigenic fungi are coated onto ordinary sorghum grain for transferring these innovative biocontrol agents to farmers' fields.



IITA
Transforming African Agriculture

International Institute of Tropical Agriculture (IITA) Ortega-Beltran, Alejandro

Technology from

ProPAS

Commodities

Maize, Sorghum/Millet, Groundnut, Chili peppers, Sesame, Sunflower

Sustainable Development Goals









Categories

Production, Prevention & storage, Inputs,
Pesticide

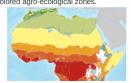
Best used with

<u>Drought Tolerant Maize</u>
 <u>Varieties and Water</u>
 <u>Efficient Maize Varieties ></u>



Where it can be used

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



☐ This technology is <u>TAAT1 validated</u>.

8•9



Scaling readiness: idea maturity:
3/9: level of use: 9/9

Cost: \$\$\$ 12

12 - 20 USD

ROI: **\$\$**\$

16 %

Increase in income

10 kg/ha

4 kg/acre

Пір

Recommended dosage application

Recommended dosage application

Trademark

Problem

- Widespread aflatoxin contamination in staple crops, animal feeds, and processed foods across Africa.
- Consumption of contaminated food leads to severe health issues such as liver cancer, weakened immunity, and organ damage.
- Aflatoxin contamination renders food unfit for consumption and trade, resulting in significant economic losses.

Solution

- Prevents aflatoxin production using harmless strains of Aspergillus flavus.
- Affordable solution to reduce aflatoxin levels in food safely.
- Tailored to African conditions, utilizing native atoxigenic fungal strains.
- · Selected through rigorous field testing.
- Halts aflatoxin contamination during transportation, storage, and processing.

Key points to design your business plan

For Manufacturers: You need reliable suppliers of equipment and native atoxigenic strains to make it. Your customers are wholesale pesticide distributors, development projects, government agencies, and NGOs. Strong partnerships with them and with machinery and material suppliers are key. The equipment and plant for 10 ton/day Aflasafe cost US \$1.2 million.

For Resellers: You need to source, transport, and store Aflasafe well. Your customers are small retailers, development projects, producers, and cooperatives or associations. Strong partnerships with equipment manufacturers and transporters are important.

For Users: Aflasafe keeps grains free from aflatoxin and insecticide at low cost. You need Aflasafe sellers. Aflasafe costs \$1.2-2 USD per Kg. You need to estimate the profit from using it.

Gender assessment



Climate impact

86

