

# IITA Good Agricultural Practices Technologies

IITA-developed Good Agronomic Practices comprises proven practices that enhance crop productivity, pest and disease control, and postharvest management. They include intercropping systems, biological control solutions, seed health diagnostics, cassava weed management, aflatoxin control, and shelf-life extension techniques.

11 TECHNOLOGIES | CREATED ON OCT 14, 2025 BY TAAT PROFILING TEAM | LAST UPDATED DEC 10, 2025



## TECHNOLOGIES IN THIS TOOLKIT

- **Multi-Crop production system:**  
Intercropping Strategies for Banana...
  - **Aflasafe®:** Aflatoxin management
  - **Waxing of fresh cassava roots to extend the shelf-life and increas...**
  - **Spacing and Stand Management in Banana and Plantain**
  - **Six Steps to Cassava Weed**
- **Management**
  - **Induced Ripening of Banana for Increased Marketability and...**
  - **CassQual:** Cassava Seed Quality Management system
  - **Cassava virus indexing:** Molecular diagnostics for cassava seed health...
  - **Biological control of cassava**
- **mealybug**
  - **Biological control of the pod borer *Maruca vitrata* with exotic...**
  - **Pre-plant blended fertilizers and nitrogen topdressing for maize**



<https://taat.africa/cxj>

# Multi-Crop production system: Intercropping Strategies for Banana and Plantain

Improved system production for better yield

Intercropping, growing bananas or plantains alongside other plants, offers farmers numerous benefits but also poses challenges like nutrient competition, disease spread, and careful handling during planting and harvesting to avoid root damage.



Banana with common bean understorey (Credit: B. Dhed'a)



**International Institute of Tropical Agriculture (IITA)**  
Rony Swennen

Technology from

ProPAS

Commodities

Bananas & plantains

Sustainable Development Goals



Categories

Production, Practices, Weed management, Soil fertility

Best used with

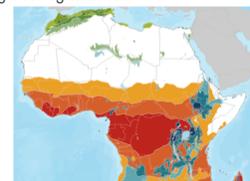
Biofortified Beans for Improved Nutrition, Orange-Fleshed Sweet Potato (High provitamin A), Disease resistant cassava varieties, High yield rice varieties for Africa  
See all 4 technologies online

Tested/adopted in



Where it can be used

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



This technology is **TAAT1 validated**.

**57**



Scaling readiness: idea maturity 5/9; level of use 7/9

Inclusion assessment **4**

Climate impact **7**

## Problem

- Competition for nutrients and water
- Weed proliferation
- Soil degradation and erosion
- Vulnerability to pests and diseases
- Dependency on external inputs
- Susceptibility to extreme weather
- Loss of biodiversity

## Solution

- Allows for early yields before banana crops, while suppressing weeds.
- Canopies and roots protect against soil erosion.
- Legume intercrops provide nitrogen through biological fixation.
- Biomass from intercrops serves as mulch and organic nutrients.
- Intercropping diversifies farmers' income sources.
- Reduces disease spread, Enhances soil health.
- Strengthens food systems' resilience...

## Key points to design your project

To integrate Intercropping Strategies for Banana and Plantain into your project, follow these steps:

1. Educate farmers about the benefits, emphasizing increased productivity and reduced chemical use.
2. Provide tailored extension support for variety selection and best practices.
3. Facilitate seed production and ensure accessibility of inputs.
4. Allocate funds for training and ongoing support.
5. Develop communication materials to promote adoption.
6. Establish partnerships with farmers.
7. Consider integrating with other complementary technologies for optimal results.



Open source / open access



Multi-Crop production system

<https://taat.africa/asc>

Last updated on 3 March 2026, printed on 3 March 2026

Enquiries [e.catalogs@taat.africa](mailto:e.catalogs@taat.africa)

# 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 *Aspergillus 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.



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

✓ This technology is **TAAT1 validated**.

**8-9** Scaling readiness: idea maturity 8/9; level of use 9/9

Inclusion assessment **4**

Climate impact **5**

## 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.

Technology from

ProPAS

Commodities

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

Sustainable Development Goals



Categories

Production, Inputs, Pesticide

Best used with

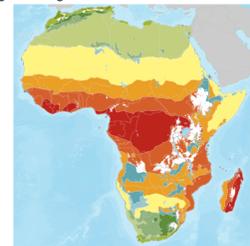
Drought Tolerant Maize Varieties and Water Efficient Maize Varieties  
See all 1 technologies online

Tested/adopted in



Where it can be used

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



Target groups

## Key points to design your project

To use this technology in your project, plan these activities:

- Calculate the product quantity based on the cost (12 to 20 USD per Ha) and the requirement (10 kg per ha).
- Factor in the delivery, import, and duty costs from the supplier to the site.
- Budget for training and support from a team of trainers during installation.
- Develop communication materials (flyers, videos, radio, etc.) for the technology.
- Follow post-harvest practices (drying and storage) for the improved maize variety.
- Work with agricultural institutes and agro-dealers in your country.

**10 kg/ha**

Recommended dosage application

**4 kg/acre**

Recommended dosage application



Trademark



Aflasafe®

<https://taat.africa/oby>

Last updated on 31 October 2025, printed on 31 October 2025

Enquiries [e.catalogs@taat.africa](mailto:e.catalogs@taat.africa)

# Waxing of fresh cassava roots to extend the shelf-life and increase marketability



**International Institute of Tropical Agriculture (IITA)**  
Adebayo Abass

Extend shelf-life of fresh cassava

The waxing technology for cassava roots starts from careful cultivation to produce commercially acceptable roots. Before harvest, leaves are pruned to prevent damage. After harvest, roots are sorted, washed, weighed, disinfected, and dried at a pack-house. Finally, a food-grade wax is applied to extend their shelf-life.

This technology is **TAAT1 validated**.
 
 Scaling readiness: idea maturity 7/9; level of use 7/9

Inclusion assessment

Climate impact

Technology from  
**ProPAS**

Commodities  
Cassava

Sustainable Development Goals

Categories  
Postharvest, Practices,  
Post-harvest management

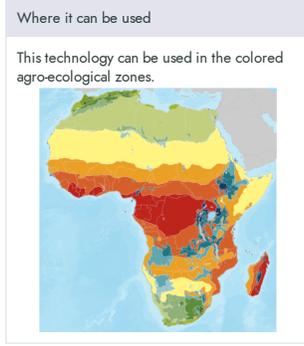


### Problem

- **Deterioration:** Cassava roots deteriorate rapidly post-harvest.
- **Marketability:** Their size, shape, and harvest damage affect marketability.
- **Food Security:** Short shelf-life limits availability, affecting food security.

### Solution

- **Preservation:** Waxing extends freshness and protects cassava roots.
- **Shelf-life:** It significantly extends the roots' shelf-life.
- **Food Security:** The technology enhances food security by ensuring longer availability of cassava roots.



### Key points to design your project

The waxing technology for cassava roots boosts climate resilience and aligns with SDGs 2, 8, and 13 by extending shelf-life, enhancing marketability, and promoting a climate-resilient crop.

For its adoption, the following steps are essential:

1. **Training and Cultivation:** Conduct educational programs on the waxing technology and guide farmers on producing commercially viable cassava roots.
2. **Harvesting and Post-Harvest Handling:** Train farmers on pruning and harvesting to avoid damage, and instruct on post-harvest procedures including transporting, sorting, washing, weighing, and disinfecting the roots.
3. **Waxing and Pack-house Operations:** Demonstrate the process of drying and waxing the roots, and assist in setting up a pack-house if necessary.
4. **Market Linkages and Evaluation:** Establish market linkages for selling waxed cassava roots, and monitor the technology's adoption and evaluate its impact.

Target groups  
Farmers

**3,000—5,000 USD**
 IP

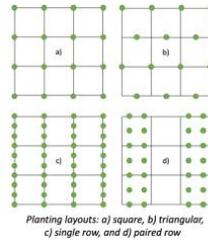
Estimated investment cost for an “all-inclusive” packhouse or processing centre, including water supply

Open source / open access

# Spacing and Stand Management in Banana and Plantain

Optimized Spacing, Maximum Yield

This technology optimizes banana and plantain plant spacing to boost yield, considering factors like plant variety, climate, and soil fertility. It uses various planting systems and may require herbicide use and stem base "earthing-up" in windy areas.



**International Institute of Tropical Agriculture (IITA)**  
Rony Swennen

This technology is **TAAT1 validated**.
 
**8-9**

 Scaling readiness: idea maturity 8/9; level of use 9/9

Inclusion assessment **3**

Climate impact **7**

### Problem

- High plant densities cause uneven growth, delayed maturity, and increased labor.
- Low densities lead to weed competition and yield variability.
- Unmanaged stands accumulate pests and diseases.
- Insufficient wind protection damages plants.

### Solution

- Proper spacing promotes uniform growth, reduces labor, and optimizes yield.
- Adequate spacing minimizes resource competition and maximizes sunlight exposure.
- Square block planting provides wind protection.
- Spacing aids in weed management and pest/disease control.

## Key points to design your project

The Spacing and Stand Management technology in Banana and Plantain farming boosts yield and mitigates climate impact, aiding both small-scale and large-scale producers. It contributes to SDGs 2 (Zero Hunger) and 13 (Climate Action) by maximizing yield and improving resource efficiency.

For successful implementation in Africa, the following steps are crucial:

- Engaging stakeholders
- Training farmers
- Setting up demonstration plots
- Providing support services
- Conducting regular monitoring and evaluation

The cost of training varies based on several factors. It's advisable to reach out to the technology provider or a local agricultural extension service for detailed information.

**100 t/ha/year**
 IP

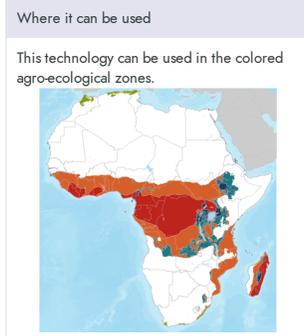
Dwarf Cavendish planted at 2500 to 4400 plants per ha Open source / open access

Technology from  
**ProPAS**

Commodities  
Bananas & plantains

Sustainable Development Goals

Categories  
Production, Practices, Yield improvement



Target groups  
Farmers



# Six Steps to Cassava Weed Management

Weed-free Fields, Bountiful Yields!



The “Six Steps Cassava Weed Management” technology is a holistic solution to weed problems in Sub-Saharan Africa’s cassava fields. It provides a decision-making framework for farmers to effectively control weeds, leading to higher cassava yields. This adaptable method caters to diverse farming conditions, enhancing cassava productivity and regional food security.

✓ This technology is **TAAT1 validated**.
9·7
Scaling readiness: idea maturity 9/9; level of use 7/9

Inclusion assessment 👍 4

Climate impact 👍 7

## Problem

- **Weed Encroachment:** Cassava fields in Sub-Saharan Africa are frequently overrun by weeds due to inadequate and untimely control measures.
- **Slow Canopy Development:** The growth pattern of cassava makes it vulnerable to weed encroachment in the early weeks of cultivation.
- **Nutrient and Water Competition:** Abundant weeds consume significant nutrients and water, drastically reducing cassava yield.

## Solution

- **Improved Yield:** It enables farmers to significantly increase cassava yields by managing weeds effectively.
- **Comprehensive Approach:** It provides a holistic strategy for weed control, including site selection, weed identification, and herbicide application.
- **Resource-Friendly:** The technology is accessible to small-scale farmers, requiring only simple and cost-effective equipment and herbicides.

## Key points to design your project

The “Six Steps Cassava Weed Management” technology boosts cassava yields, eases women’s workload, and aligns with SDGs 2, 5, and 13.

To integrate it into your project:

- Educate farmers about its benefits.
- Distribute the decision support tool and recommendations.
- Ensure access to small loans.
- Plan for various farming activities.
- Use simple, cost-effective equipment.

It works well with other cassava cultivation practices and digital tools like Akilimo and the IITA Herbicide calculator.

Key partners include the International Institute of Tropical Agriculture (IITA).

**International Institute of Tropical Agriculture (IITA)**  
Friday Ekeleme

Technology from  
**ProPAS**

Commodities  
Cassava

Sustainable Development Goals

Categories  
Production, Practices, Weed management

Tested/adopted in

Where it can be used

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

Target groups  
Farmers

20-30 USD/ha
28-46 USD/ha
IP

Cost for herbicide application
 Cost for weed removal labor
 Open source / open access

# Induced Ripening of Banana for Increased Marketability and Storage

Ripening Solutions for Quality and Efficiency

The Induced Ripening of Banana for Increased Marketability and Storage technology is a method designed to enhance the ripening process of bananas, specifically dessert bananas, to ensure they are market-ready and have an extended shelf life. In this process, bananas are artificially ripened using various chemical agents, most notably ethylene gas.



Industrial ripening chamber with refrigeration and gas control (Credit: Nilkamal)



**International Institute of Tropical Agriculture (IITA)**  
Patchimaporn Udomkun

Technology from

ProPAS

Commodities

Bananas & plantains

Sustainable Development Goals



Categories

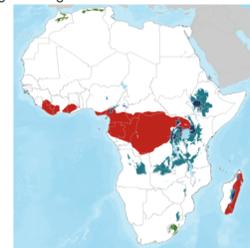
Post-production, Practices,  
Post-harvest management

Tested/adopted in



Where it can be used

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



Target groups

Farmers, Sellers



This technology is **TAAT1 validated**.

8•8



Scaling readiness: idea maturity 8/9; level of use 8/9

Inclusion assessment



Climate impact



## Problem

- Bananas, especially plantains, suffer significant post-harvest losses due to transportation damage and spoilage.
- Traditional ripening methods, such as wrapping banana bunches with green leaves, are time-consuming and result in non-uniform ripening.
- Consumers prefer ready-to-eat bananas, and fruit sellers need a consistent supply of ripe fruit to meet this demand.

## Solution

- Artificial ripening with ethylene gas ensures that bananas are ready for the market, reducing the risk of post-harvest losses.
- The technology allows for the acceleration or slowing down of the ripening process based on market demand, optimizing the supply chain.
- The technology meets consumer demand for ready-to-eat bananas, benefiting both fruit growers and sellers.

## Key points to design your project

The technology of induced ripening offers cost-effective solutions for enhancing the marketability and storage of bananas, empowering farmers and aiding in poverty alleviation. Steps to integrate this technology include:

- Conducting market assessments, developing a business plan,
- Allocating resources for training and support,
- Collaborating with agricultural institutions.

**17,000 USD**

Industrial semi-automated ripening chambers of 5 tones of banana



Trademark



Induced Ripening of Banana for Increased Marketability and Storage

<https://taat.africa/qwk>

Last updated on 31 October 2025, printed on 31 October 2025

Enquiries [e-catalogs@taat.africa](mailto:e-catalogs@taat.africa)

# CassQual: Cassava Seed Quality Management system

Enhancing cassava productivity through healthy planting material



**International Institute of Tropical Agriculture (IITA)**  
James Legg

The system aligns with national seed regulations to ensure quality from breeder seed to farmer distribution. Regulators oversee certification and promote community-based Quality Declared Seed (QDS) models. Digital tools like Seed Tracker and PlantVillage Nuru streamline inspections and disease diagnostics.

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

Inclusion assessment 2 Climate impact 3 3

## Problem

- High spread of viral diseases (CMD, CBSD) reducing national cassava yields
- Weak or non-existent cassava seed certification frameworks
- Limited capacity to trace and monitor seed distribution

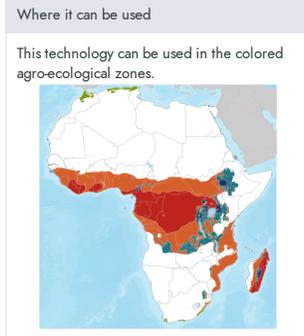
## Solution

- Official inspection protocols and standards to maintain seed quality
- Adoption of digital tools for real-time seed system monitoring
- Labeling systems to improve traceability and market transparency
- National strategies that integrate cassava into regulated seed systems
- Protocol for self-certification by QDS or community level seed producers

Commodities  
Cassava

Sustainable Development Goals

Categories  
Pre-production, Practices, Pest control (excluding weeds), Seed system



## Key points to design your project

The Cassava Seed Quality Management System strengthens national seed systems by formalizing cassava certification and improving farmer access to clean, high-yield planting material.

- It aligns with national food security and climate goals, contributing to SDGs 2, 5, 13, and 15.
- Governments can adopt it by aligning policies, developing certification guidelines, training inspectors, and supporting field-level implementation with digital tools.
- Supporting CSEs at QDS or community level to self-certify using Seed Tracker will increase the coverage and cost-efficiency of seed quality management

Target groups  
Breeders, Seed companies, Advisory and Extension Services, Seed Regulators

<b>60,000 USD</b> Annual monitoring cost	<b>25,000 USD</b> Annual certification costs	<b>135 %</b> Yield increased	<b>IP</b> Open source / open access
---	---	---------------------------------	--



# Cassava virus indexing: Molecular diagnostics for cassava seed health certification



**International Institute of Tropical Agriculture (IITA)**  
Lava Kumar

Virus diagnostic tool for cassava seed health certification by seed producers and seed certifiers.

**Cassava virus indexing** is a method used to detect and remove virus-infected cassava plants early in the seed production process. It uses advanced diagnostics like **PCR** and **LAMP** to ensure only virus-free plants are used. This helps maintain seed quality, strengthens crop health, and supports seed certification efforts, making it essential for seed producers and certifiers in cassava-growing regions.

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

Inclusion assessment **4** Climate impact **3**

### Problem

- Virus-infected cassava planting materials are often unknowingly used in seed production.
- Vegetative propagation (e.g., stem cuttings) increases the risk of virus transmission.
- Cassava crops are highly vulnerable to damaging viruses like CMD (Cassava Mosaic Disease) and CBSD (Cassava Brown Streak Disease).
- Lack of effective screening tools leads to poor seed quality and crop losses.

### Solution

- **Accurate detection** of viruses using PCR and LAMP techniques.
- **Virus-free planting material** selection for better seed quality.
- **Improved seed certification** by enabling diagnostic-based certification.
- **Increased crop resilience** and yield by using healthy seeds.

### Key points to design your project

**Cassava Virus Indexing** helps improve seed quality and prevent virus spread in cassava production. It supports food security and seed certification by detecting infected planting materials early.

To adopt it in your projects:

- Estimate testing needs and equipment (PCR, LAMP kits, reagents).
- Budget for lab setup (USD 3/sample).
- Train staff on sample collection, diagnostics, and analysis.
- Create awareness materials for seed stakeholders.
- Partner with research centers and seed certifiers for smooth integration.

**3 USD** Cost per sample for testing **IP** No formal IP rights

Commodities  
Cassava

Sustainable Development Goals

Categories  
Pre-production, Practices, Pest control (excluding weeds), Seed system

Tested/adopted in

Legend: Tested & adopted (green), Adopted (light green), Tested (yellow), Testing ongoing (blue)

Where it can be used

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

Target groups  
Breeders, Seed companies, Advisory and Extension Services, Seed Regulators



## Cassava virus indexing

<https://taat.africa/tsk>

Last updated on 28 November 2025, printed on 28 November 2025

Enquiries [e-catalogs@taat.africa](mailto:e-catalogs@taat.africa)

# Biological control of cassava mealybug

Enhancing Cassava Resilience: Targeted Biocontrol with a Beneficial Wasp



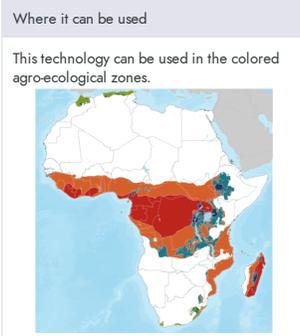
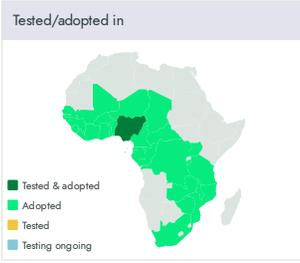
Biological control with *Anagyrus lopezi* uses a natural wasp to manage cassava mealybugs without chemicals. The wasps are mass-reared, released into the field, and they lay eggs on the mealybugs—where the hatching larvae consume and kill the pests. This eco-friendly method has reduced mealybug populations by about 90% in over 20 countries, safeguarding cassava crops and saving farmers money.

**International Institute of Tropical Agriculture (IITA)**  
Neuenschwander Peter

Commodities  
Cassava

Sustainable Development Goals

Categories  
Production, Practices, Biological control



Target groups  
Governments

This technology is **pre-validated**. **9·7** Scaling readiness: idea maturity 9/9; level of use 7/9

Inclusion assessment **4**

Climate impact **7**

### Problem

- Severe Crop Loss:** Cassava yields were decimated in the 1970s.
- Famine:** Loss of a staple food led to widespread shortages.
- Economic Hardship:** Millions of farmers suffered significant financial losses.
- Ineffective Control:** Traditional pest management methods failed to contain the outbreak.

### Solution

- Natural Pest Control:** *A. lopezi* targets and kills cassava mealybugs by laying eggs inside them.
- Restored Yields:** Its action reduces pest numbers by about 90%, allowing cassava crops to recover.
- Eco-Friendly & Sustainable:** This method replaces harmful chemicals with a long-term, self-sustaining solution.

## Key points to design your project

### Integrating Cassava Mealybug Biocontrol into National Projects

- Pest Identification** – Confirm if the outbreak is due to cassava mealybug (CM) and assess soil and crop conditions that may affect *A. lopezi*'s efficiency. Consult entomologists for accurate identification.
- Technical Support & Permits** – Engage IITA for guidance and obtain a quarantine permit ensuring *A. lopezi*'s safety per FAO regulations.
- Importation & Release** – Import *A. lopezi*, conduct quarantine checks, and release it in selected fields under national supervision.
- Monitoring & Evaluation** – Track *A. lopezi*'s establishment, spread, and impact on mealybug populations, cassava yield, and farmer livelihoods.

**9.4 billion USD** Estimation of benefits over 40 years (1974–2013) across 27 African countries

**IP** Open source / open access

# Biological control of the pod borer *Maruca vitrata* with exotic parasitoids

Low-cost natural pest control



**International Institute of Tropical Agriculture (IITA)**  
Manuele Tamo

The "Biological control of *Maruca vitrata* pod borer with parasitoids" technology involves releasing lab-reared parasitic wasps to naturally control pod borer pests in cowpea fields. By establishing a self-sustaining wasp population, it reduces the need for chemical pesticides. Combined with pest-resistant cowpea varieties and eco-friendly products, this approach offers sustainable crop protection.

This technology is **TAAT1 validated**.

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

Inclusion assessment 4

Climate impact 7

## Problem

- **Damage from *Maruca vitrata*:** The pod borer *Maruca vitrata* causes substantial damage to cowpea crops, resulting in yield losses of up to 80%.
- **Reliance on Chemical Pesticides:** Farmers traditionally depend on chemical pesticides to combat *Maruca vitrata* and other pests like aphids and thrips in cowpea fields.
- **Environmental Impact:** Excessive use of chemical pesticides can lead to environmental consequences such as soil degradation and harm to beneficial insects.

## Solution

- **Biological Control:** Parasitic wasps from Taiwan reduce *Maruca vitrata* population by over 85% in Benin and Burkina Faso.
- **Collaboration:** National agencies release parasitic wasps onto cowpea fields, reducing reliance on chemical pesticides.
- **Integrated Pest Management:** Parasitic wasps, resistant cowpea varieties, and biopesticides minimize environmental impact.
- **Awareness:** Educating farmers about biological control benefits and preserving host plants is crucial.

Technology from

ProPAS

Commodities

Cowpea

Sustainable Development Goals



Categories

Production, Inputs, Natural Enemies

Best used with

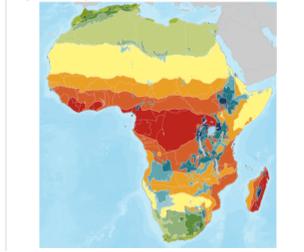
Integrated Management of Insects, Diseases and Weeds in common bean  
See all 1 technologies online

Tested/adopted in



Where it can be used

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



## Key points to design your project

This approach enhances cowpea yields, reduces losses, and supports food security by minimizing pesticide use and targeting key pests. Key activities for implementing *Maruca vitrata* biocontrol include mapping yield losses, raising awareness, establishing import policies for biocontrol agents, and training farmers in pest management. Complementary solutions involve using pest-resistant varieties and supporting community-based biopesticide production, such as 'neem tea bags' by women's groups in Niger.

**6,000 USD** Running costs IP Open source / open access



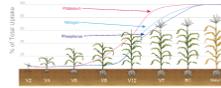
Biological control of the pod borer *Maruca vitrata* with exotic parasitoids

<https://taat.africa/hys>

Last updated on 31 October 2025, printed on 31 October 2025

Enquiries [e-catalogs@taat.africa](mailto:e-catalogs@taat.africa)

# Pre-plant blended fertilizers and nitrogen topdressing for maize



Unlock Maize Potential with Balanced Fertilizer Bliss!

Pre-plant blended fertilizers for maize is a technology involved to carefully mixed solid granular fertilizers, including urea, calcium ammonium nitrate, and potassium chloride, to meet maize crop nutrient needs.

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

Inclusion assessment **4**

Climate impact **5**

### Problem

- Traditional fertilizer application methods often lead to uneven nutrient distribution,
- Improper dosages and application schedules of mineral fertilizers are common,
- Inefficient nutrient application practices can lead to environmental losses, including nutrient runoff and leaching.

### Solution

- Implementing pre-plant blended fertilizers and nitrogen topdressing for precise and efficient nutrient delivery,
- Providing specific nutrient blends to address inadequate nutrient supply for healthier and more productive maize crops.
- Promoting responsible fertilizer use through carefully formulated blends and split applications, minimizing wastage

### Key points to design your project

The technology of pre-plant blended fertilizers and nitrogen topdressing for maize offers several benefits. Key steps to integrate this technology include:

- Identifying appropriate formulations, developing mixing protocols, brokering market entries,
- Conducting farmer demonstrations, providing financial support,
- Estimating required quantities, budgeting costs, allocating funds for training and support, developing communication materials, and forming partnerships with relevant stakeholders.

<b>0.3—0.5 ton/ha</b> Grain yield increase	<b>30 %</b> N uptake increase	<b>57 %</b> P uptake increase	<b>IP</b> Trademark
---	----------------------------------	----------------------------------	------------------------

Transforming African Agriculture CGIAR

**International Institute of Tropical Agriculture (IITA)**  
Jonga Munyaradzi

Technology from  
**ProPAS**

Commodities  
Maize

Sustainable Development Goals

Categories  
Production, Inputs, Fertilizer



Where it can be used

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

Target groups  
Farmers





# IITA Good Agricultural Practices Technologies

<https://taat.africa/cxj>

## ABOUT US

### TAAT

TAAT, Technologies for African Agricultural Transformation, is an African Development Bank initiative to boost agricultural productivity by rapidly rolling out proven technologies to more than 40 million smallholder farmers.

TAAT aims to double crop, livestock, and fish productivity by 2025 by engaging both public and private sectors to expand access to productivity-increasing technologies across the continent. TAAT advises African government who receive funding from international financial institutions such as the African Development Bank to help them integrate the best agricultural technologies in their development projects. TAAT also offers technical assistance for the integration of these technologies, when needed.

### TAAT Technologies

TAAT definition of agricultural technologies is very broad: they include improved varieties, inputs, equipment, agricultural infrastructure, practices and agricultural policies. In short, any solution to an agricultural constraint. TAAT technologies have been developed by a wide variety of organizations: the CGIAR, other international research institutions, national research organizations, or the private sector.

### TAAT Clearinghouse

Within TAAT, the Clearinghouse has the remit to select, profile and validate agricultural technologies, and showcase them in online

catalogs to support the advisory role that the Clearinghouse offers to governments and the private sector. The Clearinghouse strives to be an 'honest broker' of technologies through its selection, profiling, validation and advice.

### TAAT e-catalogs

The e-catalogs are designed to be used by decision-makers within governments, private sector companies or development organizations. They facilitate the search for appropriate solutions that are adapted to local conditions and requirements, and provide all necessary information, presented in jargon-free and easy to analyze technology profiles. Once a decision-maker has selected a technology of interest, the e-catalogs facilitate their direct contact with those who can help them implement the technology, whether they are a research group or a private company.

### TAAT Technology Toolkits

Technology toolkits are hand-picked selections of technologies from the TAAT e-catalogs. We offer some curated toolkits for specific cases, and registered users can create their own toolkits, showcasing their selection of technologies. Toolkits can be used online and shared as links, as mini e-catalogs, they can also be downloaded, saved, shared or printed as collections of technology pitches in PDF format (pitches are one-page summaries of technology profiles, available for all technologies on the e-catalogs).

## CONTACT

**Chrys Akem** – TAAT Program Coordinator: +234 8169020531

**Dr Solomon Gizaw** – Head, TAAT Clearinghouse: +251 900461992

[taat-africa@cgiar.org](mailto:taat-africa@cgiar.org) <https://e-catalogs.taat-africa.org>