

Beauveria Biopesticide: Based on the entomopathogenic fungus *Beauveria bassiana*

A Sustainable, Profitable Solution for Diamondback Moth and Beyond!

This biopesticide utilizes *Beauveria bassiana*, an entomopathogenic fungus, specifically isolate Bb11, to control pests like the cabbage moth (*Plutella xylostella*). The fungus produces conidia spores that attach to the insect's cuticle, germinate, and penetrate internal tissues, leading to the insect's death. It is a natural, eco-friendly alternative to chemical pesticides, safe for humans, animals, and beneficial insects, and is effective in Integrated Pest Management (IPM) systems for sustainable crop protection.

 This technology is **not yet validated**.

 Scaling readiness: idea maturity unknown; level of use unknown

Gender assessment

Climate impact

Problem

- Smallholder farmers face major crop losses due to pests like fall armyworm, aphids, and whiteflies.
- Overuse of chemical pesticides has led to pest resistance, reducing effectiveness.
- Synthetic pesticides pose risks to human health, pollinators, and ecosystems.
- Affordable and eco-friendly alternatives are limited or inaccessible to farmers.
- Climate change is worsening pest outbreaks and expanding their range.

Solution

- Uses the natural fungus *Beauveria bassiana* to biologically control harmful insect pests.
- Effectively targets pests like fall armyworm, aphids, whiteflies, and borers without harming beneficial insects.
- Reduces dependence on chemical pesticides, lowering environmental and health risks.
- Can be integrated into climate-smart and organic farming practices.
- Supports sustainable pest management and preserves biodiversity.
- Suitable for smallholder use—safe, affordable, and easy to apply.

Key points to design your project

Beauveria bassiana (Bb11) is a locally validated, eco-friendly biopesticide that effectively controls pests like diamondback moths, fall armyworms, and aphids. It reduces reliance on chemical pesticides, supports food security, and preserves biodiversity.

To integrate Bb11 into government programs:

1. **Estimate needs** by crop and pest pressure.
2. **Verify local availability** or plan for import.
3. **Train farmers and extension agents** on application.
4. **Raise awareness** through educational materials.
5. **Promote IPM strategies** for long-term effectiveness.
6. **Collaborate with partners** for broad adoption.



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Commodities

Sustainable Development Goals



Categories

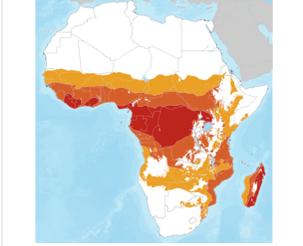
Production, Inputs, Pesticide, Biocontrol

Tested/adopted in



Where it can be used

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



Target groups

Farmers, Researcher center



Beauveria Biopesticide

<https://taat.africa/udx>

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