

# Biological Control of Sorghum and Millet Insect Pests with Natural Enemies



Protect crops using natural pest allies for sustainable pest control in Africa

Biological control uses indigenous predators and parasitoids to combat pests like the Millet Head Miner and Fall Armyworm. Released into fields, these natural enemies prevent pest outbreaks and crop damage. This eco-friendly method enhances ecosystems and food security, reducing the need for chemical pesticides.

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

**Cost: \$\$\$ 5,000 USD**  
 establishment of parasitoid colonies for 10,000 farmers

**6,000 USD** per year for operation     
 **3—4 USD** per "ready-to-use" bag     
 Open source / open access

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| <h3>Problem</h3> <ul style="list-style-type: none"> <li>• Pests cause significant crop losses, threatening food security in Sub-Saharan Africa.</li> <li>• Overuse of pesticides leads to environmental harm and health risks.</li> <li>• Many farmers lack access to effective pest management solutions, increasing vulnerability to infestations.</li> </ul> | <h3>Solution</h3> <ul style="list-style-type: none"> <li>• Parasitoid wasp <i>Habrobracon hebetor</i> targets pests' caterpillars.</li> <li>• Biological control techniques reduce infestations and ensure food supply.</li> <li>• Parasitoid wasp <i>Telenomus remus</i> prevents Fall Armyworm outbreaks.</li> </ul> |
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## Key points to design your business plan

**For Farmers:** Biological control is most effective when implemented collectively for sustainable pest management.

**Steps for Implementation:**

1. **Education:** Learn about biological control and its benefits.
2. **Identify Pests:** Determine the pests in your farm.
3. **Choose Natural Enemies:** Select appropriate natural enemies for the pests.
4. **Source Natural Enemies:** Obtain natural enemies from a reliable source.
5. **Release Natural Enemies:** Release them into your farm at the right time and place.
6. **Monitor:** Regularly check the pest population and the effectiveness of the control.
7. **Maintain:** Sustain the habitat to support the natural enemies.

Remember, patience and commitment to sustainable farming are key for successful biological control.

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Technology from  
**ProPAS**

Commodities  
Sorghum/Millet

Sustainable Development Goals

Categories  
Production, Inputs, Natural Enemies

Tested/adopted in

■ Tested & adopted  
■ Adopted  
■ Tested

Where it can be used

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

Target groups  
Farmers

Gender assessment     
 Climate impact