



Biological control of the pod borer Maruca vitrata with exotic parasitoids

Low-cost natural pest control

The "Biological control of Maruca vitrata pod borer with parasitoids" technology uses specific parasitic wasps to naturally reduce the population of this destructive pest. Parasitoid wasps, sourced from labs in Taiwan, are reared in controlled settings and released onto cowpea fields or wild plants. The goal is to establish a selfsustaining population of parasitoids to control pod borer infestations. This approach, coupled with resistant cowpea varieties and eco-friendly products, minimizes the need for chemical pesticides and protects cowpe...



This technology is **TAAT1 validated**.

7.7



Gender assessment



Climate impact

Problem

- Damage from Maruca vitrata: The pod borer Maruca vitrata causes substantial damage to cowpea crops, resulting in yield losses of up to
- 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.

International Institute of Tropical Agriculture (IITA) Manuele Tamo

Technology originally documented by

ProPAS

Commodities

Cowpea

Sustainable Development Goals











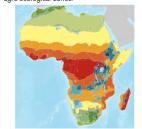
Categories

Practices, Pest management

Tested/adopted in Tested & adopted Adopted Tested



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



5,000 USD

To install an initial pilot colony of parasitoids

6,000 usp



Running costs

Open source / open access

