Summary:
The Sahel IPM project aims to develop agroecological technologies for reducing insect pest losses and increasing the yields of three rainfed crops (pearl millet, sorghum, and cowpea) in the project target Sahelian agricultural zones.


For more information see: https://www.ccrp.org/grants/sahel-ipm/

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**Strategic prioritization: tackle pests that affect the crops of interest to CCRP in selected contexts**

The millet head miner (also known as millet head worm or MHW) is one of the most important pests of pearl millet, a key crop in Sahelian West Africa. The MHW became a major pest in the West African Sahel during the droughts of 1972–1974, and has since remained a threat in the region.

**Refine management options**

- **2010:** Research led to innovation of being able to raise the wasp in easily distributed jute bags.
- **2013:** The parasitism by *H. hebetor* was significantly higher in villages where parasitoid bags were placed than the control villages (DF=1; F=20.76; P<0.05).
- **2019:** Identification of MHW-tolerant varieties.
- **2019:** Identification and use of MHW esophageal parasitoid to increase pest mortalities.

**Develop research technologies**

The naturally occurring parasitoid wasp, *Habrobracon hebetor* Say, identified as potential biological control for MHW.

**Test management options, including working with farmers**

Assessment of the effect of the release of 1605 bags across 107 villages by monitoring 33,600 millet spikes.

**Strengthen capacity in Ecological Pest, Disease, and Weed Management**

23 students have been trained on biological control as part of this project, two at the PhD level.

**Changes in policies and practices among various actors**

Biological control has attracted the interest of politicians in Niger: in 2012 and 2013, 6426 release bags for coverage of more than two million hectares were produced and distributed. Several international NGOs such as Mercy Corps, CARE, HEKS-EPER, Cadec, CRS, World Vision, and CONCERN introduced biological control in their field program.

**Scaling via commercialization**

- **2016:** Production units produced 7331 parasitoid release bags to cover 2.3 million ha of pearl millet. It is expected to increase millet production by 235,000 tons.
- **2019:** in Mali 510 bags were released to cover 170,000 ha; in Niger the 6 private units produced a total of 5862 release bags for the coverage of 1,954,000 ha of millet in five regions. 35% of the purchases were made by the public services, 29% by projects, 14% by municipalities and 22% by individual producers.