

# Pest-exclusion nets protect crops to boost yield

Insect pests reduce crop yield by attacking crops and by transmitting diseases. Access to training and information on effective use of pesticides can be rare for many smallholder farmers. As a result, farmers often sell damaged produce or use high levels of pesticides, which can be dangerous to both farmers and consumers and can increase insect resistance to pesticides. Pest-exclusion nets can have a major impact in addressing many of these problems.

## How the nets work

Pest-exclusion nets create a barrier that protects vegetables against pests and associated diseases. The nets are easy to use and can also serve as floating row covers to control temperature, light, relative humidity and soil moisture for plant production. The nets are low-cost and can be reused for 3–5 years. Pest-exclusion nets are made and marketed locally by mosquito net manufacturers.

Pest-exclusion nets are being used in Kenya and Benin to increase yield and quality in crops such as cabbage, with research and support from a Horticulture Innovation Lab project.



## Benefits

- Improve yields and vegetable quality
- Provide an inexpensive and safe method of managing insect pests
- Improve ambient growing conditions and water-use efficiency, enhancing yield and produce quality
- Reduce reliance on toxic and expensive pesticides that impact environmental and human health
- Increase market opportunities for domestically produced textiles

## Basic costs

- Netting \$60-99 per 150 m<sup>2</sup>

Costs are subject to local variation and depend on whether nets are impregnated with insecticide or not, lightweight or heavyweight.

## What's next? Scaling up

- **Education:** Train farmers through field trials and demonstration plots.
- **Adoption:** Highlight production and income gains. Increase product availability within the region.
- **Investment:** Work with industry and entrepreneurs to promote the nets.

FEED THE FUTURE INNOVATION LAB FOR COLLABORATIVE RESEARCH ON HORTICULTURE



**USAID**  
FROM THE AMERICAN PEOPLE

**HORTICULTURE  
INNOVATION LAB**

**UC DAVIS**  
UNIVERSITY OF CALIFORNIA

For more information, visit <http://horticulture.ucdavis.edu>.

This fact sheet is made possible by the generous support of the American people through the United States Agency for International Development (USAID). The contents are the responsibility of the Horticulture Innovation Lab and do not necessarily reflect the views of USAID or the U.S. Government. Updated 05/14.