

**MULTI-FUNDER INITIATIVE**

## Cultivate Africa's Future (CultiAF)

### Integrating insects in poultry and fish feeds in Kenya and Uganda

In Kenya and Uganda, researchers are testing the feasibility of using insects rather than soybeans and fish meal for raising poultry and fish. The switch will help to reduce costs for small-scale producers and redirect food crops currently used as livestock feed toward human consumption.

#### The challenge

In many sub-Saharan African countries, poultry and fish industries are among the fastest growing agri-businesses; over 60% of producers are women. However, poor availability and low quality of feed, combined with the high cost of soybeans and cereals used as feed ingredients, are severely constraining growth in the sector. This situation is reflected globally, where the cost of feed ingredients has doubled in the last five years: feed now represents 60-70% of animal production costs.

In looking for a sustainable solution to this challenge, a priority is to identify alternative sources of protein, the most expensive element in commercial feeds. Insect protein is one option, with farmers in Asia and the Pacific using various types of insect as an ingredient in home-made poultry feeds. In West and Central Africa, researchers have documented the use of termites, house flies, and cockroaches in poultry feed, but little research has been done in East Africa on the use of insects as an alternative protein source for livestock.

#### The research

The project will develop and test insect-based feeds for the sustainable, safe, and cost-effective production of fish and poultry. Researchers will identify suitable insect species and develop insect rearing and harvesting techniques that are suitable for local, small-scale farming systems. Working with private sector companies, the research team will assess the market potential for insect-based feeds and analyze the feeds' nutrient content and level of contamination by bacteria or toxic substances. The project will take a holistic approach, including socio-economic research, laboratory tests, and field-based experiments.

Currently, national and regional feed regulations consider insects as impurities and there are no regulations in Kenya or Uganda governing their use as feeds. The findings from this research will inform policy and support the development of appropriate national standards for use of insects as feed ingredients for poultry and fish.

#### Expected outcomes

- Increased rearing, harvesting, processing, and use of insects in fish and poultry feed
- Reduced production costs for fish and poultry
- Increased job opportunities for local entrepreneurs, especially women and youth
- Standards and legislation on the use of insects for feed

#### Implementing partners:

International Centre for Insect Physiology and Ecology (ICIPE), Kenya

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#### Other partners:

Egerton University, Kenya; Sanergy Ltd; University of Nairobi, Kenya.

**Countries:** Kenya and Uganda

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**Cultivate Africa's Future Fund (CultiAF)** supports research to achieve long-term food security in Eastern and Southern Africa. Learn more at [www.idrc.ca/cultiaf](http://www.idrc.ca/cultiaf).



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