

PRODUCTION AND CONSUMPTION OF CRICKETS IN KENYA

CRICKETS - A TRADITIONAL AND REINTRODUCED FOOD IN KENYA

A variety of edible insect species are culturally part of the traditional diets in many communities in Kenya, especially in the western regions. Termites and lake flies are the most frequently consumed while traditional consumption of crickets has declined (1, 2). Globally, around 60 species of crickets are recognized as edible (3), including several found in Kenya, though the exact number is unknown. This is illustrated by scientific identification of a previously undescribed species in 2018 (4). With growing global interest in edible insects and the introduction of insect farming as a future option, crickets have been recognized as feasible for rearing as 'mini livestock'. Farming crickets is a novel practice in Kenya, first pioneered by Prof. Monica Ayieko in 2012 with just 25 farmers (5).

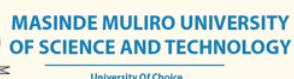
Two cricket species, *Acheta domesticus* (house cricket) and *Gryllus bimaculatus* (field cricket) were found biologically feasible to farm. This new era of insect farming was also a reintroduction of cricket as a modern food. Processing cricket to protein rich powders have opened avenues for entrepreneurs and novel applications, such as nutritionally enhanced bakery (6) and 'baby foods' (7,8). The use of 'cricket flour' in home cooking and industrial food products are investigated (9). Based on the current evidence, cricket-based infant foods are acceptable and nutritionally equivalent to standard milk-based products for sustaining infant growth and nutrition (7,10).



Picture: Farming crickets for food (right) for processing into protein-enriched instant porridge powders (left)

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Picture: Farmers training in Nyabeda village, 2023. The blue buckets are equipped with egg trays to provide hide for the crickets

ADVANCING CRICKET FARMING IN KENYA

Over a decade, the adoption rate of cricket farming in Kenya has been slower than expected. A survey among small-scale farmers revealed that willingness to engage in cricket farming was a combination of factors, including farmers' risk aversion, knowing someone already farming, and concerns about investments (12). The HEALTHYINSECT study investigated the willingness to and actual adoption of cricket farming among more than 1000 small-scale farmers provided with training, start-up kits, a network of fellow farmers, and – for some – sessions on the nutritional benefits of crickets (13). Farmer's initial perception – before offered training – of the benefits or challenges of cricket farming significantly influenced their likelihood of adopting farming. Also, more vulnerable farmers experiencing food insecurity and with less access to credit and off-farm income appeared less likely to adopt (14). These findings are important for policies for efficient scaling of insect farming.

CRICKET FARMING IN PRACTICE

Farming practices of breeding, feeding and managing crickets are continuously being developed, though the basic principles are established (15). Crickets are held in colonies in containers of variable sizes, equipped with stacked egg trays as hides. At maturation after 4-10 weeks, depending on species and conditions, the females lay eggs in designated substrates. The eggs are separated from the adults for hatching, and the mature crickets are harvested. Crickets feed on dry or semi-dry substrates, similar to chicken feed. A major challenge for many farmers is successful egg laying and hatching. Climate-controlled centralized hatching facility is one approach to increase the successful adoption.

THE HEALTHYINSECT PROJECT

- The HEALTHYINSECT project brings together research partners from Ghana, Uganda, Kenya, and Denmark with the aim of accelerating rural insect farming for food and nutrition in Africa.
- The project is supported by Danida, Ministry of Foreign Affairs, Denmark (grant 19-06-KU, 2020–2024).
- Insects are increasingly recognized as alternative food sources through scalable farming practices. Small-scale household farming has the potential to improve food security, nutrition, and livelihoods by generating jobs and income.
- Ghana, Uganda, and Kenya are at the forefront of emerging insect farming innovations.
- HEALTHYINSECT aims to fill critical knowledge gaps in understanding drivers and barriers for insect production and consumption by conducting cutting-edge research in drivers, barriers and impacts of farming crickets in Kenya, grasshoppers in Uganda, and palm weevil larvae in Ghana.

We investigated incentives for insect farming by providing farmers with start-up kits and training, and by promoting insect consumption by educating caregivers of young children about the nutritional benefits of insects.



Project link: [HEALTHYINSECT](#)

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