

2018 highlights



Profile for 28 insect species that can be used for food and feed completed. 92% have higher crude protein dry matter basis than fishmeal available in Kenya and Uganda.

Diversity, host plants and abundance for over 8 edible saturniid moths (e.g. *Gonimbrasia zambezina*, *G. belina*, *Bunea alcinoe*, *Nudaurelia kruckii*, *Cirina forda*) are better understood and their seasonality documented in East Africa.



Changes in nutritional profile of edible insects for food, such as saturniid caterpillars, *Ruspolia differens*, *Schistocerca gregaria*, *Acanthacris ruficornis*, *Scapsipedus icipe*, *Gryllus bimaculatus*, *Bombyx mori* pupae, have been assessed.

Rearing protocols for 16 insect species

were developed, the most productive colonies being BSF (*Hermetia illucens*), crickets (*Scapsipedus icipe* and *Gryllus bimaculatus*), grasshoppers (*Schistocerca gregaria*; *Ruspolia differens*, *Acanthacris ruficornis*), silkworms (*Bombyx mori*) and American cockroaches (*Periplaneta americana*).



Production capacity for insect in colonies (cricket, grasshoppers, BSF, various saturniids) for smallholder producers varies from **100,000–300,000 adults/ week**.

Natural regulatory factors

of these insects (parasitoids, predators and pathogens) that influence their abundance in nature documented and effort to mitigate them is under investigation.



Established the consumer perceptions, and factors defining consumption of insects among communities in East Africa. More than **58% (especially women)** are interested in rearing of saturniids for business.



Animal feed production in Kenya is estimated at 900,000 metric tonnes (MT) per year. Of this, 20% (180,000 MT) is proteins, 10% (90,000 MT) being animal protein. To substitute 50% of the animal protein with insects based proteins, 45,000 MT of dry insects will be required per year.



No heavy metal and pesticide residues were found in the 28 insect species analysed.



Over **80%** of interviewed fish and poultry farmers, **65%** of pig farmers and **75%** of feed traders and processors are willing to use insects as feed.

