

RELATED WORK

Nkozi University.

In 2021, Joseph Kasana implemented a World Bank funded BSF project in Nkozi university. The model has the eggs, larvae, pupa and adults in one setup. The setup (enclosure) consists of wooden cages covered with wire mesh. These he called the love cages. Each cage has a soaked sponge that provides the BSF with water and contributes towards humidity. The base of a love cage is open and underneath it is a drum. In this drum, pieces of wood planks are provided in which the adults lay eggs. The interior of the drum is always dark. The eggs are scraped off the planks and placed in containers containing feed (wet maize bran). They are thereafter taken to a different building called a larvaerium where they stay for four days until they become larvae. The larvae are dried and milled into a powder. The pupa are physically brought into the love cage very early in the morning (around 4:00 am) when temperatures are still low. This is to prevent any pupa that have become adults from becoming active and flying away. The entire setup is covered with a blue plastic. Joseph said this plastic is used to control both temperature and light intensity. Additionally, it was his belief that the Black Soldier Fly operates best under blue light. Joseph incurred a lot of losses with this set up and closed the project in November, 2022.

Marula Proteen Limited

Marula Proteen Limited practices BSF rearing on a large scale. They feed urban organic-waste to BSF larvae. After a short rearing period these larvae are harvested, dried and processed into high-quality protein food for livestock production [1]. The pupa are taken to a greenhouse at another location (Namanve). According to the on-site agricultural engineer, the reason for the change in location is because there are some pests that are harmful to the eggs but liked by the pupa. The pupa are placed in cages in the greenhouse and provided with ideal conditions to encourage breeding. The greenhouse is fitted with sensors and a control panel to automatically control temperature, humidity and light intensity. A fog pump goes on when the humidity is too low, high energy lamps turn on when the temperatures are low and a motor controls the opening/closing of an aluminium foil to control light intensity. The eggs laid in-between planks in the cages are scraped off and taken to an incubator room where they are kept for four days until they develop into larvae. The incubator is also fitted with sensors to control temperature, light and aeration.

References

[1] "Proteen," [Online]. Available: <https://weareproteen.com/>. [Accessed 23 February 2023].

