

Using BSF

BSF: a sustainable superfood for nutrition, resilience, and local food security.

MBC Solutions Program



Benefits of consuming BSF

Protein: helps the body grow and strengthen.

Fat: provides energy and warmth.

Calcium and Phosphorus: strengthen bones and teeth, making the body strong.

Methionine and Lysine: support muscle growth and boost immunity.

Protein	38,5 - 63 %
Fat	6,6 - 39 %
Calcium	1,7 - 3,2 g/kg
Phosphorus	3 - 4,5 g/kg
Methionine	6 - 8 mg/g
Lysine	4 - 5 mg/g

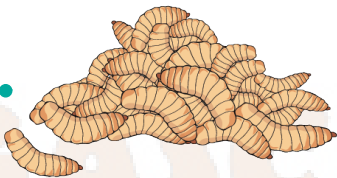
(Barragan-Fonseca *et al.*, 2017; Shumo *et al.*, 2019)

Nutritious, improves food quality and provides energy for the body.

Affordable, low-cost farming while producing high nutrition.

Meat substitute, reduces spending on food.

Easy to use, can be mixed with all regular food (rice, soup, sauce, bread,...).



BSF farming and food safety tips



Choose the right feed for BSF

- Use clean plant-based food, such as fruit peels, vegetables, etc...

Maintain hygiene

- Clean equipment and rearing areas regularly to prevent diseases and improve BSF quality.
- Cover rearing trays to prevent other animals from entering.

Harvest at the right time

- Collect BSF when they are young and fat (10–15 days), as they are more digestible and nutritious.

Inform consumers beforehand

- As with seafood, some individuals may be sensitive to BSF.

Reduce the risk of allergies

- If you are concerned about allergies, mix BSF with ingredients such as ginger or turmeric, which may reduce reactions.



Food that can be mixed with BSF:
rice, vegetables, cassava,
maize,...



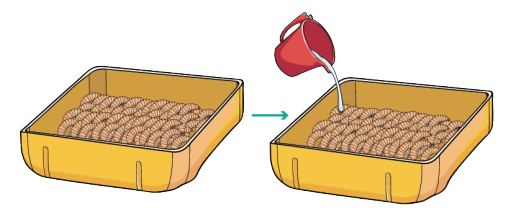
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Preparing BSF for food

Cleaning

- Goal: remove leftover food from the BSF's gut.
- Leave in a clean, dry tray for 24 hours.
 - Rinse the BSF with clean water.



Boiling

- Goal: to kill BSF and make digestion easier.
- Boil in water.
 - Optional: add a pinch of salt to help cleaning.
 - Boil for 3–5 minutes.
 - Drain the water.



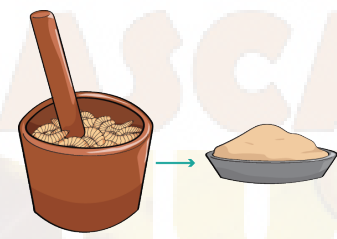
Drying

- Goal: to make storage easier and facilitate turning into powder.
- Spread on a clean tray in a dry, warm place.
 - Cover to protect from dirt.
 - Turn the BSF once per day to ensure even drying.
 - BSF dries in 2–3 days.



Grinding

- Goal: to mix BSF with regular food (rice, soup, cassava, maize,...).
- Grind dried BSF into a powder using a mortar and pestle.



Storage

- Place dried BSF in a clean, tightly closed container.
- Keep in a dry place, out of direct sunlight.
- Label the container with the date of drying.
- Can be stored for 3–6 months.



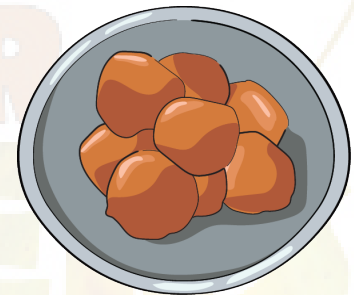
Fried BSF

- **Ingredients:** BSF, salt, oil.
- **Preparation:**
 - Sprinkle salt on the BSF.
 - Heat oil in a pan or pot.
 - Add BSF to hot oil.
 - Cover and stir frequently.
 - When the skin curls and crisps up, it is cooked.



BSF Sauce

- **Ingredients:** BSF, salt, oil, onion, and tomato.
- **Preparation:**
 - Heat oil in a pot.
 - Fry the onion and tomato, add salt.
 - Add the BSF.
 - Pour a little water to cover and cover the pot.
 - Stir frequently.
 - When the BSF is fully cooked and tender, it is ready.



BSF Fritters

- **Ingredients:**
 - 1 cup flour
 - 2–3 tablespoons BSF powder
 - 1 egg (optional)
 - 1/4 cup water (or more if needed)
 - Salt and pepper to taste
 - Oil
- **Preparation:**
 - Mix flour and BSF powder.
 - Add egg, salt, pepper, and a little water.
 - Heat oil in a pan.
 - Fry like regular fritters until cooked.