BBEST COUNTRY POLICY BRIEFS

Ghana BBEST Policy Brief No.2

Standards for Use of BSF Larvae in Animal Feed in Ghana

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Background

The BSF for Bio-Circular Economy and Environmental Sustainability (BBEST) project has developed sustainable alternatives and complementary to the conventional animal feed for chicken/fish/pig for smallholder producers in Ghana to address the growing demand and high-cost for animal feed as the consumption for animal protein expands with urbanisation. The proposed alternative is the use of Black Soldier Fly (BSF) larvae meal as a replacement source of protein in producing chicken/fish/pig feed (Fig. 1). The viability of BSF larvae as feed ingredients has been established for fish, piglets, and chicken (Roffeis, 2018; Bruni et al., 2020).

In Ghana BSF larvae production is gaining prominence and the technology is being adopted and used by BSF farmers and poultry farmers. The use of the BSF larvae as a feed ingredient needs to be regulated to meet food safety standards and market acceptability through the standards.

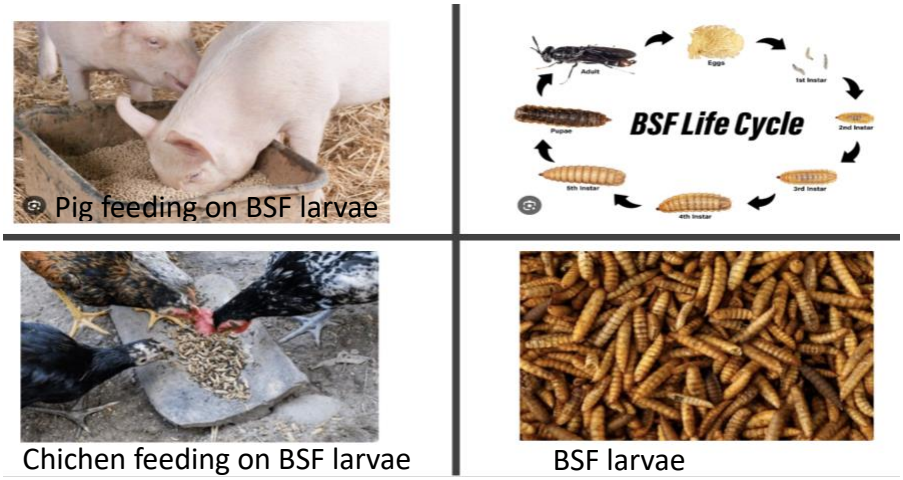

Figure 1: BSF larvae as protein source for feeding animal (Source: BSF royalty-free images and Terrell and Ingwell (2022))

Standard is a document that has been established by consensus, approved by a recognised body and provides requirements, specification, guidelines or characteristics that can be used consistently to ensure that materials, products, processes and services are fit for their purpose. Standard enhances customer satisfaction and safety, access to new markets, increases market share and saves cost.

Ghana Standards Authority (GSA) is the National Standards Body (NSB) established under the Standards Decree, 1967 (NLCD 199) to co-ordinate and facilitate the development of standards of Ghana origin, the adoption of international and regional standards as national standards, as well as being the focal point in Ghana for participation in international and regional standardisation.

Existing but Insufficient Solution

Codex standards are international food standards, codes of practice, codes of hygienic practice, guidelines and other recommendations, established to protect the health of the consumers and

to ensure fair practices in the food trade. GSA relies on the codex standards for food if the country standard is not developed. Unfortunately, BSF products are not captured in Codex standards. Although, in Africa, Kenya is among few countries that developed standards for BSF products but in Ghana there is no specific standard for BSF products.

Solution by BBEST Project

In recognition of the importance of standards and to fill the above gap, the BBEST Project sponsored the development of the Ghana Standard GS 1382:2023 (Fig. 2). Its publication appeared in the national gazette dated 2023. BSF is an insect hence any product formulated from it is regulated by this standard. BSF technology produces larvae which can be used for animal feed formulation to feed chicken, fish and pig while BSF frass can be used as organic fertilizer.

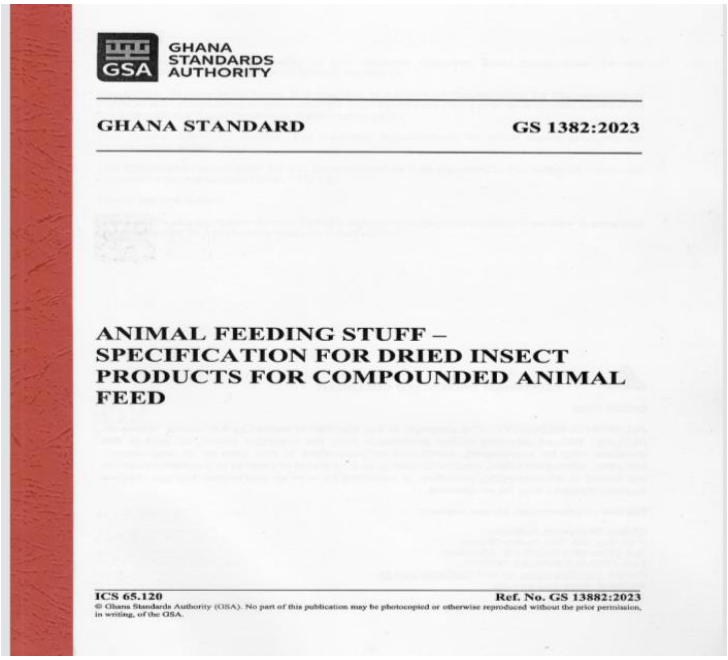

Figure 2. Front page of Ghana Standard GS 1382:2023 (Source: Ghana Standard Authority)

Conclusion

The use and scaling of BSF-based sustainable alternatives to the conventional high-cost animal feed for smallholder chicken, pig and fish producers in Ghana would not be successful if a Ghana Standard to regulate the use of the dried insect meal was not developed. The standard GS 1382:2023 has provided equal opportunity for BSF stakeholders to enhance customer satisfaction through quality products. The BBEST project facilitated this process of development and finalization of the Ghana standards.

Continuing education on the standard is needed for both the public and the private sector, feed producers, poultry pig and fish farmers, and BSF producers to enhance their appreciation for the nutritional requirements for insect products and their applications in feed formulation.

Cited Publications

BSF royalty-free images. Available at: https://shutterstock.com. [Accessed July 24, 2025].

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Terrell, C., and Ingwell, L. (2022). Black Soldier Fly Composition Guide. Available at: https://extention.entm.purdue.edu. [accessed July 24, 2025]

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