

Supply of data requirement to assess the safety of currently non-permitted waste streams to be used for rearing insects for feed

Area of research interest: [Research projects](#)

Project status: Completed

Project code: FS900220

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Date published: 19 July 2024

DOI: <https://doi.org/10.46756/sci.fsa.nsz459>

The mass rearing of insect larvae for protein in animal feeds is an emerging technology that will be vital in replacing the 'protein gap' with a sustainable source. The use of waste streams to rear insect larvae is a further advantage of this technology, potentially revalorising waste that may otherwise have been incinerated or moved to landfill, for example.

The FSA commissioned a study to provide chemical and microbiological data from a model insect rearing system (black soldier fly) using four currently non-permitted rearing substrates. The data will be used as a basis to assess the potential risk from use of these substrate materials in the context of rearing insects to produce protein for inclusion in animal feed. The materials selected for testing were supermarket surplus containing animal by-products (ABPs), food processing surplus containing ABPs, kitchen waste from hospitality sector containing ABPs and poultry manure.

Samples of the rearing substrate, the larvae and the frass were subsequently taken for analysis of chemical and microbiological contaminants (briefly: metals, veterinary medicines, pesticides, mycotoxins, PAH's, nitrate/nitrite, PFAS, natural toxins, microbial organisms, viral RNA). Samples obtained from a UK insect producer using currently permitted rearing substrates were also included as a control.

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