

Using insects to produce protein for animal feed

The growing global population coupled with a change in dietary patterns, with increasing consumption of meat and fish, requires that a sustainable protein source for livestock is made available. Insects are a good source of protein and can be incorporated in animal feed for poultry, fish and pigs. Although rearing of insects with the intention of feeding to domestic animals/fish has been evaluated for several decades there has been no adoption at a large scale and little attempt has been made to assess the safety, social and acceptability issues.

An Innovate UK funded project and the EU Seventh Framework Programme project PROteINSECT have been working to establish the potential for the use of insects as a source of protein for animal feed, and Fera has researched the potential use of the house fly, *Musca domestica*. The research has examined rearing methods, the nutritional profile and the value of insects as a source of protein for inclusion in feed material for monogastric livestock. A comprehensive safety analysis has also been undertaken to screen for chemical risks such as heavy metals, pesticides, dioxins, veterinary medicines and mycotoxins, microbiological risks and the potential for allergenicity. The findings on the quality and safety of insect protein have provided data that will be required by regulatory authorities to assess the potential for incorporation of insect protein in animal feed in the EU.