

Research Project on Safety Aspects of Edible Insects

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Occasionally, edible insects come to the fore of public debate as possible sources of protein. In Germany, the idea still takes some getting used to, but in other cultures insects have been on the menu for a long time. Together with the Jomo Kenyatta University in Nairobi/Kenya, the German Federal Institute for Risk Assessment (BfR) launched the ContamInsect research project in order to better identify health issues that could be related to the consumption of edible insects. The international research team wants to find out whether and to what extent the most commonly consumed insect species in Kenya are contaminated with undesirable substances. The aim is to make a contribution to food safety and thus also to the food supply.

Edible insects are discussed as a possible alternative to meat. As cold-blooded animals, they require less energy than traditional farm animals. In Africa in particular, the increased use of insects could contribute to food security: through direct consumption, but also as high-protein feed for livestock.

However, there is still a considerable need for research with regard to potential health issues for consumers of edible insects. To clarify the contamination status of insects, the BfR has therefore initiated a three-year project, known as ContamInsect, in collaboration with Jomo Kenyatta University. In the first part of the project, the focus will be on the extent to which insects are exposed to undesirable substances, e.g. dioxins, polychlorinated biphenyls, polycyclic aromatic hydrocarbons or mould toxins such as aflatoxins. For this purpose, insects collected in Kenya will be analysed in the BfR's laboratories in Berlin.

In a further part of the project, a feeding experiment with grain containing aflatoxins and the larvae of the black soldier fly (*Hermetia illucens*) will be conducted in Kenya. The warm and humid climate of Kenya offers an ideal breeding ground for aflatoxin-producing moulds, which can make a large part of the harvest inedible. Chemical analyses should show whether larvae that feed on mouldy grain accumulate or excrete aflatoxins. For example, aflatoxin-contaminated grain could be converted into insect biomass and thus into high-quality protein.

ContamInsect is a third-party funded project supported by the German Federal Ministry of Food and Agriculture (BMEL).

Additional Information on the ContamInsect Research Project:

https://www.bfr.bund.de/en/contamination_status_evaluation_and_safety_aspect_exploration_for_an_intensified_utilization_of_edible_insects_in_kenya_contaminsect_-252108.html



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About the BfR

The German Federal Institute for Risk Assessment (BfR) is a scientifically independent institution within the portfolio of the Federal Ministry of Food and Agriculture (BMEL) in Germany. The BfR advises the Federal Government and the States ('Laender') on questions of food, chemical and product safety. The BfR conducts its own research on topics that are closely linked to its assessment tasks.

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