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Pigs do well on feed containing insects

The larvae of the black soldier fly are a good alternative to soya in the diet of pigs. A research team from WUR and Leiden University has reached that conclusion.

Insect larvae are potentially a more sustainable source of protein than soya because they can be grown on garbage and the waste streams from food production. Unlike soya cultivation, growing insects does not take up fields that could be used for food crops. The researchers therefore compared the response of pigs fed a diet of soymeal as the protein source with the response of pigs given a diet of larvae of the black soldier fly as their source of protein. The scientists measured microorganisms in the small intestine and metabolites in the blood. 'This is termed the FeedOmics approach,' says Soumya Kanti Kar, a researcher at Wageningen Livestock Research. 'The approach helps us to determine the impact of diet on the intestines and blood at the same time.

FeedOmics provides a detailed snapshot of the response to a diet.'

The results show that the larval feed promotes intestinal microbes that have a positive effect on health and ones that are an indicator for healthy intestines. Pigs fed on a diet of insects seem to be just as healthy as or even healthier than pigs on a soya diet.

The researchers published their findings in July in *Nature Scientific Reports*. 'The timing couldn't be better,' says lead author Kar. In early September, the EU began allowing insect protein to be fed to poultry and pigs. 'That will undoubtedly give a huge boost to this new industry, which is expected to grow by a factor of 14 by 2025 to more than 4.1 billion dollars.'

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