ETH zürich

World Food System Center Research Symposium 2019

Program and Posters

Thursday, 31 October 2019 | 17.15 - 21.00 | ETH Zurich, Audi Max (HG F 30)

This public symposium showcases research that the World Food System Center supports as well as other food system relevant research at ETH Zurich. This year's program will focus on contributions from current research to sustainable food systems and reaching the Sustainable Development Goals of the UN Agenda 2030.

The main program starts with a keynote address on the Future Food Initiative by Prof. Detlef Günther, ETH Zurich VP Research and Corporate Relations. The presentation sessions will feature presentations from five concluding research projects focused on (1) Nutritious, Safe and Sustainable Food for All and (2) Healthy Soils, Improved Livelihoods. A networking poster session focusing on ongoing research and Center activities offers you the chance to interact directly with researchers.

www.worldfoodsystem.ethz.ch

World Food System Center

02-OM Effect of the total replacement of soybean by feeds from Black Soldier Fly larvae in egg production

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Contribution to Sustainable Food Systems: Caused by the high import rate for soybean in organic egg production it is important to investigate alternative and local protein sources. One of these could be insects. Therefore, it is important to examine their impact on the poultry performance.

Abstract: In this study the utility of insects as ingredients of organic diets for laying hens as a potential novel and more sustainable protein and energy source was investigated. The used insect material (protein meal and larval fat) was obtained from Black Soldier Fly (BSF) larvae reared on two permitted substrates (primarily grain-based agrifood sidestreams and preconsumer foodwaste, respectively) and then integrated in the diets of laying hens to completely replace soybean cake and oil. Over the feeding period of seven weeks various performance characteristics, protein and energy utilization, as well as egg quality were analyzed. The results show that replacement of soy meal and oil by insect materials did not negatively affect performance of the hens or the quality of the eggs. It remains to be investigated if and to which degree unfavorable saturated fatty acids, characteristic for BSF, are incorporated in the egg.