Abstract
PROteINSECT Project & Aquaculture insect feeding trials

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Predicted rises in the global population together with a persistent trend for increased meat consumption has resulted in intensifying pressures on the production of protein for animal feed. Some insects are able to grow rapidly and densely on a range of substrates and are a natural component of the diets of carnivorous fish and free range chickens. As such insects present an opportunity for utilization as a novel source of protein for animal feeds. The principal objective of the EU funded PROteINSECT consortium is to facilitate the exploitation of insects as an alternative to current conventional sources of protein for animal feed. A key concept underpinning the project is the reprocessing and valorization of organic wastes by fly larvae in line with the principal of the circular economy.

A brief overview of the research conducted by the international and multidisciplinary PROteINSECT consortium will be presented. Results from two case studies; namely a Nile Tilapia (*Oreochromis niloticus*) feeding trial incorporating varying levels of crude black soldier fly (*Hermetia illuscens*) meal and, secondly an Atlantic Salmon (*Salmo salar*) trial incorporating both crude house fly (*Musca domestica*) and de-fatted meal will be featured. The Tilapia trial conducted in Ghana has demonstrated that black soldier fly meal is a suitable feed ingredient for fingerlings cultured in intensive cage-in-lake systems able to replace up to 75% of the fishmeal in commercial feeds. Similarly, the Salmon trial conducted in the UK provided evidence for utilization of both crude and de-fatted house fly larval meal for rearing freshwater parr being able to replace up to 50% of fishmeal in formulated feeds.