

'Searching for the balance'

Feeding on the cutting edge

Two companies, one team

'Look beyond your own part'

Poultry farming in Burkina Faso

'An investment in knowledge is never lost'

POULTRY TALK

Don't ruffle the feathers

People make the poultry world work

+ Columns, titbits & recipes

Broilers love larvae

The use of imported ingredients from plant origin in animal nutrition, is strongly under debate. Two widely used ingredients, soy and corn have a major impact on the environment and the climate. Insects such as the housefly and black soldier fly, might be good alternatives to partly replace soy and corn in poultry diets.

The WUR-led project InsectFeed investigates the options for using insects as an alternative poultry feed ingredient. Funded by the Dutch government, the project is being coordinated by Dr. Marcel Dicke, Professor of Entomology. 'The main question is: how to develop a sustainable insect-based poultry value chain', says Dr. Dicke. Poultry naturally eat insects, so broilers are very eager to eat fly larvae. The InsectFeed project has as stakeholders: the universities of Wageningen and Groningen, research institutes, Rabobank, insect producers, NGOs and other parties.

Housefly and black soldier fly

Marcel Dicke: 'The objective is to investigate the entire supply chain from food waste and other organic residual materials on which insects are grown, up to the consumer. Currently we investigate the housefly and the black soldier fly. The latter is known for its resistance to diseases. Both flies are easy and quick to breed. And they thrive on a wide scale of diets, i.e. residual streams from food production.'

Flies lay their eggs on decaying organic matter. Larvae hatch from these eggs and are harvested



just before they change to the 'pupa' stage. At that stage it has the highest nutritional value in terms of protein and fats. In the next stage, the puparium in which the pupa resides does contain too much chitin.

Ethicists

'Of course, the influence on bird welfare and growth parameters receive much attention in our research. And it might seem remarkable, but there are also ethicists involved to address the welfare aspects for both the chickens and the flies. After all, these are also animals', Dr. Dicke continues.

'Another important aspect is the limited volume of water that is needed to grow larvae. This is a strong asset in terms of sustainability. And last but not least, we expect that the remaining substrate on which the larvae were grown, can be used as organic fertilizer for crops, thus further closing the loop.'

'Our aim is to eventually reach an inclusion rate of about 5%-10% of larvae in poultry diets', Dr. Marcel Dicke concludes. 'But it may take 5 to 10 more years before this will be common practice. However, this will become a reality, also on an international scale!' <<<