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Not to Be a Pest: Why Insects Are Gaining Popularity as Feed and Food

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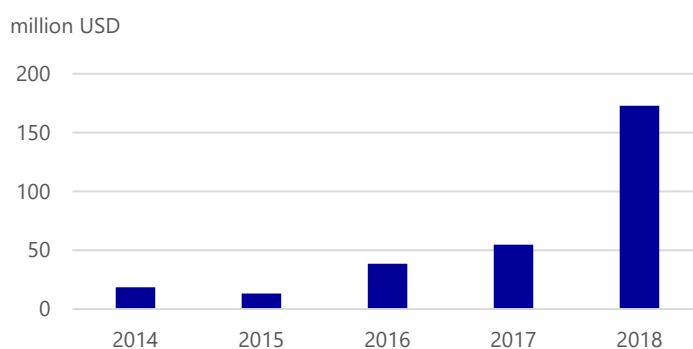
The insect industry is quickly ramping up, fuelled by recent capital flows. In the near term, we see more potential for insect proteins as (aqua-)feed than as food. In the longer term, if consumers fall in love with insects, we expect more insect-based products also on supermarket shelves.

Increasing investor interest is driving growth in the insect sector

Recent investment flows into the insect sector are enabling faster growth of insect protein production. The investments received by the sector in 2018 are 40% higher than the sum of investments received in the last four years (see *Figure 1*). Some of the largest investments of 2018 were received by companies growing black soldier fly (BSF) – UK-based AgriProtein, Dutch Protix, and the French company InnovaFeed – as well as Ynsect in France, which produces mealworm.

These companies stand out through their business models, based on, for example, establishing partnerships with players from different links in the value chain or rapid geographical and product suite expansion. The partnerships range from JVs with engineering companies for processing to cooperation with leading supermarkets to sell insect-fed animal protein products. Some of these companies also report that they've already pre-sold future production volumes.

Figure 1: Insect companies raised a remarkable amount of capital in 2018



Source: Anterra Capital, Crunchbase, Rabobank 2018

The estimated volume of insect protein produced in Europe amounts to a few thousand tonnes, and [the International Platform of Insects for Feed and Food expects this to reach 1.2m tonnes by 2025](#). The increase in production will come from a number of major production plants coming online as well as the geographical expansion of some insect companies.

Plenty of potential as an aquafeed ingredient

Many insect technology companies are currently focussed on the aquafeed market, where there is a clear need for a high-quality-protein alternative to fishmeal – the unique ingredient in aquafeed formula. Producers need to upscale to meet the continuous demand for insect proteins, and to reduce production costs in order for insects to compete with fishmeal and other alternatives. However, the extra functionality insect proteins can offer seafood products (such as the fact that it

decreases the dependency on marine ingredients, or its nutritional benefits) can justify higher prices. If insect protein production with the right functionality is achieved at stable and larger volumes, that is.

Near-term outlook: higher potential as feed than food

Insect companies need to effectively market their products and build more consumer trust to grow further as food. Although edible insects tick all the boxes when it comes to nutrition, health, and sustainability, current consumer acceptance is still low in the Western world, and their market share is negligible. The consumer trend around sustainable and natural food can favour the consumption of insects, but taste and price remain decisive factors. And while consumers are generally open to insect-fed animal-protein products, when it comes to direct consumption of particularly whole and visible insects, they can be more reluctant. The long-term prospects for edible insects depend on increasing consumers acceptance.

Legislation changes can unlock more possibilities

Access to capital is necessary to support the growth of insect market, and it could grow even faster if regulatory barriers were removed. Separate EU regulation applies when producing and marketing insects as food, or as feed. The feed-grade material to rear insects also falls in yet another regulatory category.

So far, the legislation has been complex, but positive. As of July 2017, EU regulations allow insect proteins to be incorporated in aquafeed formula. The industry expects that insect proteins will also be authorised for use in pig and poultry feed by mid-2019. The industry's other expectation for the next two years is that the scope of permitted feed grade substrates will expand. It is hard to assess when these reforms will make it into legislation, but when they do, we expect insect production to grow at an even faster pace.

Imprint

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