

Insect burger of buffalo worms fed with wheat middlings



Crop

Wheat

Triticum aestivum

Croppart

Seed

Application area

Food & feed

Status

Commercial stage

Public availability

Non-public

Relevant plant compounds

proteins

unsaturated fatty acids

Description

In Germany, a start-up called "[CheWOW](#)" developed a hamburger using Buffalo worms (*Alphitobius diaperinus*) produced by the Dutch company Protifarm. The start-up was founded in February 2019, and already by April, their burgers were launched and available throughout the German supermarkets Kaufland and Globus. The creators, Marlo and Federico, want to offer people alternative sources for protein, as the world population keeps growing and resources are constraint.

The insects produced at Protifarm are reared on residual streams like wheat middlings, nutritious leftovers from flour production that aren't suitable for use in food. Using such residual streams makes it possible to produce high quality nutrition with a lower footprint compared to using direct feeds like wheat, soy, and corn which are commonly used for livestock like cows and pigs.

These insects are not only protein bombs but are also rich in unsaturated fatty acids, which are important in healthy diets.

Examples of end products

The Big T

<https://www.bold-foods.de/en/products/the-big-t/>




The Big R

<https://www.bold-foods.de/en/products/the-big-r/>

The Big S

<https://www.bold-foods.de/en/products/the-big-s/>

Pros and cons

-  Creating a sustainable and healthy meat replacer
 -  Upgrading the value of a very important residual stream worldwide
 -  Insects are still expensive and production needs upscaling
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Used conversion methods

Mechanical-Physical processes

Milling

Bioconversion

Insects

Resources

<https://www.chewow.de/> Initiative website

<https://www.protifarm.com/> Article