NEXTGEN PROTEINS

FACT SHEET NR. 4

What are edible insect proteins?

House cricket

Sustainable production[1]

Use plant-based by-products from agriculture (e.g. vegetable peel to feed the insects)

Automated indoor farms

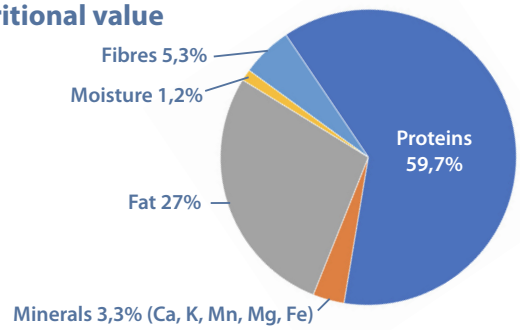
*for 1 kg single cell proteins[2]

Reduced use of land*: 0,00006m² (0,0001% compared to beef [3])

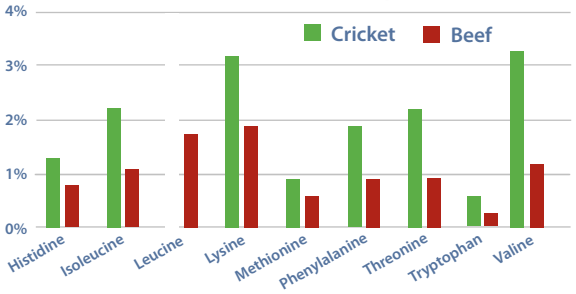
Reduced use of fresh water*: 0,15m³ (2% compared to beef [3])

CO^2 Reduced greenhouse gas emissions*: 0,9kgCO_2eq (1% compared to beef [3])

Nutritional value



Content of essential amino acids compared to beef [3] (g/100g)



Regulation Approved in food[4] and feed

How does it taste? Nutty, slightly bitter (dark chocolate)

Applications tested in the NextGenProteins project

Ready meals

Bakery products

Meat alternative

Food supplements

5-8% in food

No nutrition or Health claim possible considering the use of 5% cricket in food or drink.
Insects are part of traditional cuisine for 2 billion people around the world.

1 NextGenProteins (2022) Deliverable No 6.3. Report on circular economy potential of alternative proteins available on *https://zenodo.org/communities/nextgenproteins/?page=1&size=20*
2 Disclaimer: considering the low amount and quality of data available, the figures presented are not directly comparable with other alternative protein sources studied in NextGenProteins
3 Disclaimers: Beef has been used as a comparison because of high protein content and high consumption around the world. NextGenProteins does not aim to discredit any protein source, but rather to inform about new sources.
4 Commission implementing Regulation (EU) 2023/5 of 3 January 2023 authorising the placing on the market of Acheta domesticus (house cricket) partially defatted powder as a novel food and amending Implementing Regulation (EU) 2017/2470

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