



Focus on the Future: Meat of the future

Trend report for assessing the environmental impacts of plant-based meat substitutes, edible insects and in vitro meat

Publication

[Brochure](#)

Citation

Jetzke, Tobias et. al. 2022: Focus on the future: Meat of the future: Trend report for assessing the environmental impacts of plant-based meat substitutes, edible insects and in vitro meat. Dessau-Roßlau: German Environment Agency.

In July 2020, the Federal Environment Agency published the trend report "Meat of the Future", which analyzes the environmental impacts of plant-based meat substitutes, edible insects and in-vitro meat. Ecologic Institute developed policy options on how the market development of meat alternatives can be better aligned with the goal of sustainability.

Huge reductions in meat-eating in western societies are essential to avoid dangerous climate change and to ensure food safety for a growing world population. In Germany, meat substitutes are becoming increasingly popular as an alternative for meat. In the study "Meat of the Future" for the German Federal Environment Agency, the effects of three emerging meat alternatives – vegetable meat substitutes, edible insects and in-vitro meat – have now been investigated with regard to impacts on health and environment.

Results of the study show that plant based meat substitutes have the best environmental footprint. Compared to beef, they lead to 90% less greenhouse gas emissions and need much less water and land. Insect-based meat substitutes are slightly less effective. The environmental and health effects of in-vitro meat have been particularly difficult to assess to date due to a lack of data. Here, the question of the cell growth medium to be used in the future will be decisive.

Therefore, the promotion of a more plant-based nutrition should be the focus of political action, especially if these products have a low degree of processing.

The English translation of the [report](#) [pdf, 8.8 MB, German] is available since 2022.

Languages

German
English

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Funding

[German Environment Agency](#) (UBA), Germany
[Federal Ministry for Environment, Nature Conservation and Nuclear Safety](#) (BMU), Germany

Published by

[German Environment Agency](#) (UBA), Germany

Year

2020

Dimension

116 pp.

ISSN

2363-832X

Project

[Trend Analysis: Meat of the Future](#)

Project ID

[3540](#)

Table of contents

- 1 Changing nutrition patterns
- 2 Objectives and approach
- 3 Meat of the future: conceptual understanding and determining factors
 - 3.1 What is "meat of the future"?
 - 3.2 "Meat of the future": a topic of particular relevance
 - 3.3 Influencing factors and framework conditions
- 4 Trend description: current developments in meat substitutes
 - 4.1 Plant-based meat substitutes: established alternatives with development potentials
 - 4.2 Insects: a new alternative protein source on the market
 - 4.3 In vitro meat: a long way from the laboratory to the market
- 5 Trend development: meat of the future
 - 5.1 Driving forces and barriers

5.2 Uncertainties

5.3 Overall picture of meat of the future: starting point for the analysis of environmental effects

6 Impact on the environment, health and animal welfare

6.1 Conventional animal production

6.2 Plant-based meat substitutes

6.3 Insects

6.4 In vitro meat

6.5 Conclusion

7 Political entry points and research questions

7.1 Political entry points for meat substitutes

7.2 Cross-sectional approaches for meat substitutes

7.3 Indirect effects: cross-sectional research topics

7.4 The role of meat substitutes for the transformation of the food system and overarching policy options for action

8 Summary and outlook

9 List of sources

Keywords

[Agriculture](#)

[Consumer Policy](#)

[Food](#)

[Health](#)

[Resource Conservation + Circular Economy](#)

meat, meat alternatives, meat substitutes, in-vitro meat, cellular agriculture, insects, vegetarian, trends, labelling

Source URL: <https://www.ecologic.eu/17582>