

126: New Geographies of Food Protein - FGRG, LAGWG

09:00 - 10:40 Thursday, 1st September, 2022

Room 1 Henry Daysh Building - 4.76 (Hybrid)

Session chair Frank Müller

126 New Geographies of Food Protein

Session abstract

Amidst rapid population growth and the “meatification” (Hansen and Jakobsen, 2020) of fast industrializing countries, the demand for food protein has increased dramatically. Food protein production is considered a high emission industry with meat being one of the highest carbon and water footprint products. The proposal to “build something different” instead of “build back better” invites us to rethink proteins' entanglements and geographies after the pandemic. In this context, the transformation towards more sustainable diets offers new alternatives to protein intake, from plant-based substitutes to cell-cultured meat. However, these processes demand technological innovation and the mobilization of new food supply chains across the world. These new geographies also create new entanglements and inequalities between Global North and Global South as suppliers and consumers of these new products. To reduce the negative environmental impact of carbon-intensive industrial livestock farming, alternative proteins might transform those production chains, and particularly re-locate them to those countries where the technology is more advanced. This has been the case in the development of cell-cultured meat, a high-tech innovation process, the advancement and regulation of which is centered in Europe, the USA, and Israel. In addition to that, even though companies all over the world have been investing in the plant-based meat alternatives market, the availability of and accessibility to these alternatives is still more widespread in the countries of the Global North. In this respect, then, the meat “revolution” can actually reproduce “durable” (Tilly, 1998) inequalities.

The panel will explore

1. How does the shift to alternative proteins produce new geographies of food and challenge the traditional structure of global food supply chains?
2. To what extent is there awareness for these issues in food studies as well as in the industries themselves?
3. What novel inequalities emerge from the increasing demand and supply of meat alternatives? What do the entangled global geographies of protein production look like: Can we identify counter-movements to those novel inequalities in the protein industries? I.e. to what extent do Brazil, India, South Africa or China have either a good chance in developing cultured meat technologies, or other protein alternatives that might allow production on a mass scale and thus replace conventional meat production?

The session is sponsored by the Food Geographies Research Group (FGRG) and Latin American Geographies Working Group (LAGWG).

Session organiser

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Discussant

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Names of any Research Group(s) sponsoring your session

Food Geographies Research Group
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322 Do humans dream of electric meat? Observations and problematics.

Patrick Weir

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Abstract

In recent years, the rising standard of living in the Global North, combined with a growing awareness of industrial animal agriculture's abuse of animals and the environment has had a profound impact on food geographies. Specifically culminating in a push towards meat alternatives including "plant based" or vegan options and artificial meat. This paper takes as its focus the newest addition to a growing list of competitors in the emerging 'protein' market: artificial or so-called "lab grown" meats, which seek to transcend both meat and meat alternatives. These are intended to provide a choice to consumers who for various reasons, remain attached at a conceptual and experiential level to meat consumption and for whom plant based alternatives will remain unlikely to find uptake. The scalability and viable mass consumption of such products will be explored using the lens of speculative and science fiction texts on "post-meat" futures. This paper takes the world-building force of "post-meat" protein imaginaries as satires on contemporary consumption habits, or as devices to point towards possible utopian or dystopian futures. Through these texts I point to three issues which repeatedly arise in both fictional and "real" spaces of cultured meat products: 1) The issue of energy transfer 2) The problem of scaling production and 3) The "naturalness" paradox. Whilst these points of consideration are all broadly sceptical, I argue that they still have a part to play in the transition to sustainable, "post-meat" futures.

Keywords

Meat alternatives; Protein imaginaries; Science Fiction; Energy; Production

324 Avoiding the risk of deepening inequalities in the food production chain: an initial framework for higher education regarding alternative proteins

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Abstract

Although the benefits of alternative proteins are clear, the transition to the new production model may bring numerous challenges for meat and grain-producing countries, especially those in the global south. One of the challenges is the high degree of technological sophistication of the new chain, which may require workers with higher qualifications. Globally, there are initiatives for inserting cellular animal science content into higher education, with actions related to new courses and new programs. Considering this context, we aim to provide an initial framework for the adaptation of Brazilian higher education, so that the curricula for professions involved with conventional animal production incorporate relevant knowledge for successful engagement with cellular animal science and plant-based production systems. Initial results show that the current Brazilian curriculum guidelines for veterinary and animal science programs include courses which may accommodate information envisioning cellular animal science. Additionally, the offering of an independent cellular animal science course may contribute to the basic education and skills for animal scientists and veterinarians to engage with alternative proteins. Students' interest in cellular animal science teaching in Brazil has been high. Education on cellular animal science will likely decrease resistance, accelerate the transition, allowing for higher levels of engagement in Brazil and thus decreasing the risk of exacerbating geographical inequalities. Thus, for countries with strong conventional meat production, improvements in specific curricula may be strategic to counter the risk of novel inequalities arising from alternative protein chains.

Acknowledgements

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Keywords

Alternative Proteins; Food Production Chain; Inequality; Education; Brazil

563 Insects as an alternative source of protein: exploring the potential for growth of the Thai edible insect industry

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Abstract

The global market for edible insects is expanding rapidly as a result of the quest for more sustainable protein sources. Edible insects can enter human food chains directly, in whole or ground powder form, and indirectly as a source of animal feed. Thailand is the world's largest producer of edible insects, with more than 20,000 insect producing enterprises generating an average annual output of 7,500 tons, mainly supplying domestic markets (Halloran et al., 2017; Durst and Hanboonsong, 2015). There is potential for the Thai edible insect industry to grow considerably through exports to overseas markets. Based upon collaborative research in Thailand, the UK and the EU, this paper explores the challenges and opportunities confronting the Thai edible insect industry as it seeks to expand its export markets. Internal challenges include the need to develop regulatory processes and systems which ensure compatibility with international standards and certifications. Externally, there are challenges created within potential markets. Consumer tastes and preferences are one factor but more importantly the status of edible insects as a 'novel food' within UK and EU regulatory systems creates complex barriers which must be overcome before edible insects can become a significant component of the mainstream food system. Our paper will evaluate the fast-moving regulatory terrain within the UK and EU and illustrate the steps being undertaken in Thailand to achieve export readiness within these potentially lucrative markets. The research illustrates the complexities of international trade in 'novel foods', in particular the contested role of certifications and standards.

References

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Keywords

Insects; Alternative Proteins; Thailand; Regulatory Systems; Food Supply Chains

565 Perceptions of milk alternatives in contemporary urban India

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Abstract

Milk has long-standing cultural significance within the traditional Indian diet. It is not only prevalent in many Indian cuisines, but is also an integral material component of several Hindu socio-cultural practices. Today, India's levels of milk consumption are among the highest in the world. Over the coming decades, milk consumption and production in India are predicted to increase as the country moves from small-scale farming to more intensive modes of factory farming. Previous work has highlighted numerous environmental and ethical challenges associated with intensive dairy production in India today. In view of these challenges, the objective of our study was to explore Indian consumer attitudes towards milk alternatives and vegan dietary practices. Our study uses Shove et al.'s model of social practice theory and draws upon a sample of 33 Mumbai residents aged 23-45 years. Semi-structured face-to-face in-depth interviews were the main mode of data collection, supplemented by observations in Indian markets, restaurants, and local neighbourhoods. In summary, the findings highlighted that perceptions towards milk alternatives were somewhat mixed. Some viewed these alternatives as beneficial for addressing specific health concerns and problems associated with animal welfare. On the other hand, these foods were not seen as suitable material alternatives for everyday dietary and cultural practices. They were also described to have poor sensory appeal. This paper further elaborates upon Indian consumer views towards milk alternatives and veganism. As part of our discussion, we cover barriers, opportunities and potential strategies to encourage more sustainable dietary practices in India.

Keywords

Milk; India; Milk alternatives; Veganism; Socio-cultural practices

567 Perspectives of foreignness: how alternative protein stakeholders in China perceive foreign influence and actors

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Abstract

With the world's largest population, growing demand for proteins and increasing government attention on food safety, security and sustainability, China represents one of the biggest opportunities for alternative proteins. However, new alternative protein products and the movements that promote them have largely originated outside of China, and primarily from the West. How do alternative protein stakeholders, including consumers and advocates, perceive foreign actors and how might these perceptions impact the development of the field in China?

This presentation consolidates findings from four studies conducted from 2020-2022, investigating the perspectives of Chinese consumers towards alternative protein and the landscape of farmed animal advocacy in China. These studies employed a number of methodologies, including focus groups, diary studies and a national survey of Chinese consumers, as well as semi-structured interviews with civil society, academic and government stakeholders in China. Findings show that stakeholders carry a range of perceptions towards foreign products and actors that fluctuate depending on specific contexts, influencing consumers' purchase decisions and reactions to campaigns, as well as advocate's organisational partnerships, donor relations and intervention selection. This presentation aims to highlight key lessons and takeaways for those looking to understand and connect with China's consumers and alternative protein stakeholders.

Keywords

Alternative proteins; Foreignness; China; Stakeholders; Consumers