

How Green Is Lab-Meat?

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Synthetic foods are the next generation of ultra-processed foods made through the hyper-processing of industrially produced crops, a combination of processed and artificial ingredients and completely new ingredients produced through synthetic biology, (or so called 'precision fermentation'), and cell-culturing. These products use a combination of gene editing used for the precision fermentation, industrial ingredients, and traditional commodity supply chains to create a product that only further entrenches our already highly problematic and destructive globalized food system.

Why lab-made meat and dairy is not an option:

- **These false solutions will only reinforce and continue industrialization- which is the real culprit of the climate crisis.** The issue of unsustainable food systems comes from the inherent unsustainability of the industrialization of all areas of food and agriculture. Whether that be through the industrial raising of animals through CAFOs (Concentrated Animal Farm Operations) where animals are force-fed industrially grown, pesticide-laced grains and soy, or the further industrialization of food now being made in a lab. These two things stem from the same corporations, the same mentality and the same denial of the industrial, globalized food systems devastation on the planet.
- **Lab-cultured food is a [fake solution](#) that aims to replace products without challenging the power**

structures that underlie the corporate, industrialized agricultural model. It moves attention away from the real solutions offered by the growing regenerative agriculture movement and disregards the role of small producers and food communities in shaping our food systems. Regenerative, agroecological farming practices have the potential to [sequester 52 gigatons of carbon dioxide](#), as they can harvest 733- 3000 kg or more of carbon dioxide per hectare, per year from the atmosphere, equivalent to the amount needed to stay below the 2 degree centigrade range. By increasing carbon absorption, [organic farming has a lower climate impact](#) than industrial agriculture.

- **The dichotomy does not stand as industrial CAFOs versus lab-meat.** This false binary erases the role of agroecological small farmers, and pastoralists and treats them as if they were the same as industrial agriculture. Both CAFOs and lab-cultured meat concentrate power into the hands of a few. While agroecological systems are based on generations of ecological knowledge, local food culture and ecological resilience that support local food sovereignty.
- **The true solution is agroecological systems that work in harmony with nature,** that regenerate ecosystems and ensure the health and well-being of plants, animals and humans. Ecological systems based on integration of agroecosystems promote food sovereignty, food democracy. The real solution does not lie in creating substitutes for food, it lies in understanding the needs of the ecosystems we are embedded in and healing our connection with nature.
- **The same circle of businessmen and corporations that pushed for the Green Revolution, and the industrialization of food systems, [are the very actors behind these lab-made products](#).** Actors such as [Bill](#)

[Gates, Jeff Bezos](#) and meat industry giants like Tyson foods, JBS, Cargill, Nestlé, and Maple Leaf Foods are behind the push for this new market [where investment has now reached \\$2.78 billion](#). synthetic and lab-cultured foods are quickly becoming a next means to consolidate even more power and profit into the hands of a few food giants without holding them accountable to the consequences of the system they perpetuate.

- **Handing over control of our food to a handful of multinational companies only makes us more dependent on them**, creating a fully integrated food and agricultural system, controlled by profit. This erodes our food sovereignty, and food security, while having potentially detrimental consequences on local food systems, and ecological systems. What is at risk is the final elimination of small farmers, of traditional agroecological practices, and traditional diets. To follow through with the massification of lab-grown meat would mean the final, complete separation of food from nature.
- **These products still rely on long-distance globalized supply chains, and derivatives of the industrial food system**. For example, to run, these bioreactors require large amounts of nutrients for cells to grow and reproduce. Given the limited production of individual amino acid formulations suited for cell culture globally, one hope is to use [industrially cultivated soy to derive the full amino acid profile](#) necessary for cell growth. This would work to only further entrench the already destructive cultivation of soy. Therefore defining these products as environmentally friendly, and sustainable, is just a greenwashing ploy to profit off a new generation of environmentally conscious consumers who are growing critical of the grim realities of industrial food production.

- **It is unlikely these products will be any healthier or safer to eat.** These ultraprocessed foods are made from refined ingredients which means that they lack many of the nutrients found in traditional foods. Nutrients and fortifiers will need to be added as separate ingredients and [cannot be absorbed](#) as effectively as they would from whole foods, and can cause harmful interference with other nutrients. As a result our bodies may derive less health benefits from them and therefore they should not be part of a nutritious and environmentally friendly diet and should be classified as Junk Food.
- [According to a report by the FAO](#), the complex process of cell-culturing also leaves many opportunities for contamination from toxic heavy metals, organic pollutants, cleaning products, toxic bacteria, additives and preservatives, left-over antibiotics, growth hormones or other chemical or material contaminants. The presence of any of these contaminants, whether individual or in combination, would pose serious food safety risks to consumers.

In the end, these “Frankenstein foods” dismantle our connection with nature and in doing so, they ignore the role of natural processes and the laws of ecology that are at the heart of real food production. By promoting the illusion that we live outside of nature’s ecological processes, this new technology will only serve to increase corporate control over food and health, accelerate the collapse of local food economies and further destroy food democracy. The real solution to the environmental, and health crises should be based on an active rejuvenation and regeneration of the planet by working with ecological processes through agroecological and regenerative farming practices.

Real food made through real farming is the direct result of a process of care for the land, animals, and fellow humans that celebrates the connection between food and life. It protects

the life of all beings on Earth while also nourishing our health and wellbeing. [Artificial food is a direct manifestation of years of food imperialism](#) and colonization that has denied our diverse food knowledge, food cultures, and disregarded the biodiversity of the earth and its ecosystems.

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