

BeneMeat in Numbers

The next option for meeting meat demand.
Cultivated by science. Ready to scale.

1st

registered

production of a cultivated
meat ingredient for pet
food in the EU.

2024

**Winner of the Česká
hlava – Industrie Award**

for biotechnological
innovation.

100+

experts

in cell biology, bioprocess
engineering, regulatory
science, and food
technology.

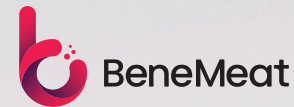
1st

peer-reviewed LCA

of cultivated meat for pet food
based on scalable technology.
Currently the most accurate
assessment of environmental
impact (CTU Prague
& University
of Nottingham).

Backed by BTL,
a global manufacturer of medical devices.

benemeat.com



A Few Words on Cultivated Meat

Cultivated meat offers a **smarter, safer, and more sustainable way to meet the growing global demand for high-quality protein**, without compromising ethics, efficiency, or safety.

Its development is a complex process that brings together biology, engineering, and food science. Key challenges include creating stable cell lines that grow reliably outside the animal's body while meeting nutritional requirements. Equally important is the development of

a cost-effective, plant-based, and nutritionally balanced cultivation medium. Finally, bioprocesses must be optimized to enable the transition from laboratory scale to industrial production without sacrificing quality.

At BeneMeat, our technology-driven approach and deep know-how have allowed us to develop solutions that move cultivated meat closer to commercial reality as a safe, sustainable, and ethical protein of the future.






What Is Cultivated Meat?

Cultivated meat (also referred to as cell-based, cultured, or in vitro meat) is real animal meat produced directly from animal cells, without the need to raise or slaughter animals.

It is produced in a controlled environment and offers a safe, scalable, and ethical protein alternative that retains the nutritional and functional properties of conventional meat.

How Is It Made?

The core idea is simple: to produce meat, we do not need the whole animal. We can cultivate it outside the animal's body, without causing harm. The process consists of five steps:

- **1 A Small Cell Sample**
We take a small sample of tissue from an animal, just once. From this sample, we grow all the cells we need.
- **2 Selecting the Best Cells**
Next, we handpick the strongest and healthiest cells. These form the foundation for nutritious, high-quality meat.
- **3 Helping Cells Grow**
The cells are placed into a cultivator, a modern vessel similar to a brewery tank. There, a cultivation medium supplies them with nutrients, vitamins, and essential growth factors. The medium contains no animal components, hormones, or antibiotics, and the entire process takes place in a sterile environment.
- **4 Harvesting**
Once the cells have multiplied sufficiently, we harvest them. Think of it as the result of careful, controlled cultivation.
- **5 Final Product**
We deliver the cultivated meat to pet food or food manufacturers, who combine it with other ingredients to create finished products for pets or people.

Why Does It Make Sense?

Meeting the growing demand for protein requires new, scalable solutions. Cultivated meat offers several key advantages:

- **Meeting global protein demand:** Meat consumption continues to rise. Cultivated meat helps meet this demand in a more sustainable way.
- **Safety and quality:** Production takes place in a controlled environment, protected from bacteria and pathogens. Products undergo multi-stage testing and meet the strictest safety and quality standards.
- **Diversifying protein sources:** Cultivated meat complements existing protein sources, enabling manufacturers to offer a broader portfolio tailored to different consumer needs. For the meat industry, it represents a new production line alongside conventional farming, opening access to new consumers and supporting long-term competitiveness in a changing market.
- **Improved nutritional profile:** One unique advantage of cultivated meat is the ability to intentionally adjust its composition: for example, by reducing saturated fats or increasing omega-3 fatty acids or iron content. This opens the door to the development of healthier products and even personalized nutrition.
- **Ethics and sustainability:** Only a small cell sample is required, without animal suffering. According to our life cycle assessment (LCA), cultivated meat also requires less land and produces fewer emissions, making it a genuinely ethical and more environmentally responsible option.

How Sustainable Is It?

According to our peer-reviewed life cycle assessment (LCA):

↓ **3.7 m²**
↓ 2.0 m²

Land use:

Producing 1 kg of cultivated meat requires **just 3.1 m² of land**, less than conventional meat. Our target is 2.0 m² per kilogram.

↓ **5.28 kg**
↓ 3.29 kg

Emissions:

Today, 1 kg of cultivated meat produces **5.28 kg CO₂e**. In the near future, this will drop to 3.29 kg CO₂e. For comparison: beef produces 20–100 kg CO₂e per kilogram.

This difference is substantial.