

Israel's Forsea unveils first cultured Eel in Japan

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Cell-cultured seafood start-up Forsea Foods, Ltd. sails on its mission to save wild eel populations from near extinction by unveiling its first prototype of cell-cultivated freshwater eel. Forsea successfully replicated the traditional Japanese *unagi* eel (*Anguilla japonica*) featuring the same tender, succulent texture and rich savory flavor as real eel.

The company has achieved a working proof-of-concept that embodies the sensory attributes of real eel meat and is now prepped for scale-up. In the collaboration, Forsea contributes its novel technology for cell-cultivating eel cuts, while Kusumoto contributes his culinary mastery to refine the product to perfection in texture and flavor. Forsea was the winner of the Startup Pitch Hour Prize at the Asia-Pacific Agri-Food Innovation Summit last October in Singapore.

Forsea was founded in 2021 with a mission to turn the tide on the downward spiral of the ocean's seafood populations by developing a cell-cultivated alternatives. Overfishing of eels has turned this aquatic delicacy into an endangered species. The immense popularity of eel meat in Asia, Europe, and the US likewise poses significant challenges for suppliers who struggle to keep up with the surging demand. This leads to supply bottlenecks, illegal trade, and high prices.

"This milestone marks a major leap in our journey to deliver delicious cultured seafood products," claims Roe Nir, CEO and co-founder of Forsea. "Forsea is pioneering the fusion of traditional, high-quality Asian cuisine with groundbreaking technology to create the world's first cultured unagi—one that will provide the consumer with a genuine seafood experience without putting further strain on aquatic life."

Beyond its contribution to ocean conservation, Forsea's cell-cultivated eel offers a nutritious alternative that is free from any antibiotics, hormones or ocean pollutants.

Forsea readying scale-up to fulfill vision of abundant eel supply

Unique to its proprietary method for culturing seafood is its application of organoid technology which allows for the crafting of 3D microtissues composed of fat and muscle. These spontaneously differentiate into edible cells, mimicking the natural process of cell formation. The cell lines self-organize into tissue structures without the need for scaffold support, simplifying the production process, and enhancing scalability.

This approach should effectively overcome major industry challenges and will ease some of the supply bottlenecks for eel meat. The proprietary practice also allows for the efficient and cost-effective production of cultivated meat by significantly decreasing reliance on costly growth factors.

Forsea projects that its inaugural product will be ready for commercial launch in 2025 as it seeks strategic partners in Japan (the largest consumer of freshwater eel) and across Asia. EU and the US also are also on its radar as rapidly developing markets.