



Clara Foods Announces Global Launch of World's First Animal-Free Pepsin for Commercial Use

Leader in animal-free animal proteins launches first product from its technology platform in partnership with global distributor Ingredion

SAN FRANCISCO (March 4, 2021) -- [Clara Foods](#), a San Francisco-based food technology company accelerating the world's transition to animal-free proteins, announced today the launch of the first ever animal-free, nature-identical pepsin for commercial use. Clara's animal-free pepsin will be distributed by [Ingredion](#), Clara's exclusive go-to-market partner for North America.

Pepsin was the world's first enzyme to be discovered nearly 200 years ago and has been used in products from chewing gum to popular stomach remedies. Today it is used as an ingredient in the manufacture of many modern products consumers ingest daily — and found in the supplement section of almost every pharmacy and grocery store. Before Clara, pepsin had been almost exclusively sourced from pig stomachs. In fact, a single kilogram of porcine pepsin required more than 100 pigs — until now. Two centuries later, Clara has disrupted the pepsin market. The company's breakthrough proprietary precision fermentation technology creates an animal-free product that has the same functionality as animal-derived pepsin, with the added benefits of safe and consistent sourcing, quality control, price stability and vastly increased sustainability.

Clara's animal-free pepsin is being distributed by Ingredion and available to companies globally that source protein at a mass scale. The product retains the same functionality users have relied on for centuries — but provides more consistent product purity, safety and availability when compared to current pepsin supply chain volatility by eliminating common factory shutdowns due to animal disease. The pepsin supply chain has been negatively impacted by periodic outbreaks of swine flu that reduced China's pig herd by as much as 1/3 or 100 million pigs in 2019. As the world's first animal-free pepsin, Clara's product is also free of antibiotics and hormones. It is vegan, Kosher and Halal. Stable production costs for Clara's animal-free pepsin are not subject to animal industry woes including price swings due to supply chain issues. Pricing of Clara's animal-free pepsin is competitive with current industry offerings.

"Pepsin was the first enzyme to be discovered, and it's an honor that after 200 years, we can now introduce the world's first pepsin—made completely animal-free," said Arturo Elizondo, CEO and co-founder of Clara Foods. "We've been knee-deep in R&D for the last six years building out our technology platform, scaling up, and expanding our product portfolio. Pepsin represents the first of several products coming online this year, and I could not be more excited. We are creating Food 2.0 and using it to upgrade the food industry, and we're thrilled to share our breakthrough technology with companies large and small on a global scale."

Clara's mission to accelerate the world's transition to animal-free proteins is rooted in sustainability. Its animal-free pepsin leverages a similar technology used to make insulin for diabetics, rennet for cheese-making, and heme for plant-based burgers. Clara's 100% animal-free pepsin is developed by isolating the DNA sequence that encodes for the exact same protein, and using fermenters and yeast instead of factory farms and animals to create its final product — the world's first bioidentical pepsin,



made without a single animal. Clara's fermentation technology platform also only uses a fraction of the water, land and greenhouse gas footprint compared to the current factory farming model.

"We recognize that animal-free protein is emerging as a consumer value and we want to provide our customers with a full range of solutions that work across a wide range of foods and beverages," said Michael Natale, Ingredion's global platform leader of plant-based proteins. "Our go-to-market teams are excited to partner with Clara Foods to launch this innovative, breakthrough porcine pepsin replacement to our customers."

Clara will continue to develop and market more animal-free proteins in the future. Clara's next milestone is the commercialization of the world's first egg proteins made without a single chicken, positioning the company to become the world's largest supplier of egg protein by 2028 and fundamentally transform the way the world eats. Those interested in working with Clara or sampling its pepsin for commercial use can email zach.gall@ingredion.com.

About Clara Foods

Clara Foods™, headquartered in the San Francisco Bay Area, is the market leader in engineering, manufacturing and formulating animal-free, animal proteins as ingredients for the global food and beverage industry. Leveraging precision fermentation to produce functional and nutritional proteins from microorganisms, the Company is reimagining the factory farm model that underpins industrial animal agriculture with a more sustainable, kinder and healthier alternative. Clara Foods is on a mission to decouple the world's most powerful proteins from the animals that make them. For more information, visit clarafoods.com.

About Ingredion

Ingredion Incorporated (NYSE: INGR) headquartered in the suburbs of Chicago, is a leading global ingredient solutions provider serving customers in more than 120 countries. With annual net sales of \$6 billion, the company turns grains, fruits, vegetables and other plant-based materials into value-added ingredient solutions for the food, beverage, animal nutrition, brewing and industrial markets. With Ingredion Idea Labs® innovation centers located around the world and approximately 12,000 employees, the Company co-creates with customers and fulfills its purpose of bringing the potential of people, nature and technology together to make life better. Visit ingredion.com for more information and the latest Company news.

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