



NATURE-EQUIVALENT
INGREDIENTS



Courtesy of Change Foods

NATURE-EQUIVALENT INGREDIENTS THAT DELIVER WHAT YOU NEED (AND NOTHING YOU DON'T)



Courtesy of The EVERY Co.



Ingredients that are made using precision fermentation share the same nutritional profile to ingredients made through animal agriculture.

The power of the technology lies in its ability to create the same ingredients as come from animals, but without any animals involved in the process. We call this nature-equivalency.



And since precision fermentation ingredients are not derived from animals we can produce nature-equivalent animal proteins, fats, and more that share the nutritional profile of animal ingredients, that are, for example, cholesterol-free, lactose-free and hormone-free. All while recreating the taste, texture, and functionality of traditional animal ingredients. This can further optimize and fortify foods with nutritional and health value where plant-based and animal-derived ingredients tend to fall short.



Same taste & texture



Same nutritional profile

- ✓ **Cholesterol-free**
- ✓ **Lactose-free**
- ✓ **Hormone-free**

The science that makes it possible



Precision fermentation is an evolution of the natural process of fermentation of microorganisms (like yeast, algae, or fungi), combined with the latest developments in biotechnology.

These microorganisms naturally use fermentation to process and metabolize in the wild, and many

foods rely on fermentation for millenia– think beer, sauerkraut, sourdough, for example. In precision fermentation, we use bioengineering techniques to program microorganisms by giving them a specific genetic code to produce a compound of interest (for example, a protein) when fermented under precise conditions. The genetic code is the exact copy of DNA sequence that is found in a digitized database on animal DNA sequence, however it requires no animal involvement in the process.

These microorganisms then continue with their natural fermentation process, and rather than fermenting their usual byproducts (like ethanol, carbon dioxide, lactic acid, etc), they ferment the compound of interest that they've been programmed for. Then, the bioengineered microorganisms are filtered out, and all that remains is the pure compound of interest.

The result is an ingredient that is the same as its animal-based equivalent in nutrition, texture, and performance.



Courtesy of New Culture

