AgroSpectrum ASIA
Envisaging Future | Updating Present

IngredientWerks creates proprietary corn to reduce alternative protein ingredients cost

20 July 2023 | News

Produces "Meaty Corn," proving it can significantly reduce the high-cost of key alternative protein ingredients, with a carbon-neutral footprint, at industrial scale



Produces "Meaty Corn," proving it can significantly reduce the high-cost of key alternative protein ingredients, with a carbon-neutral footprint, at industrial scale

IngredientWerks, a leading molecular farming company unlocking the vast potential of plants to produce animal proteins for human health and nutrition, has achieved a major milestone for the alternative protein industry by producing a proprietary corn expressing high levels of bovine myoglobin.

As a high-value heme protein and key animal replacement ingredient, bovine myoglobin is used to mimic the taste, texture and aroma of meat in alternative protein applications. Using corn as a "manufactory" for the production of high value proteins like its "Meaty Corn,"Â IngredientWerks leverages the immense capacity of the US agricultural cultivation and processing infrastructure to produce these valuable proteins at industrial scale, with a carbon neutral footprint, and at a fraction of the cost to produce the majority of these alternative animal proteins .

In Q2 of this year, the Company verified its myoglobin production platform significantly exceeded its initial target expression level of heme at 10mgs per gram of corn, a level which the company calculates confers an unprecedented low cost for heme production.

Additionally, this achievement represents the first successful expression of myoglobin beef in corn, a plant-based, molecular farming application. Accordingly, the Company has protected this proprietary application with corresponding patent application filings. As a heme-binding protein traditionally found in the muscle tissue of cows, myoglobin is an important taste additive critical for creating meatier flavors in the growing alternative protein space which the company believes represents aÂ $1BÂ global market opportunity.

In less than a year since emerging from stealth mode, IngredientWerks has pioneered a paradigm shift in scaling animal protein production as compared to incumbent methods like precision fermentation or cultivated meat. This new approach arrives at a critical time when meeting the increasing consumer demand for parity in cost of alternative meats is challenged by capacity bottlenecks and high processing costs typical of precision fermentation or lab grown manufacturing to produce these proteins at scale.