

Equinom revolutionizes non-GMO soy cultivation

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Closing the gap

According to a recent US Soybean Export Council report[1], since 1986, overall soy yield has increased by almost 60%. However, protein content has remained stagnant at about 35%. "In contrast, our bred soybean lines contain nearly 58% protein, which is 50% higher than the industry standard," says Itay Dana, Marketing Director for Equinom. "Traditional breeding practices have focused mostly on high yield, but specialty traits are now the in-demand trend for food companies."

Until now, non-GMO soy crops cultivated for ideal traits have been prone to yield inconsistencies and have exposed farmers to seasonal failures beyond their control. These problems have been further compounded by limitations in seed variety, agricultural know-how and technological resources to ensure crop performance. In addition, the lack of dialog among the consumers – food companies – and their suppliers – traders, farmers and seed companies, has impeded progress along the supply chain.

"Despite the buzz surrounding high functionality of non-GMO soy and other legumes, grains and seeds, non-GMO soy is still in its infancy, making up only 7% of the total soy market," notes Dana.

Using big data to optimize taste and texture

An Innova Market Insights consumer survey showed that one in five US consumers “have eaten less meat over the past year.” Meat substitutes accounted for 14 percent of global meat launches in the first nine months of 2018, up from six percent in 2013.

Ensuring delicious flavor and appealing texture are two primary challenges in creating meat alternative products with soy protein. “There is a pronounced gap between customer-demanded organoleptic qualities that produce the tasty, appealing, nutritious meat-alternative products that are taking over the market, and the low-value varieties and qualities currently produced,” explains Sigal Meirovitch, PhD, Head of Protein Development for Equinom. “Consumers are seeking slaughter-free options but not at the expense of taste and texture.”

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The company’s proprietary algorithm and breeding techniques map out precise genomic crop characteristics to be rendered into highly desirable attributes. The system breeds for protein load, taste, texture and nutritional composition targeted to priority soy applications, including soymilk, tofu, fermented natto, miso and soy protein isolates. Crops are produced within a strictly non-GMO environment, with no gene editing or manipulation.

Dynamic dialog creates supply chain transparency

Equinom’s progressive business model bridges food ingredient companies and farmers – to boost cultivation of better for-you, non-GMO soy. “We work directly with food and ingredient companies to capture their specific requirements, while demonstrating soy’s full potential and extensive flexibility, as proven in the vast line of soy seed germplasm that our company has generated from years of breeding,” explains Dana.

Equinom communicates closely with grain handlers, providing them direct access to its breed-for-purpose seed collection for sowing optimal seeds from its germplasm. This limitless seed bank meets food companies’ specific demands, while ensuring complete transparency throughout the soy supply chain. The Equinom platform also cultivates distinct, value-added specialty crops that can fetch higher prices than commodities.

“Equinom’s high-resolution breeding program is taking charge of this agri-business sector, ushering in a new, more profitable era — and food companies are already reaping the benefits,” Dana concludes.