

Heritable Agriculture launches AI-driven biotechnology platform to improve crop yields and nutrition

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Google's Alphabet's Moonshot Factory incubated Heritable Agriculture, has now emerged from stealth as an independent company focused on improving food and agricultural systems through plant breeding and biotechnology.

As part of its mission to improve food and agricultural systems around the world, Heritable has developed an artificial intelligence platform to make plants programmable. The initiative will deliver higher yields, better nutrition, greater resilience to pathogens and climate stress, and faster seed breeding cycles at lower costs by making plants programmable with AI.

Heritable's AI platform was developed with funding from FTW Ventures, Mythos Ventures, Sunrise and Pioneer funds of SVG Ventures.

Dr. Brad Zamft, CEO and co-founder of Heritable Agriculture said, "Our AI-powered biotechnology platform has potential to address key challenges faced by the agriculture industry, including lowering crop improvement costs, boosting yields, enhancing disease resistance, and accelerating the development of new plant varieties."

Heritable Agriculture combines advanced AI, the expanding field of multi-omics, new methods of predictive breeding, and high throughput gene editing. Together, these technologies offer groundbreaking possibilities for breeding plants to perform better in specific environments, or dial up particular properties like nutrition, color, or flavor.

The Heritable platform offers agriculture partners three key services: identifying important genes, designing specific edits to manipulate those genes, and predicting plant performance in the context of the local environment and management practices.

“Heritable combines an exceptional team, industry-leading experience, a huge vision, and breakthrough technology. This aligns perfectly with our fund’s vision to solve the biggest challenges facing our worldwide food system,” said Brian Frank of FTW Ventures, who led the round.

Heritable’s founders are machine learning experts and plant biologists with deep expertise in agriculture, artificial intelligence, and plant biology. The team, which includes Dr. Davide Sosso and Professor Tim Beissinger, spent years together incubating Heritable at X, the moonshot factory, where they developed Heritable’s artificial intelligence and published experiments demonstrating the power of multi-omics data to improve plants and predict their performance even in new and changing environments. Dan Voytas, a National Academy of Sciences member who has led the field of plant gene editing both in academia and industry, has joined the team as a fourth co-founder.

Heritable’s vision extends beyond edible plants: they have teamed up with ArborGen, a global provider of tree seedlings, to expedite the development of superior loblolly pine trees. Initial research suggests Heritable’s AI can halve the time needed for tree improvement. Both companies are now actively integrating this technology into their seedling production.

“By combining cutting-edge AI with deep plant biology expertise, Heritable Agriculture is fundamentally reimagining how we improve crops to meet the growing demands of a changing planet.” said John Hartnett, Founder & CEO of SVG Ventures | THRIVE.

Jonathan Eng of Mythos Ventures says “Their ability to generate proprietary data, derive insights across diverse crop species, and build deep industry partnerships will allow them to address one of the most pressing challenges in food production today. This is truly revolutionize agriculture with AI.”