

Revolutionary novel technology ushers new era of crop productivity & sustainability

28 May 2024 | News

Ohalo announces the discovery of Boosted Breeding which doubles the yield potential of most agricultural crops



Ohalo announces the discovery of Boosted Breeding which doubles the yield potential of most agricultural crops

Ohalo announced the discovery of Boosted Breeding, an entirely new plant breeding technology that will revolutionize agriculture and sustainably improve crop productivity. Much like hybrid plant breeding systems discovered in the early twentieth century, Boosted Breeding introduces an unprecedented leap forward, with the potential to unlock unimaginable yield, change inefficient agronomic practices, and vastly increase the adaptability and resiliency of nearly any agricultural crop.

"The demands on agriculture have never been greater, with estimates that global food production must increase by at least 50% over the next 25 years, according to the UN," said Dave Friedberg, CEO of Ohalo. "At the same time, crop growing regions are shifting, and food production is becoming increasingly more volatile due to changing weather patterns. Boosted Breeding will accelerate agriculture adaptation and increase productivity, helping crops survive and thrive in new environments while reducing the cost and footprint of agriculture."

Boosted Breeding

Ohalo's Boosted Breeding system enables each parent plant to pass its entire genome to its offspring, rather than a random half of the genes of each parent. These new Boosted offspring plants then possess an expanded genome containing all of

the genes from each parent, unlocking the following major benefits:

- **Combining Beneficial Traits** - Because parent plants pass on a random selection of half of their genes to their offspring in traditional plant breeding, combining beneficial traits (like disease resistance or drought tolerance) is difficult and time-consuming, sometimes taking decades or longer to accomplish, and often requiring trade offs in plant health and growth. Boosted plants immediately inherit all the beneficial traits of both parents, allowing for an unprecedented improvement in Boosted crops.
- **Vastly Increased Health and Growth** - With a larger genome, Boosted plants benefit from radically improved genetic diversity and the novel gene networks that arise as a result, leading to plants that are healthier and grow bigger and faster, with overall yield gains of 50-100%+ in early trials.
- **Genetically Uniform True Seed** - For many crops that are vegetatively propagated, like potatoes, instead of grown from seed, Boosted Breeding unlocks scalable seed-based planting systems for the first time. True Seed systems carry lower disease risk and require a fraction of the cost and time associated with vegetative propagation.

The Boosted Breeding discovery, resulting from nearly five years of research by Ohalo into the underlying mechanisms of plant reproductive biology, alters the reproductive circuits in parent plants using Ohalo's proprietary proteins and process. This discovery brings an unprecedented level of precision and speed to plant breeding that can deliver vastly improved varieties faster than ever before.