

## Corteva invents novel breeding technique to combat corn disease in crops

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Corteva Agriscience has invented a breakthrough gene editing technology that will bring added protection to elite corn hybrids is advancing through the company's R&D pipeline. The early-stage concept uses proprietary technology to package multiple disease-resistant native traits into a single location in the gene to better address the most devastating North American corn diseases facing farmers.

In 2021, Northern leaf blight, Southern rust, gray leaf spot and anthracnose stalk rot combined to cost North America corn growers more than 318 million bushels in production. By using gene editing to combine and reposition disease resistant traits that already exist within the corn genome, Corteva is able to bolster disease tolerance and minimize production stress. Additionally, the technology could result in healthier plants and increase yield potential even further.

"This transformational technology represents the next generation of plant breeding innovation. The gene mapping capabilities have allowed us to identify and optimally position the best native resistant genes in our already high-performing hybrids, so that we can deliver a premium product to farmers," said Sam Eathington, Chief Technology and Chief Digital Officer, Corteva Agriscience.

As plant disease continues to be a growing concern for farmers, the multi-disease resistance concept is intended to simplify disease management and improve sustainability by reducing the need for additional crop protection product applications. This advancement will also meet Corteva's sustainable innovation criteria for new products, which are based on the United Nations Sustainable Development Goals. The company anticipates this concept to advance to commercialization by the end of the decade.