## **Corteva Agriscience is leading** the way in seed genetics

At Corteva Agriscience, we're dedicated to protecting farmers' yields, their land and the world's food supply. As a company that's 100% focused on agriculture, farmers are at the heart of everything we do. We work tirelessly to meet farmers' needs and find solutions to challenges they may face in the field.

To meet those needs, we strive to be a leader in seed genetics technology. Our R&D organization is always innovating-working to design, discover and develop innovative products that create value for farmers.

Over a century of continuous corn breeding, Corteva R&D has developed one of the industry's most evolved germplasm pool. Our scientists are using it to improve breeding methods, targeting genes and pathways to produce climate-resilient corn with lateplant integrity that yields 4-6 more bushels per acre.

One of those breeding methods is the use of native genes to create traits to help improve yield potential. Corteva has a patent-pending approach to accelerating native genetics for disease control. Instead of targeting many genes in many locations-which can lead to imprecise

genetic information-Corteva targets many genes in a single location for more precise gene information. This helps unlock the power of native genetics to target disease resistance and improve durability. Simplified genetics assembled through gene editing can accelerate plant breeding even more.

So, what can breeding done with native traits mean to your customers? Plant disease is a major challenge for growers. In North America alone, corn growers lost more than 318 million bushels in 2021 due to just four threats: northern leaf blight, southern rust, gray leaf spot and Anthracnose stalk rot.<sup>1</sup> Improving crops' genetic resistance to these diseases could mean a significant improvement in a farmer's yield-and their bottom line.

Another way that Corteva is optimizing genes to improve yield performance is by developing reduced stature corn. The goal is a shorter stature plant that will deliver an equivalent yield, but can resist lodging even in high-wind conditions, preserving yield.<sup>2</sup>

<sup>1</sup> Daren Mueller, Kiersten Wise, and Adam Sisson, "Corn Disease Loss Estimates from the United States and Ontario, Canada - 2021," Crop Protection Network, March 28, 2022, https://cropprotectionnetwork.org/publications/corn-diseaseloss-estimates-from-the-united-states-and-ontario-canada-2021.

<sup>2</sup> Pending based on early trial data.

100 years of

breeding and

germplasm

expertise

## CORTEVA AGRISCIENCE HAS...

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continuous corn

Created 12 million new genetic recombinants each year



Released approximately 300 new products annually



**Delivered an** average 8.3 bu/A yield advantage for growers







Reduced stature corn has the added benefits of climate resilience, higher plant density, reduced lodging and all season equipment access.<sup>2</sup> Marion Station, Aug. 10, 2021, 60mph straight line winds.

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