



SCiO Customer Case Study

Corteva Agriscience



The Challenge

Producing seed corn effectively is all about tracking and measuring with empirical precision and flawless optimization: a blend of genetics, weather, environment and management practices including agronomy, with one of the most "quantifiable" factors being seed moisture.

Corteva monitors seed moisture from the early stages of the kernel development, throughout the growing process, to harvest and until the corn is dried and shelled.

Corteva applied a standard procedure to determine seed moisture in the field - manual shelling and sampling of kernels. In this process, samples are sent to labs, where corn kernels were extracted, mixed, ground and tested. These processes are lengthy, expensive, and require diligent monitoring of the process.

When time is of the essence for making the best agronomic decisions or quickly moving harvest equipment, any delays due to moisture testing can have a big impact.



Company Profile

Name: Corteva Agriscience

Sector: Agriculture

Location: Headquarters in Wilmington, Delaware

Revenues 2019: \$13.85B

Employees: Approx. 21,000

Description: Offering solutions that combine genetics, chemistry, and precision agriculture, Corteva Agriscience helps farmers maximize the value of their investment through high-performing genetics and effective science-based solutions that help optimize yield and crop quality.



The Solution

Consumer Physics collaborated with Corteva to collect thousands of corn samples and develop a robust calibration model for estimating corn moisture using SCiO. As a result, SCiO is now used in thousands of fields globally to measure corn seed moisture instantly right in the field, minimizing the overhead of time, expense, or transporting the samples to specialized labs. This solution accurately tests moisture levels from 8%-80%; it is non-destructive and enables increased scanning frequency to cover larger areas for better representation.

Corteva's technical team was able to easily integrate these real-time seed moisture results into their existing field management software. The process was quickly deployed to make seed moisture results instantly available to others needing to help with management decisions, regardless of where they are located globally.

With precise, geo-referenced data, arriving seconds after measurements, Corteva now has an entirely new dimension of visibility for precise control and decision-making as the seed moisture data may be blended with other existing data layers, such as weather, soils, fertility, imagery and much more.

Result

Corteva's seed moisture monitoring process is simpler and more rapid, enabling more precise planning, streamlined logistics and more immediate response to moisture levels.

In the seed industry, predictable and assured processes open the door to higher reliability of producing products that provide consistently high quality and yield. SCiO is a tool that can enable higher visibility of seed moisture throughout the growing process, enable increased utilization of resources and more timely agronomic decision points.

