

# CSAT

Center for Seed Applied Technologies

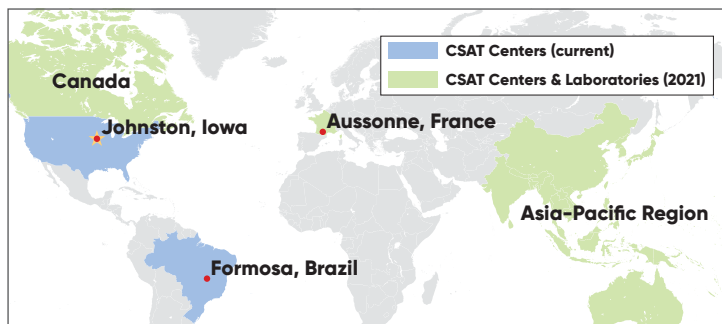
## A comprehensive approach to seed treatment development



Seed is often the most substantial investment farmers make in a season, and seed treatments are vital to protecting that investment. At our Center for Seed Applied Technologies (CSAT), Corteva Agriscience uses a rigorous process that encompasses discovery, formulation and real-world testing to ensure our seed treatments protect and perform to solve on-farm challenges and deliver value to farmers.

### CSAT functions

CSAT facilities are specially designed to enable comprehensive development and assessment of seed treatments. Part laboratory, testing center and seed treating plant, Corteva CSAT locations deliver confidence—in seed treatment application, performance and on-farm results.



Our flagship CSAT Center in Johnston, Iowa, is part of a growing network of CSAT facilities to serve farmers around the world.

### Recipe development

- Understand farmer needs
- Bring together novel actives and known ingredients to address environmental, disease and emergence challenges
- Test recipes for performance in real-world environmental conditions

### Application

- Examine compatibility, coverage and appearance, dry-down
- Optimize the application process
- Assess treated seed for abrasion and dust-off

### Testing

- Evaluate treated seed for handling properties, including flowability
- Simulate planting processes to check for seed drop, singulation and placement
- Replicate a range of treatment and storage conditions in our environmental chamber (testing in temperatures from 32°–115° F and 20–80% humidity)

### Scale-up

- Treat seed in large-scale settings typical to commercial application environments
- Ensure application confidence for production facilities, retailers and sales professionals
- Prepare seed treatments for commercial launch



# Seed treatments developed in CSAT facilities undergo our exclusive PASSER process, a six-step evaluation that measures key performance and use factors for seed treatments.

## Regulatory



### Meeting regulations and guidelines

Corteva works closely with global regulatory agencies so that our seed treatment products meet regulatory guidelines and farmers have market access for crops harvested from treated seed.

## Plantability



### Maximizing seed flow and planting precision

Corteva Agriscience™ seed treatment recipes are tested using planting simulators in our CSAT labs, checking for accurate seed drop, singulation and placement.

## Application



### Refining processes to work across seed properties (size, shape, hybrid/variety) and environmental conditions

Products and combinations are tested for consistent, uniform application, product adhesion and dust-off in a wide range of conditions.



## Efficacy



### Evaluating protection and vigor to confirm the seed treatment performs as expected, even in challenging environments

Corteva seed treatment products are specially selected for their agronomic characteristics to complement seed genetics. Our scientists also study how biological seed treatment ingredients may be impacted by other products, ensuring they retain their activity.

## Stewardship



### Minimizing potential adverse effects on people and the environment

Corteva seed treatments are evaluated to ensure they minimize exposure to off-target species and fit with responsible farming practices.

## Seed Safety



### Ensuring treatments don't adversely affect seed germination

Corteva carefully investigates every seed treatment recipe for any potential negative effects on germination. Treatments are studied extensively in our research laboratories and greenhouses, on more than 60,000 plots annually, and in the fields of real farmers throughout our testing network.

To learn more about Corteva Agriscience Seed Applied Technologies, visit [sat.corteva.com](https://sat.corteva.com)