

Agronomy 911: Can Inputs Save a Hailed-Out Crop?

Ken Coles Ongoing Research | 2015, 2016, 2017, 2018, and 2019 | Yield

This producer and agronomist heard about farmers applying fungicide or crop nutrients and seeing a comeback. Funding from APG allowed him to put this idea to the test.

Ken Coles has tried to salvage a hailed-out crop from two perspectives. First, his experience came as a farmer in the Coaldale, AB area.

“A number of years ago, on my own farm, we had hail and I went looking for information on whether there was anything I could do,” Coles said. “I was just flabbergasted at how little information is out there on how to deal with hail-damaged crops. There’s really nothing available and it puts you in a very uncomfortable situation.”

More recently, as General Manager of Farming Smarter, Coles began to hear stories about farmers who succeeded – at least partially – in keeping a hail-damaged crop growing and harvestable.

Simulation tool delivers ‘hail’ on demand

In 2014, with funding support from Alberta Pulse Growers and other groups, Coles began a four-year project to study the use of foliar fungicides and nutrient blends as potential hail recovery tools in pulses, cereals and oilseed crops.

The first thing he needed was hail. Because hail tends to be highly variable – lightly impacting one part of a field, while decimating another – Coles worked with Ralph Lange at Innotech Alberta to find a way to simulate it consistently.

By 2015, they’d settled on a round-linked dog chain with rotating drums, mounted on the front-end loader of a tractor. The total cost was \$4,000. Drive through a field with the simulator humming and the crop quickly resembles one that’s been damaged by hail. AFSC hail; adjusters were consulted to ensure that the damage assessments were an accurate reflection of how a field would be assessed after a hail event.

“In 2016, we started looking at the so-called rescue products,” said Coles. “With a very simple methodology, we went in and beat up different crops and then we applied the products.”

Over the next two years, Coles will continue and deepen his study of hail damage recovery. He’ll simulate hail at various growth stages in various crops, then assess how much certain fungicides and nutrient blends might help. An economic analysis will fill out the picture. The end-result should be precisely what Coles once lacked as a farmer himself: credible agronomic guidelines about what can, and can’t, be done to help a hail-damaged crop.

His early view is that claims of the miraculous performance of so-called rescue products should be taken with a grain of salt. So far, he hasn’t seen any big comebacks.

“My gut here is on that, on the rescue front, it will likely only be valid on the earliest hail damage,” Coles said. “If it’s a later hail, the rescue products could actually make it worse; they could actually be a negative. So far, it seems that timing of the hail damage seems to be more important than intensity.”

Project at a glance

Project title: Recovery of field crops from hail damage in Alberta using foliar fungicides and nutrient blends

Project lead: Ken Coles, Farming Smarter

Total value of project: \$200,000

Start date: March 1, 2015

Completion date: February 28, 2019