



Delaro[®] 325 SC Fungicide Applications on Corn

Trial Objective

- Fungicide applications are an in-season management decision that can provide value but deciding how often to apply a fungicide can be complicated.
- The objective of this trial was to look at the impact of single or multiple Delaro[®] 325 SC fungicide applications across several corn products.

Research Site Details

Location	Soil Type	Previous Crop	Tillage Type	Planting Date	Harvest Date	Potential Yield (bu/acre)	Seeding Rate (seeds/acre)
Gothenburg, NE	Hord silt loam	Sorghum	Strip tillage	4/30/20	10/31/20	250	36,000

- Experimental design was a split-plot with four replications per treatment. Fungicide application treatments correspond to the entire plot and the corn germplasm was the sub-plot. Three corn products were paired with two Delaro[®] 325 SC fungicide application programs and one non-treated check (Table 1).
- Corn was sprinkler irrigated with a total of 10 inches of irrigation applied in addition to 12 inches of rain received during the growing season.
- It was a relatively dry end to the growing season and minimal fungal disease development was found in the trial.
- Fertility applied included
 - » 70 lb phosphorus (P)/acre, 15 lb sulfur (S)/acre, and 27.5 lb nitrogen (N)/acre band applied with strip till on 4/26/20,
 - » 100 lb N/acre applied by stream bar on 4/28/20, and
 - » 15 lb S/acre and 90 lb N/acre applied with 360 Y-DROP[®] applicators on 6/26/20.
- Weed control consisted of a pre-emergence application of
 - » 3.0 oz/acre Balance[®] Flexx herbicide, 2.0 pt/acre Harness[®] brand herbicide, 1 qt/acre Atrazine 4L herbicide, and 1 qt/acre Roundup PowerMAX[®] herbicide on 5/1/20,
 - » Followed by a post-emergence application of 3.0 oz/acre Laudis[®] herbicide, 3 pt/acre Warrant[®] herbicide, and 24 oz/acre Moxy[®] 2E herbicide on 6/10/2020.
- Greensnap, shelled corn weight, and harvest moisture were collected at harvest as a measure of product and fungicide application performance.



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Table 1. Treatment information including corn product and Delaro® 325 SC fungicide application rates and timing.

Treatment	Corn Product Relative Maturity (RM)	Corn Growth Stage at Fungicide Treatment	Fungicide	Rate	Application Timing (Date)
1 2 3	112-RM 109-RM 113-RM	Non-Treated	None	Not Applicable	Not Applicable
4 5 6	112-RM 109-RM 113-RM	V5 + VT	Delaro® 325 SC fungicide	4 oz/acre	V5 (6/10/20)
			Delaro 325 SC fungicide	8 oz/acre	VT (7/24/20)
7 8 9	112-RM 109-RM 113-RM	VT	Delaro 325 SC fungicide	8 oz/acre	VT (7/24/20)

Understanding the Results

Table 2. Trial treatments and resulting average yield (bu/acre) and percent greensnap.

Treatment	Corn Product - RM	Corn Growth Stage at Fungicide Treatment	Average Yield (bu/acre)	Greensnap (%)
1	112-RM	Non-Treated	251.0	5.9
2	109-RM		240.9	18.0*
3	113-RM		235.2	7.5
4	112-RM	V5 + VT	251.7	4.3
5	109-RM		254.7	7.2*
6	113-RM		254.0	6.2
7	112-RM	VT	248.1	5.6
8	109-RM		247.4	10.9*
9	113-RM		251.6	7.4

*Indicates an interaction between the fungicide treatment and corn product. Least significant difference (LSD) (0.1) = 4.3.



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- Analysis showed that one of the corn products had a different greensnap response to Delaro® 325 SC fungicide treatment as detailed in Table 2.
- The 109-RM corn product had a lower percent greensnap with Delaro® 325 SC fungicide applied at the V5+VT growth stage.
- Analysis showed the 109-RM corn product had a positive response to fungicide application with Delaro® 325 SC by exhibiting reduced greensnap (Table 2) compared to non-treated control treatment.
- Overall, average yield was increased in this irrigated trial with the Delaro® 325 SC fungicide application at VT compared to non-treated control.
- The average yield of corn with Delaro® 325 SC fungicide program applied at V5+VT growth stages was significantly higher than the non-treated check plots.
- Greensnap mostly occurred in the late vegetative growth stage around V15 to V16 with a severe thunderstorm in the early hours of July 10, 2020.



Figure 1. Typical evidence of greensnap at the end of the season. Damage originated from high winds during a storm in mid-July 2020. Most snap occurred at or one node above the main ear.

Key Learnings

- In this specific field trial, the VT fungicide application complemented with early fungicide application (V5) increased yield by 11 bu/acre across all corn products in a low disease environment.
- A fungicide application can improve plant health and potentially reduce yield loss.
- Farmers should work with their local Bayer sales team member to decide if a fungicide application of Delaro® 325 SC could be beneficial to their corn production acres.

Legal Statements

The information discussed in this report is from a single site, replicated demonstration. This informational piece is designed to report the results of this demonstration and is not intended to infer any confirmed trends. Please use this information accordingly.

ALWAYS READ AND FOLLOW PESTICIDE LABEL DIRECTIONS. Performance may vary, from location to location and from year to year, as local growing, soil and weather conditions may vary. Growers should evaluate data from multiple locations and years whenever possible and should consider the impacts of these conditions on the grower's fields.

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