VT Corn Fungicides

In 2018 MiField Applied Research testing, corn response to fungicide applications at VT-R1 yielded 13.1 Bu/Acre higher than the growers' standard practice. A wide variation in environmental conditions that ranged from dry to extremely wet resulted in yield differences of 0 to 34 Bu/A between the fungicide treatments and the standard grower treatment. Areas with wet conditions during late vegetative through early reproductive stages, conducive to foliar disease development, resulted in a higher yield response than areas with insufficient rain and moisture. Results presented here reflect different products, locations, management practices, and soil types. To learn more about fungicide response in your area, speak with your FS crop specialist.

INSIGH ...

2018 Yield



TREATMENT	MOISTURE	YIELD (Bu/acre)	MOISTURE (+/-)	YIELD (+/-)	
2018 - VT Fungicide	17.5	245.1	0.4	+13.1	
Standard	17.1	232	0.4		
TREATMENT	MOISTURE	YIELD	COST	NET	
TREATMENT	MOISTURE	YIELD (Bu/acre)	COST (\$/acre)	NET \$/acre	
TREATMENT 2018 - VT Fungicide	MOISTURE	YIELD (Bu/acre) 245.1	COST (\$/acre)	NET \$/acre	

2018 Cost Average Inputs (VT Fungicide \$28.50/acre) Corn Sale Price \$3.86/Bu



VT Corn Fungicide



Previous Crop Analysis

Weather and cultural practices such as rotation and tillage play a critical role on disease severity and yield responses. In MiField trials we evaluated rotational management practices and their impact on fungicide response as indicated by corn yields on corn-on-corn versus rotated acres (following soybeans). We discovered that a fungicide application at VT-R1 on corn-oncorn had a higher overall yield and ROI response compared to rotated acres with 11.5 bu/A (\$15.89) higher than the grower standard. This demonstrates the value of fungicide applications on continuous corn fields, where higher disease inocula may result in higher disease risk than rotated fields. Under moderate or high disease pressure environments, however, rotated corn can also benefit from fungicide applications and an average yield response of 10.4 bu/A over the grower standard was observed in 2018 MiField trials.

2018 Yield



2018 ROI (\$/Acre)

8	9	10	11	12	13	14	15	16	17
cor +	N ON CO \$15.8	RN 39							
8	9	10	11	12	13	14	15	16	17
+	ROTAT N: \$11.6	TED =89 54							

CORN ON CORN	MOISTURE (%)	YIELD (Bu/Acre)	MOISTURE (+/-)	YIELD (+/-)	
2yr Avg – VT Fungicide	19.2	242.4	+0 E	+11.5	
Standard	18.7	230.9	+0.5		
ROTATION	MOISTURE	YIELD	MOISTURE	YIELD	
ROTATION	MOISTURE (%)	YIELD (Bu/Acre)	MOISTURE (+/-)	YIELD (+/-)	
ROTATION 2yr Avg – VT Fungicide	MOISTURE (%) 18.1	YIELD (Bu/Acre) 234.4	MOISTURE (+/-)	YIELD (+/-)	

2018 Cost Average Inputs (VT Fungicide \$28.50/acre)

Corn Sale Price \$3.86/Bu

Multi-year comparisons utilize yield, sale price, and economics for each respective year



VT Corn Fungicide Trends Three-Year Trends



ela									
8	9	10	11	12	13	14	15	16	17
+13	20 N: 3.1 Bu/	018 =51 Acre							
8	9	10	11	12	13	14	15	16	17
	3YR / N=:	AVG 190							
+12	2.5 Bu/	Acre							
) 15	16	17	18	19					
				10	20	21	22	23	24
+\$	2(5 22.(\$/	018)7 Acre			20	21		23	24
+\$	20 5 22.(\$/	018 07 Acre	18	19	20	21	22	23	24

Given the generally cool and dry environment late summer of 2018, we may expect an overall lower response to VT-R1 fungicide applications. Providing insight in adopting fungicide as a management practice we analyze multi-year corn response applications at VT-R1 which yielded 12.5 Bu/Acre better when compared to growers' standard practice. Referencing the environment that promotes disease pressure and thus increase response to fungicides, the data reflects the stark contrast in weather patterns between 2016 and 2018. Applying economics to yield response we can formulate how utilizing BMPs and targeting fungicide applications at VT-R1 can impact profitability.

TREATMENT	MOISTURE (%)	YIELD (Bu/acre)	MOISTURE (+/-)	YIELD (+/-)	YIELD (\$/acre)
2018 - VT Fungicide	17.5	245.1	+0.4	+13.1	+\$22.07
Standard	17.1	232			
3yr – VT Fungicide	18.2	240.1	10.4	112 E	10.00
Standard	17.8	227.6	+0.4	+12.5	+\$18.08

2018 Cost Average Inputs (VT Fungicide \$28.50/acre)

Corn Sale Price \$3.86/Bu

Multi-year comparisons utilize yield, sale price, and economics for each respective year

