



On-Farm Demonstration Trial: Crop Protection Studies Headline Amp® Fungicide Application on Corn

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Objective

Determine the effects of foliar fungicide application on corn yields to define best management practices.

Introduction

An application of foliar fungicide to corn and soybean has become a common practice for many farmers in Iowa. The effect of fungicide on corn and soybean yield, however, can vary from year to year. Environmental conditions, such as rainfall and temperature, influence disease development, which will determine whether a fungicide affects yield. Because environmental conditions vary from one year to the next, it is difficult to predict how and when to use a fungicide. The objective of this trial was to evaluate whether the application of the foliar fungicide Headline Amp® from BASF corporation would result in a significant yield difference.

Materials and Methods

Crop Year—2021

Trial	210103
Trial County	O'Brien
Soil Type	310B, 77B, 91, 92
Previous Crop	Soybean
Tillage	Conventional
Current Crop	Corn
Hybrid—Variety Number	P0421AM
Hybrid—Variety Company	Pioneer/Corteva
Row Spacing	30 in.
Seeding Rate	34,000/ac.
Planting Date	April 28
Harvest Date	November 1
Fungicide	Headline Amp 14oz./ac.
Fungicide Application	7/21/2021
Experimental Type	On-Farm Demo
Replications	4

Results

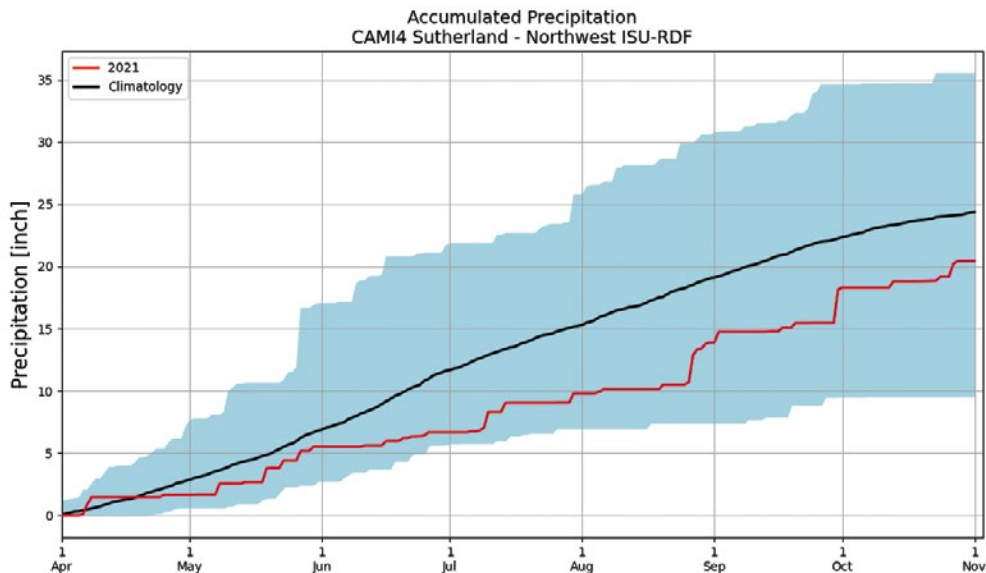
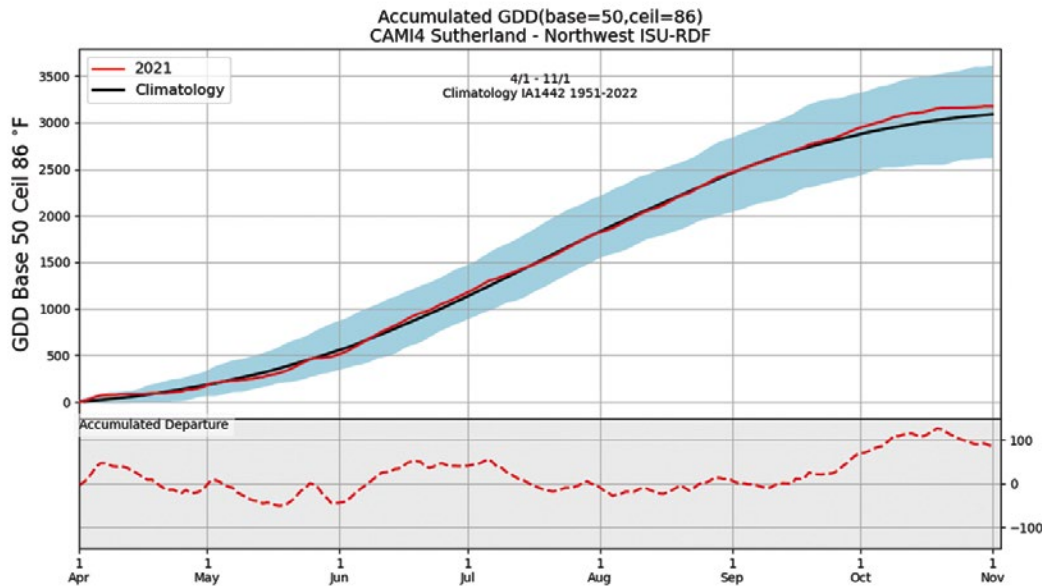
Trial Number	Treatment	Yield (bu./ac.) ^a	P-value ^b	Moisture	P-value ^b	Return on Treatment ^c
210103	Headline Amp® 14oz./ac.	245.3 a	0.18	18.9 a	0.44	\$1085.20/ac.
	Control	240.4 a		19.3 a		\$1089.00/ac.

^aValues denoted with the same letter within a trial are not statistically different at the significance level of 0.10.

^bP-value = the calculated probability that the difference in yields can be attributed to the treatments and no other factors. For example, if a trial has a P-value of 0.10, there is 90% confidence the yield differences are in response to treatments. This is consistent for demonstration trials.

^cProfit of Production based on \$17/ac. cost of Veltima® product and \$12/ac. application cost, \$4.53 corn commodity prices. ((Yield x Price)-Costs) Commodity price is the 2020 national average cash price for corn.

Location Climate Analysis



Key Takeaways

- The usage of Headline Amp® fungicide in this trial at a rate of 14 oz. per ac. applied on 7/21/21 did not result in a significant difference in yields when compared with the control group.
- The fungicide did not have a significant effect on grain moisture.
- With the increased cost of application and product, there was a loss of \$3.79 per ac. in profitability with the addition of the fungicide.

NOTE: The results presented are from replicated demonstration trials. Statistics are used to detect differences at a location and should not be interpreted beyond the single location.