



On-Farm Demonstration Trial: Crop Protection Studies Multiple Herbicide Weed Management Trial

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Objective

Determine the effects of insecticides and genetic traits on corn rootworm management to define best management practices.

Introduction

Farmers are faced with many decisions for weed management options as new technologies are introduced. Weed resistance is becoming a persistent and economically important problem in Iowa. Rotating herbicide modes of action and groups is a management strategy to slow the progression of resistance. The objective of this trial was to investigate what effect using a multiple herbicide approach might have on yields. This trial compared using the Enlist® product alone (2,4-D choline with Colex-D® technology) or combining it with a Metolachlor (group 15) addition. There were no pre-emergence or other herbicide treatments used in this trial.

Materials and Methods

Crop Year–2021

Trial	210116
Crop Year	2021
Trial County	Sioux
Soil Type	8B, 31, 91, 91B, 133, 310B, 310B2, 310C2, 428B
Previous Crop	Corn
Tillage	No-Till
Current Crop	Soybean
Hybrid–Variety Number	P20T64E
Hybrid–Variety Company	Pioneer/Corteva
Row Spacing	30 in.
Seeding Rate	140,000/ac.
Planting Date	April 30
Harvest Date	September 24
Experimental Type	On-Farm Demo
Replications	4
Herbicide Treatment	Enlist Only or Enlist + Metalachlor

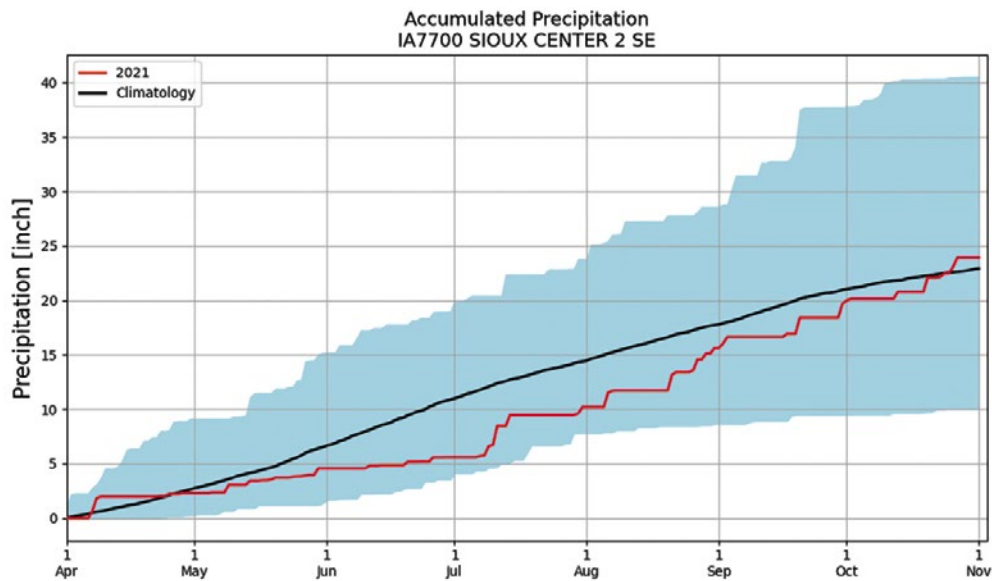
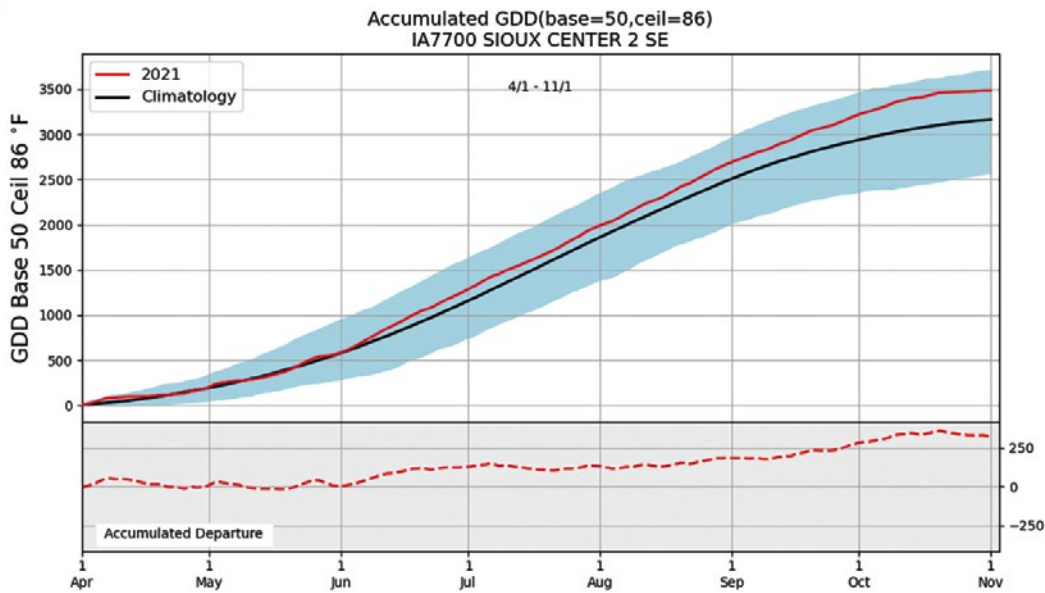
Results

Trial Number	Treatment	Yield (bu./ac.) ^a	P-value ^b
210110	Enlist + Metalachlor	77.9 a	0.72
	Enlist Only (Control)	76.8 a	

^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.

Location Climate Analysis



Key Takeaways

- There were no significant differences between the two treatments of herbicides in relation to yield.
- Weed pressure was low and not an issue in this trial in both treatments.

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.