

# On-farm Corn Fungicide Application Timing Trials

RFR-A1314

## Time of Application

Six on-farm trials were conducted in 2013 to compare the time of application of fungicides on corn yield (Table 1). In all trials, a fungicide was applied at V5-V6 and a fungicide was applied at VT-R1. In addition, a fungicide application was made at V5-V6 followed by a fungicide application at VT-R1. These three treatments were compared with an untreated control. The fungicides applied were Aproach®, Headline AMP®, and Priaxor®. All fungicides were applied by ground and all trials had at least three replications per treatment.

## Results

There was not a significant yield increase due to the fungicide applications in any of the trials at  $P=0.05$ , although the yield difference of about eight bushels/acre between the control and the Aproach® fungicide application at V5 in Trial 6 approached statistical significance ( $P=0.09$ ). See Table 2 for details on corn yields. There was a significant difference in yield between the two hybrids grown in Trial 4, but no significant difference between the treated and untreated plots within each hybrid. Although assessment of foliar diseases was not done in most of the trials, disease pressure was very low in the trials where it was assessed. The very low foliar disease incidence in 2013 was likely the reason there was little, if any, yield response to the fungicide applications.

**Table 1. Hybrid, row spacing, planting date, planting population, previous crop, and tillage practices in corn fungicide trials that compared time of application.**

Exp. No.	Trial	County	Hybrid	Row spacing (in.)	Planting date	Planting population (seeds/A)	Previous crop	Tillage
130140	1	Lyon	NK 53w	30	5/13/13	33,000	Corn	Fall disk, manure, spring disk
130141	2	Lyon	DKC 44-08	30	5/14/13	33,000	Corn	Spring disk
130408	3	Wright	DKC 49-29	30	5/13/13	36,000	Corn	Conventional
130702	4	Louisa	AgVenture 8351&8899	30	5/16/13	34,500	Soybean	No-till
130703	5	Washington	DKC 62-97	30	4/29/13	Variable	Soybean	No-till
130114	6	Plymouth	Pioneer P1151AM	30	5/13/13	34,500	Soybean	Soil finish

**Table 2. Corn yield from fungicide trials that compared time of application.**

Exp. No.	Trial	Treatment	Yield (bu/A)**	P-Value
130140	1	Control	183.7 a	0.65
		Priaxor @ 4 oz/A at V6	186.2 a	
		Headline AMP @ 10 oz/A at R1	187.6 a	
		Priaxor @ 4 oz/A at V6 followed by		
		Headline AMP @ 10 oz/A at R1	187.7 a	
130141	2	Control	195.1 a	0.44
		Priaxor @ 4 oz/A at V6	200.1 a	
		Headline AMP @ 10 oz/A at R1	196.5 a	
		Priaxor @ 4 oz/A at V6 followed by		
		Headline AMP @ 10 oz/A at R1	201.1 a	
130408	3	Control	199.6 a	0.50
		Priaxor @ 4 oz/A at V6	198.3 a	
		Headline AMP @ 10 oz/A at R1	200.2 a	
		Priaxor @ 4 oz/A at V6 followed by		
		Headline AMP @ 10 oz/A at R1	195.5 a	
130702	4a*	Control	193.2 a	<0.01
		Headline AMP @ 10 oz/A at VT	195.6 a	
		Priaxor @ 4 oz/A at V6 followed by		
	4b*	Headline AMP @ 10 oz/A at VT	197.4 a	
		Control	161.5 b	
		Headline AMP @ 10 oz/A at VT	164.0 b	
		Priaxor @ 4 oz/A at V6 followed by		
130703	5	Headline AMP @ 10 oz/A at VT	165.7 b	
		Control	213.8 a	
		Headline AMP @ 10 oz/A at VT	215.0 a	
		Priaxor @ 4 oz/A at V6 followed by		
130114	6	Headline AMP @ 10 oz/A at VT	218.0 a	0.09
		Control	222.7 a	
		Approach @ 4 oz/A at V5	230.7 a	
		Approach @ 6 oz/A at R1	221.7 a	
		Approach @ 4 oz/A at V5 followed by		
		Approach @ 6 oz/A at R1	227.0 a	

\*Hybrid for Trial 4a was AgVenture 8351 and hybrid for Trial 4b was AgVenture 8899.

\*\*Values denoted with the same letter within a trial are not statistically different at the significance level 0.05.