

Sunflower response to Headline fungicide, Carrington, 2007

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The trial had a randomized complete block design with three replicates. The dryland, conventional-till trial was established at the NDSU Carrington Research Extension Center on a Heimdal loam soil with 3.2% organic matter and 6.9 pH with wheat as the previous crop. Mycogen '8N386CL' oil sunflower were planted in 30-inch rows on May 21. Fungicide treatments were applied to the center 6.67 ft of 10 by 30 ft plots with a CO₂ pressurized hand-held plot sprayer at 17 gal/A and 35 psi through 8002 flat fan nozzles. The V4 treatment was applied on June 16 with 63 F, 83% RH, 25% clear sky, and 8 mph wind; the R2 treatment was applied on July 18 with 82 F, 58% RH, 60% clear sky, and 7 mph wind; and the R3 treatment on July 31 with 74 F, 87% RH, clear sky, and 9 mph wind. The trial was harvested with a plot combine on November 19.

Sunflower rust was present in the trial when visually evaluated on August 31 and September 25, but severity at 0 to 0.1% among treatments (data not shown). Sunflower development, and seed yield and oil were similar among treatments (Table). Test weight with the early Headline treatment was greater than the untreated check.

Table. Sunflower response to Headline fungicide, Carrington, 2007.

No.	Treatment				First Flower Jday	Maturity Jday	Seed Yield lb/A	Test Weight lb/bu	Oil %
	Name	Rate	Unit	Stage					
1	Headline	6	fl oz/a	V4	214	266	1023	28.7	40.8
	NIS ¹	0.25	%v/v						
2	Headline	6	fl oz/a	R2	215	266	972	28.2	40.0
	NIS	0.25	%v/v						
3	Headline	6	fl oz/a	R4	214	267	927	27.7	40.7
	NIS	0.25	%v/v						
4	Untreated check	x	x	x	214	266	882	28.1	41.2
Mean					214	266	951	28.2	40.7
CV (%)					0.1	0.2	20.6	0.9	2.4
LSD (P=.05)					NS	NS	NS	0.5	NS

¹NIS=Induce.