

WHEAT (*Triticum aestivum* 'IDO 377S')  
 Fusarium root rot; *Fusarium* spp.  
 Common root rot; *Bipolaris sorokiniana*  
 Rhizoctonia root rot; *Rhizoctonia solani*

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**Seed treatments for control of root rots in spring wheat in Bonneville County, ID, 2004.**

The trial was established in a commercial dryland field with 6 in. standing stubble in Bonneville County, ID. The field had been cropped to wheat and barley in the preceding years using a one pass Case IH ATX Concord direct seed drill. The soil type was a Tetonia silt loam classified as a coarse-silty, mixed, calcic, pachic cryoboroll with a pH of 6.3 and 2.6% organic matter. Experimental units (5 x 30 ft) were arranged in a randomized complete block design with 4 replicates. Fungicide seed treatments were applied as a slurry (18.4 fl oz/100 lb seed) on 9 Apr at rates indicated in the table. Seed for the check plots was only treated with water. Seeds were planted at 60 lb/A on 27 Apr with a direct-seed drill with Conserva Pak openers. The openers placed the fertilizer (75 lb/A N, 25 lb/A P<sub>2</sub>O<sub>5</sub>, and 16 lb/A S) 1.5 in. below the seed in a one-pass operation. The weeds and volunteer wheat were controlled by a 10 fl oz/A Round-up treatment on 25 Apr and a 0.3 oz/A application of Ally Extra on 21 May. Stand counts were recorded on 21 May at Feekes growth stage 1 (3 leaves). Fifteen plants per experimental unit were dug on 6 Jul at Feekes growth stage 10.1 to 10.5 (late boot to flowering) and rated for root diseases. Root disease severity was established by placing the plants into the following categories: 0 = none, 1 = trace, 2 = slight, 3 = moderate, and 4 = severe. Plots were harvested 29 Sept with a small plot combine. Yield and test weight were determined. Data were analyzed using the general linear models procedure (Proc GLM) in SAS. Fisher's Protected LSD was used for mean comparisons.

Yields were above average and not significantly different. Disease pressure from *Fusarium* spp. and *Bipolaris sorokiniana* was uniform and severity was slight to moderate. *Rhizoctonia solani* (based on spear-tip lesions) was not frequently observed on the roots. There were no significant differences between treatments based on parameters assessed. No phytotoxicity was observed.

Treatments and rate/100 lb seed	Stand (No./3 ft)	Diffuse brown lesions*		Yield (lb/A)	Test wt. (lb/bu)
		Incidence	DSI		
Untreated check .....	23.2	100	48	6624	59.33
KNF 2829 0.77 fl oz.....	20.8	97	42	4834	57.32
KNF 2829 1.15 fl oz.....	19.8	100	46	4713	56.44
KNF 2829 1.53 fl oz.....	21.8	97	34	5785	57.78
KNF 2826 3.06 fl oz.....	22.2	98	45	6022	58.35
KNF 2826 4.60 fl oz.....	20.4	100	45	5818	58.02
KNF 2826 6.13 fl oz.....	21.2	100	47	5387	57.36
KNF 2827 1.53 fl oz.....	22.5	100	56	5971	58.21
KNF 2827 2.30 fl oz.....	18.1	92	41	5426	57.84
KNF 2827 3.06 fl oz.....	21.6	100	57	5523	58.46
Raxil MD 6.5 fl oz .....	23.0	100	48	6185	58.54
Dividend Extreme 4 fl oz .....	22.9	100	43	6237	58.95
Flo-Pro IMZ 0.5 fl oz .....	24.5	100	50	5866	57.84
<i>P</i> > <i>F</i> **	0.9368	0.2352	0.6240	0.3331	0.1001
LSD ( <i>P</i> ≤ .05)	NS	NS	NS	NS	NS

\* We associate diffuse brown lesions with infection by *Fusarium* spp. and *Bipolaris sorokiniana*. Incidence = percentage of plants with that lesion type. Disease severity index (DSI) for a plot = (incidence X mean severity)/4.

\*\* *P* > *F* = the probability associated with the *F* value when using the Proc GLM procedure in SAS. LSD = Fisher's protected least significant difference value. NS = not significantly different.