

HRS wheat variety response to foliar fungicides, Carrington, 2006. (Blaine G. Schatz and Gregory J. Endres) The irrigated trial was planted at 1.2 million pure live seeds/acre (A) on May 9 on soybean ground (supplemental wheat straw spread after planting) at the NDSU Carrington Research Extension Center. Experimental design was a randomized complete block with a factorial arrangement and four replications. Stratego at 5 fl oz/A was applied to wheat at Feekes 2 to 5 stages and Tilt at 4 fl oz/A plus NIS (Induce) at 0.25% v/v was applied at Feekes 9 with a hand-boom plot sprayer equipped with 80015 flat fan nozzles delivering 17.5 gal/A at 40 psi. Folicur at 4 fl oz/A plus NIS (Induce) at 0.125% v/v was applied at Feekes 10.5.1 with TJ60 8002VS nozzles delivering 14 gpa at 35 psi. Flag leaf disease was visually evaluated on July 21 and Fusarium head blight (scab) was evaluated on July 26 at the soft-dough stage. The trial was harvested with a plot combine on August 15.

Table 1. HRS wheat variety response to foliar fungicide, Carrington, 2006 (main factors).

	Scab inc	Scab sev	Scab plot sev	Flag leaf dis	Plant height	Grain yield	Test weight	250 KWT	Protein		
Treatment	(%)	(%)	(%)	(%)	(cm)	(bu/A)	(lb/bu)	(g)	(%)		
Ada	30	19	6	9	84.9	79.7	60.1	8.56	14.7		
Alsen	31	26	9	3	89.4	66.2	59.9	8.23	15.3		
Bakker Gold	16	19	4	8	94.0	70.7	57.6	8.01	14.0		
Bigg Red	23	19	4	6	97.1	67.5	59.1	8.43	14.7		
Briggs	35	39	14	4	88.8	78.1	60.1	8.95	15.1		
Dapps	28	26	7	4	97.8	69.9	58.4	8.83	16.2		
Fireball	20	14	3	8	84.3	64.3	57.3	7.15	15.7		
Freyr	24	18	5	13	86.8	71.1	58.7	8.06	14.6		
Glenn	23	18	5	6	94.8	79.4	62.5	8.8	15.4		
Granger	38	29	10	12	91.9	66.3	58.7	9.79	15.3		
Hanna	22	16	4	7	97.0	73.2	59.3	9.04	15.1		
Howard	44	16	8	6	89.6	83.2	60.0	8.49	14.7		
KW175	32	21	6	9	91.1	74.8	60.2	9.76	15.1		
Kelby	47	24	11	12	80.5	68.8	59.0	7.83	15.3		
Knudson	35	27	10	10	88.3	77.7	59.2	8.59	14.1		
ND803	41	16	7	6	91.6	73.1	59.8	8.64	15.0		
ND804	44	18	8	6	90.3	78.5	60.7	8.46	14.9		
ND805	31	15	5	6	90.6	88.3	59.6	8.97	14.6		
Oklee	33	25	9	7	88.9	68.3	60.5	9.02	15.5		
Polaris	23	21	5	5	94.0	69.9	58.8	7.76	14.1		
Rush	38	22	9	12	86.9	61.7	60.2	8.13	15.2		
Steele-ND	37	29	11	4	90.3	82.2	59.4	8.65	14.8		
Traverse	43	24	11	6	90.6	85.8	57.5	8.53	14.4		
Trooper	41	24	11	9	81.8	77.8	60.5	9.62	14.5		
LSD (0.05)	10	NS	5	5	3.0	5.5	1	0.44	0.3		
Fungicide untreated	33	21	7	8	89.9	74.3	59.5	8.60	14.9		
untreated	32	23	8	7	90.1	73.3	59.4	8.60	15.0		
mean	32	22	8	7	90	73.8	59.4	8.6	14.9		
LSD (0.05)	NS	NS	NS	NS	NS	NS	NS	NS	0.1		

Table 2. HRS wheat variety response to foliar fungicide, Carrington, 2006 (variety by fungicide).

Variety	Fungicide									Untreated								
	Scab Flag				Plant height	Grain yield	Test weight	250 KWT	Protein	Scab Flag				Plant height	Grain yield	Test weight	250 KWT	Protein
	Scab inc	Scab sev	plot sev	leaf dis						Scab inc	Scab sev	plot sev	leaf dis					
(%)	(%)	(%)	(%)	(cm)	(bu/A)	(lb/bu)	(grams)	(%)	(%)	(%)	(%)	(cm)	(bu/A)	(lb/bu)	(g)	(%)		
Ada	27	17	5	8	85	83.5	60.3	8.50	14.4	33	21	7	10	85	75.9	60.0	8.61	14.9
Alsen	35	20	8	4	88	65.2	60.0	8.22	15.2	27	31	10	3	91	67.3	59.9	8.25	15.4
Bakker Gold	18	25	5	8	94	69.2	58.3	8.12	13.9	13	11	2	7	95	72.6	56.6	7.87	14.1
Bigg Red	23	22	5	5	96	67.5	58.9	8.38	14.6	23	17	4	7	98	67.4	59.3	8.48	14.7
Briggs	37	40	15	4	91	79.5	60.0	8.91	15.3	33	38	12	4	86	77.1	60.1	8.98	15.0
Dapps	32	27	9	4	99	70.2	58.5	8.74	16.0	25	26	6	4	97	69.7	58.3	8.93	16.5
Fireball	25	11	3	8	83	63.1	57.0	7.07	15.8	15	18	3	9	86	65.5	57.7	7.22	15.7
Freyr	25	18	5	15	87	71.5	59.2	8.10	14.6	23	18	5	12	86	70.8	58.2	8.02	14.6
Glenn	20	13	3	6	96	79.6	62.5	8.79	15.3	25	22	7	5	93	79.3	62.5	8.80	15.5
Granger	50	22	11	16	92	63.6	58.6	9.71	15.4	25	36	9	7	92	68.9	58.8	9.87	15.3
Hanna	18	22	5	8	95	75.0	59.8	9.11	15.1	25	10	3	7	100	71.4	58.9	8.97	15.2
Howard	38	18	7	5	92	83.9	60.0	8.38	14.7	50	15	8	7	87	82.5	59.9	8.61	14.7
KW175	22	20	4	9	92	75.4	60.4	9.91	15.2	42	21	9	9	91	74.2	60.0	9.61	15.0
Kelby	53	24	13	11	80	68.6	59.4	8.04	15.3	40	23	9	13	82	69.1	58.7	7.62	15.4
Knudson	33	21	8	15	88	78.6	59.2	8.42	14.1	37	33	12	5	89	76.7	59.1	8.77	14.1
ND803	30	14	4	7	91	71.8	59.4	8.63	14.9	52	19	10	5	92	74.4	60.2	8.64	15.1
ND804	45	22	10	5	89	78.7	60.7	8.51	14.7	43	14	7	7	92	78.1	60.8	8.40	15.0
ND805	33	11	4	5	91	89.3	59.9	8.96	14.6	28	19	6	6	90	87.0	59.2	8.97	14.6
Oklee	45	31	13	6	88	68.4	60.4	9.12	15.5	22	18	4	7	90	68.3	60.5	8.92	15.5
Polaris	17	13	2	7	95	70.5	57.6	7.69	13.8	30	28	8	4	93	69.2	60.1	7.83	14.4
Rush	38	27	10	17	87	61.5	60.5	7.93	14.9	38	17	7	7	87	61.9	59.9	8.34	15.6
Steele-ND	38	27	11	5	90	84.3	59.8	8.69	14.8	35	31	11	3	91	80.1	59.0	8.62	14.9
Traverse	42	15	6	6	91	85.3	57.3	8.64	14.4	45	34	15	6	91	86.4	57.8	8.39	14.5
Trooper	45	24	13	8	83	80.9	60.9	9.89	14.4	37	25	10	10	81	74.7	60.1	9.36	14.6
mean	33	21	8	8	90	74.4	59.5	8.60	14.9	32	23	8	7	90	73.7	59.4	8.59	14.9
C.V. (%)	30.4	52.4	65.1	62.1	3.4	7.6	1.7	5.2	2.2	30.4	52.4	65.1	62.1	3.4	7.6	1.7	5.2	2.2
LSD (0.05)	NS	NS	14	NS	NS	NS	NS	NS	NS	NS	NS	14	NS	NS	NS	NS	NS	NS