

## **2007 Red River Valley On-Farm Yield Trials Spring Wheat**

Following are the results of the 2007 Red River Valley On-Farm Yield Trials. These regional trials were located throughout northwestern Minnesota.

### **About the Trials:**

The 2007 Red River Valley On-Farm Yield Trials were grown in 5 locations throughout the region. The locations, cooperators, and planting dates are summarized in Table 1. All trials were harvested, but the results of the Strathcona location were not included in the data analysis because of extreme variability. Very little, if any, lodging was observed this summer as evidenced by the lodging scores in Table 3

### **About the Entries:**

The entries of the 2007 Red River On-Farm Yield Trials, including the breeder and the year of release, are listed in Table 2. It should be noted that Howard, a 2006 release from NDSU, inadvertently was not entered in the trials in 2007 and therefore not included in the data analysis.

### **Interpretation of the Data:**

One-, two-, and three-year averages for grain yield are reported. Within the table, the varieties are listed alphabetically. No single location data is presented to avoid misinterpretation of data. Single environment data has to be interpreted with caution. Performance data across multiple environments, either single location/multiple year, or multiple location/single year, and/or a combination of years and locations is more reliable. Performance data of individual locations is only available upon request. No data may be reproduced without written consent of the author.

In each table, the highest performer for each trait is printed in bold. The grain yield in each table is expressed as a percentage of the trial mean with the overall mean in bu/acre listed below. Presenting the data this way allows for better comparisons over years. Secondly, variety selection is based on the relative ranking of the cultivars, rather than the absolute yield. Comparisons between varieties should only be made within each column and not between columns or between tables. In addition to the overall mean for the trial, the Least Significant Difference (LSD) is printed at the bottom of each column. The LSD is calculated using an alpha level of 5%. This indicates that, if and when the observed difference between two varieties is larger than the LSD unit, with 95% confidence the observed difference is a real difference rather than experimental error.

**Table 1** Location of the 2007 Red River Valley On-Farm Yield Trials.

<i>Location</i>	<i>Cooperator</i>	<i>Planting Date</i>	<i>Harvest Date</i>
Fergus Falls	Tom Jennen	May 2	August 8
Perley	Brian Hest	May 2	August 14
Oklee	Ray Swenson	April 27	August 9
Strathcona	Jim Kukowski	May 1	August 22
Humboldt	Gerald Olsonawski	April 19	August 10

**Table 2** Hard Red Spring Wheat entries in the Red River On-Farm Yield Trials (2005-2007).

<i>Breeder</i>	<i>Cultivar</i>	<i>Year Released</i>	<i>2005</i>	<i>2006</i>	<i>2007</i>
AgriPro Wheat	Knudson	2001	x	x	x
	Freyr	2005	x	x	x
	Kelby	2006		x	x
	Kuntz	2007			x
North Star Genetics	Polaris	2005	x	x	x
	Bakker Gold	2006		x	x
	Fireball	2006		x	x
	Hotshot	2007			x
NDSU	Alsen	2000	x	x	x
	Steele-ND	2004	x	x	x
	Glenn	2005	x	x	x
	Howard	2006		x	
	Faller	2007			x
NPSAS/FBC*	FBC-Dylan	2006			x
SDSU	Oxen	1996	x	x	x
	Briggs	2002	x	x	x
	Granger	2004	x	x	x
	Traverse	2006		x	x
Thunderbird Seeds	Cromwell	2007			x
	Norwell	2007			x
Trigen Seed Services	Banton	2004	x	x	x
	Hat Trick	2007			x
Univ. of Minnesota	Oklee	2003	x	x	x
	Ulen	2005	x	x	x
	Ada	2006	x	x	x
	RB07	2007	x	x	x
WestBred	Granite	2001	x	x	x
	Bigg Red	2004		x	x
	Trooper	2005		x	x
	Rush	2006		x	x
	Blade	2007			x
	Samson	2007			x
	Vantage	2007			x

\* Northern Plains Sustainable Agriculture Society/Farmer Breeder Club

**Table 3:** Grain yield expressed as a percentage of the trial mean across all locations in single year (2007) and multi-year (2005-2007) comparisons and agronomic characteristics of cultivars entered in the Red River Valley On-Farm Yield Trials.

Cultivar	Across All Locations						
	Grain Yield			1-Year data			
	1 year	2 year	3 year	Plant Height	Lodging <sup>1</sup>	Test Weight	Protein
	----- (% of mean )-----			(inches)	(1-9)	(lb/bu)	(%)
Ada	100.6	99.0	98.1	30.9	3	62.4	13.4
Alsen	93.1	95.1	93.6	31.4	2	61.3	14.4
Bakker Gold	96.5	94.3	-	33.5	1	60.2	13.2
Banton	93.6	101.2	97.2	32.9	1	62.3	14.1
Bigg Red	86.0	95.0	-	33.8	4	62.6	12.5
Blade	107.2	-	-	32.3	2	<b>63.6</b>	13.9
Briggs	103.9	109.1	105.3	32.9	3	61.7	14.5
Cromwell	106.9	-	-	33.0	2	62.7	14.0
Faller	117.7	-	-	33.1	3	61.1	13.2
FBC-Dylan	95.4	-	-	32.5	4	61.0	13.7
Fireball	92.5	93.5	-	29.6	1	59.1	<b>15.2</b>
Freyr	107.9	103.2	103.1	33.4	3	60.7	14.0
Glenn	102.2	102.2	101.3	<b>34.4</b>	2	63.5	15.0
Granger	100.0	107.1	105.2	33.9	3	60.6	13.7
Granite	91.6	93.7	89.2	30.5	1	61.5	15.1
Hat Trick	105.9	102.8	-	32.6	2	62.4	14.0
Hotshot	84.2	-	-	29.9	2	59.7	12.0
Howard	-	-	-	-	-	-	-
Kelby	93.9	98.2	-	29.0	1	61.3	14.4
Knudson	112.6	108.7	107.2	32.1	3	62.2	13.5
Kuntz	112.0	-	-	30.4	2	61.3	13.4
Marshall <sup>2</sup>	63.0	73.7	-	28.8	3	58.3	12.9
Norwell	90.4	-	-	34.3	2	60.8	13.6
Oklee	98.4	100.5	99.8	32.9	3	62.9	14.4
Oxen	94.8	96.0	94.2	32.0	3	59.6	13.3
Polaris	92.0	92.4	94.0	33.3	2	59.7	12.9
RB07	108.5	108.8	<b>108.8</b>	31.1	3	61.5	14.3
Rush	96.8	93.5	-	30.9	1	63.4	14.7
Samson	112.8	-	-	29.5	3	60.8	13.5
Steele-ND	110.8	107.7	104.8	34.1	3	62.2	15.1
Traverse	<b>118.7</b>	<b>118.2</b>	-	32.4	3	59.6	13.4
Trooper	91.9	98.0	97.3	29.5	3	62.5	13.2
Ulen	103.2	101.3	100.6	33.4	3	61.0	14.5
Vantage	94.5	-	-	31.0	1	62.7	14.8
C.V.	7.0	9.1	8.7	4.7		2.2	3.7
LSD (5%)	9.9	14.3	13.1	1.6		1.5	0.6
Mean	77.7	69.4	68.8	32.0		61.4	13.9

<sup>1</sup> 1=erect and 9 =flat

<sup>2</sup> Historical check

10/2/07