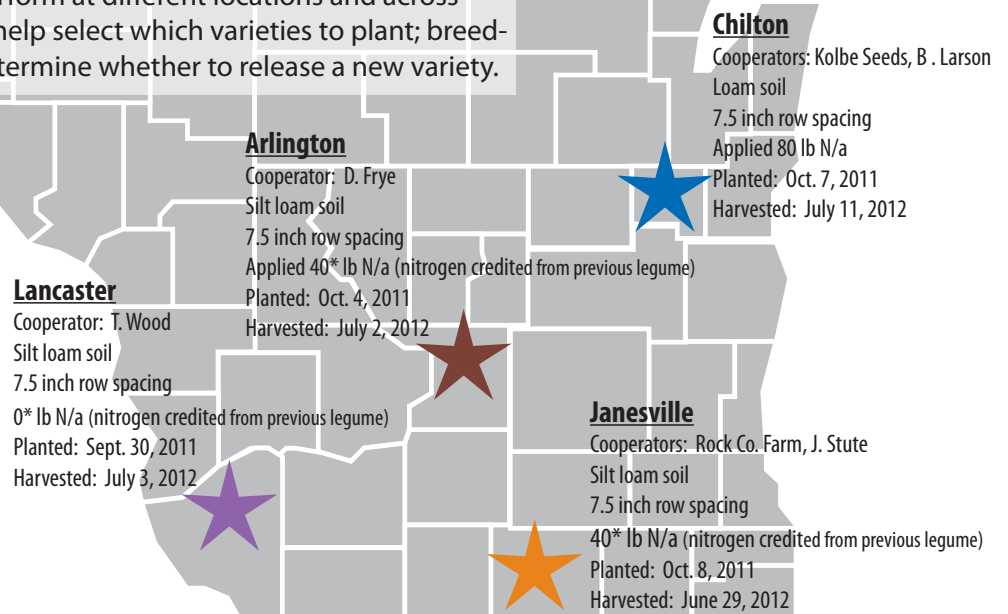


Wisconsin winter wheat performance tests: 2012

Shawn Conley, Adam Roth, John Gaska, and Mark Martinka

The Wisconsin Winter Wheat Performance Tests are conducted each year to give growers information to select the best-performing varieties that will satisfy their specific goals. The performance tests are conducted each year at four locations in Wisconsin: Arlington, Chilton, Janesville, and Lancaster. Trials include released varieties, experimental lines from University breeding programs, and lines from private seed companies. The primary objective of these trials is to quantify how varieties perform at different locations and across years. Growers can use this data to help select which varieties to plant; breeders can use performance data to determine whether to release a new variety.



2012 Year in Review

Acreage and Growing Conditions

Wisconsin saw a 25% decrease in winter wheat acres harvested (250,000) in the 2011-2012 growing season compared to the previous year. The forecasted yield for the 2012 crop is 69 bu/a, up 4 bu/a from last year. The decrease in winter wheat acres was largely due to high corn and soybean commodity prices. Wheat that was established in a timely manner last fall looked very good to excellent going into winter dormancy; however some areas had delayed emergence and poor fall growth due to late planting. Late planted wheat suffered from poor tiller development that led to thin stands and weed control problems. Wheat broke dormancy in March and continued to progress three weeks ahead of normal all season. A warm March followed by a cool wet April increased powdery mildew incidence and severity across the state. Early fungicide applications at the Feekes 3.0 growth stage lost effectiveness during stem elongation and required a second application to those varieties that did not possess genetic resistance to powdery mildew. Record low precipitation in June seemingly did not impact wheat yield or test weight. (Source: USDA National Agricultural Statistics Service)

Overall, winter wheat yield and test weights were excellent in 2012. Wheat yields at the Arlington, Chilton, Janesville, and Lancaster locations averaged 113, 107, 87 and 101 bu/a, respectively. No winterkill was noted at any location in 2012.

Diseases

Powdery mildew was the predominant disease noted in 2012 statewide. Barley yellow dwarf virus visual symptoms were also observed at all variety trial locations. Stripe rust appeared in mid-May at the Arlington site and significantly impacted those varieties that lacked resistance. The timing of flowering coincided with weather conditions that were not favorable for Fusarium head blight in 2012.

Using This Data to Select Top-Yielding Varieties

As with any crop, variety selection is the most important factor to consider in maximizing yield and profitability. When choosing a winter wheat variety, several factors must be considered. These include winter survival, insect and disease resistance, heading date, lodging, test weight, and most importantly, yield. Since no variety is ideal for every location, it is important to understand the crop environment and pest complex that affects your specific region to maximize yield.

► **Yield** is based on the genetic potential and environmental conditions in which the crop is grown. Therefore, by diversifying the genetic pool that is planted, a grower can hedge against crop failure. Select those varieties that perform well not only in your area but across experimental sites and years. This will increase the likelihood that given next year's environment—which you cannot control—the variety you selected will perform well. (Table 2. gives an overview of yields across all locations.)

► **Test weight** is also an important factor to consider when selecting a variety. The minimum test weight to be considered a U.S. #2 soft red winter wheat is 58 lb/bu.

Wheat at lower test weights will be discounted. Both environment and pests may greatly affect test weight; therefore, selecting a variety that has a high test weight potential in your region is critical to maximizing economic gain.

► Select a variety that has the specific **insect and disease resistance** characteristics that fits your needs. By selecting varieties with the appropriate level of resistance, crop yield loss may be either reduced or avoided without the need of pesticides. Careful management of resistant cultivars through crop and variety rotation are required to ensure that these characteristics are not lost.

► **Crop height and lodging potential** are also important varietal characteristics that may be affected by your cropping system. If the wheat crop is intended for grain only, it may be important to select a variety that is short in stature and has a low potential for lodging. This may decrease yield loss due to crop spoilage and harvest loss as well as increase harvesting rate. However, if the wheat crop is to be used as silage or is to be harvested as both grain and straw, then selecting a taller variety may be warranted.

Experimental Procedures

At Planting

Site details: Summarized in front page graphic.

Seedbed preparation: Conventional and conservation tillage methods.

Seeding rate: 1.5 million viable seeds per acre.

Seed treatments: Identified in Table 1.

Fertilizer and herbicides: Nitrogen was applied in spring according to UWEX recommendations. Phosphorus and potassium were applied as indicated by soil tests. Herbicides were applied for weed control as necessary.

Planting: A grain drill with a 9 row cone seeder was used to plant the plots, all 25 feet in length. To account for field variability and for statistical analysis, each variety was grown in four separate plots (replicates) in a randomized complete block design at each location.

Harvest

Yield: The center seven rows of each plot were harvested with a self-propelled combine. Grain was weighed and moisture and test weight were determined in the field using electronic equipment on the plot harvester. Yield is reported as bu/a (60 lb/bu) at 13% moisture content.

Lodging: Lodging scores were based on the average erectness of the main stem of plants at maturity. (1) all plants erect, (2) slight lodging, (3) plants lodged at 45° angle, (4) severe lodging, (5) all plants flat.

Data Presentation

Yield: Listed in Tables 2–6. Data for both 2011 and 2012 are provided if the variety was entered in the 2011 trials.

Least significant difference (LSD): Variations in yield and other characteristics occur because of variability in soil and other growing conditions that lower the precision of the results. Statistical analysis makes it possible to determine, with known probabilities of error, whether a difference is real or whether it may have occurred by chance.

Growers can use the appropriate LSD value at the bottom of the tables to determine true statistical differences. Where the difference between two selected varieties within a column is equal to or greater than the LSD value at the bottom of the column, there is a real difference between the two varieties in nine out of ten instances. If the difference is less than the LSD value, there may still be a real difference, but the experiment has produced no evidence of it. Data that is not significant is indicated by NS.

Testing Agencies

The Wisconsin Winter Wheat Performance Tests were conducted by the Departments of Agronomy and Plant Pathology, College of Agricultural and Life Sciences and the University of Wisconsin-Extension in cooperation and with support from the Wisconsin Crop Improvement Association.

Additional Information

Check the following publications for additional information on small grain production and seed availability. Both are updated annually.

- Pest Management in Wisconsin Field Crops (A3646) available at learningstore.uwex.edu
- The Wisconsin Certified Seed Directory available at wcia.wisc.edu

For information on seed availability of public varieties: Wisconsin Crop Improvement Association
554 Moore Hall, 1575 Linden Drive, Madison, WI 53706
(608) 262-1341, wcia.wisc.edu

To access crop performance testing information electronically, visit: www.coolbean.info

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Table 1. Brand and company information of 2012 entered varieties and seed treatments.

Brand & Company Information	2012 Varieties	Seed Treatments
Public WI Foundation Seeds (608-846-9761) www.wisconsinfoundationseeds.wisc.edu	Hopewell, Kaskaskia, Red Devil Brand, Sunburst	Dividend Extreme, Bio-Forge, Macho 600ST
Public-exp WI Crop Improvement Assn. (608-262-0167) wcia.wisc.edu	IL 07-20743 VA 06W-412, VA 08W-176, VA 08W-294	Dividend Extreme, Gaucho Raxil MD, Storicide II
AgriMAXX AgriMAXX Wheat Company (855-629-9432) www.agrimaxxwheat.com	413, Exp 1215	Dividend Extreme, Cruiser
Croplan Genetics Winfield Solutions (608-516-4636) www.answerplot.com	8309, 8614, 8925, 9012, 9101	Dividend Extreme
Diener BioTown Seeds (219-984-6038) www.biotownseeds.com	D 492, XW 13 D 498, D 501	Dividend Extreme Dividend Extreme, SabrEx, Ascend
Direct Direct Enterprises (317-910-2140) www.go2dei.com	Edge Quest, Sienna	Dividend Extreme Tebustar 250 ST, Metalaxyl
Dyna-Gro Dyna-Gro Seed (614-761-4110) www.dynagroseed.com	9042, 9053, WX 12603	Tebuconazole/Metalaxyl/Imidacloprid
Excel / VanTreek VanTreek Seed Farms (920-467-2422)	EXCEL 234	Dividend Extreme, Maxim 4FS, Storicide II, Micro King
Excel / Welter Welter Seed & Honey Co. (800-728-8450) www.welterseed.com	EXCEL 442	Dividend Extreme, Storicide II, Micro King
FS Seed Growmark, Inc. (309-557-6399) www.fsseed.com/midwest	FS 602, FS 622, FS 625, FS 630	Dividend Extreme, Cruiser
Jung Jung Seed Genetics (920-326-5891) www.jungseedgenetics.com	5820, 5844, 5855	Dividend Extreme, Cruiser
Legacy Legacy Seeds Inc. (715-467-2555) www.legacyseeds.com	LW 870, LW 1065, LW 1072, LW 1155, LW 1210, LW 1230, LW 1245, LW 1250, LXW 242	Sativa IM, SabrEx
Pioneer DuPont Pioneer (507-625-3045) www.pioneer.com	25R30, 25R34, 25R39, 25R40, 25R47	Dividend Extreme, Gaucho
PIP Partners in Production (877-GRO-SEED) www.pipseeds.com	702, 711, 717, 721, 722, 728, 729, 731, 732, 740, 752, 753, 756, 760, 761, 772, 774, 775, 778, 779	Charter
Pro Seed Genetics Pro Seed Genetics Cooperative (920-388-2824)	PRO 200, PRO 240, PRO 260, PRO 320A PRO Ex 310 PRO Ex 330, PRO Ex 350, PRO Ex 360A	Dividend Extreme, Bio-Forge, Macho 600ST Menenoxam/Difenoconazole/Imidacloprid Dividend Extreme, Cruiser
Pro Seed/Kratz Kratz Farms LLP (262-644-9426) www.kratzfarms.com	PRO 320A	Charter F2, SabrEx
Syngenta Syngenta Seeds (765-563-3111) www.agriprowheat.com	OAKES, W1104, MH07-7483, W1062 (soft white winter wheat)	Dividend Extreme, Cruiser
WestBred (765-572-2905) www.westbred.com	WBX 700	Dividend Extreme, Storicide II

Table 2. Combined 2012 winter wheat performance test results (continued on next page).

Brand	Entry	2012 means		Arlington		Chilton		Janesville		Lancaster		2011 mean
		Yield (bu/a)	Test wt. (lb/bu)	Yield (bu/a)	Test wt. (lb/bu)	Yield (bu/a)	Test wt. (lb/bu)	Yield (bu/a)	Test wt. (lb/bu)	Yield (bu/a)	Test wt. (lb/bu)	Yield (bu/a)
Public	Hopewell	99	61.9	110	62.6	101	61.2	86	62.3	100	61.5	88
	Kaskaskia	97	63.2	103	64.0	101	62.4	81	63.8	104	62.5	85
	Red Devil Brand	106	61.8	115	62.5	111	61.0	89	62.7	107	60.9	*94
	Sunburst	107	64.7	123	64.9	*113	63.9	89	65.3	101	64.6	87
Public-exp	IL 07-20743	94	64.2	102	66.0	92	62.8	85	64.2	98	63.7	80
	VA 06W-412	94	62.7	96	63.3	111	62.7	81	63.5	88	61.0	
	VA 08W-176	98	63.9	113	64.8	105	62.6	83	64.5	90	63.8	
	VA 08W-294	99	63.0	115	64.6	104	61.7	77	63.3	99	62.3	
AgriMAXX	413	109	61.3	120	62.5	107	59.1	*94	62.6	117	60.9	
	Exp 1215	111	60.0	128	60.8	*114	60.1	*102	60.0	96	59.0	
Croplan Genetics	8309	90	60.7	95	61.4	103	60.2	78	60.6	85	60.7	
	8614	101	61.1	108	62.3	102	58.6	*93	62.2	101	61.3	
	8925	100	62.0	113	62.5	108	61.9	83	62.4	98	61.1	
	9012	96	61.9	113	63.5	101	59.9	82	62.9	87	61.3	
	9101	111	61.8	121	63.1	110	60.4	*94	61.7	120	62.1	
Diener	D 492	109	61.2	121	62.4	*113	58.7	87	62.2	118	61.5	89
	D 498	107	62.8	123	64.2	108	60.9	87	63.8	111	62.1	*93
	D 501	92	61.9	106	63.3	90	59.3	81	62.5	90	62.4	
	XW 13	104	60.4	121	60.6	107	59.4	86	61.9	104	59.4	
Direct	Edge	100	62.1	116	63.3	94	59.6	88	62.8	101	62.8	
	Quest	105	60.4	120	61.0	109	59.4	86	61.0	104	60.2	86
	Sienna	104	60.1	116	60.8	104	58.7	*93	61.3	102	59.6	*93
Dyna-Gro	9042	113	61.3	129	61.9	*113	59.7	*95	62.2	112	61.3	*98
	9053	110	59.8	116	59.8	102	59.8	*100	60.0	*125	59.7	
	WX 12603	113	60.5	121	60.5	112	60.0	*102	60.7	117	61.0	
Excel / VanTreek	EXCEL 234	83	61.2	81	61.5	98	60.4	79	62.6	73	60.0	87
Excel / Welter	EXCEL 442	102	61.9	112	63.3	98	60.4	86	61.8	114	62.0	*93
FS Seed	FS 602	109	61.3	115	62.5	108	59.6	*98	62.2	115	60.9	
	FS 622	107	63.4	126	64.2	103	62.2	91	63.9	109	63.4	91
	FS 625	112	60.5	126	61.9	*115	59.6	*102	60.1	105	60.4	
	FS 630	103	61.9	104	62.9	*113	61.1	86	62.1	107	61.3	83
Jung	5820	101	61.9	117	63.6	97	59.3	89	63.2	100	61.5	
	5844	106	61.2	114	62.1	109	59.0	89	61.7	115	61.9	92
	5855	103	60.3	114	60.5	108	58.2	87	61.5	104	61.1	*94
Legacy	LW 870	84	60.0	85	59.0	105	60.4	70	60.0	76	60.6	
	LW 1065	99	61.9	107	62.4	*114	61.8	80	62.3	94	60.8	88
	LW 1072	79	60.6	84	61.7	97	60.4	71	62.3	61	57.7	86
	LW 1155	105	61.0	117	62.3	*117	59.4	89	61.8	96	60.6	90
	LW 1210	100	62.1	117	63.7	99	59.9	81	62.8	102	62.0	
	LW 1230	99	62.2	99	62.6	105	61.4	89	63.1	101	61.9	
	LW 1245	83	61.8	90	63.3	90	60.6	74	62.0	77	61.2	
	LW 1250	92	62.2	99	63.3	101	61.3	81	62.6	87	61.1	
LXW 242	99	61.8	109	62.5	104	61.6	87	62.7	95	60.4		

Table 2. Combined 2012 winter wheat performance test results (continued from previous page).

Brand	Entry	2012 means		Arlington		Chilton		Janesville		Lancaster		2011 mean
		Yield (bu/a)	Test wt. (lb/bu)	Yield (bu/a)	Test wt. (lb/bu)	Yield (bu/a)	Test wt. (lb/bu)	Yield (bu/a)	Test wt. (lb/bu)	Yield (bu/a)	Test wt. (lb/bu)	Yield (bu/a)
Pioneer	25R30	112	62.2	130	63.2	*114	61.0	87	62.6	117	61.8	*94
	25R34	*117	61.3	*139	61.9	*119	60.5	*102	61.5	103	61.0	*99
	25R39	*116	62.4	131	63.1	*113	62.2	*102	62.3	120	61.9	*96
	25R40	*122	62.6	*143	64.3	111	60.8	*101	62.7	*135	62.7	*93
	25R47	*117	60.8	*138	61.6	*119	59.7	*101	61.3	109	60.7	*94
PIP	702	104	60.2	120	61.0	102	58.4	79	60.6	114	60.7	*94
	711	98	61.0	102	61.5	104	60.9	*94	61.0	92	60.4	
	717	82	60.6	83	62.0	99	59.7	79	62.5	65	57.9	92
	721	113	60.6	128	60.9	*119	59.7	90	61.3	116	60.5	
	722	*114	60.4	131	61.2	*115	59.4	*101	60.4	109	60.7	
	728	98	61.4	111	63.1	101	60.2	78	62.0	100	60.1	92
	729	109	62.1	122	62.5	*113	61.6	89	63.0	113	61.2	*96
	731	101	61.8	108	62.1	111	61.4	84	62.4	101	61.2	91
	732	111	61.3	128	62.7	*122	59.7	87	61.8	108	60.9	
	740	105	61.3	123	63.2	111	59.3	87	62.1	99	60.6	91
	752	106	60.8	128	61.2	110	60.2	82	60.7	104	61.1	*93
	753	95	62.5	106	63.8	99	61.2	78	62.3	98	62.8	
	756	89	61.0	94	61.6	97	61.2	79	60.8	87	60.3	*94
	760	91	61.2	91	61.3	105	61.7	76	60.5	94	61.2	*95
	761	92	61.4	95	61.6	105	61.9	81	60.7	86	61.3	92
	772	103	61.9	111	62.0	111	61.4	*93	63.2	94	61.1	
	774	98	61.8	112	62.3	106	61.8	87	62.7	88	60.2	
775	101	61.7	111	62.2	111	61.3	87	62.7	95	60.5		
778	108	62.0	116	62.5	112	61.4	90	62.9	112	61.3		
779	90	61.1	90	61.9	102	60.8	81	60.6	89	61.0		
Pro Seed Genetics	PRO 200	93	61.0	95	61.8	104	59.7	87	62.9	83	59.5	84
	PRO 240	107	61.2	113	62.3	109	59.1	*96	62.1	110	61.1	92
	PRO 260	104	61.4	124	63.1	*114	60.1	79	61.7	97	60.6	*97
	PRO 320A	105	61.7	117	63.1	96	60.3	88	62.3	120	61.0	91
	PRO Ex 310	104	60.5	118	60.8	*115	59.2	79	61.0	105	60.8	
	PRO Ex 330	106	60.4	121	61.9	106	58.8	89	61.1	110	59.9	
	PRO Ex 350	106	60.3	123	60.9	*113	59.9	84	60.1	104	60.5	
	PRO Ex 360A	96	61.7	102	62.3	111	61.6	84	62.6	88	60.0	*93
Pro Seed/Kratz	PRO 320A	98	61.9	111	63.2	99	60.7	82	62.2	101	61.3	
Syngenta	OAKES	105	62.1	119	63.3	106	61.0	82	62.2	113	61.7	*95
	soft white winter wheat--> W1062	106	60.8	112	61.2	109	59.6	91	60.9	111	61.7	87
	W1104	109	60.6	123	61.3	108	59.6	86	60.4	119	61.2	*93
	MH07-7483	108	61.3	115	61.7	*114	61.1	88	60.8	114	61.5	
WestBred	WBX 700	87	60.6	94	61.3	105	60.9	74	60.5	76	59.2	
	Mean	102	61.5	113	62.3	107	60.5	87	62.0	101	61.1	89
	LSD(.10)	8	0.9	6	0.7	9	0.9	10	0.9	14	1.4	6

* Yield is not significantly different (0.10 level) than that of the highest yielding cultivar.

Table 3. Arlington site 2012 winter wheat performance test results (continued on next page).

Brand	Entry	2012 means				2011 means	
		Yield (bu/a)	Test wt. (lb/bu)	Height (in.)	Lodging (1-5)	Yield (bu/a)	Test wt. (lb/bu)
Public	Hopewell	110	62.6	43	1	97	60.3
	Kaskaskia	103	64.0	45	1	93	62.4
	Red Devil Brand	115	62.5	42	1	102	61.7
	Sunburst	123	64.9	36	1	95	61.8
Public-exp	IL 07-20743	102	66.0	45	1	88	64.3
	VA 06W-412	96	63.3	37	1		
	VA 08W-176	113	64.8	37	1		
	VA 08W-294	115	64.6	37	1		
AgriMAXX	413	120	62.5	36	1		
	Exp 1215	128	60.8	39	1		
Croplan Genetics	8309	95	61.4	40	1		
	8614	108	62.3	45	1		
	8925	113	62.5	42	1		
	9012	113	63.5	42	1		
	9101	121	63.1	40	1		
Diener	D 492	121	62.4	37	1	95	58.7
	D 498	123	64.2	40	1	98	61.4
	D 501	106	63.3	42	1		
	XW 13	121	60.6	39	1		
Direct	Edge	116	63.3	42	1		
	Quest	120	61.0	42	1	88	58.0
	Sienna	116	60.8	45	1	*107	60.6
Dyna-Gro	9042	129	61.9	39	1	*103	61.1
	9053	116	59.8	39	1		
	WX 12603	121	60.5	40	1		
Excel / VanTreek	EXCEL 234	81	61.5	41	1	97	62.1
Excel / Welter	EXCEL 442	112	63.3	43	1	*104	60.1
FS Seed	FS 602	115	62.5	37	1		
	FS 622	126	64.2	38	1	93	61.5
	FS 625	126	61.9	39	1		
	FS 630	104	62.9	44	1	88	60.6
Jung	5820	117	63.6	43	1		
	5844	114	62.1	45	1	100	60.8
	5855	114	60.5	45	1	100	60.5
Legacy	LW 870	85	59.0	41	1		
	LW 1065	107	62.4	40	1	96	61.8
	LW 1072	84	61.7	41	1	85	61.5
	LW 1155	117	62.3	37	1	93	58.7
	LW 1210	117	63.7	41	1		
	LW 1230	99	62.6	41	1		
	LW 1245	90	63.3	42	1		
	LW 1250	99	63.3	41	1		
LXW 242	109	62.5	40	1			

Table 3. Arlington site 2012 winter wheat performance test results (continued from previous page).

Brand	Entry	2012 means				2011 means	
		Yield (bu/a)	Test wt. (lb/bu)	Height (in.)	Lodging (1-5)	Yield (bu/a)	Test wt. (lb/bu)
Pioneer	25R30	130	63.2	38	1	*107	61.7
	25R34	*139	61.9	39	1	*111	60.3
	25R39	131	63.1	39	1	*111	61.7
	25R40	*143	64.3	36	1	*106	59.8
	25R47	*138	61.6	37	1	*104	60.1
PIP	702	120	61.0	44	1	*105	60.4
	711	102	61.5	40	1		
	717	83	62.0	40	1	96	61.9
	721	128	60.9	40	1		
	722	131	61.2	40	1		
	728	111	63.1	44	1	97	60.0
	729	122	62.5	42	1	*107	62.3
	731	108	62.1	42	1	98	61.2
	732	128	62.7	36	1		
	740	123	63.2	40	1	101	60.6
	752	128	61.2	40	1	102	61.2
	753	106	63.8	42	1		
	756	94	61.6	45	1	99	61.3
	760	91	61.3	45	1	*104	61.3
	761	95	61.6	44	1	101	61.0
	772	111	62.0	42	1		
	774	112	62.3	41	1		
775	111	62.2	38	1			
778	116	62.5	41	1			
779	90	61.9	44	1			
Pro Seed Genetics	PRO 200	95	61.8	47	1	88	62.4
	PRO 240	113	62.3	46	1	95	60.9
	PRO 260	124	63.1	39	1	102	61.1
	PRO 320A	117	63.1	44	1	*105	60.4
	PRO Ex 310	118	60.8	45	1		
	PRO Ex 330	121	61.9	42	1		
	PRO Ex 350	123	60.9	39	1		
	PRO Ex 360A	102	62.3	41	1	102	60.9
Pro Seed/Kratz	PRO 320A	111	63.2	44	1		
Syngenta	OAKES	119	63.3	40	1	100	62.4
	W1062 (soft white winter wheat)	112	61.2	43	1	99	60.0
	W1104	123	61.3	41	1	*108	60.1
	MH07-7483	115	61.7	43	1		
WestBred	WBX 700	94	61.3	41	1		
	Mean	113	62.3	41	1	97	61.1
	LSD(.10)	6	0.7	1.8	NS	8	0.6

*Yield is not significantly different (0.10 level) than that of the highest yielding cultivar.

Table 4. Chilton 2012 winter wheat performance test results (continued on next page).

Brand	Entry	2012 means				2011 means	
		Yield (bu/a)	Test wt. (lb/bu)	Height (in.)	Lodging (1-5)	Yield (bu/a)	Test wt. (lb/bu)
Public	Hopewell	101	61.2	35	1	71	55.7
	Kaskaskia	101	62.4	37	1	65	58.8
	Red Devil Brand	111	61.0	33	1	*84	58.6
	Sunburst	*113	63.9	29	1	*75	57.9
Public-exp	IL 07-20743	92	62.8	35	1	63	58.8
	VA 06W-412	111	62.7	30	1		
	VA 08W-176	105	62.6	32	1		
	VA 08W-294	104	61.7	31	1		
AgriMAXX	413	107	59.1	30	1		
	Exp 1215	*114	60.1	30	1		
Croplan Genetics	8309	103	60.2	32	1		
	8614	102	58.6	36	1		
	8925	108	61.9	33	1		
	9012	101	59.9	33	1		
	9101	110	60.4	33	1		
Diener	D 492	*113	58.7	29	1	67	55.2
	D 498	108	60.9	33	1	*77	57.6
	D 501	90	59.3	34	1		
	XW 13	107	59.4	30	1		
Direct	Edge	94	59.6	35	1		
	Quest	109	59.4	35	1	*77	54.2
	Sienna	104	58.7	38	1	69	55.6
Dyna-Gro	9042	*113	59.7	34	1	*86	56.7
	9053	102	59.8	31	1		
	WX 12603	112	60.0	34	1		
Excel / VanTreek	EXCEL 234	98	60.4	33	1	68	57.5
Excel / Welter	EXCEL 442	98	60.4	36	1	71	56.0
FS Seed	FS 602	108	59.6	29	1		
	FS 622	103	62.2	29	1	*78	57.9
	FS 625	*115	59.6	31	1		
	FS 630	*113	61.1	37	1	62	56.1
Jung	5820	97	59.3	34	1		
	5844	109	59.0	37	1	*76	56.0
	5855	108	58.2	38	1	*79	55.7
Legacy	LW 870	105	60.4	34	1		
	LW 1065	*114	61.8	33	1	*74	57.4
	LW 1072	97	60.4	33	1	63	57.7
	LW 1155	*117	59.4	29	1	66	55.6
	LW 1210	99	59.9	34	1		
	LW 1230	105	61.4	33	1		
	LW 1245	90	60.6	35	1		
	LW 1250	101	61.3	33	1		
LXW 242	104	61.6	33	1			

Table 4. Chilton 2012 winter wheat performance test results (continued from previous page).

Brand	Entry	2012 means				2011 means	
		Yield (bu/a)	Test wt. (lb/bu)	Height (in.)	Lodging (1-5)	Yield (bu/a)	Test wt. (lb/bu)
Pioneer	25R30	*114	61.0	31	1	68	57.2
	25R34	*119	60.5	31	1	*78	57.2
	25R39	*113	62.2	32	1	71	56.0
	25R40	111	60.8	28	1	62	56.2
	25R47	*119	59.7	30	1	71	55.7
PIP	702	102	58.4	38	1	*74	55.4
	711	104	60.9	34	1		
	717	99	59.7	33	1	*82	58.3
	721	*119	59.7	34	1		
	722	*115	59.4	31	1		
	728	101	60.2	36	1	*74	56.4
	729	*113	61.6	33	1	*76	58.6
	731	111	61.4	32	1	*74	57.1
	732	*122	59.7	29	1		
	740	111	59.3	34	1	*77	56.8
	752	110	60.2	34	1	71	56.5
	753	99	61.2	33	1		
	756	97	61.2	38	1	*79	56.4
	760	105	61.7	38	1	*82	56.7
	761	105	61.9	38	1	*77	56.5
	772	111	61.4	33	1		
	774	106	61.8	33	1		
775	111	61.3	33	1			
778	112	61.4	32	1			
779	102	60.8	39	1			
Pro Seed Genetics	PRO 200	104	59.7	37	1	64	57.3
	PRO 240	109	59.1	37	1	72	56.0
	PRO 260	*114	60.1	34	1	*85	57.0
	PRO 320A	96	60.3	37	1	64	56.2
	PRO Ex 310	*115	59.2	36	1		
	PRO Ex 330	106	58.8	35	1		
	PRO Ex 350	*113	59.9	33	1		
	PRO Ex 360A	111	61.6	33	1	66	56.5
Pro Seed/Kratz	PRO 320A	99	60.7	36	1		
Syngenta	OAKES	106	61.0	33	1	*78	59.1
	W1062 (soft white winter wheat)	109	59.6	35	1	65	55.8
	W1104	108	59.6	32	1	71	56.6
	MH07-7483	*114	61.1	35	1		
WestBred	WBX 700	105	60.9	34	1		
	Mean	107	60.5	33	1	71	56.9
	LSD(.10)	9	0.9	2	NS	12	0.7

* Yield is not significantly different (0.10 level) than that of the highest yielding cultivar.

Table 5. Janesville 2012 winter wheat performance test results (continued on next page).

Brand	Entry	2012 means				2011 means	
		Yield (bu/a)	Test wt. (lb/bu)	Height (in.)	Lodging (1-5)	Yield (bu/a)	Test wt. (lb/bu)
Public	Hopewell	86	62.3	34	1	82	60.4
	Kaskaskia	81	63.8	37	1	90	60.6
	Red Devil Brand	89	62.7	32	1	84	59.1
	Sunburst	89	65.3	29	1	83	61.5
Public-exp	IL 07-20743	85	64.2	36	1	77	61.0
	VA 06W-412	81	63.5	30	1		
	VA 08W-176	83	64.5	32	1		
	VA 08W-294	77	63.3	31	1		
AgriMAXX	413	*94	62.6	32	1		
	Exp 1215	*102	60.0	32	1		
Croplan Genetics	8309	78	60.6	31	1		
	8614	*93	62.2	36	1		
	8925	83	62.4	32	1		
	9012	82	62.9	34	1		
	9101	*94	61.7	33	1		
Diener	D 492	87	62.2	31	1	88	57.9
	D 498	87	63.8	33	1	89	59.6
	D 501	81	62.5	34	1		
	XW 13	86	61.9	32	1		
Direct	Edge	88	62.8	34	1		
	Quest	86	61.0	32	1	81	56.9
	Sienna	*93	61.3	36	1	93	58.5
Dyna-Gro	9042	*95	62.2	32	1	93	58.7
	9053	*100	60.0	31	1		
	WX 12603	*102	60.7	34	1		
Excel / VanTreek	EXCEL 234	79	62.6	33	1	83	59.0
Excel / Welter	EXCEL 442	86	61.8	36	1	90	58.5
FS Seed	FS 602	*98	62.2	32	1		
	FS 622	91	63.9	31	1	88	59.8
	FS 625	*102	60.1	33	1		
	FS 630	86	62.1	34	1	82	58.8
Jung	5820	89	63.2	35	1		
	5844	89	61.7	36	1	82	58.2
	5855	87	61.5	36	1	88	58.3
Legacy	LW 870	70	60.0	32	1		
	LW 1065	80	62.3	33	1	85	59.2
	LW 1072	71	62.3	31	1	86	59.6
	LW 1155	89	61.8	31	1	87	58.8
	LW 1210	81	62.8	34	1		
	LW 1230	89	63.1	34	1		
	LW 1245	74	62.0	32	1		
	LW 1250	81	62.6	31	1		
LXW 242	87	62.7	33	1			

Table 5. Janesville 2012 winter wheat performance test results (continued from previous page).

Brand	Entry	2012 means				2011 means	
		Yield (bu/a)	Test wt. (lb/bu)	Height (in.)	Lodging (1-5)	Yield (bu/a)	Test wt. (lb/bu)
Pioneer	25R30	87	62.6	32	1	89	59.5
	25R34	*102	61.5	33	1	88	58.5
	25R39	*102	62.3	31	1	91	59.4
	25R40	*101	62.7	30	1	91	58.2
	25R47	*101	61.3	33	1	92	58.0
PIP	702	79	60.6	35	1	92	58.7
	711	*94	61.0	35	1		
	717	79	62.5	33	1	89	59.9
	721	90	61.3	34	1		
	722	*101	60.4	33	1		
	728	78	62.0	36	1	89	58.9
	729	89	63.0	32	1	88	59.7
	731	84	62.4	32	1	87	59.9
	732	87	61.8	31	1		
	740	87	62.1	35	1	*101	58.5
	752	82	60.7	31	1	93	59.0
	753	78	62.3	32	1		
	756	79	60.8	35	1	91	59.5
	760	76	60.5	33	1	85	59.5
	761	81	60.7	36	1	86	59.1
	772	*93	63.2	34	1		
	774	87	62.7	34	1		
775	87	62.7	33	1			
778	90	62.9	33	1			
779	81	60.6	36	1			
Pro Seed Genetics	PRO 200	87	62.9	37	1	85	60.2
	PRO 240	*96	62.1	36	1	89	58.4
	PRO 260	79	61.7	33	1	*94	58.4
	PRO 320A	88	62.3	37	1	91	59.5
	PRO Ex 310	79	61.0	36	1		
	PRO Ex 330	89	61.1	33	1		
	PRO Ex 350	84	60.1	31	1		
	PRO Ex 360A	84	62.6	32	1	*94	59.7
Pro Seed/Kratz	PRO 320A	82	62.2	37	1		
Syngenta	OAKES	82	62.2	31	1	*94	60.2
	W1062 (soft white winter wheat)	91	60.9	34	1	80	58.7
	W1104	86	60.4	32	1	92	59.0
	MH07-7483	88	60.8	33	1		
WestBred	WBX 700	74	60.5	32	1		
	Mean	87	62.0	33	1	86	59.2
	LSD(.10)	10	0.9	2	NS	7	1.0

* Yield is not significantly different (0.10 level) than that of the highest yielding cultivar.

Table 6. Lancaster 2012 winter wheat performance test results (continued on next page).

Brand	Entry	2012 means				2011 means	
		Yield (bu/a)	Test wt. (lb/bu)	Height (in.)	Lodging (1-5)	Yield (bu/a)	Test wt. (lb/bu)
Public	Hopewell	100	61.5	40	1	100	57.7
	Kaskaskia	104	62.5	43	1	91	59.2
	Red Devil Brand	107	60.9	38	1	105	57.9
	Sunburst	101	64.6	34	1	96	60.1
Public-exp	IL 07-20743	98	63.7	41	1	93	59.2
	VA 06W-412	88	61.0	35	1		
	VA 08W-176	90	63.8	35	1		
	VA 08W-294	99	62.3	33	1		
AgriMAXX	413	117	60.9	36	1		
	Exp 1215	96	59.0	36	1		
Croplan Genetics	8309	85	60.7	38	1		
	8614	101	61.3	42	1		
	8925	98	61.1	39	1		
	9012	87	61.3	40	1		
	9101	120	62.1	39	1		
Diener	D 492	118	61.5	36	1	105	55.8
	D 498	111	62.1	39	1	*109	58.8
	D 501	90	62.4	39	1		
	XW 13	104	59.4	37	1		
Direct	Edge	101	62.8	40	1		
	Quest	104	60.2	38	1	97	56.2
	Sienna	102	59.6	42	1	101	56.5
Dyna-Gro	9042	112	61.3	38	1	*109	57.0
	9053	*125	59.7	36	1		
	WX 12603	117	61.0	40	1		
Excel / VanTreek	EXCEL 234	73	60.0	39	1	101	57.4
Excel / Welter	EXCEL 442	114	62.0	42	1	105	56.9
FS Seed	FS 602	115	60.9	35	1		
	FS 622	109	63.4	38	1	105	57.6
	FS 625	105	60.4	37	1		
	FS 630	107	61.3	41	1	100	59.4
Jung	5820	100	61.5	39	1		
	5844	115	61.9	42	1	*110	56.6
	5855	104	61.1	42	1	108	56.9
Legacy	LW 870	76	60.6	37	1		
	LW 1065	94	60.8	40	1	95	58.1
	LW 1072	61	57.7	37	1	*109	57.8
	LW 1155	96	60.6	34	1	*113	55.8
	LW 1210	102	62.0	41	1		
	LW 1230	101	61.9	39	1		
	LW 1245	77	61.2	38	1		
	LW 1250	87	61.1	38	1		
	LXW 242	95	60.4	36	1		

Table 6. Lancaster winter wheat performance test results (continued from previous page).

Brand	Entry	2012 means				2011 means	
		Yield (bu/a)	Test wt. (lb/bu)	Height (in.)	Lodging (1-5)	Yield (bu/a)	Test wt. (lb/bu)
Pioneer	25R30	117	61.8	38	1	*110	57.8
	25R34	103	61.0	36	1	*117	58.5
	25R39	120	61.9	37	1	*112	57.3
	25R40	*135	62.7	36	1	*113	55.8
	25R47	109	60.7	36	1	*110	56.0
PIP	702	114	60.7	43	1	104	56.7
	711	92	60.4	39	1		
	717	65	57.9	37	1	101	58.0
	721	116	60.5	40	1		
	722	109	60.7	36	1		
	728	100	60.1	42	1	107	56.7
	729	113	61.2	39	1	*113	58.3
	731	101	61.2	36	1	106	57.2
	732	108	60.9	34	1		
	740	99	60.6	39	1	84	55.8
	752	104	61.1	37	1	107	57.1
	753	98	62.8	37	1		
	756	87	60.3	41	1	105	58.6
	760	94	61.2	41	1	107	58.0
	761	86	61.3	40	1	102	57.9
	772	94	61.1	37	1		
	774	88	60.2	37	1		
775	95	60.5	38	1			
778	112	61.3	39	1			
779	89	61.0	41	1			
Pro Seed Genetics	PRO 200	83	59.5	42	1	99	59.1
	PRO 240	110	61.1	41	1	*110	57.9
	PRO 260	97	60.6	38	1	105	56.1
	PRO 320A	120	61.0	43	1	105	57.3
	PRO Ex 310	105	60.8	43	1		
	PRO Ex 330	110	59.9	39	1		
	PRO Ex 350	104	60.5	37	1		
	PRO Ex 360A	88	60.0	37	1	108	58.4
Pro Seed/Kratz	PRO 320A	101	61.3	42	1		
Syngenta	OAKES	113	61.7	38	1	106	58.2
	W1062 (soft white winter wheat)	111	61.7	41	1	105	57.0
	W1104	119	61.2	37	1	102	56.4
	MH07-7483	114	61.5	42	1		
WestBred	WBX 700	76	59.2	37	1		
		101	61.1	39	1	102	57.6
		14	1.4	2	NS	8	1.4

*Yield is not significantly different (0.10 level) than that of the highest yielding cultivar.