A3868

Wisconsin Winter Wheat Performance Trials

2018

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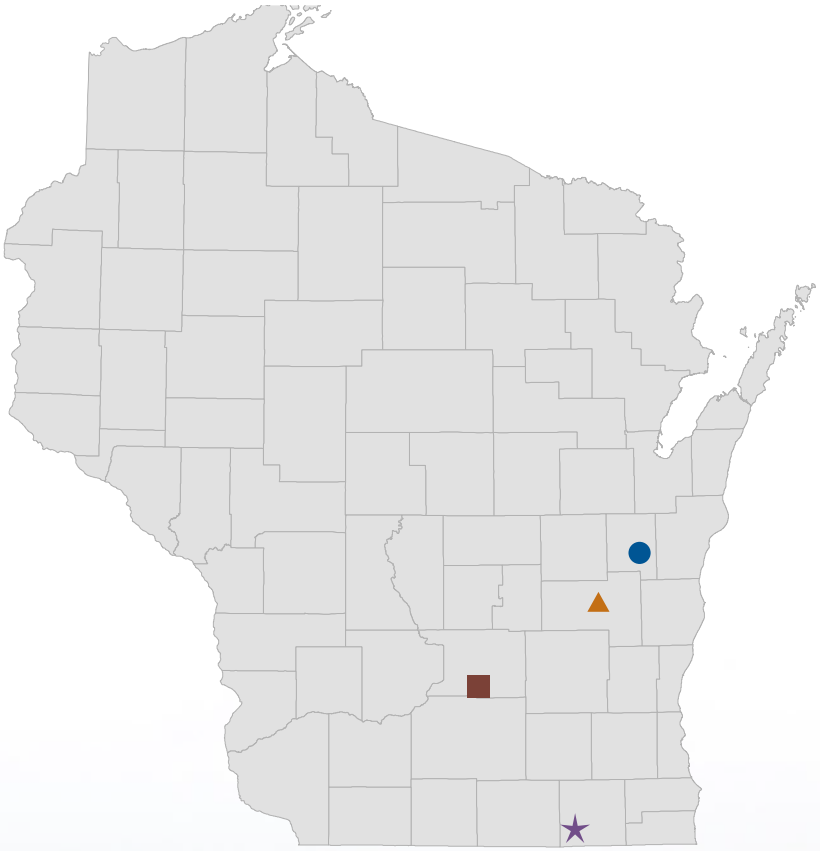
The Wisconsin Winter Wheat Performance Trials are conducted each year to give growers information to select the best-performing varieties that will satisfy their specific goals. The performance trials are conducted each year at four locations in Wisconsin: Arlington, Chilton, Fond du Lac and Sharon. 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.



Fond du Lac
Cooperator: Ed Montsma
Lomira silt loam
7.5 inch row spacing
Applied 55 lb N/a
Post-emergent herbicide: Huskie
Planted: September 26, 2017
Harvested: July 19, 2018

Arlington
Cooperator: Mike Bertram
Plano silt loam
7.5 inch row spacing
Applied 55 lb N/a
Post-emergent herbicide: Huskie
Planted: September 25, 2017
Harvested: July 18, 2018

Sharon
Cooperator: Mike Cerny
Plano silt loam
7.5 inch row spacing
Applied 55 lb N/a
Post-emergent herbicide: Huskie
Planted: September 29, 2017
Harvested: July 18, 2018

Chilton
Cooperator: Kolbe Seed Farms
Kewaunee loam
7.5 inch row spacing
Applied 55 lb N/a
Post-emergent herbicide: Huskie
Planted: September 26, 2017
Harvested: July 24, 2018

Acreage and Growing Conditions

Wisconsin saw a 9% increase in winter wheat acres planted (250,000) in the 2017-2018 growing season compared to the previous year; 210,000 acres are forecasted to be harvested for grain, compared to 170,000 in 2017*. The forecasted yield for the 2018 crop is 70 bu/a, up 2 bu/a from 2017. Wheat germinated late and had poor tiller development prior to winter dormancy. This led to some thin spring stands and weed control problems. Wheat broke dormancy in late April and crop development was delayed until above average June temperature expedited development. In general the crop was relatively short in stature. Frequent rainfall events delayed or prohibited many operations to the wheat crop including spring nitrogen, herbicide and fungicide applications.

Overall, winter wheat yield and test weights were below average in 2018. Wheat yields at the Arlington, Chilton, Fond du Lac and Sharon locations averaged 89, 78, 63, and 93 bu/a, respectively.

* Source: USDA National Agricultural Statistics Service (www.nass.usda.gov)

Diseases

Statewide, the major disease of winter wheat in 2018 was Fusarium head blight (FHB) caused by *Fusarium graminearum*. FHB could be found in many fields in the southern and southeastern portions of the wheat-growing region of the state. As one moved northward, levels of FHB quickly dissipated so that just trace levels could be found. In the variety trials throughout the southern and south-central part of the state, FHB hit some varieties moderately hard, causing head damage and deformed kernels. Varieties with genetic resistance to the disease performed well, especially at the Sharon and Arlington variety trial locations. FHB was very mild at the Fond du Lac and Chilton locations. This was consistent in commercial fields in the north-central and northern locations where winter wheat is grown.

Unlike the previous two seasons, stripe rust was non-existent in variety trials. We were also unable to find stripe rust in commercial fields that we scouted. This is likely due to the extremely cold winter of 2017/2018 combined with hot and dry conditions in the summer of 2018, both of which were not conducive for stripe rust.

Septoria leaf blotch and leaf rust were present in low levels in some fields throughout the state. However, these two diseases were not yield-limiting in 2018. Powdery mildew was nearly non-existent in the state for the sixth straight season. Cephalosporium stripe, caused by the fungus *Cephalosporium gramineum*, was prevalent at our Fond du Lac location in 2018. The pathogen causes leaf striping and plant stunting. Cephalosporium stripe is favored by cool wet conditions and reduced tillage.

Using Data to Select Top-Yielding Varieties

As with any crop, variety selection is the most important factor to consider in maximizing winter wheat 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 also 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 3 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 disease resistance** characteristics that fit your cropping needs. By selecting varieties with the appropriate level of resistance, crop yield loss may be either reduced or avoided without the need for pesticides. Careful management of resistant cultivars through crop and variety rotation are required to ensure that these characteristics are not lost.

- **Plant 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 on page 3.

Seedbed preparation: Conventional and no-till methods.

Seeding rate: 1.5 million seeds per acre.

Seed treatments: Identified in Table 2.

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.

Midseason

Disease assessments: Foliar disease assessments were made at all trial locations during June at Feekes 10.0 (emerging heads). Assessments were made in the field by visual estimation of incidence (number of plants with symptoms) and average severity (magnitude of damage on plants with symptoms) across the plot using pre-made rating scale diagrams generated using the Severity Pro software (F. Nutter, Iowa State University). Fusarium head blight assessments were made two weeks after the completion of anthesis at all trial locations. Entire plots were visually assessed for Fusarium head blight incidence and severity using pre-made rating scale diagrams.

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 13.5% 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 3-7. Data for both 2017 and 2018 are provided if the variety was entered in the 2017 trials.

Least significant difference: 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 least significant difference (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.

If an entrant is not listed for a brand, the entry was submitted either by the listed company or by the testing program.

Testing Agencies

The Wisconsin Winter Wheat Performance Trials 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, contact:
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

For more information on wheat production please also follow Dr. Conley on Titter @badgerbean

Please click for A Visual Guide to Winter Wheat Development and Growth Staging

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Table 1. 2018 Company Information

Brand (Entrant)	Company Name	Phone	Website
AgriMAXX	AgriMAXX Wheat Company	(855) 629-9432	www.agrimaxxwheat.com
Albert Lea Seed	Albert Lea Seed	(800) 352-5247	www.alseed.com
Beck	Beck's Hybrids	(800) 937-2325	www.beckshybrids.com
CROPLAN	Winfield United	(651) 375-6620	www.winfieldunited.com
Diener	BioTown Seeds Inc.	(219) 984-6038	www.biotownseeds.com
Dyna-Gro	Dyna-Gro Seed	(608) 752-2633	www.dynagroseed.com
FS Seed	Growmark, Inc.	(309) 242-3439	www.fsseed.com/midwest
Jung	Jung Seed Genetics	(800) 242-1855	www.jungseedgenetics.com
Kratz Farms	Kratz Farms, LLP	(414) 507-4631	www.kratzfarms.com
L-Brand (Ag Pro)	Ag Pro Enterprises, LLC	(920) 904-1758	www.limagraincerealseeds.com
L-Brand (Welter)	Welter Seed and Honey Company	(800) 470-3325	www.welterseed.com
Legacy	Legacy Seeds Inc.	(715) 467-2555	www.legacyseeds.com
Limagrain Cereal Seeds	Limagrain Cereal Seeds	(970) 498-2200	www.limagraincerealseeds.com
PiP	Partners in Production	(608) 335-2112	www.pipseeds.com
Pro Seed Genetics	Pro Seed Genetics Cooperative	(920) 388-2824	
Public	WI Foundation Seeds	(608) 846-9761	
Syngenta	Syngenta AgriPro	(309) 944-4661	www.agriprowheat.com
Van Treeck's	Van Treeck's Seed Farm	(920) 467-2422	
VCIA / VA Tech	Virginia Crop Improvement Association / VA Tech	(804) 746-4884	www.virginiacrop.org

Table 2. 2018 Entered Varieties and Seed Treatments

Brand (Entrant)	Variety	Seed Treatment(s)
AgriMAXX	413	PRIME ST
	438	PRIME ST
	463	PRIME ST
	473	PRIME ST
	475	PRIME ST
	485	PRIME ST
	486	PRIME ST
	Exp 1884	PRIME ST
	Exp 1899	PRIME ST
Albert Lea Seed	LCS 3204	None
Beck	730	Escalate
CROPLAN	CP8550	Nitro Shield IV, Warden Cereals II
	CP9415	Nitro Shield IV, Warden Cereals II
	CP9606	Nitro Shield IV, Warden Cereals II
Diener	D491W	Nitro Shield IV, Warden Cereals II
	D496W	CruiserMaxx, Vibrance
	D498W	CruiserMaxx, Vibrance
	D505W	Cruiser 5FS, Vibrance Extreme

Brand (Entrant)	Variety	Seed Treatment(s)
Dyna-Gro	9522	Awaken ST, Foothold Virock
	9701	Awaken ST, Foothold Virock
	9750	Awaken ST, Foothold Virock
	9862	CruiserMaxx, Vibrance
	WX17775	CruiserMaxx, Vibrance
FS Seed	FS 603	CruiserMaxx, Vibrance
	FS 615	CruiserMaxx, Vibrance
	FS 619	CruiserMaxx, Vibrance
	FS 624	CruiserMaxx, Vibrance
	WX18A	CruiserMaxx, Vibrance
	WX18C	CruiserMaxx, Vibrance
	WX18D	CruiserMaxx, Vibrance
Jung	5845	CruiserMaxx, Vibrance Extreme
	5850	CruiserMaxx, Vibrance Extreme
	5855	CruiserMaxx, Vibrance Extreme
	5888	CruiserMaxx, Vibrance Extreme
	5930	CruiserMaxx, Vibrance Extreme

Table 2. 2018 Entered Varieties and Seed Treatments

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Brand (Entrant)	Variety	Seed Treatment(s)
Kratz Farms	KF 15144	Cruiser 5FS, Vibrance Extreme
	KF 15241	Cruiser 5FS, Vibrance Extreme
	KF 15334	Cruiser 5FS, Vibrance Extreme
	KF 15639	CereUs IM, Centynal, Release LC
	KF 222	Evergol Energy, Gaucho
	KF 468	Evergol, Gaucho
	KF 553	Evergol, Gaucho
	KF 727	Evergol, Gaucho
L-Brand (Ag Pro)	L-304	Sativa IM RTU, SabrEx
	L-408	CruiserMaxx, Vibrance
	L-416	Cruiser 5FS, Vibrance Extreme
	L-418	CruiserMaxx, Warden Cereals HR
	L-424	Evergol Energy, Gaucho
	L-488	Cruiser 5FS, Dividend Extreme
	L-Star	CruiserMaxx, Warden Cereals II
L-Brand (Welter)	L-334	CruiserMaxx, Warden Cereals II
Legacy	LW 1155	Sativa IM RTU, SabrEx
	LW 1695	Sativa IM RTU, SabrEx
	LW 1745	CruiserMaxx, Vibrance
	LW 1776	Sativa IM RTU, SabrEx
	LWX 1785	CruiserMaxx, Vibrance
Limagrain Cereal Seeds	L11719	Cereus Trio, Cruiser 5FS, Release
PiP	706	Charter, imidacloprid
	707	Charter, imidacloprid
	714	Charter, imidacloprid
	715	Charter, imidacloprid
	716	Charter, imidacloprid
	720	Charter, imidacloprid
	721	Charter, imidacloprid
	735	Charter, imidacloprid
	736	Charter, imidacloprid
	744	Charter, imidacloprid
	745	Charter, imidacloprid
	748	Charter, imidacloprid
	749	Charter, imidacloprid
	750	Charter, imidacloprid
	751	Charter, imidacloprid
	753	Charter, imidacloprid
	754	Charter, imidacloprid
Pro Seed Genetics	PRO 260	CeresUS
	PRO 320A	Vibrance Extreme
	PRO 380	CeresUS
	PRO 410	CeresUS
	PRO Ex 440A	Cruiser 5FS, Vibrance Extreme
	PRO Ex 450	CruiserMaxx, Warden Cereals II
Public	Harpoon	Warden Cereals II
	Kaskaskia	CeresUS
	Kokosing	Cereus Trio, Release LC
	Red Devil Brand	Warden Cereals II
	Red Dragon Brand	Warden Cereals II
	Starburst	CereUs IM, Centynal, Release LC
	Sunburst	Cereus Trio, Cruiser 5FS, Release LC
	Whale	CeresUS
Syngenta	SY 100	CruiserMaxx, Vibrance
	SY 547	CruiserMaxx, Vibrance
Van Treeck's	Bonanza	Vibrance Extreme
	Echo	CruiserMaxx, Warden Cereals II
	XL 007	Vibrance Extreme
VCIA / VA Tech	VA12W-31	Provoke ST, Raxil-MD Pro

Table 3. 2018 Combined Winter Wheat Performance Trial Results

Brand (Entrant)	Entry	2018 3-test average[1] Yield (bu/a)	2018 3-test average[1] Test wt. (lb/bu)	Arlington Yield (bu/a)	Arlington Test wt. (lb/bu)	Chilton Yield (bu/a)	Chilton Test wt. (lb/bu)	Fond du Lac Yield (bu/a)	Fond du Lac Test wt. (lb/bu)	Sharon Yield (bu/a)	Sharon Test wt. (lb/bu)	2017 3-test average[2] Yield (bu/a)
AgriMAXX	413	* 90	53.4	92	53.1	81	54.9	* 64	51.7	* 98	52.3	92
	438	85	52.6	85	51.3	* 86	55.3	* 72	54.2	85	51.1	* 93
	463	88	55.1	* 93	55.7	73	54.7	62	52.5	* 97	54.9	92
	473	88	55.8	* 93	56.0	79	56.4	* 65	53.8	91	55.0	--
	475	88	56.4	92	56.5	78	56.8	* 68	55.2	95	56.1	--
	485	* 92	55.1	* 99	55.9	84	56.2	* 69	55.6	94	53.2	* 93
	486	88	55.5	89	55.8	80	55.5	63	53.0	* 96	55.5	* 98
	Exp 1884	* 92	54.6	* 94	54.9	80	55.0	* 69	53.6	* 101	53.9	--
	Exp 1899	* 89	54.3	90	53.3	82	56.2	* 68	53.9	95	53.4	--
Albert Lea Seed	LCS 3204	84	58.6	90	59.1	70	58.3	61	56.3	91	58.3	--
Beck	730	88	53.6	86	53.2	79	56.1	62	53.6	* 98	51.5	--
CROPLAN	CP8550	88	55.8	91	56.0	78	56.5	* 65	55.1	95	54.8	--
	CP9415	88	55.4	92	54.5	78	56.8	* 69	54.8	94	55.0	--
	CP9606	86	53.0	85	51.9	84	55.2	62	53.1	88	52.0	--
Diener	D491W	* 94	55.3	* 95	54.6	* 89	56.1	* 69	53.5	* 99	55.4	90
	D496W	87	55.1	89	55.5	76	54.9	54	51.8	* 96	54.8	* 96
	D498W	* 92	56.0	* 95	56.8	81	56.5	* 66	55.4	* 101	54.7	* 96
	D505W	* 90	55.0	91	55.4	81	55.2	* 67	54.1	* 98	54.4	--
Dyna-Gro	9522	* 89	54.4	* 93	53.7	83	55.9	* 64	54.3	91	53.5	* 96
	9701	* 89	55.6	* 94	56.0	76	56.3	* 67	54.2	* 96	54.6	* 94
	9750	87	54.9	* 93	55.5	73	54.6	61	52.8	* 96	54.6	* 94
	9862	* 91	54.6	* 95	54.5	81	55.7	* 67	53.9	* 98	53.6	* 93
	WX17775	* 92	54.2	* 95	54.7	80	55.2	* 67	51.8	* 100	52.8	--
FS Seed	FS 603	86	56.2	86	56.5	76	56.8	* 66	55.8	* 98	55.5	* 98
	FS 615	86	53.9	84	52.2	84	55.7	* 64	54.4	91	53.9	* 95
	FS 619	87	55.6	87	55.7	82	56.4	63	53.2	92	54.8	* 93
	FS 624	* 90	55.2	88	54.9	84	56.3	61	53.4	* 98	54.5	* 97
	WX18A	* 91	54.5	92	54.5	79	55.3	63	51.9	* 100	53.8	--
	WX18C	* 93	54.4	* 95	54.0	* 88	55.7	* 69	54.0	94	53.5	--
	WX18D	83	53.8	85	53.0	77	56.0	59	51.3	87	52.5	--
Jung	5845	85	54.8	87	55.9	72	55.9	63	55.5	* 96	52.7	85
	5850	83	53.9	89	54.1	76	57.0	61	53.7	84	50.4	88
	5855	88	54.7	* 94	54.8	78	56.1	* 64	53.7	91	53.3	90
	5888	86	54.5	* 94	55.0	74	56.0	61	52.4	90	52.6	90
	5930	85	55.2	89	56.1	73	56.6	60	54.4	92	53.0	79

* Yield is not significantly different (0.10 level) than that of the highest yielding cultivar [1] Fond du Lac was excluded from the multi-test average due to large coefficients of variation caused by Cephalosporium stripe [2] Chilton was abandoned due to severe winterkill

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Table 3. 2018 Combined Winter Wheat Performance Trial Results

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Brand (Entrant)	Entry	2018 3-test average[1] Yield (bu/a)	2018 3-test average[1] Test wt. (lb/bu)	Arlington Yield (bu/a)	Arlington Test wt. (lb/bu)	Chilton Yield (bu/a)	Chilton Test wt. (lb/bu)	Fond du Lac Yield (bu/a)	Fond du Lac Test wt. (lb/bu)	Sharon Yield (bu/a)	Sharon Test wt. (lb/bu)	2017 3-test average[2] Yield (bu/a)
Kratz Farms	KF 15144	82	54.5	82	54.2	74	56.0	56	53.9	91	53.5	82
	KF 15241	* 90	56.5	* 96	57.5	77	56.9	* 70	55.8	* 98	55.0	83
	KF 15334	80	56.2	80	57.0	75	57.6	61	56.0	86	53.5	92
	KF 15639	87	56.7	89	57.0	78	57.3	55	53.8	93	55.8	--
	KF 222	79	54.0	78	52.3	72	57.0	52	52.0	89	52.7	83
	KF 468	86	57.1	87	57.6	77	58.1	* 70	55.9	95	55.4	81
	KF 553	78	55.9	71	55.3	76	58.0	57	55.4	87	54.3	* 95
	KF 727	77	54.4	76	53.3	73	56.6	* 64	54.4	81	53.4	* 96
L-Brand (Ag Pro)	L-304	84	57.9	86	59.1	74	58.1	57	56.6	92	56.5	88
	L-408	81	53.8	82	53.5	79	55.9	63	53.8	83	52.0	--
	L-416	85	55.5	89	55.8	76	57.1	* 65	54.0	90	53.6	* 98
	L-418	84	56.7	88	57.8	71	57.1	59	56.6	93	55.1	--
	L-424	81	53.8	82	52.9	80	55.3	60	53.1	82	53.1	* 97
	L-488	81	54.7	81	54.5	76	56.9	* 65	54.1	85	52.9	--
	L-Star	* 91	54.2	* 93	54.1	84	56.6	* 74	54.6	* 98	52.1	* 100
L-Brand (Welter)	L-334	84	56.0	89	56.6	75	57.6	61	55.6	89	53.8	* 93
Legacy	LW 1155	84	53.7	89	53.4	70	55.8	58	52.4	93	51.9	92
	LW 1695	83	55.1	79	55.2	76	56.2	51	52.9	95	53.9	* 93
	LW 1745	88	56.4	91	56.8	76	57.0	56	53.4	* 97	55.6	* 98
	LW 1776	86	54.4	91	53.9	77	56.1	61	56.3	91	53.1	91
Limagrain Cereal Seeds	LWX 1785	88	55.0	* 93	55.6	71	54.7	61	52.4	* 99	54.8	--
	L11719	* 94	54.8	* 96	54.9	* 88	55.1	63	53.5	* 97	54.4	--
PiP	706	* 89	54.4	* 96	54.2	79	56.0	* 72	55.5	93	53.0	--
	707	86	53.9	85	53.2	82	56.9	* 64	53.7	92	51.5	--
	714	* 92	55.3	* 95	55.2	81	55.5	* 71	54.3	* 98	55.3	* 100
	715	* 90	55.9	* 96	56.0	80	55.7	61	52.7	95	56.1	90
	716	88	54.6	91	54.6	74	54.9	* 65	52.1	* 100	54.2	* 95
	720	86	55.4	* 93	55.4	76	56.9	* 67	53.8	88	53.9	* 94
	721	88	53.6	89	53.6	* 85	55.8	* 68	53.9	90	51.3	90
	735	* 94	54.6	* 95	54.5	* 88	55.4	* 68	53.9	* 100	54.0	89
	736	* 90	54.0	91	53.2	* 86	56.3	* 72	53.7	94	52.6	* 97
	744	* 90	53.1	* 93	52.8	77	55.0	* 64	52.3	* 99	51.5	* 94
	745	* 91	56.5	* 93	56.6	81	57.1	60	53.7	* 100	56.0	* 94
	748	88	54.2	86	54.1	* 85	55.4	* 73	54.7	92	53.2	--
	749	86	56.1	* 93	56.5	73	56.8	62	54.5	91	54.9	--
	750	86	56.7	86	57.2	74	56.9	* 69	54.6	* 99	56.1	--
	751	85	56.6	87	56.3	75	57.4	* 65	55.2	92	56.2	--
	753	86	58.0	91	58.7	72	57.6	58	56.9	95	57.8	--
	754	* 93	55.2	* 98	54.8	83	56.1	* 68	54.0	* 99	54.6	--

* Yield is not significantly different (0.10 level) than that of the highest yielding cultivar [1] Fond du Lac was excluded from the multi-test average due to large coefficients of variation caused by Cephalosporium stripe [2] Chilton was abandoned due to severe winterkill

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Table 3. 2018 Combined Winter Wheat Performance Trial Results

continued from previous page

Brand (Entrant)	Entry	2018 3-test average[1] Yield (bu/a)	2018 3-test average[1] Test wt. (lb/bu)	Arlington Yield (bu/a)	Arlington Test wt. (lb/bu)	Chilton Yield (bu/a)	Chilton Test wt. (lb/bu)	Fond du Lac Yield (bu/a)	Fond du Lac Test wt. (lb/bu)	Sharon Yield (bu/a)	Sharon Test wt. (lb/bu)	2017 3-test average[2] Yield (bu/a)
Pro Seed Genetics	PRO 260	87	54.2	* 93	54.2	79	56.7	57	51.8	91	51.5	87
	PRO 320A	80	56.9	88	57.6	70	57.8	54	54.8	79	55.3	92
	PRO 380	86	57.3	92	57.5	73	58.4	59	57.0	92	56.1	89
	PRO 410	88	55.1	86	54.8	83	56.1	54	51.4	95	54.4	* 97
	PRO Ex 440A	88	52.7	* 93	51.3	77	55.2	59	51.8	94	51.5	--
	PRO Ex 450	88	57.0	* 98	57.6	73	57.1	* 72	56.4	94	56.5	--
Public	Harpoon	88	54.6	90	55.1	75	54.4	* 64	53.2	* 99	54.3	* 95
	Kaskaskia	81	56.0	76	55.3	78	57.9	57	56.6	88	54.9	78
	Kokosing	79	55.4	78	55.9	70	56.1	59	53.2	88	54.3	--
	Red Devil Brand	82	56.4	83	56.9	73	57.4	56	56.0	90	54.8	88
	Red Dragon Brand	86	54.4	88	54.6	74	55.3	54	52.8	* 96	53.4	86
	Starburst	81	56.4	83	56.4	75	57.1	60	56.1	84	55.8	91
	Sunburst	78	56.7	81	56.6	70	57.3	53	55.3	82	56.3	87
	Whale	86	54.3	92	54.5	75	55.5	* 70	54.1	89	52.7	91
Syngenta	SY 100	87	50.9	85	50.1	* 86	53.0	* 64	50.8	88	49.8	* 94
	SY 547	87	56.2	92	56.4	74	56.7	* 68	54.8	* 96	55.5	* 94
Van Treeck's	Bonanza	85	55.3	88	55.6	74	56.9	63	54.6	94	53.6	* 94
	Echo	88	55.7	92	56.3	77	56.4	59	53.8	* 96	54.4	--
	XL 007	87	54.3	90	53.8	81	56.6	62	53.8	89	52.4	* 94
VCIA / VA Tech	VA12W-31	83	56.3	87	56.7	72	57.2	53	55.3	91	54.9	85
	Mean	**87**	**55.1**	**89**	**55.1**	**78**	**56.3**	**63**	**54.0**	**93**	**54.0**	**91**
	LSD (.10)	**5**	**1.2**	**6**	**1.2**	**4**	**0.6**	**10**	**1.8**	**5**	**1.5**	**7**

* Yield is not significantly different (0.10 level) than that of the highest yielding cultivar [1] Fond du Lac was excluded from the multi-test average due to large coefficients of variation caused by Cephalosporium stripe [2] Chilton was abandoned due to severe winterkill

Table 4. 2018 Arlington Winter Wheat Performance Trial Results

		2018 means							2017 means	
		Yield	Test wt.	Height	Lodging	FHB[1]		Winterkill[4]	Yield	Test wt.
Brand (Entrant)	Entry	(bu/a)	(lb/bu)	(in.)	(1-5)	I%[2]	S%[3]	(%)	(bu/a)	(lb/bu)
AgriMAXX	413	92	53.1	35	1.0	3	8	0	102	56.2
	438	85	51.3	36	2.3	10	14	0	105	54.5
	463	* 93	55.7	32	1.0	1	6	0	107	57.0
	473	* 93	56.0	37	1.8	25	6	4	--	--
	475	92	56.5	34	1.0	4	3	0	--	--
	485	* 99	55.9	34	2.0	8	3	0	106	57.4
	486	89	55.8	36	1.8	11	6	0	* 113	57.7
	Exp 1884	* 94	54.9	34	1.5	1	4	0	--	--
	Exp 1899	90	53.3	33	1.5	7	11	0	--	--
Albert Lea Seed	LCS 3204	90	59.1	38	1.0	1	6	0	--	--
Beck	730	86	53.2	34	1.5	9	7	3	--	--
CROPLAN	CP8550	91	56.0	37	1.3	24	5	3	--	--
	CP9415	92	54.5	33	1.3	8	5	0	--	--
	CP9606	85	51.9	34	1.0	10	15	4	--	--
Diener	D491W	* 95	54.6	34	1.0	1	8	0	104	55.4
	D496W	89	55.5	32	1.0	2	4	3	* 112	56.4
	D498W	* 95	56.8	34	1.0	3	5	0	* 108	58.2
	D505W	91	55.4	36	2.0	17	5	3	--	--
Dyna-Gro	9522	* 93	53.7	35	1.0	9	6	0	* 109	57.1
	9701	* 94	56.0	37	1.3	13	5	0	* 110	56.8
	9750	* 93	55.5	32	1.0	6	4	0	* 109	56.6
	9862	* 95	54.5	33	2.3	2	4	0	105	56.1
	WX17775	* 95	54.7	34	2.3	1	5	0	--	--
FS Seed	FS 603	86	56.5	33	1.0	3	4	0	* 108	57.1
	FS 615	84	52.2	35	1.0	2	9	0	106	56.7
	FS 619	87	55.7	37	1.0	1	14	0	105	57.4
	FS 624	88	54.9	35	1.0	13	18	0	* 109	57.9
	WX18A	92	54.5	34	2.3	2	8	0	--	--
	WX18C	* 95	54.0	35	1.0	6	9	0	--	--
	WX18D	85	53.0	35	1.0	12	13	0	--	--
Jung	5845	87	55.9	35	1.0	6	10	0	99	56.7
	5850	89	54.1	36	1.0	28	9	0	103	54.8
	5855	* 94	54.8	35	1.0	13	10	0	104	57.0
	5888	* 94	55.0	35	1.0	11	11	8	107	57.4
	5930	89	56.1	35	1.0	6	11	3	92	56.7

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

[1] Fusarium head blight [2] % incidence [3] % severity

[4] Winterkill = visual estimate taken at green-up of the % total plot stand loss due to winter injury

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Table 4. 2018 Arlington Winter Wheat Performance Trial Results

continued from previous page

		2018 means							2017 means	
		Yield	Test wt.	Height	Lodging	FHB[1]		Winterkill[4]	Yield	Test wt.
Brand (Entrant)	**Entry**	(bu/a)	(lb/bu)	(in.)	(1-5)	I%[2]	S%[3]	(%)	(bu/a)	(lb/bu)
Kratz Farms	KF 15144	82	54.2	35	1.0	33	8	0	95	57.4
	KF 15241	* 96	57.5	36	1.3	2	3	3	90	55.0
	KF 15334	80	57.0	36	1.0	9	11	30	* 108	59.2
	KF 15639	89	57.0	39	1.0	13	11	0	--	--
	KF 222	78	52.3	35	1.0	9	6	8	94	56.5
	KF 468	87	57.6	36	1.0	3	6	30	91	55.7
	KF 553	71	55.3	35	1.0	8	7	53	* 110	59.3
	KF 727	76	53.3	32	1.0	16	20	35	* 111	56.3
L-Brand (Ag Pro)	L-304	86	59.1	37	1.0	2	4	5	104	59.9
	L-408	82	53.5	35	1.0	13	8	8	--	--
	L-416	89	55.8	38	1.0	5	18	0	* 110	56.9
	L-418	88	57.8	34	1.3	5	8	3	--	--
	L-424	82	52.9	34	1.3	6	5	0	* 110	56.5
	L-488	81	54.5	34	1.3	6	8	0	--	--
	L-Star	* 93	54.1	35	1.3	14	40	0	* 111	56.5
	L-334	89	56.6	35	1.8	4	5	0	* 108	59.0
Legacy	LW 1155	89	53.4	33	1.0	2	3	0	104	55.9
	LW 1695	79	55.2	35	1.0	1	1	13	104	57.0
	LW 1745	91	56.8	35	1.0	5	4	3	* 110	57.4
	LW 1776	91	53.9	33	2.3	6	9	0	* 109	57.5
	LWX 1785	* 93	55.6	34	1.0	1	4	0	--	--
Limagrain Cereal Seeds	L11719	* 96	54.9	33	1.5	10	9	0	--	--
PiP	706	* 96	54.2	33	2.8	2	6	0	--	--
	707	85	53.2	35	1.5	4	8	0	--	--
	714	* 95	55.2	36	1.8	11	8	0	* 111	57.4
	715	* 96	56.0	38	1.3	29	8	0	* 109	56.9
	716	91	54.6	34	1.8	6	5	0	106	54.9
	720	* 93	55.4	35	1.0	7	21	0	106	56.0
	721	89	53.6	37	1.5	18	16	0	101	54.8
	735	* 95	54.5	33	1.0	4	13	0	104	56.0
	736	91	53.2	35	1.0	6	9	0	* 110	56.6
	744	* 93	52.8	35	2.0	14	8	0	101	55.9
	745	* 93	56.6	34	1.0	7	6	0	105	57.7
	748	86	54.1	34	1.3	19	4	5	--	--
	749	* 93	56.5	35	1.0	7	5	5	--	--
	750	86	57.2	36	1.0	2	7	0	--	--
	751	87	56.3	35	1.0	3	8	3	--	--
	753	91	58.7	34	1.0	7	11	0	--	--
	754	* 98	54.8	33	1.5	13	14	0	--	--

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

[1] Fusarium head blight [2] % incidence [3] % severity

[4] Winterkill = visual estimate taken at green-up of the % total plot stand loss due to winter injury

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Table 4. 2018 Arlington Winter Wheat Performance Trial Results

continued from previous page

		2018 means							2017 means	
		Yield	Test wt.	Height	Lodging	FHB[1]		Winterkill[4]	Yield	Test wt.
Brand (Entrant)	**Entry**	(bu/a)	(lb/bu)	(in.)	(1-5)	I%[2]	S%[3]	(%)	(bu/a)	(lb/bu)
Pro Seed Genetics	PRO 260	* 93	54.2	34	1.3	18	18	0	97	54.6
	PRO 320A	88	57.6	41	1.0	7	11	28	106	57.8
	PRO 380	92	57.5	35	2.3	6	11	0	102	59.4
	PRO 410	86	54.8	36	1.5	16	21	5	* 108	57.7
	PRO Ex 440A	* 93	51.3	34	2.3	10	5	0	--	--
	PRO Ex 450	* 98	57.6	33	1.0	6	9	0	--	--
Public	Harpoon	90	55.1	32	1.0	1	3	0	* 108	56.0
	Kaskaskia	76	55.3	40	3.0	18	13	0	90	58.4
	Kokosing	78	55.9	35	1.0	12	8	7	--	--
	Red Devil Brand	83	56.9	39	1.0	8	18	0	100	56.9
	Red Dragon Brand	88	54.6	39	1.0	9	23	0	100	56.3
	Starburst	83	56.4	29	1.0	13	8	0	103	60.3
	Sunburst	81	56.6	29	1.0	11	9	0	101	59.1
	Whale	92	54.5	36	1.0	13	15	0	* 108	57.9
Syngenta	SY 100	85	50.1	33	1.3	23	8	0	* 109	54.4
	SY 547	92	56.4	36	1.0	15	6	0	105	56.8
Van Treeck's	Bonanza	88	55.6	38	1.0	11	26	0	104	56.4
	Echo	92	56.3	33	1.0	14	11	3	--	--
	XL 007	90	53.8	36	1.0	3	8	0	106	56.6
VCIA / VA Tech	VA12W-31	87	56.7	32	1.0	9	8	3	95	57.1
	Mean	**89**	**55.1**	**35**	**1.3**	**9**	**9**	**3**	**104**	**56.9**
	LSD (.10)	**6**	**1.2**	**1**	**0.7**	**9**	**7**	**6**	**5**	**1.0**

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

[1] Fusarium head blight [2] % incidence [3] % severity

[4] Winterkill = visual estimate taken at green-up of the % total plot stand loss due to winter injury

Table 5. 2018 Chilton Winter Wheat Performance Trial Results

Chilton was abandoned due to severe winterkill in 2017

		2018 means			
		Yield	Test wt.	Height	Lodging
Brand (Entrant)	Entry	(bu/a)	(lb/bu)	(in.)	(1-5)
AgriMAXX	413	81	54.9	30	1.0
	438	* 86	55.3	32	1.0
	463	73	54.7	29	1.0
	473	79	56.4	32	1.0
	475	78	56.8	29	1.0
	485	84	56.2	30	1.0
	486	80	55.5	32	1.0
	Exp 1884	80	55.0	30	1.0
	Exp 1899	82	56.2	29	1.0
Albert Lea Seed	LCS 3204	70	58.3	32	1.0
Beck	730	79	56.1	29	1.0
CROPLAN	CP8550	78	56.5	32	1.0
	CP9415	78	56.8	29	1.0
	CP9606	84	55.2	30	1.0
Diener	D491W	* 89	56.1	29	1.0
	D496W	76	54.9	29	1.0
	D498W	81	56.5	28	1.0
	D505W	81	55.2	32	1.0
Dyna-Gro	9522	83	55.9	31	1.0
	9701	76	56.3	32	1.0
	9750	73	54.6	28	1.0
	9862	81	55.7	29	1.0
	WX17775	80	55.2	30	1.0
FS Seed	FS 603	76	56.8	28	1.0
	FS 615	84	55.7	31	1.0
	FS 619	82	56.4	32	1.0
	FS 624	84	56.3	31	1.0
	WX18A	79	55.3	29	1.0
	WX18C	* 88	55.7	30	1.0
	WX18D	77	56.0	31	1.0
Jung	5845	72	55.9	31	1.0
	5850	76	57.0	32	1.0
	5855	78	56.1	31	1.0
	5888	74	56.0	31	1.0
	5930	73	56.6	30	1.0

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

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Table 5. 2018 Chilton Winter Wheat Performance Trial Results

continued from previous page

Chilton was abandoned due to severe winterkill in 2017

		2018 means			
		Yield	Test wt.	Height	Lodging
Brand (Entrant)	**Entry**	(bu/a)	(lb/bu)	(in.)	(1-5)
Kratz Farms	KF 15144	74	56.0	32	1.0
	KF 15241	77	56.9	32	1.0
	KF 15334	75	57.6	32	1.0
	KF 15639	78	57.3	31	1.0
	KF 222	72	57.0	31	1.0
	KF 468	77	58.1	32	1.0
	KF 553	76	58.0	31	1.0
	KF 727	73	56.6	29	1.0
L-Brand (Ag Pro)	L-304	74	58.1	32	1.0
	L-408	79	55.9	31	1.0
	L-416	76	57.1	33	1.0
	L-418	71	57.1	29	1.0
	L-424	80	55.3	30	1.0
	L-488	76	56.9	29	1.0
	L-Star	84	56.6	30	1.0
L-Brand (Welter)	L-334	75	57.6	32	1.0
Legacy	LW 1155	70	55.8	29	1.0
	LW 1695	76	56.2	30	1.0
	LW 1745	76	57.0	28	1.0
	LW 1776	77	56.1	29	1.0
	LWX 1785	71	54.7	29	1.0
Limagrain Cereal Seeds	L11719	* 88	55.1	28	1.0
PiP	706	79	56.0	29	1.0
	707	82	56.9	30	1.0
	714	81	55.5	32	1.0
	715	80	55.7	33	1.0
	716	74	54.9	29	1.0
	720	76	56.9	29	1.0
	721	* 85	55.8	32	1.0
	735	* 88	55.4	30	1.0
	736	* 86	56.3	31	1.0
	744	77	55.0	29	1.0
	745	81	57.1	30	1.0
	748	* 85	55.4	31	1.0
	749	73	56.8	29	1.0
	750	74	56.9	31	1.0
	751	75	57.4	31	1.0
	753	72	57.6	28	1.0
	754	83	56.1	28	1.0

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

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Table 5. 2018 Chilton Winter Wheat Performance Trial Results

continued from previous page

		2018 means			
		Yield	Test wt.	Height	Lodging
Brand (Entrant)	**Entry**	(bu/a)	(lb/bu)	(in.)	(1-5)
Pro Seed Genetics	PRO 260	79	56.7	30	1.0
	PRO 320A	70	57.8	33	1.0
	PRO 380	73	58.4	31	1.0
	PRO 410	83	56.1	31	1.0
	PRO Ex 440A	77	55.2	29	1.0
	PRO Ex 450	73	57.1	28	1.0
Public	Harpoon	75	54.4	29	1.0
	Kaskaskia	78	57.9	36	1.0
	Kokosing	70	56.1	31	1.0
	Red Devil Brand	73	57.4	33	1.0
	Red Dragon Brand	74	55.3	34	1.0
	Starburst	75	57.1	25	1.0
	Sunburst	70	57.3	27	1.0
	Whale	75	55.5	31	1.0
Syngenta	SY 100	* 86	53.0	29	1.0
	SY 547	74	56.7	30	1.0
Van Treeck's	Bonanza	74	56.9	33	1.0
	Echo	77	56.4	28	1.0
	XL 007	81	56.6	30	1.0
VCIA / VA Tech	VA12W-31	72	57.2	27	1.0
	Mean	**78**	**56.3**	**30**	**1.0**
	LSD (.10)	**4**	**0.6**	**1**	**NS**

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

Chilton was abandoned due to severe winterkill in 2017

Table 6. 2018 Fond du Lac Winter Wheat Performance Trial Results

		2018 means					2017 means	
		Yield	Test wt.	Height	Lodging	CS [1]	Yield	Test wt.
Brand (Entrant)	**Entry**	(bu/a)	(lb/bu)	(in.)	(1-5)	%	(bu/a)	(lb/bu)
AgriMAXX	413	* 64	51.7	32	1.0	10	69	54.5
	438	* 72	54.2	35	1.0	1	65	55.5
	463	62	52.5	31	1.0	3	59	54.1
	473	* 65	53.8	35	1.0	4	--	--
	475	* 68	55.2	32	1.0	4	--	--
	485	* 69	55.6	31	1.0	1	63	55.6
	486	63	53.0	34	1.0	10	68	54.6
	Exp 1884	* 69	53.6	35	1.0	1	--	--
	Exp 1899	* 68	53.9	32	1.0	11	--	--
Albert Lea Seed	LCS 3204	61	56.3	36	1.0	4	--	--
Beck	730	62	53.6	31	1.0	9	--	--
CROPLAN	CP8550	* 65	55.1	35	1.0	10	--	--
	CP9415	* 69	54.8	32	1.0	19	--	--
	CP9606	62	53.1	32	1.0	6	--	--
Diener	D491W	* 69	53.5	32	1.0	9	70	55.2
	D496W	54	51.8	31	1.0	19	* 71	53.9
	D498W	* 66	55.4	32	1.0	9	65	56.1
	D505W	* 67	54.1	34	1.0	5	--	--
Dyna-Gro	9522	* 64	54.3	33	1.0	5	69	55.5
	9701	* 67	54.2	36	1.0	6	63	54.9
	9750	61	52.8	30	1.0	9	67	54.7
	9862	* 67	53.9	32	1.0	15	66	55.8
	WX17775	* 67	51.8	33	1.0	14	--	--
FS Seed	FS 603	* 66	55.8	32	1.0	0	68	57.0
	FS 615	* 64	54.4	32	1.0	4	67	56.0
	FS 619	63	53.2	35	1.0	16	63	55.1
	FS 624	61	53.4	34	1.0	3	68	56.4
	WX18A	63	51.9	33	1.0	5	--	--
	WX18C	* 69	54.0	32	1.0	4	--	--
	WX18D	59	51.3	32	1.0	23	--	--
Jung	5845	63	55.5	33	1.0	5	62	56.1
	5850	61	53.7	34	1.0	3	64	55.4
	5855	* 64	53.7	33	1.0	8	63	54.8
	5888	61	52.4	34	1.0	6	64	54.7
	5930	60	54.4	35	1.0	16	63	56.4

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

[1] CS = Cephalosoporium stripe expressed as % of diseased and stunted plants

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Table 6. 2018 Fond du Lac Winter Wheat Performance Trial Results

continued from previous page

		2018 means					2017 means	
		Yield	Test wt.	Height	Lodging	CS [1]	Yield	Test wt.
Brand (Entrant)	**Entry**	(bu/a)	(lb/bu)	(in.)	(1-5)	%	(bu/a)	(lb/bu)
Kratz Farms	KF 15144	56	53.9	34	1.0	11	63	56.0
	KF 15241	* 70	55.8	35	1.0	4	68	56.8
	KF 15334	61	56.0	35	1.0	11	65	57.0
	KF 15639	55	53.8	35	1.0	19	--	--
	KF 222	52	52.0	34	1.0	31	65	56.2
	KF 468	* 70	55.9	35	1.0	3	67	57.4
	KF 553	57	55.4	34	1.0	20	69	57.4
	KF 727	* 64	54.4	34	1.0	13	69	55.6
L-Brand (Ag Pro)	L-304	57	56.6	35	1.0	9	64	57.9
	L-408	63	53.8	33	1.0	5	--	--
	L-416	* 65	54.0	38	1.0	14	70	56.0
	L-418	59	56.6	33	1.0	9	--	--
	L-424	60	53.1	32	1.0	11	70	55.4
	L-488	* 65	54.1	34	1.0	5	--	--
	L-Star	* 74	54.6	35	1.0	4	* 72	56.0
L-Brand (Welter)	L-334	61	55.6	33	1.0	16	66	57.2
Legacy	LW 1155	58	52.4	32	1.0	13	65	53.8
	LW 1695	51	52.9	34	1.0	39	67	55.5
	LW 1745	56	53.4	33	1.0	16	* 72	56.8
	LW 1776	61	56.3	32	1.0	14	57	56.2
	LWX 1785	61	52.4	32	1.0	5	--	--
Limagrain Cereal Seeds	L11719	63	53.5	30	1.0	15	--	--
PiP	706	* 72	55.5	33	1.0	1	--	--
	707	* 64	53.7	32	1.0	6	--	--
	714	* 71	54.3	35	1.0	1	* 78	55.7
	715	61	52.7	36	1.0	25	60	55.0
	716	* 65	52.1	35	1.0	11	65	54.1
	720	* 67	53.8	33	1.0	15	* 71	56.3
	721	* 68	53.9	36	1.0	5	63	55.0
	735	* 68	53.9	32	1.0	16	70	55.3
	736	* 72	53.7	34	1.0	9	66	55.5
	744	* 64	52.3	32	1.0	10	* 75	56.0
	745	60	53.7	33	1.0	28	63	56.7
	748	* 73	54.7	32	1.0	9	--	--
	749	62	54.5	33	1.0	8	--	--
	750	* 69	54.6	35	1.0	5	--	--
	751	* 65	55.2	32	1.0	5	--	--
	753	58	56.9	32	1.0	15	--	--
	754	* 68	54.0	31	1.0	13	--	--

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

[1] CS = Cephalosoprium stripe expressed as % of diseased and stunted plants

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Table 6. 2018 Fond du Lac Winter Wheat Performance Trial Results

continued from previous page

		2018 means					2017 means	
		Yield	Test wt.	Height	Lodging	CS [1]	Yield	Test wt.
Brand (Entrant)	**Entry**	(bu/a)	(lb/bu)	(in.)	(1-5)	%	(bu/a)	(lb/bu)
Pro Seed Genetics	PRO 260	57	51.8	32	1.0	29	62	55.5
	PRO 320A	54	54.8	38	1.0	20	68	56.7
	PRO 380	59	57.0	33	1.0	3	61	59.4
	PRO 410	54	51.4	33	1.0	31	70	56.8
	PRO Ex 440A	59	51.8	32	1.0	9	--	--
	PRO Ex 450	* 72	56.4	33	1.0	0	--	--
Public	Harpoon	* 64	53.2	32	1.0	5	68	53.9
	Kaskaskia	57	56.6	37	1.0	10	60	58.0
	Kokosing	59	53.2	35	1.0	6	--	--
	Red Devil Brand	56	56.0	36	1.0	8	64	57.3
	Red Dragon Brand	54	52.8	37	1.0	8	62	55.1
	Starburst	60	56.1	29	1.0	16	68	57.7
	Sunburst	53	55.3	28	1.0	26	70	58.6
	Whale	* 70	54.1	34	1.0	0	69	55.2
Syngenta	SY 100	* 64	50.8	31	1.0	18	66	54.0
	SY 547	* 68	54.8	34	1.0	6	* 71	55.5
Van Treeck's	Bonanza	63	54.6	36	1.0	4	* 72	56.5
	Echo	59	53.8	32	1.0	13	--	--
	XL 007	62	53.8	33	1.0	15	64	55.3
VCIA / VA Tech	VA12W-31	53	55.3	31	1.0	16	58	57.8
	Mean	**63**	**54.0**	**33**	**1.0**	**10**	**66**	**55.9**
	LSD (.10)	**10**	**1.8**	**2**	**NS**	**NS**	**7**	**0.8**

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

[1] CS = Cephalosoprium stripe expressed as % of diseased and stunted plants

Table 7. 2018 Sharon Winter Wheat Performance Trial Results

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		2018 means						2017 means	
		Yield	Test wt.	Height	Lodging	FHB[1]		Yield	Test wt.
Brand (Entrant)	Entry	(bu/a)	(lb/bu)	(in.)	(1-5)	I%[2]	S%[3]	(bu/a)	(lb/bu)
AgriMAXX	413	* 98	52.3	36	1.0	1	4	105	54.3
	438	85	51.1	38	1.0	11	8	108	55.5
	463	* 97	54.9	36	1.0	1	4	108	54.5
	473	91	55.0	39	1.0	6	8	--	--
	475	95	56.1	34	1.0	2	4	--	--
	485	94	53.2	35	1.0	1	4	108	56.0
	486	* 96	55.5	37	1.0	12	5	* 113	55.4
	Exp 1884	* 101	53.9	36	1.0	3	6	--	--
	Exp 1899	95	53.4	35	1.0	3	13	--	--
Albert Lea Seed	LCS 3204	91	58.3	39	1.0	13	9	--	--
Beck	730	* 98	51.5	35	1.0	4	5	--	--
CROPLAN	CP8550	95	54.8	39	1.0	2	5	--	--
	CP9415	94	55.0	35	1.0	6	8	--	--
	CP9606	88	52.0	36	1.0	19	9	--	--
Diener	D491W	* 99	55.4	35	1.0	4	8	97	54.1
	D496W	* 96	54.8	35	1.0	2	4	105	54.5
	D498W	* 101	54.7	35	1.0	3	6	* 114	57.1
	D505W	* 98	54.4	37	1.0	1	6	--	--
Dyna-Gro	9522	91	53.5	36	1.0	1	4	110	55.8
	9701	* 96	54.6	39	1.0	6	5	109	56.1
	9750	* 96	54.6	35	1.0	1	4	105	54.4
	9862	* 98	53.6	35	1.0	4	5	109	55.5
	WX17775	* 100	52.8	36	1.0	2	5	--	--
FS Seed	FS 603	* 98	55.5	35	1.3	8	5	* 118	57.0
	FS 615	91	53.9	37	1.0	3	8	* 112	55.8
	FS 619	92	54.8	38	1.0	1	6	110	55.8
	FS 624	* 98	54.5	37	1.0	7	14	* 115	57.2
	WX18A	* 100	53.8	36	1.0	1	8	--	--
	WX18C	94	53.5	35	1.0	5	6	--	--
	WX18D	87	52.5	37	1.0	4	10	--	--
Jung	5845	* 96	52.7	37	1.0	1	8	95	55.4
	5850	84	50.4	37	1.0	8	15	98	55.7
	5855	91	53.3	37	1.0	9	14	102	55.8
	5888	90	52.6	38	1.0	5	9	100	56.0
	5930	92	53.0	38	1.0	2	6	81	53.9

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

[1] Fusarium head blight [2] % incidence [3] % severity

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Table 7. 2018 Sharon Winter Wheat Performance Trial Results

continued from previous page

		2018 means						2017 means	
		Yield	Test wt.	Height	Lodging	FHB[1]		Yield	Test wt.
Brand (Entrant)	**Entry**	(bu/a)	(lb/bu)	(in.)	(1-5)	I%[2]	S%[3]	(bu/a)	(lb/bu)
Kratz Farms	KF 15144	91	53.5	38	1.0	12	9	89	54.2
	KF 15241	* 98	55.0	37	1.0	5	9	90	54.9
	KF 15334	86	53.5	37	1.0	2	8	104	56.7
	KF 15639	93	55.8	40	1.3	6	9	--	--
	KF 222	89	52.7	37	1.0	10	9	89	54.4
	KF 468	95	55.4	37	1.0	3	5	84	54.2
	KF 553	87	54.3	38	1.0	3	9	104	56.6
	KF 727	81	53.4	35	1.0	5	10	107	55.6
L-Brand (Ag Pro)	L-304	92	56.5	39	1.0	5	6	97	58.2
	L-408	83	52.0	36	1.0	2	6	--	--
	L-416	90	53.6	39	1.0	11	19	* 113	56.1
	L-418	93	55.1	35	1.0	2	9	--	--
	L-424	82	53.1	36	1.0	2	5	109	55.2
	L-488	85	52.9	36	1.0	6	8	--	--
	L-Star	* 98	52.1	38	1.0	13	21	* 116	56.2
L-Brand (Welter)	L-334	89	53.8	37	1.0	1	8	105	57.0
Legacy	LW 1155	93	51.9	35	1.0	1	5	107	54.2
	LW 1695	95	53.9	38	1.0	1	4	107	55.8
	LW 1745	* 97	55.6	36	1.0	1	6	* 113	56.8
	LW 1776	91	53.1	34	1.0	3	5	107	55.6
	LWX 1785	* 99	54.8	35	1.0	1	5	--	--
Limagrain Cereal Seeds	L11719	* 97	54.4	33	1.0	13	8	--	--
PiP	706	93	53.0	35	1.0	3	6	--	--
	707	92	51.5	36	1.0	4	8	--	--
	714	* 98	55.3	37	1.0	4	5	110	54.6
	715	95	56.1	39	1.0	5	6	101	55.6
	716	* 100	54.2	36	1.0	3	9	* 112	54.3
	720	88	53.9	35	1.0	5	18	107	55.4
	721	90	51.3	39	1.0	13	9	106	55.1
	735	* 100	54.0	35	1.0	3	8	94	53.6
	736	94	52.6	37	1.0	9	9	* 114	55.9
	744	* 99	51.5	36	1.0	3	6	106	54.9
	745	* 100	56.0	35	1.0	2	5	* 113	56.9
	748	92	53.2	36	1.0	1	6	--	--
	749	91	54.9	36	1.0	3	4	--	--
	750	* 99	56.1	38	1.0	3	6	--	--
	751	92	56.2	37	1.0	4	6	--	--
	753	95	57.8	36	1.0	2	9	--	--
	754	* 99	54.6	34	1.0	24	10	--	--

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

[1] Fusarium head blight [2] % incidence [3] % severity

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Table 7. 2018 Sharon Winter Wheat Performance Trial Results

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		2018 means						2017 means	
		Yield	Test wt.	Height	Lodging	FHB[1]		Yield	Test wt.
Brand (Entrant)	**Entry**	(bu/a)	(lb/bu)	(in.)	(1-5)	I%[2]	S%[3]	(bu/a)	(lb/bu)
Pro Seed Genetics	PRO 260	91	51.5	33	1.0	18	14	103	55.1
	PRO 320A	79	55.3	40	1.0	1	10	101	55.0
	PRO 380	92	56.1	37	1.8	5	11	105	58.5
	PRO 410	95	54.4	37	1.0	7	18	* 113	56.8
	PRO Ex 440A	94	51.5	35	1.0	2	9	--	--
	PRO Ex 450	94	56.5	34	1.0	7	18	--	--
Public	Harpoon	* 99	54.3	35	1.0	1	5	108	54.5
	Kaskaskia	88	54.9	43	2.0	19	14	85	56.5
	Kokosing	88	54.3	39	1.0	20	16	--	--
	Red Devil Brand	90	54.8	41	1.0	4	14	99	56.1
	Red Dragon Brand	* 96	53.4	41	1.0	15	23	95	53.6
	Starburst	84	55.8	30	1.0	13	8	101	58.3
	Sunburst	82	56.3	32	1.0	8	8	91	58.1
	Whale	89	52.7	37	1.0	8	11	97	55.7
Syngenta	SY 100	88	49.8	35	1.0	10	5	109	53.1
	SY 547	* 96	55.5	38	1.0	2	8	105	56.2
Van Treeck's	Bonanza	94	53.6	40	1.0	11	20	105	55.4
	Echo	* 96	54.4	35	1.0	11	13	--	--
	XL 007	89	52.4	37	1.0	4	11	111	56.1
VCIA / VA Tech	VA12W-31	91	54.9	36	1.0	5	10	100	56.2
	Mean	**93**	**54.0**	**36**	**1.0**	**6**	**8**	**103**	**55.5**
	LSD (.10)	**5**	**1.5**	**1**	**0.2**	**5**	**5**	**6**	**0.7**

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

[1] Fusarium head blight [2] % incidence [3] % severity

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