

Jonathan Kleinjan | SDSU Extension Crop Production Associate, Brookings

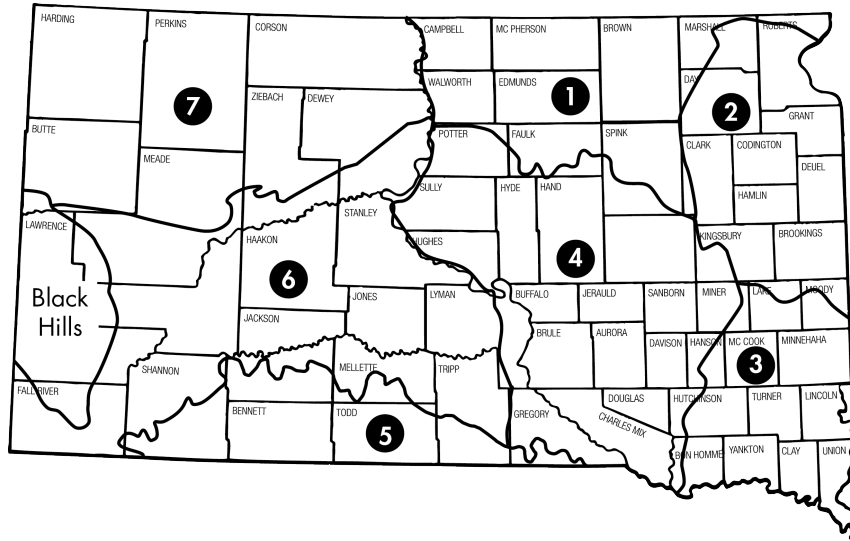
Chris Graham | SDSU Extension Agronomist, Rapid City

Shaukat Ali | Small Grains Pathologist, Brookings

Bruce Swan | Ag Research Manager, Rapid City

Kevin Kirby | CPT Ag Research Manager, Brookings

Shawn Hawks | CPT Ag Research Manager, Brookings



Recommended Winter Wheat Varieties for Fall 2017 by Crop Zone†

Zone - 1 ^{pc}	Zone - 2 ^{pc}	Zone - 3	Zone - 4 ^{pc}	Zone - 5	Zone - 6	Zone - 7 ^{pc}
Oahe	Oahe	Antero‡ (white)	Redfield	Oahe	Antero‡ (white)	Antero‡ (white)
Redfield	Antero‡ (white)	LCS Compass	Antero‡ (white)	Antero‡ (white)	Denali	WB Grainfield‡
Antero‡ (white)	Denali	Denali	Denali	Denali	WB Grainfield‡	LCS Mint‡
WB Grainfield‡	WB Grainfield‡	Freeman‡	SY Monument	Freeman‡	LCS Mint‡	SY Monument
Overland	LCS Mint‡	WB Grainfield‡	Ruth‡	SY Monument	SY Monument	Overland
SY Wolf‡	SY Monument	LCS Mint‡	SY Wolf‡	SY Wolf‡	Ruth‡	Wesley
	SY Wolf‡	SY Wolf‡			SY Wolf‡	SY Wolf‡

Promising

SY Sunrise	SY Sunrise WB4614‡	Avery‡ Ruth SY Sunrise	Avery‡ SY Sunrise	Avery‡ Cowboy‡ Ruth‡ Overland	Avery‡ Cowboy‡ Overland	Ideal WB4614‡
------------	-----------------------	------------------------------	----------------------	--	-------------------------------	------------------

† Crop Zones for small grains are base on soil & climate information. Recommended varieties are in the top 1/3 of the trial over 3 years for each zone. Promising varieties are those in the top 1/3 of the trial over 2 years.

^{pc} plant in protective cover to improve winter survival in Crop Zones 1, 2, 4, & 7 and in other zones when planting varieties with (Fair) or lower winterhardness ratings

‡ Variety is susceptible or moderately susceptible to Fusarium Head Blight (Scab).

Table 1. List of 2017 winter wheat testing locations and soil/cultural characteristics.

Location	Testing location characteristics				
	Cooperator	GPS coordinates	Soil Type	Previous crop	Tillage system
East River Locations (8)					
Beresford	Southeast Research Farm	43.045210° -96.901664°	Egan-Clarno-Trent complex, 0-2 % slopes	Oats	No-till
Brookings	SDSU Foundation Seed	44.412416° -96.786848°	Kranzburg-Brookings silty clay loams, 0-2% slopes	Sp Wht	Min-till
Brookings - w/fungicide	SDSU Foundation Seed	44.412416° -96.786848°	Kranzburg-Brookings silty clay loams, 0-2% slopes	Sp Wht	Min-till
Onida	Tom Young	44.702751° -100.385525°	Agar silt loam, 0-2% slopes	Sp Wht	No-till
Pierre	Dakota Lakes	44.290081° -99.991518°	Dorna silt loam	Field peas	No-till
Platte (Geddes)	Curt Sybesma	43.361279° -98.705844	Highmore silt loam, 2-6% slopes	Soybeans	No-till
Selby	Mark Stiegelmeier	45.440388° -100.080770°	Highmore silt loam, cool, 0-2% slopes	Lentils	No-till
South Shore	Northeast Research Farm	45.106144° -97.098665	Kranzburg-Brookings silty clay loams, 0-2% slopes	Oats	No-till
West River Locations (9)					
Bison	Brad Seidel	45.516389° -102.395000°	Morton loam, 2-6% slopes	Sp Wht	No-till
Faith (Dupree)	Bryant Schauer	44.970000° -101.905556	Rhoades-Daglum complex, 0-6% slopes	W Wht	No-till
Hayes	RDO	44.497778° -100.802222°	Opal-Chantier clays, 6-9% slopes	Sp Wht	No-till
Kennebec (Vivian)	Larson's c/o Logan Ruman	44.007500° -100.308056°	Promise Clay, 3-6% slopes	Millet	No-till
Martin	Mary Kay and Carl Novotny	43.214722° -101.601389	Redfield-Keith silt loams, 0-2% slopes	Fallow	No-till
Sturgis	Dave Wilson	44.503333° -103.481389°	Nunn Clay loams 0-2% slopes	W Wht	No-till
Wall	Dale Patterson	44.0813889° -102.308333°	Blackpipe silty clay loam, 0-2% slopes	Fallow	No-till
Winner	Jorgenson Land & Cattle	43.552242° -99.902533°	Millboro silty clay, 3-6% slopes	Oats	No-till
Winner - intensive	Jorgenson Land & Cattle	43.552242° -99.902533°	Millboro silty clay, 3-6% slopes	Oats	No-till

Table 2. Agronomic practices for 2017 winter wheat trial locations.

Location	Agronomic practices					
	Planting date	Starter applied	Other Fertilizer applied	Herbicide applied	Fungicide applied	Harvest date
East River Locations (8)						
Beresford	09/21/16	90# 30-10-10	350# urea 60# AMS	1 pt Bronate, 4 oz Tilt	14 oz Caramba	7/19/17
Brookings	09/20/16	90# 30-10-10	160# urea	none	none	7/25/17
Brookings - w/fungicide	09/20/16	90# 30-10-10	160# urea	none	8 oz Prosaro (heading)	7/25/17
Onida	09/16/16	10 gpa 10-34-0	30 gpa 28-0-0	1 pt GoldSky	none	7/11/17
Pierre	09/15/16	10 gpa 10-34-0	20 gpa 24-0-0-8	0.9 pt Bronate	none	7/14/17
Platte (Geddes)	10/13/16	90# 30-10-10	270# urea 50# AMS	1 pt Widematch, 8 oz 2,4-D, 4 oz Tilt	4 oz Monsoon	7/18/17
Selby	09/18/16	10 gpa 10-34-0	250# urea/AMS	2 pt Hat Trick	none	7/26/17
South Shore	09/09/16	90# 30-10-10	300# urea 100# MAP	1 pt Bronate	none	7/24/17
West River Locations (9)						
Bison	9/29/16	6 gal 10-25-0-5.5Zn	35 gal 28-0-0 mid-row band	none	none	7/17/17
Faith (Dupree)	09/28/16	6 gal 10-25-0-5.5Zn	35 gal 28-0-0 mid-row band	1 pt GoldSky	10 oz Stratego	7/18/17
Hayes	09/19/16	6 gal 10-25-0-5.5Zn	35 gal 28-0-0 mid-row band	location was hailed out on 6/22/17		
Kennebec (Vivian)	09/20/16	6 gal 10-25-0-5.5Zn	35 gal 28-0-0 mid-row band	none	none	7/10/17
Martin	09/21/16	6 gal 10-25-0-5.5Zn	35 gal 28-0-0 mid-row band	1.3 pt Widematch, 4 oz 2,4-D	none	8/4/17
Sturgis	09/22/16	6 gal 10-25-0-5.5Zn	35 gal 28-0-0 mid-row band	none	none	7/11/17
Wall	09/27/16	6 gal 10-25-0-5.5Zn	35 gal 28-0-0 mid-row band	6 oz Barrage, 0.05 oz Ally	2 oz Tilt	7/13/17
Winner	09/14/16	10 gals 10-34-0	200# urea	2.2 pt Maestro Advanced	none	7/19/17
Winner - intensive	09/14/16	4 gals 7-25-5 + 0.5 gal inFuze	200# urea	2.2 pt Maestro Advanced	none	7/19/17

Table 3a. 2017 East River Winter Wheat Performance - Yield (13% moisture), Test Weight (harvest moisture), and Protein (13% moisture). Varieties yielding in the upper 1/3 of each trial location are denoted by gray shading.

Variety	Crop Zone - 1			Crop Zone - 2					
	Selby			Brookings			Brookings w/fung.#		
	Yield	Test Wt.	Protein	Yield	Test Wt.	Protein	Yield	Test Wt.	Protein
Alice (white)	45.7	60.1	14.7	82.2	58.9	13.6	77.5	59.2	13.0
Antero (white)	52.5	60.7	13.7	101.8	58.7	11.4	101.1	60.7	10.6
Avery	54.7	61.2	12.9	77.9	59.3	11.5	64.9	59.1	11.0
LCS Compass	43.3	60.6	15.4	58.4	58.1	13.0	58.8	59.3	12.5
Cowboy	49.4	59.6	13.9	75.8	59.3	11.4	76.1	59.5	10.5
Denali	50.6	61.1	13.7	82.3	58.7	11.3	81.5	60.0	10.6
Expedition	50.9	61.2	14.5	62.3	57.8	11.8	51.0	55.5	11.9
Freeman	43.8	59.6	13.6	81.1	56.6	12.2	89.6	59.3	11.2
WB-Grainfield	41.0	60.9	14.1	81.3	58.7	12.8	86.7	59.9	12.0
Ideal	53.3	60.0	14.3	63.9	57.9	11.6	61.3	58.3	11.3
Keldin†	47.3	59.9	14.5	88.7	59.0	12.1	95.4	60.5	11.5
Langin†	49.4	60.9	12.6	90.9	59.1	11.9	86.3	59.9	11.5
Long Branch†	49.4	60.8	13.0	98.1	58.0	11.9	97.2	59.6	12.0
Lyman	43.3	60.3	15.6	78.1	59.3	13.1	74.7	58.7	12.9
LCS Mint	45.0	61.4	14.2	83.4	58.6	12.1	79.1	60.1	11.7
SY Monument	46.8	59.8	13.6	88.8	57.7	11.8	81.1	59.4	12.2
Oahe	47.3	60.5	14.5	85.5	58.8	11.9	80.1	60.7	11.5
Overland	51.3	60.3	14.4	78.9	58.0	12.4	66.7	59.9	11.7
PSB13NEDH-7-140	41.4	60.0	16.1	80.8	59.0	13.0	89.3	60.6	11.6
PSB13NEDH-7-45†	47.5	60.8	14.2	77.2	59.3	12.4	83.3	61.1	11.0
Redfield	45.6	60.6	15.2	75.9	58.9	13.6	76.1	61.2	13.0
Ruth	46.8	60.3	14.4	82.0	58.0	12.7	74.3	58.8	12.3
SY Sunrise	53.9	61.1	13.7	78.0	57.0	13.1	80.0	60.1	12.2
Sunshine†	54.8	61.3	13.4	81.6	59.2	12.6	72.7	60.3	12.4
SY 517 CL2†	50.3	61.7	14.1	69.5	60.0	13.2	74.9	61.5	12.2
Thompson	50.5	59.7	14.4	71.4	58.7	12.5	75.9	59.0	12.1
WB4614	52.5	60.5	14.4	89.1	59.8	13.0	78.2	60.3	12.2
WB4721†	44.6	62.3	15.1	78.2	59.7	13.7	73.1	61.2	12.9
Wesley	44.4	59.6	14.9	78.0	57.9	13.5	67.4	58.3	11.9
SY Wolf	59.5	61.1	14.1	83.2	59.7	13.0	80.2	59.9	12.4
Trial Average	47.7	60.3	14.3	80.1	58.7	12.5	77.7	59.8	11.9
LSD(0.05)‡	10.6	0.8	0.9	6.5	1.3	0.4	7.3	1.6	0.8
CV(%)§	13.6	0.9	4.3	5.7	1.6	2.4	6.7	1.9	5.0

Foliar fungicide applied at flowering.

† New entry in 2017, not previously tested.

‡ Yield, test weight, or protein value required (\geq LSD) to determine if varieties are statistically different than one another, § Coefficient of Variation (C.V.) is a measure of the variability of the experimental error, 15% or less is acceptable.

Table 3b. 2017 East River Winter Wheat Performance, continued - Yield (13% moisture), Test Weight (harvest moisture), and Protein (13% moisture). Varieties yielding in the upper 1/3 of each trial location are denoted by gray shading.

Variety	Crop Zone - 2			Crop Zone - 3			Crop Zone - 4		
	South Shore			Beresford			Geddes		
	Yield	Test Wt.	Protein	Yield	Test Wt.	Protein	Yield	Test Wt.	Protein
Alice (white)	59.3	58.9	14.2	77.2	56.7	13.4	68.1	58.5	14.0
Antero (white)	77.3	59.8	12.7	84.3	58.1	11.6	83.8	60.6	11.4
Avery	49.3	57.6	12.5	87.4	58.7	11.1	84.2	59.9	12.0
LCS Compass	42.8	57.7	14.4	78.4	60.8	12.9	69.9	60.1	13.4
Cowboy	53.0	58.3	12.7	81.4	58.3	11.5	78.9	59.5	11.7
Denali	50.9	58.0	13.3	89.5	60.1	11.5	80.4	61.3	11.7
Expedition	32.2	57.5	14.0	79.7	56.9	12.6	72.6	60.7	13.3
Freeman	68.7	58.1	13.0	92.7	58.7	11.6	70.2	58.0	12.2
WB-Grainfield	74.4	59.7	14.2	91.7	59.9	12.0	74.9	60.0	12.5
Ideal	32.9	57.6	12.9	75.6	59.9	11.9	82.7	59.6	12.9
Keldint†	75.1	58.6	13.6	85.1	57.9	11.6	77.9	59.2	13.4
Langint†	73.1	57.7	13.1	89.1	57.3	11.7	72.4	58.2	12.0
Long Branch†	81.2	58.9	13.2	85.0	56.8	12.2	82.5	58.4	12.1
Lyman	47.1	57.0	15.6	57.7	57.7	13.6	69.1	58.5	14.0
LCS Mint	66.1	58.3	13.1	88.4	59.6	11.7	79.2	61.2	13.3
SY Monument	79.4	58.2	13.6	86.7	58.1	12.3	79.0	58.6	12.2
Oahe	68.0	59.8	15.1	76.3	60.9	12.2	76.1	61.0	12.7
Overland	56.0	58.7	14.1	73.2	59.0	12.3	82.1	59.1	12.5
PSB13NEDH-7-140	67.7	58.5	15.3	79.6	61.1	12.5	71.9	60.4	13.7
PSB13NEDH-7-45†	65.2	58.8	13.6	87.9	61.0	11.2	82.5	60.2	12.3
Redfield	62.9	57.9	13.8	81.5	59.3	12.5	79.4	59.5	13.7
Ruth	71.2	59.1	13.6	86.1	58.7	12.6	83.1	59.2	13.0
SY Sunrise	71.8	58.9	14.2	93.1	60.0	11.7	78.6	59.4	12.5
Sunshine†	55.1	57.2	13.4	81.9	56.5	11.9	79.6	59.6	12.5
SY 517 CL2†	59.5	59.3	13.6	84.9	59.9	11.6	76.5	60.6	13.4
Thompson	51.8	57.5	14.5	73.0	59.2	12.6	78.0	58.4	13.7
WB4614	62.0	57.2	14.1	77.4	57.9	12.4	81.1	57.7	13.8
WB4721†	69.4	60.0	15.3	86.3	60.3	12.5	81.3	61.2	13.7
Wesley	51.0	56.8	14.3	81.7	60.2	12.3	76.0	59.3	14.1
SY Wolf	78.5	59.4	14.6	84.6	58.1	13.2	81.8	59.8	13.5
Trial Average	62.1	58.3	13.9	80.8	58.9	12.2	76.7	59.3	12.9
LSD(0.05)‡	4.4	1.1	0.5	6.1	1.2	0.8	7.2	1.1	0.9
CV(%)§	5.2	1.4	2.4	5.4	1.5	4.3	6.7	1.3	5.0

† New entry in 2017, not previously tested.

‡ Yield, test weight, or protein value required (\geq LSD) to determine if varieties are statistically different than one another, § Coefficient of Variation (C.V.) is a measure of the variability of the experimental error, 15% or less is acceptable.

Table 3c. 2017 East River Winter Wheat Performance, continued - Yield (13% moisture), Test Weight (harvest moisture), and Protein (13% moisture). Varieties yielding in the upper 1/3 of each trial location are denoted by gray shading.

Variety	Crop Zone - 4						Crop Zones 1, 2, 3, & 4			
	Onida			Pierre			East River Average			
	Yield	Test Wt	Protein	Yield	Test Wt	Protein	Top 1/3%	Yield	Test Wt	Protein
Alice (white)	48.3	59.8	12.4	38.7	62.0	14.7	0	61.6	59.1	13.8
Antero (white)	65.1	61.2	12.1	44.2	63.9	12.7	75	75.2	60.3	12.1
Avery	60.2	61.5	11.1	60.7	63.5	12.2	63	66.6	59.9	11.8
LCS Compass	39.2	59.9	13.3	39.3	63.5	14.4	0	53.4	59.9	13.7
Cowboy	34.3	59.2	13.3	55.5	62.9	12.5	13	62.9	59.5	12.2
Denali	56.2	62.1	12.1	60.4	64.5	12.2	88	67.9	60.6	12.1
Expedition	49.5	60.5	12.4	54.5	63.3	14.5	25	55.6	59.0	13.2
Freeman	45.7	58.2	12.2	52.8	61.5	13.2	25	67.4	58.5	12.5
WB-Grainfield	55.3	59.1	12.4	42.2	62.7	13.1	50	67.5	60.0	12.9
Ideal	56.5	60.2	12.4	62.2	62.7	14.4	50	59.7	59.5	12.8
Keldint†	57.3	61.0	12.9	51.2	61.4	14.2	63	71.2	59.6	13.0
Langint†	68.0	60.7	10.7	60.1	63.6	12.5	75	72.3	59.6	12.1
Long Branch†	57.6	59.1	11.8	64.9	62.8	12.1	75	75.9	59.2	12.4
Lyman	48.0	60.3	13.0	48.4	62.7	14.8	0	57.5	59.2	14.1
LCS Mint	51.6	62.9	11.3	39.3	64.0	13.0	25	65.9	60.7	12.6
SY Monument	42.4	59.3	11.7	54.3	62.3	12.5	38	69.8	59.1	12.5
Oahe	49.2	61.5	12.0	53.8	63.1	12.9	13	66.6	60.7	12.9
Overland	49.3	60.9	13.6	52.3	62.3	13.9	25	63.3	59.7	13.2
PSB13NEDH-7-140	45.7	61.4	13.5	52.5	62.8	14.4	13	65.5	60.4	13.7
PSB13NEDH-7-45†	43.6	58.3	13.7	58.0	63.2	13.0	50	67.7	60.2	13.2
Redfield	46.9	60.3	13.7	55.5	62.4	14.1	13	65.1	60.0	13.0
Ruth	54.7	60.1	12.9	47.4	63.0	13.8	50	67.9	59.7	12.7
SY Sunrise	55.2	62.6	12.5	58.7	63.5	13.4	63	71.0	60.3	13.3
Sunshine†	58.1	59.7	12.4	42.3	62.8	13.0	25	65.4	59.5	13.8
SY 517 CL2†	42.1	59.2	13.3	35.2	63.2	14.3	13	61.2	60.6	13.7
Thompson	54.3	60.6	13.7	55.3	62.5	14.2	38	62.8	59.4	13.5
WB4614	47.4	60.2	12.9	35.7	62.3	13.8	25	65.0	59.5	13.1
WB4721†	45.0	61.2	13.1	51.7	64.5	14.4	38	65.7	61.2	13.7
Wesley	40.0	57.7	13.4	48.6	61.3	14.7	0	60.4	58.7	12.7
SY Wolf	47.3	61.0	13.6	44.8	63.7	13.5	50	69.5	60.3	13.5
Trial Average	49.5	60.2	12.7	50.4	62.8	13.6	-	65.3	59.7	13.0
LSD(0.05)‡	14.8	2.0	1.2	9.7	0.8	0.8	-	3.0	0.5	0.3
CV(%)§	18.4	2.0	5.7	13.9	0.9	3.9	-	9.0	1.5	4.5

† New entry in 2017, not previously tested.

‡ Yield, test weight, or protein value required (\geq LSD) to determine if varieties are statistically different than one another, § Coefficient of Variation (C.V.) is a measure of the variability of the experimental error, 15% or less is acceptable.

Table 4a. 2017 West River Winter Wheat Performance - Yield (13% moisture), Test Weight (harvest moisture), and Protein (13% moisture). Varieties yielding in the upper 1/3 of each trial location are denoted by gray shading.

Variety	Crop Zone - 5			Crop Zone - 6					
	Martin			Sturgis			Vivian		
	Yield	Test Wt.	Protein	Yield	Test Wt.	Protein	Yield	Test Wt.	Protein
Alice (white)	36.2	56.7	14.9	32.3	60.9	14.5	63.6	61.3	14.7
Antero (white)	50.9	58.7	12.6	43.2	62.7	11.9	62.4	63.1	12.0
Avery	44.5	57.9	12.0	46.5	62.2	11.6	54.6	62.9	11.7
LCS Compass	37.1	57.5	13.9	31.5	61.6	14.1	48.0	62.2	14.1
Cowboy	46.6	56.5	12.5	39.9	61.6	11.8	60.7	62.3	12.2
Denali	49.0	59.2	12.2	44.2	61.9	12.1	73.2	63.4	12.1
Expedition	36.2	57.3	13.2	34.2	62.3	12.9	60.2	62.6	13.9
Freeman	41.7	57.2	12.8	37.2	60.7	13.0	63.5	61.5	13.2
WB-Grainfield	34.9	57.0	13.8	41.7	62.1	13.2	62.7	63.1	12.8
Ideal	37.0	56.9	12.9	40.2	61.3	13.2	55.9	62.9	12.8
Keldin†	43.5	55.7	13.7	30.0	60.4	14.2	76.1	62.5	13.2
Langin†	36.8	58.4	13.3	41.0	61.7	12.7	63.0	62.7	12.4
Long Branch†	39.7	56.3	13.6	37.2	60.6	13.4	61.2	62.4	12.2
Lyman	32.7	56.5	14.5	39.0	61.4	14.4	57.2	62.0	14.1
LCS Mint	38.8	57.3	12.9	31.1	62.1	13.2	50.8	64.3	12.6
SY Monument	48.6	58.1	13.0	36.4	60.7	12.4	65.5	62.2	12.7
Oahe	40.2	56.9	13.4	35.9	62.2	13.7	57.3	62.6	13.9
Overland	46.5	58.2	13.2	39.2	61.6	13.2	61.4	61.9	14.1
PSB13NEDH-7-140	43.0	57.9	14.3	42.2	61.2	13.9	57.8	61.8	14.7
PSB13NEDH-7-45†	42.9	58.0	13.4	40.0	62.2	13.1	51.3	62.8	13.3
Redfield	41.0	56.3	13.6	34.1	61.0	14.4	50.0	62.2	14.2
Ruth	48.0	58.2	13.2	38.4	62.0	13.5	59.3	62.8	13.5
SY Sunrise	30.4	57.9	14.2	35.0	62.2	14.2	61.4	63.3	13.7
Sunshine†	44.8	58.6	13.0	47.7	61.0	12.8	67.1	63.1	12.0
SY 517 CL2†	35.5	58.3	14.7	34.6	62.0	14.0	55.4	63.1	13.6
Thompson	41.2	59.0	13.3	33.9	61.3	13.9	55.7	62.1	13.0
WB4614	43.1	58.0	12.8	44.6	61.9	13.0	52.6	62.7	12.0
WB4721†	41.5	59.6	14.5	32.6	62.8	14.7	41.9	63.8	14.2
Wesley	48.6	56.1	13.9	33.3	60.1	14.5	58.9	61.3	13.9
SY Wolf	48.2	57.4	13.4	40.0	61.6	13.4	58.0	63.5	13.3
Trial Average	41.8	57.4	13.4	37.9	61.3	13.4	58.1	62.4	13.3
LSD(0.05)‡	9.6	2.2	0.8	8.2	1.2	1.0	18.8	0.5	0.8
CV(%)§	16.5	2.8	3.8	15.5	1.4	5.3	23.1	0.6	9.7

† New entry in 2017, not previously tested.

‡ Yield, test weight, or protein value required (\geq LSD) to determine if varieties are statistically different than one another, § Coefficient of Variation (C.V.) is a measure of the variability of the experimental error, 15% or less is acceptable.

Table 4b. 2017 West River Winter Wheat Performance, continued - Yield (13% moisture), Test Weight (harvest moisture), and Protein (13% moisture). Varieties yielding in the upper 1/3 of each trial location are denoted by gray shading.

Variety	Crop Zone - 6								
	Wall			Winner			Winner intensive		
	Yield	Test Wt.	Protein	Yield	Test Wt.	Protein	Yield	Test Wt.	Protein
Alice (white)	41.2	62.0	13.9	39.2	59.5	14.2	42.9	57.7	15.3
Antero (white)	62.2	63.0	11.8	57.4	61.3	12.0	48.9	60.0	13.3
Avery	49.1	62.3	11.8	54.3	61.4	11.5	61.2	59.8	13.5
LCS Compass	42.9	62.4	14.1	39.9	61.1	14.0	39.4	59.1	15.1
Cowboy	51.0	61.3	12.1	45.6	58.9	11.8	46.1	57.3	13.8
Denali	52.4	62.7	11.7	48.3	59.6	12.6	52.9	58.5	13.4
Expedition	53.6	62.8	13.2	37.8	60.2	14.7	42.1	59.2	15.1
Freeman	54.8	60.6	12.6	44.8	58.8	13.2	42.6	57.0	14.3
WB-Grainfield	40.8	63.0	13.8	41.6	60.0	13.2	55.5	59.1	14.4
Ideal	65.2	62.2	12.7	41.3	59.3	14.2	45.0	58.8	14.7
Keldin†	57.2	61.5	12.5	49.2	60.8	12.1	45.5	59.1	14.0
Langin†	70.0	62.4	11.8	53.9	61.3	11.8	54.2	59.7	12.8
Long Branch†	54.1	62.3	11.8	50.3	60.3	12.2	53.7	58.6	13.6
Lyman	50.3	61.8	12.9	29.7	60.0	14.1	40.7	59.0	15.3
LCS Mint	52.5	64.0	12.4	49.6	62.9	12.1	55.4	61.3	13.7
SY Monument	52.4	61.9	11.8	51.2	58.1	13.0	51.9	56.8	14.2
Oahe	47.2	62.8	12.5	45.3	61.3	12.5	48.8	59.5	14.1
Overland	58.7	62.4	12.5	44.0	60.4	13.8	46.5	59.4	13.9
PSB13NEDH-7-140	54.2	62.3	13.2	42.6	59.9	14.4	51.4	59.8	14.9
PSB13NEDH-7-45†	55.1	61.7	12.9	48.6	60.4	13.0	46.2	58.8	14.6
Redfield	40.5	62.1	12.5	46.2	59.7	13.9	47.9	58.6	15.0
Ruth	59.7	62.6	12.6	40.8	60.2	13.8	45.8	59.8	13.8
SY Sunrise	44.9	63.2	13.8	48.0	61.2	13.8	44.5	59.9	15.2
Sunshine†	60.5	63.2	12.6	44.4	61.1	13.6	43.8	59.1	15.2
SY 517 CL2†	45.7	63.3	13.1	37.6	61.9	13.7	44.7	60.7	15.0
Thompson	58.3	61.7	12.3	46.0	60.3	12.8	44.5	58.5	14.5
WB4614	47.2	61.4	11.9	40.5	60.7	12.6	46.2	59.3	14.5
WB4721†	46.0	64.4	13.1	38.4	62.8	14.8	43.6	60.8	15.3
Wesley	53.3	62.0	13.0	34.2	58.2	14.6	37.0	57.6	15.6
SY Wolf	57.4	63.3	12.6	49.6	60.7	12.5	43.4	59.6	13.9
Trial Average	52.4	62.2	12.6	43.9	60.2	13.2	47.6	59.0	14.3
LSD(0.05)‡	14.3	0.6	0.8	10.5	1.0	1.2	8.7	1.4	1.1
CV(%)§	19.5	0.7	4.5	17.0	1.2	6.4	13.0	1.7	5.3

† New entry in 2017, not previously tested.

‡ Yield, test weight, or protein value required (\geq LSD) to determine if varieties are statistically different than one another, § Coefficient of Variation (C.V.) is a measure of the variability of the experimental error, 15% or less is acceptable.

Table 4c. 2017 West River Winter Wheat Performance, continued - Yield (13% moisture), Test Weight (harvest moisture), and Protein (13% moisture). Varieties yielding in the upper 1/3 of each trial location are denoted by gray shading.

Variety	Crop Zone - 7						Crop Zones 5, 6, & 7			
	Bison			Faith			West River Average			
	Yield	Test Wt	Protein	Yield	Test Wt	Protein	Top 1/3%	Yield	Test Wt	Protein
Alice (white)	8.2	59.8	15.0	32.2	59.3	14.3	25	37.0	59.6	14.6
Antero (white)	10.2	60.4	14.2	31.6	60.7	15.2	75	45.8	61.2	12.9
Avery	13.8	60.0	13.8	29.8	60.0	15.5	50	44.2	60.8	12.7
LCS Compass	10.2	60.0	14.5	27.5	60.1	15.6	0	34.5	60.5	14.4
Cowboy	9.7	57.7	14.5	18.4	60.8	15.2	13	39.7	59.5	13.0
Denali	16.1	60.6	13.5	22.0	60.6	15.9	75	44.8	60.8	12.9
Expedition	14.4	61.1	13.9	26.3	60.5	15.8	13	38.1	60.7	14.1
Freeman	9.6	59.5	14.6	27.1	58.9	15.3	13	40.2	59.3	13.6
WB-Grainfield	14.8	60.4	13.8	36.7	59.1	15.5	63	41.1	60.5	13.8
Ideal	17.8	61.1	14.3	36.2	59.0	15.7	50	42.3	60.2	13.8
Keldin†	9.0	56.0	14.6	23.0	59.9	15.5	38	41.7	59.5	13.7
Langin†	11.0	59.3	14.0	28.3	60.2	14.4	63	44.8	60.7	12.9
Long Branch†	14.3	59.6	13.5	27.5	59.4	14.9	38	42.2	59.9	13.1
Lyman	9.9	60.7	15.4	29.0	59.6	16.1	0	36.1	60.1	14.6
LCS Mint	9.2	56.2	14.7	30.3	61.4	14.6	25	39.7	61.2	13.3
SY Monument	15.6	61.2	13.0	26.8	58.3	14.3	63	43.5	59.6	13.0
Oahe	10.7	61.9	14.3	27.9	60.8	14.3	0	39.1	61.0	13.6
Overland	14.6	62.0	14.6	33.9	60.5	14.0	57	43.1	60.8	13.7
PSB13NEDH-7-140	14.5	59.9	15.2	32.6	60.9	14.6	50	42.3	60.5	14.4
PSB13NEDH-7-45†	11.1	60.7	14.5	27.2	59.1	14.3	38	40.3	60.4	13.6
Redfield	11.1	61.0	14.9	25.9	59.3	15.4	13	37.1	60.0	14.2
Ruth	9.6	60.5	14.4	23.6	60.0	15.6	25	40.6	60.8	13.8
SY Sunrise	13.2	61.8	13.7	25.0	61.0	14.3	25	37.8	61.3	14.1
Sunshine†	12.5	60.7	13.7	31.5	60.2	14.7	50	44.0	60.9	13.4
SY 517 CL2†	17.9	62.0	14.5	32.5	61.6	14.9	25	38.0	61.6	14.2
Thompson	12.7	60.4	15.2	28.5	59.1	15.7	13	40.1	60.3	13.8
WB4614	14.4	60.8	14.5	27.3	60.1	14.7	25	39.5	60.6	13.2
WB4721†	7.3	62.5	15.1	27.9	61.4	15.1	0	34.9	62.2	14.6
Wesley	17.0	61.7	14.9	30.8	58.9	15.6	25	39.1	59.5	14.5
SY Wolf	13.3	61.7	13.8	32.2	61.1	14.6	63	42.7	61.1	13.4
Trial Average	12.4	60.2	14.4	28.9	59.7	15.1	-	40.3	60.3	13.7
LSD(0.05)‡	5.8	2.9	0.7	11.0	1.4	1.9	-	4.0	0.6	0.4
CV(%)§	33.7	3.4	3.5	27.4	1.7	9.1	-	20.3	1.9	5.7

† New entry in 2017, not previously tested.

‡ Yield, test weight, or protein value required (\geq LSD) to determine if varieties are statistically different than one another, § Coefficient of Variation (C.V.) is a measure of the variability of the experimental error, 15% or less is acceptable.

Table 5a. 2015-2017 (2 and 3-year averages) East River Yield (bu/ac @ 13% moisture) Performance - sorted by overall 3-year yield. Varieties yielding in the upper 1/3 for each trial location are denoted by gray shading.

Variety	Crop Zone - 1		Crop Zone - 2				
	Selby		Brookings		Brookings w/fung.		South Shore
	2 year	3 year	2 year	3 year	2 year	3 year	2 year
Antero	82.6	80.6	87.3	72.7	91.3	81.0	78.0
SY Wolf	85.2	83.6	81.3	69.8	79.7	70.7	73.5
SY Monument	79.7	78.7	79.8	66.0	83.7	75.0	78.0
Denali	73.6	72.8	78.5	66.1	81.2	73.8	63.0
WB-Grainfield	77.1	79.9	82.2	67.1	77.0	67.9	71.6
Freeman	75.5	79.2	81.2	69.9	73.9	65.2	66.8
Oahe	79.7	81.5	75.2	66.1	80.5	72.8	68.8
Ruth	81.7	79.5	72.1	60.9	76.8	68.4	68.9
LCS Mint	79.7	75.5	74.1	62.6	78.3	69.7	71.2
Redfield	78.6	81.4	72.3	61.5	73.4	68.0	64.5
Overland	80.2	83.0	64.6	58.2	73.3	67.3	64.3
Thompson	81.4	79.1	71.1	60.4	68.2	62.1	57.9
Alice	79.1	79.9	67.4	57.5	67.0	60.0	66.0
Lyman	68.2	75.1	72.6	64.0	71.5	65.2	58.1
Ideal	70.1	74.2	64.8	57.5	66.7	61.6	53.9
WB4614	70.8	66.8	75.9	59.9	84.5	74.8	63.1
Wesley	73.4	74.0	66.3	57.6	72.3	64.0	59.5
Expedition	65.0	70.5	56.5	49.6	61.5	54.9	49.6
LCS Compass	64.3	69.2	56.8	50.7	58.5	55.5	57.6
SY Sunrise	88.6	-	73.6	-	75.4	-	75.6
PSB13NEDH-7-140	80.6	-	79.5	-	72.2	-	70.1
Avery	74.3	-	66.7	-	74.8	-	63.2
Cowboy	74.1	-	72.0	-	73.5	-	61.7
Keldin†	-	-	-	-	-	-	-
Langin†	-	-	-	-	-	-	-
Long Branch†	-	-	-	-	-	-	-
PSB13NEDH-7-45†	-	-	-	-	-	-	-
Sunshine†	-	-	-	-	-	-	-
SY 517 CL2†	-	-	-	-	-	-	-
WB4721†	-	-	-	-	-	-	-
Trial Average	78.3	78.4	72.6	61.8	74.4	66.9	65.2
LSD(0.05)‡	7.4	5.9	5.2	4.1	4.2	3.8	3.9

† New entry in 2017, not previously tested.

‡ Yield value required (\geq LSD) to determine if varieties are statistically different than one another.

Table 5b. 2015-2017 (2 and 3-year averages) East River Yield (bu/ac @ 13% moisture) Performance, continued - sorted by overall 3-year yield. Varieties yielding in the upper 1/3 for each trial location are denoted by gray shading.

Variety	Crop Zone - 3		Crop Zone - 4			Crop Zones 1-4		
	Beresford		Geddes	Onida		Pierre	East River Ave.	
	2 year	3 year	2 year	2 year	3 year	2 year	2 year	3 year
Antero	79.3	81.8	91.3	60.5	63.6	55.2	78.2	75.5
SY Wolf	79.1	82.6	93.1	50.8	56.9	57.1	75.0	73.2
SY Monument	74.9	80.4	88.7	51.8	56.4	60.7	74.7	72.5
Denali	79.0	85.7	93.1	58.5	57.5	61.1	73.5	71.4
WB-Grainfield	84.3	84.8	88.5	53.1	57.1	50.7	73.0	71.0
Freeman	83.6	85.7	88.1	51.4	53.5	58.5	72.4	70.7
Oahe	68.6	74.3	86.1	48.5	56.6	58.9	70.8	70.5
Ruth	80.0	80.8	95.4	56.1	57.9	55.8	73.3	70.5
LCS Mint	79.9	82.3	89.1	58.1	58.7	53.4	73.0	70.1
Redfield	71.4	77.0	87.5	54.2	57.2	60.4	70.3	69.5
Overland	67.2	72.2	88.7	52.4	56.1	57.9	68.6	68.2
Thompson	66.3	76.4	85.5	55.6	58.9	59.3	68.2	67.4
Alice	71.3	74.6	83.9	53.3	54.6	51.2	67.4	65.8
Lyman	57.9	67.0	83.1	48.0	54.0	55.8	64.4	65.3
Ideal	68.0	75.4	90.4	48.1	50.4	59.3	65.2	65.0
WB4614	66.0	72.5	84.7	46.8	49.1	50.8	67.8	65.0
Wesley	76.0	79.5	85.8	46.0	46.3	53.8	66.6	64.8
Expedition	69.5	79.1	87.3	52.1	51.3	56.4	62.3	62.0
LCS Compass	73.3	82.9	84.4	47.4	48.4	48.6	61.4	62.0
SY Sunrise	82.6	-	93.6	61.2	-	64.7	76.9	-
PSB13NEDH-7-140	71.5	-	86.6	50.7	-	58.4	71.2	-
Avery	80.1	-	91.3	57.6	-	57.2	70.7	-
Cowboy	77.3	-	90.0	44.5	-	57.7	68.9	-
Keldin†	-	-	-	-	-	-	-	-
Langin†	-	-	-	-	-	-	-	-
Long Branch†	-	-	-	-	-	-	-	-
PSB13NEDH-7-45†	-	-	-	-	-	-	-	-
Sunshine†	-	-	-	-	-	-	-	-
SY 517 CL2†	-	-	-	-	-	-	-	-
WB4721†	-	-	-	-	-	-	-	-
Trial Average	74.2	77.7	88.0	52.6	55.2	56.5	70.2	68.3
LSD(0.05)‡	4.4	4.9	4.2	7.3	5.3	7.1	2	4.5

† New entry in 2017, not previously tested.

‡ Yield value required (\geq LSD) to determine if varieties are statistically different than one another.

Table 6a. 2015-2017 (2 and 3-year averages) West River Yield (bu/ac @ 13% moisture) Performance - sorted by overall 3-year yield. Varieties yielding in the upper 1/3 for each trial location are denoted by gray shading.

Variety	Crop Zone - 5		Crop Zone - 6						
	Martin		Hayes	Sturgis		Vivian		Wall	
	2 year	3 year	3 year*	2 year	3 year	2 year	3 year	2 year	3 year
Antero	72.8	64.6	57.2	58.0	67.1	62.4	55.1	63.9	69.5
SY Monument	70.4	62.0	64.0	48.8	59.9	63.6	61.8	62.3	70.4
SY Wolf	64.6	61.7	62.5	53.1	60.9	57.3	63.3	59.9	62.3
Denali	65.9	64.3	63.6	53.5	60.5	66.2	58.8	62.6	71.8
WB-Grainfield	65.0	59.4	62.6	55.0	63.8	61.6	62.2	49.7	58.0
LCS Mint	65.0	58.7	61.5	49.1	61.6	55.9	54.6	59.4	65.4
Overland	67.2	60.3	59.9	52.6	59.2	57.2	56.2	61.9	63.8
Ruth	65.9	60.6	70.2	51.2	58.4	57.1	58.9	60.2	61.1
Freeman	64.1	61.3	60.4	51.6	61.1	60.4	56.9	60.4	62.3
Oahe	63.4	61.2	58.0	52.3	60.0	54.2	57.9	55.5	61.9
Ideal	58.4	55.9	58.4	50.3	57.7	57.0	52.3	65.6	69.5
WB4614	64.7	57.4	55.8	56.9	66.9	54.9	53.0	60.1	67.2
Thompson	60.7	60.7	61.1	46.8	56.6	54.2	57.8	56.8	59.4
Redfield	63.0	57.0	62.6	48.4	56.8	51.2	53.5	51.8	62.3
Wesley	61.8	55.7	58.7	49.0	55.4	55.3	51.6	55.1	58.7
Lyman	55.0	51.6	58.3	50.2	54.6	54.1	54.5	55.3	58.1
Alice	56.7	52.3	67.4	46.4	53.9	58.7	56.7	48.5	52.8
Expedition	50.5	50.2	59.5	48.4	53.2	57.0	54.4	54.5	61.1
LCS Compass	56.1	54.5	56.3	44.2	49.6	48.0	45.1	48.3	53.0
Avery	65.7	-	-	59.0	-	59.5	-	59.1	-
PSB13NEDH-7-140	66.5	-	-	50.8	-	56.1	-	58.6	-
Cowboy	65.6	-	-	54.0	-	60.5	-	63.0	-
SY Sunrise	55.3	-	-	49.0	-	57.2	-	55.0	-
Keldin†	-	-	-	-	-	-	-	-	-
Langin†	-	-	-	-	-	-	-	-	-
Long Branch†	-	-	-	-	-	-	-	-	-
PSB13NEDH-7-45†	-	-	-	-	-	-	-	-	-
Sunshine†	-	-	-	-	-	-	-	-	-
SY 517 CL2†	-	-	-	-	-	-	-	-	-
WB4721†	-	-	-	-	-	-	-	-	-
Trial Average	62.2	58.1	60.3	51.2	58.9	57.5	56.1	57.4	62.3
LSD(0.05)‡	7.3	5.7	8.5	5.1	3.8	10.2	8.9	8.1	6.6

*Hayes 3 year average includes only two years from 2015-2016.

† New entry in 2017, not previously tested.

‡ Yield value required (≥LSD) to determine if varieties are statistically different than one another.

Table 6b. 2015-2017 (2 and 3-year averages) West River Yield (bu/ac @ 13% moisture) Performance, continued - sorted by overall 3-year yield. Varieties yielding in the upper 1/3 for each trial location are denoted by gray shading.

Variety	Crop Zone - 6				Crop Zone - 7				Crop Zones 5-7	
	Winner		Winner intensive		Bison		Faith*		West River Ave.	
	2 year	3 year	2 year	3 year	2 year	3 year	2 year	3 year	2 year	3 year
Antero	69.8	72.8	65.4	71.1	29.5	36.8	69.8	60.0	59.5	61.2
SY Monument	67.0	66.7	65.7	64.7	27.6	36.3	60.5	56.8	56.3	59.5
SY Wolf	66.7	68.0	56.2	58.7	28.6	36.8	59.1	57.8	54.0	58.4
Denali	62.4	58.5	65.9	65.2	28.7	39.8	55.0	48.8	55.8	58.1
WB-Grainfield	61.7	57.1	65.9	67.3	28.0	37.8	64.4	58.3	54.7	57.8
LCS Mint	69.2	66.6	72.0	68.7	29.0	35.8	61.3	54.6	55.6	57.7
Overland	61.8	61.3	60.6	63.9	27.5	36.1	58.2	53.3	54.4	56.4
Ruth	60.3	61.4	61.9	65.0	22.5	30.5	49.4	46.6	52.3	55.8
Freeman	62.9	62.8	56.3	61.0	21.3	32.6	55.8	51.4	52.4	55.7
Oahe	57.6	59.8	60.2	63.3	27.8	38.2	46.7	47.1	50.5	55.5
Ideal	57.6	59.4	56.4	60.8	28.9	37.3	58.5	51.8	52.2	55.1
WB4614	52.3	51.4	58.6	61.0	29.5	34.9	60.1	50.1	52.7	54.5
Thompson	56.6	60.0	54.7	58.3	22.9	32.8	51.9	49.9	49.3	54.3
Redfield	58.7	58.3	58.5	61.0	24.7	33.2	51.6	47.0	49.6	53.7
Wesley	54.8	53.3	57.0	55.8	31.3	41.1	59.4	50.8	51.5	52.7
Lyman	52.9	56.4	59.5	62.6	23.7	32.2	54.0	51.9	49.5	52.6
Alice	57.7	57.0	61.4	59.2	21.2	28.8	58.7	51.4	50.5	52.3
Expedition	54.7	53.8	54.6	57.0	25.4	33.2	57.2	50.1	49.2	51.7
LCS Compass	56.2	55.1	54.2	55.8	23.3	29.2	55.0	50.3	46.9	49.1
Avery	64.7	-	65.3	-	27.2	-	56.1	-	55.4	-
PSB13NEDH-7-140	61.0	-	60.1	-	28.0	-	55.8	-	53.2	-
Cowboy	61.7	-	59.4	-	22.7	-	52.5	-	53.1	-
SY Sunrise	64.6	-	60.5	-	26.5	-	58.3	-	51.9	-
Keldin†	-	-	-	-	-	-	-	-	-	-
Langin†	-	-	-	-	-	-	-	-	-	-
Long Branch†	-	-	-	-	-	-	-	-	-	-
PSB13NEDH-7-45†	-	-	-	-	-	-	-	-	-	-
Sunshine†	-	-	-	-	-	-	-	-	-	-
SY 517 CL2†	-	-	-	-	-	-	-	-	-	-
WB4721†	-	-	-	-	-	-	-	-	-	-
Trial Average	60.4	60.1	60.2	61.6	25.8	33.8	56.9	52.1	53.3	55.8
LSD(0.05)‡	6.7	5.6	6.3	5.1	4.4	5.8	8.4	6.2	4.1	4.0

*Faith 3 year average includes data from McLaughlin in 2015.

† New entry in 2017, not previously tested.

‡ Yield value required (≥LSD) to determine if varieties are statistically different than one another.

Table 7. List of winter wheat varieties tested in 2017 along with origin, agronomic, and grain quality characteristics.

Variety	Testing and Origin		Agronomic Characteristics				Grain Quality		
	Years tested in SD trials	Origin†-Year	Rel.‡ Hdg days	Rel.‡ Height inches	Lodging Score§	Winter Hardness¶	2017 Test Wt.	2017 Protein %	Baking Quality#
Alice (white)	5+	SD-06	1	-2	2.1	G	Low	Good	E
Antero (white)	3	PG-12	1	0	2.6	G	Good	Low	(G)††
Avery	2	PG-15	1	0	3.4	-	Avg.	Low	(G)
LCS Compass	3	LCS-14	0	2	2.5	G	Avg.	Good	(E)
Cowboy	2	WY-12	4	0	3.5	(G)	Avg.	Low	(A)
Denali	4	PG-11	4	1	2.3	G	Good	Low	(A)
Expedition	5+	SD-02	<u>0</u>	<u>0</u>	2.4	G	Low	Avg.	G
Freeman	5+	NE-13	-1	-1	2.1	F	Low	Avg.	A-G
WB-Grainfield	5+	WB-12	-2	1	2.3	F	Avg.	Avg.	G
Ideal	5+	SD-11	5	-2	3.5	G-E	Avg.	Avg.	A
Keldin†	new	WB-13	5	-2	1.8	(E)	Avg.	Avg.	-
Langin†	new	PG-16	-1	-3	2.6	(E)	Avg.	Low	(G)
Long Branch†	new	DG-16	-1	1	2.9	(E)	Avg.	Low	-
Lyman	5+	SD-08	1	1	2.6	G-E	Avg.	Good	A
LCS Mint	5+	LCS-12	1	1	2.0	G	Good	Avg.	(G)
SY Monument	3	AP-15	3	-2	1.9	G-E	Low	Avg.	(G)
Oahe	5+	SD-16	2	4	2.0	G-E	Good	Avg.	A
Overland	5+	NE-07	2	2	1.9	G-E	Avg.	Avg.	(A)
PSB13NEDH-7-140	2	LCS-exp	3	2	1.3	(G)	Good	Good	(A)
PSB13NEDH-7-45†	new	LCS-exp	1	-1	1.6	(G)	Avg.	Avg.	(A)
Redfield	5+	SD-13	4	-1	1.9	G	Avg.	Good	G
Ruth	3	NE-15	1	1	1.8	G	Avg.	Avg.	(G)
SY Sunrise	2	AP-16	2	-3	2.0	(E)	Good	Avg.	(G)
Sunshine†	new	PG-14	-1	-3	2.0	-	Avg.	Avg.	(G)
SY 517 CL2†	new	AP-17	0	-3	2.0	(G)	Good	Avg.	(A)
Thompson	3	SD-17	3	2	2.0	G	Avg.	Avg.	A
WB4614	3	WB-14	5	-3	1.5	G	Avg.	Avg.	-
WB4721†	new	WB-15	-1	-2	1.8	(G)	Good	Good	-
Wesley	5+	NE-99	1	-2	2.6	G	Low	Good	G
SY Wolf	5+	AP-11	1	-3	1.1	G	Good	Avg.	A

† AP, AgriPro; DG, Dyna-Gro Seed; LCS, Limagrain Cereal Seeds; NE, Nebraska (Husker Brand Genetics); PG, PlainsGold; SD, South Dakota; WB, WestBred; WY, Wyoming; and – (Year of Release).

‡ Difference in days to heading compared to **Expedition** (2017 from Brookings - **Julian date 150**). Height compared to **Expedition** (2017 in Brookings and Beresford - **39 inches**).

§ Lodging score: 1, perfectly standing; to 5, completely flat; ¶ Winter hardiness: E, excellent; G, good; F, fair; P, poor.

Baking quality: E, excellent; G, good; A, acceptable; P, Poor. Note: SDSU does not typically do baking quality analysis.

†† Estimated ratings (X), based on information provided by entity that submitted the variety.

Table 8. Winter wheat variety disease ratings.

Variety	Disease Ratings‡						
	2016# Stripe Rust	Stem Rust	2017 Leaf Rust	2017 Tan Spot	2017 SNB*	WSMV	2016# FHB (Scab)
Alice (white)	MS-S	MR	MS	MS	R	MS	MS
Antero (white)	MR	(MR)¶	MR-R	MR	MR	(MS)	S
Avery	S	(S)	MR-R	MR	R	(R)	MS
LCS Compass	S	(R)	MR-R	MS	MR	(S)	MR
Cowboy	S	(MR)	MS	S	MR	(S)	S
Denali	S	(MS)	MR-R	MS	S	(MS)	MR
Expedition	S	R	MS	MS	S	S	MR
Freeman	S	MR	MS	MS	MR	S	MS
WB-Grainfield	MR-MS	MR	R	MR	MR	MR	S
Ideal	S	MR	MR-R	MS	MS	S	MS
Keldint†	(MR)	-	MR	MR	MR	-	(MS)
Langint†	(MR)	(S)	MR	MR	R	(MS)	-
Long Branch†	(MR)	(MR)	R	MS	R	-	(S)
Lyman	S	R	MR	MR	MR	S	MR
LCS Mint	MS-S	MS	MR	MR	R	MR	S
SY Monument	MR-R	(R)	R	MR	MR	(R)	MR
Oahe	MR	MR-MS	MR	MS	MR	MR	MR
Overland	S	MR	MR	MS	MS	MS	MR
PSB13NEDH-7-140	MS-S	-	MR	MS	R	-	MR
PSB13NEDH-7-45†	(MS)	-	R	MR	MR	-	-
Redfield	MR-MS	MR	MS	MR	MR	S	MR
Ruth	MS-S	(MR)	MS	MS	R	(S)	MS
SY Sunrise	MR-R	(R)	R	MS	MR	(MR-MS)	MR
Sunshine†	(MS)	(MR)	MR	MR	MR	(MS)	(S)
SY 517 CL2†	(MR-MS)	(R)	R	R	MR	-	(MR-MS)
Thompson	MR-MS	MR-MS	R	S	N/A	MS	MR
WB4614	MS	-	R	MR	MR	(S)	S
WB4721†	(MR)	-	MR	MS	MS	(MR)	(S)
Wesley	S	R	MS	MR	MR	S	S
SY Wolf	S	MR	R	MR	MR	MR	S

‡ Disease ratings: R, resistant; MR, moderately resistant; MS, moderately susceptible; S, susceptible.

Conditions in the 2017 SDSU disease nursery were not favorable for pathogen development, thus 2016 results are reported.

*Septoria/Stagonospora nodorum blotch

¶ Estimated rankings based on information provided by the entity that submitted the variety.

† new entry in 2017