2017 MONTANA WINTER WHEAT OFF-STATION TESTS
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Table 34. 2017 Off-Station Winter Wheat Tests: Summary

Cultivar/Line + = new for 2017	Origin/Pedigree	Yield bu/ac RCB	Test weight lb/bu	Plant height in	Lodging %	Protein %
	Locations	16	16	15	4	16
Keldin	Westbred, 2011	**63.6**	61.1	28.2	52	11.8
+ **MTW1491**	MT08189//MT08187/(MTW08166, WB3768 sib	**63.5**	60.8	29.5	36	11.7
MT1265	Yellowstone*4/KS96WGRC40 (Lr41, wcm)	**62.8**	59.8	30.2	51	12.0
+ **MT1465**	Yellowstone/MT0684	**62.8**	60.8	27.5	45	12.0
SY Wolf	Syngenta (AgriPro), 2010	**62.7**	62.3	27.1	48	11.9
MT1348	PI572290/BigSky	**62.5**	60.7	28.2	54	11.9
+ **SY Monument**	Syngenta, 2015	**62.4**	59.7	27.8	42	11.2
Yellowstone	Montana 2005	**61.6**	59.9	28.8	37	12.1
+ **MT1444**	Yellowstone*2/MTW0590	**61.2**	60.5	29.3	44	12.0
SY Clearstone 2CL	Montana/Syngenta, 2012	**61.1**	59.7	30.6	52	11.9
+ **Brawl CLP**	Colorado Research Foundation, 2011	59.4	**63.0**	27.2	**23**	12.2
Northern	Montana, 2015	59.3	60.2	27.8	46	12.5
+ **MTS1588**	MT0598/98X366E29-1	59.0	61.2	25.8	**5**	12.3
+ **MTF1432**	Yellowstone*2/98X168E1	58.5	58.5	32.3	50	12.1
+ **MT1471**	Yellowstone/NuDakota	57.7	60.3	27.8	53	**12.9**
+ **MTS1573**	Danby/2*MTS04114	57.6	61.8	27.6	35	12.0
Loma	Montana, 2016	57.3	60.1	26.7	29	12.3
+ **MTF1435**	MT08186//Yellowstone(L)*2/98X168E1	56.6	59.6	34.3	50	12.0
Decade	Montana/North Dakota, 2010	56.5	60.7	27.7	37	12.2
+ **MT1488**	MTR00118/MT0241//CDC Falcon	56.0	60.4	27.5	37	12.3
CDC Falcon	Sask/WestBred, 1999	55.5	60.1	26.1	31	12.2
Warhorse	Montana, 2013	55.5	60.3	27.3	**22**	**12.8**
Judee	Montana, 2011	54.9	61.3	28.0	38	12.5
Bearpaw	Montana, 2011	53.9	60.6	26.3	34	12.4
WB-Quake	WestBred, 2011	50.9	60.6	27.5	35	12.3
Average		**58.9**	**60.6**	**28.3**	**39.5**	**12.1**
LSD (0.05)		**3.4**	**0.5**	**0.9**	**19.9**	**0.3**
C.V. (%)		**8.2**	**1.3**	**4.6**	**35.8**	**3.6**

bold = indicates highest value within a column

bold = indicates varieties with values equal to highest variety within a column based on Fisher's Protected LSD (p =0.05)

Table 35. 2017 Off-Station Winter Wheat Test (Exp. 3851): Turner (NARC)

Entry		Cultivar/Line	Origin/Pedigree	Yield bu/ac	Test weight lb/bu	Plant height in	Falling number	Protein %
		+ = new for 2017		LAT	LAT	LAT	RCB	LAT
			lattice efficiency relative to RCB	199%	125%	117%		160%
21	**+**	**MTW1491**	MT08189//MT08187/(MTW08166, W	**23.1**	57.1	21.6	364	13.1
25	**+**	**MTS1588**	MT0598/98X366E29-1	**22.9**	57.6	16.8	363	14.1
10		**Loma**	Montana, 2016	21.3	57.1	15.5	346	14.7
9		**Northern**	Montana, 2015	21.3	57.3	16.3	375	14.3
3		**Decade**	Montana/North Dakota, 2010	21.1	56.7	16.0	367	14.5
14		**Keldin**	Westbred, 2011	20.8	57.5	18.4	352	13.3
11		**MT1265**	Yellowstone*4/KS96WGRC40 (Lr41,	20.6	56.2	20.1	377	13.8
17	**+**	**MT1444**	Yellowstone*2/MTW0590	20.4	57.1	19.1	369	13.7
19	**+**	**MT1471**	Yellowstone/NuDakota	20.4	55.2	17.6	354	14.6
13		**MT1348**	PI572290/BigSky	20.0	57.0	18.2	380	13.3
1		**Yellowstone**	Montana 2005	19.1	55.5	17.7	374	13.7
18	**+**	**MT1465**	Yellowstone/MT0684	19.1	56.6	17.9	356	14.2
5		**Bearpaw**	Montana, 2011	19.0	55.9	14.5	348	14.7
6		**SY Clearstone 2CL**	Montana/Syngenta, 2012	19.0	56.6	21.3	365	14.2
16	**+**	**SY Monument**	Syngenta, 2015	18.7	56.9	18.5	349	12.1
24	**+**	**MTS1573**	Danby/2*MTS04114	18.4	57.7	18.3	370	13.2
22	**+**	**MTF1432**	Yellowstone*2/98X168E1	18.2	54.9	20.9	353	13.6
2		**Judee**	Montana, 2011	18.1	57.7	17.2	355	**14.9**
12		**SY Wolf**	Syngenta (AgriPro), 2010	17.7	58.0	17.3	333	13.9
23	**+**	**MTF1435**	MT08186//Yellowstone(L)*2/98X168E	17.4	56.0	22.6	353	13.1
20	+	**MT1488**	MTR00118/MT0241//CDC Falcon	17.3	55.5	14.1	370	**15.3**
4		**CDC Falcon**	Sask/WestBred, 1999	17.2	56.1	13.0	370	13.6
8		**WB-Quake**	WestBred, 2011	16.9	56.3	16.5	341	14.5
7		**Warhorse**	Montana, 2013	16.9	54.7	16.7	377	14.3
15	**+**	**Brawl CLP**	Colorado Research Foundation, 201	16.4	**59.1**	16.0	358	13.0
		Average		**19.2**	**56.6**	**17.7**	**360.8**	**13.9**
		LSD (0.05)		**1.8**	**0.7**	**3.1**	**12.5**	**0.5**
		C.V. (%)		**5.1**	**0.7**	**9.9**	**2.1**	**1.8**
		P-value (Varieties)		**<.0001**	**<.0001**	**<.0001**	**<.0001**	**<.0001**

bold = indicates highest value within a column

bold = indicates varieties with values equal to highest variety within a column based on Fisher's Protected LSD (p =0.05)

Table 36. 2017 Off-Station Winter Wheat Test (Exp. 3853): Loma (NARC)

Entry		Cultivar/Line	Origin/Pedigree	Yield bu/ac	Test weight lb/bu	Plant height in	Sawfly cutting %	Falling number	Protein %
		+ = new for 2017		LAT	LAT	LAT	LAT	LAT	LAT
			lattice efficiency relative to RCB	568%	122%	192%	177%	236%	854%
24	**+**	**MTS1573**	Danby/2*MTS04114	**51.6**	**61.5**	24.6	39	391	14.1
25	**+**	**MTS1588**	MT0598/98X366E29-1	**49.7**	**61.1**	22.3	**24**	361	15.2
13		**MT1348**	PI572290/BigSky	**49.1**	60.5	25.2	45	382	14.9
15	**+**	**Brawl CLP**	Colorado Research Foundation, 201	**48.8**	**61.7**	25.3	**31**	362	14.7
9		**Northern**	Montana, 2015	**43.9**	60.2	22.2	**32**	417	**15.6**
18	**+**	**MT1465**	Yellowstone/MT0684	43.4	60.8	23.6	58	367	15.0
11		**MT1265**	Yellowstone*4/KS96WGRC40 (Lr41,	42.8	60.0	25.0	57	407	15.5
21	**+**	**MTW1491**	MT08189//MT08187/(MTW08166, W	42.6	**61.2**	25.8	49	404	14.9
1		**Yellowstone**	Montana 2005	42.5	59.9	24.8	**31**	401	15.3
12		**SY Wolf**	Syngenta (AgriPro), 2010	41.9	**61.8**	22.3	45	350	14.9
10		**Loma**	Montana, 2016	41.5	60.5	22.2	38	367	14.9
22	**+**	**MTF1432**	Yellowstone*2/98X168E1	41.4	58.4	26.6	51	397	15.1
2		**Judee**	Montana, 2011	41.1	**60.9**	24.3	41	370	**16.0**
23	**+**	**MTF1435**	MT08186//Yellowstone(L)*2/98X168	40.8	60.1	26.8	37	398	14.9
7		**Warhorse**	Montana, 2013	40.6	60.8	23.5	**13**	408	**16.0**
3		**Decade**	Montana/North Dakota, 2010	40.4	60.0	23.0	52	376	15.3
4		**CDC Falcon**	Sask/WestBred, 1999	40.2	58.3	21.6	57	382	14.8
8		**WB-Quake**	WestBred, 2011	40.2	**61.2**	22.1	**25**	369	15.1
16	**+**	**SY Monument**	Syngenta, 2015	40.0	60.1	25.0	54	370	13.7
14		**Keldin**	Westbred, 2011	38.7	60.2	23.4	78	375	15.0
19	**+**	**MT1471**	Yellowstone/NuDakota	38.6	59.5	23.2	51	381	**16.2**
17	**+**	**MT1444**	Yellowstone*2/MTW0590	38.4	60.4	23.8	49	387	15.2
6		**SY Clearstone 2CL**	Montana/Syngenta, 2012	38.4	60.2	23.9	46	401	**15.6**
20	+	**MT1488**	MTR00118/MT0241//CDC Falcon	37.8	59.1	24.1	61	393	15.3
5		**Bearpaw**	Montana, 2011	27.9	60.4	19.4	**11**	373	**16.0**
		Average		**41.7**	**60.3**	**23.8**	**43.0**	**383.6**	**15.2**
		LSD (0.05)		**7.7**	**0.9**	**3.0**	**25.6**	**12.6**	**0.7**
		C.V. (%)		**9.9**	**0.8**	**6.8**	**32.2**	**1.8**	**2.3**
		P-value (Varieties)		**0.0009**	**<.0001**	**0.0021**	**0.0012**	**<.0001**	**<.0001**

bold = indicates highest value within a column

bold = indicates varieties with values equal to highest variety within a column based on Fisher's Protected LSD (p =0.05)

Table 37. 2017 Off-Station Winter Wheat Test (Exp. 3862): The Knees (WTARC)

Entry		Cultivar/Line	Origin/Pedigree	Yield bu/ac	Test weight lb/bu	Plant height in	Lodging %	Protein %
		+ = new for 2017		LAT	RCB	LAT	RCB	LAT
			lattice efficiency relative to RCB	105%		117%		114%
15	**+**	**Brawl CLP**	Colorado Research Foundation, 201	**90.2**	**64.1**	29.5	**19.4**	11.5
16	**+**	**SY Monument**	Syngenta, 2015	**90.0**	59.8	27.5	43.7	11.4
14		**Keldin**	Westbred, 2011	**89.9**	61.9	29.3	53.4	11.8
10		**Loma**	Montana, 2016	**88.2**	60.9	28.8	**25.8**	11.9
24	**+**	**MTS1573**	Danby/2*MTS04114	**86.1**	62.8	28.5	37.2	12.1
21	**+**	**MTW1491**	MT08189//MT08187/(MTW08166, W	**85.6**	60.4	30.0	**23.0**	11.9
12		**SY Wolf**	Syngenta (AgriPro), 2010	**85.3**	63.2	27.6	37.2	12.2
1		**Yellowstone**	Montana 2005	**84.9**	60.7	28.9	33.8	11.9
11		**MT1265**	Yellowstone*4/KS96WGRC40 (Lr41,	**82.9**	59.6	31.5	45.3	**12.3**
13		**MT1348**	PI572290/BigSky	**82.3**	60.1	28.0	54.8	**12.4**
25	**+**	**MTS1588**	MT0598/98X366E29-1	**82.1**	62.0	26.4	**8.5**	**12.4**
17	**+**	**MT1444**	Yellowstone*2/MTW0590	**81.4**	60.2	29.9	34.4	12.1
6		**SY Clearstone 2CL**	Montana/Syngenta, 2012	**80.3**	59.6	31.9	40.0	11.9
22	**+**	**MTF1432**	Yellowstone*2/98X168E1	**80.2**	58.8	34.8	**28.8**	12.1
9		**Northern**	Montana, 2015	**79.9**	60.4	29.0	38.9	**12.5**
19	**+**	**MT1471**	Yellowstone/NuDakota	78.5	61.2	29.5	66.0	**12.8**
7		**Warhorse**	Montana, 2013	77.1	61.0	26.4	**28.9**	**12.6**
18	**+**	**MT1465**	Yellowstone/MT0684	76.2	60.8	27.4	59.3	12.1
5		**Bearpaw**	Montana, 2011	75.5	61.3	27.1	43.9	**12.6**
23	**+**	**MTF1435**	MT08186//Yellowstone(L)*2/98X168	74.7	59.7	35.1	**27.5**	**12.4**
2		**Judee**	Montana, 2011	72.9	61.9	29.2	41.7	**12.5**
4		**CDC Falcon**	Sask/WestBred, 1999	71.8	60.6	27.1	36.5	**12.5**
3		**Decade**	Montana/North Dakota, 2010	71.6	61.3	27.7	**29.0**	**12.6**
20	+	**MT1488**	MTR00118/MT0241//CDC Falcon	70.3	60.1	29.5	**19.7**	11.8
8		**WB-Quake**	WestBred, 2011	65.0	62.1	27.6	43.7	**12.5**
		Average		**80.1**	**61.0**	**29.1**	**36.8**	**12.2**
		LSD (0.05)		**10.7**	**0.8**	**1.8**	**20.0**	**0.5**
		C.V. (%)		**7.6**	**0.8**	**3.5**	**31.4**	**2.3**
		P-value (Varieties)		**0.0004**	**<.0001**	**<.0001**	**0.0003**	**<.0001**

bold = indicates highest value within a column

bold = indicates varieties with values equal to highest variety within a column based on Fisher's Protected LSD (p =0.05)

Table 38. 2017 Off-Station Winter Wheat Test (Exp. 3864): Cut Bank (WTARC)

Entry		Cultivar/Line	Origin/Pedigree	Yield bu/ac	Test weight lb/bu	Plant height in	Lodg-ing %	Protein %
		+ = new for 2017		LAT	LAT	RCB	RCB	LAT
			lattice efficiency relative to RCB	123%	110%			235%
14		**Keldin**	Westbred, 2011	**98.0**	63.2	32.3	3.3	9.6
16	+	**SY Monument**	Syngenta, 2015	**94.1**	61.1	33.0	1.7	9.4
18	+	**MT1465**	Yellowstone/MT0684	**91.5**	62.4	32.0	1.7	9.6
11		**MT1265**	Yellowstone*4/KS96WGRC40 (Lr41,	**91.4**	61.6	37.3	3.3	9.8
17	+	**MT1444**	Yellowstone*2/MTW0590	**90.5**	62.1	37.0	0.0	9.7
9		**Northern**	Montana, 2015	87.3	61.7	35.3	6.7	10.0
25	+	**MTS1588**	MT0598/98X366E29-1	86.7	63.2	30.0	0.0	10.0
13		**MT1348**	PI572290/BigSky	86.7	62.7	34.7	0.0	9.8
20	+	**MT1488**	MTR00118/MT0241//CDC Falcon	86.0	62.8	34.3	1.7	**10.6**
6		**SY Clearstone 2CL**	Montana/Syngenta, 2012	85.4	60.9	37.7	0.0	**10.1**
1		**Yellowstone**	Montana 2005	84.9	61.5	35.0	3.3	9.6
21	+	**MTW1491**	MT08189//MT08187/(MTW08166, W	84.3	62.4	35.0	3.3	9.7
22	+	**MTF1432**	Yellowstone*2/98X168E1	82.8	60.5	39.0	1.7	9.3
12		**SY Wolf**	Syngenta (AgriPro), 2010	82.4	**64.4**	31.7	0.0	**10.5**
4		**CDC Falcon**	Sask/WestBred, 1999	82.0	62.5	32.3	0.0	9.8
10		**Loma**	Montana, 2016	80.9	62.1	33.0	1.7	9.7
2		**Judee**	Montana, 2011	79.9	**63.8**	33.7	1.7	**10.1**
19	+	**MT1471**	Yellowstone/NuDakota	79.9	62.9	33.0	3.3	**10.6**
7		**Warhorse**	Montana, 2013	79.7	62.5	34.7	0.0	**10.4**
15	+	**Brawl CLP**	Colorado Research Foundation, 201	79.7	**63.9**	30.3	3.3	**10.8**
23	+	**MTF1435**	MT08186//Yellowstone(L)*2/98X168	78.6	61.3	43.3	1.7	9.9
3		**Decade**	Montana/North Dakota, 2010	78.2	62.7	33.7	3.3	**10.1**
24	+	**MTS1573**	Danby/2*MTS04114	77.1	**63.4**	32.7	0.0	**10.6**
5		**Bearpaw**	Montana, 2011	75.0	63.0	33.0	0.0	**10.1**
8		**WB-Quake**	WestBred, 2011	74.5	62.8	34.0	0.0	9.9
		Average		**83.9**	**62.4**	**34.3**	**1.7**	**10.0**
		LSD (0.05)		**8.0**	**1.1**	**2.0**	**ns**	**0.7**
		C.V. (%)		**5.3**	**1.0**	**3.5**	**160**	**3.9**
		P-value (Varieties)		**<.0001**	**<.0001**	**<.0001**	**0.2529**	**0.0018**

bold = indicates highest value within a column

bold = indicates varieties with values equal to highest variety within a column based on Fisher's Protected LSD (p =0.05)

Table 39. 2017 Off-Station Winter Wheat Test (Exp. 3865): Shelby/Devon (WTARC)

Entry		Cultivar/Line	Origin/Pedigree	Yield bu/ac	Test weight lb/bu	Plant height in	Lodg-ing %	Protein %
	+ = new for 2017			LAT	LAT	LAT	LAT	RCB
			lattice efficiency relative to RCB	107%	158%	108%	124%	
21	**+**	**MTW1491**	MT08189//MT08187/(MTW08166, W	75.2	61.5	26.6	23	12.7
13		**MT1348**	PI572290/BigSky	72.9	60.9	24.9	18	12.7
11		**MT1265**	Yellowstone*4/KS96WGRC40 (Lr41,	70.4	60.2	28.9	28	12.6
16	**+**	**SY Monument**	Syngenta, 2015	69.4	59.5	24.9	**15**	12.5
10		**Loma**	Montana, 2016	67.7	61.4	23.8	**13**	12.8
25	**+**	**MTS1588**	MT0598/98X366E29-1	67.7	61.6	24.9	**0**	12.5
6		**SY Clearstone 2CL**	Montana/Syngenta, 2012	67.6	60.3	28.9	26	12.5
17	**+**	**MT1444**	Yellowstone*2/MTW0590	67.5	61.3	24.0	27	12.6
4		**CDC Falcon**	Sask/WestBred, 1999	66.6	60.6	23.5	20	13.0
1		**Yellowstone**	Montana 2005	66.5	60.7	26.2	**13**	13.0
14		**Keldin**	Westbred, 2011	65.5	61.1	24.2	26	12.9
22	**+**	**MTF1432**	Yellowstone*2/98X168E1	65.3	58.7	28.9	38	12.9
20	+	**MT1488**	MTR00118/MT0241//CDC Falcon	65.1	61.8	23.8	24	12.4
12		**SY Wolf**	Syngenta (AgriPro), 2010	65.0	**62.9**	23.5	38	12.4
9		**Northern**	Montana, 2015	64.7	60.9	25.8	24	13.4
18	**+**	**MT1465**	Yellowstone/MT0684	64.3	61.7	24.1	43	12.8
24	**+**	**MTS1573**	Danby/2*MTS04114	64.2	62.0	23.9	**10**	12.6
15	**+**	**Brawl CLP**	Colorado Research Foundation, 201	63.9	**63.3**	23.8	26	13.2
5		**Bearpaw**	Montana, 2011	63.2	61.8	22.0	**11**	12.9
3		**Decade**	Montana/North Dakota, 2010	62.5	60.6	24.5	**14**	12.6
2		**Judee**	Montana, 2011	62.4	61.3	25.7	**6**	12.8
8		**WB-Quake**	WestBred, 2011	62.1	61.4	27.0	**7**	13.1
7		**Warhorse**	Montana, 2013	61.8	61.4	23.7	**6**	13.3
23	**+**	**MTF1435**	MT08186//Yellowstone(L)*2/98X168	59.8	60.4	30.7	28	12.8
19	**+**	**MT1471**	Yellowstone/NuDakota	58.4	60.8	25.4	30	13.7
		Average		**65.6**	**61.1**	**25.3**	**20.6**	**12.8**
		LSD (0.05)		**ns**	**0.9**	**2.5**	**16.8**	**ns**
		C.V. (%)		**9.6**	**0.8**	**5.5**	**45.3**	**4.3**
		P-value (Varieties)		**0.5007**	**<.0001**	**<.0001**	**0.0003**	**0.5443**

bold = indicates highest value within a column

bold = indicates varieties with values equal to highest variety within a column based on Fisher's Protected LSD (p =0.05)

Table 40. 2017 Off-Station Winter Wheat Test (Exp. 3866): Choteau (WTARC)

Entry		Cultivar/Line	Origin/Pedigree	Yield bu/ac	Test weight lb/bu	Plant height in	Lodg-ing %	Protein %
	+ = new for 2017			LAT	LAT	LAT	LAT	LAT
			lattice efficiency relative to RCB	126%	152%	144%	109%	204%
21	**+**	**MTW1491**	MT08189//MT08187/(MTW08166, W	**63.1**	59.0	30.9	79.1	13.5
24	**+**	**MTS1573**	Danby/2*MTS04114	**59.8**	**60.5**	29.1	47.1	13.4
15	**+**	**Brawl CLP**	Colorado Research Foundation, 201	**59.4**	**61.6**	28.4	39.4	12.8
14		**Keldin**	Westbred, 2011	**57.6**	59.6	29.1	77.3	13.8
18	**+**	**MT1465**	Yellowstone/MT0684	**56.8**	57.9	29.5	75.4	13.9
6		**SY Clearstone 2CL**	Montana/Syngenta, 2012	**56.0**	56.3	33.4	79.7	13.3
13		**MT1348**	PI572290/BigSky	**55.9**	58.3	29.2	77.4	13.3
23	**+**	**MTF1435**	MT08186//Yellowstone(L)*2/98X168	**55.4**	56.9	33.3	84.7	13.9
16	**+**	**SY Monument**	Syngenta, 2015	**55.4**	55.8	27.3	72.0	13.1
17	**+**	**MT1444**	Yellowstone*2/MTW0590	**54.9**	57.9	33.3	65.9	**14.1**
11		**MT1265**	Yellowstone*4/KS96WGRC40 (Lr41,	**54.9**	57.0	31.7	74.7	13.6
22	**+**	**MTF1432**	Yellowstone*2/98X168E1	53.3	56.5	33.9	75.4	13.7
25	**+**	**MTS1588**	MT0598/98X366E29-1	52.6	58.3	26.5	**6.3**	**14.1**
19	**+**	**MT1471**	Yellowstone/NuDakota	52.5	57.0	28.3	74.8	**14.8**
12		**SY Wolf**	Syngenta (AgriPro), 2010	52.2	59.6	31.5	69.8	**14.1**
9		**Northern**	Montana, 2015	52.2	57.6	30.9	74.0	14.0
7		**Warhorse**	Montana, 2013	52.0	57.4	29.5	**16.8**	**14.2**
4		**CDC Falcon**	Sask/WestBred, 1999	51.0	57.7	28.6	58.3	**14.3**
1		**Yellowstone**	Montana 2005	50.6	56.1	27.4	62.1	**14.3**
5		**Bearpaw**	Montana, 2011	49.4	57.1	28.3	45.0	**14.5**
10		**Loma**	Montana, 2016	49.1	57.1	29.5	30.6	13.7
2		**Judee**	Montana, 2011	48.8	58.3	30.5	52.9	**14.6**
3		**Decade**	Montana/North Dakota, 2010	48.6	59.3	28.5	64.4	13.5
20	+	**MT1488**	MTR00118/MT0241//CDC Falcon	47.4	56.8	30.2	64.2	14.0
8		**WB-Quake**	WestBred, 2011	40.7	56.9	31.1	**17.8**	**14.3**
		Average		**53.2**	**57.9**	**30.0**	**59.4**	**13.9**
		LSD (0.05)		**8.5**	**1.6**	**2.6**	**22.8**	**0.8**
		C.V. (%)		**8.9**	**1.5**	**4.8**	**21.7**	**3.3**
		P-value (Varieties)		**0.0061**	**<.0001**	**<.0001**	**<.0001**	**0.0010**

bold = indicates highest value within a column

bold = indicates varieties with values equal to highest variety within a column based on Fisher's Protected LSD (p =0.05)

Table 41. 2017 Off-Station Winter Wheat Test (Exp. 3870): Moccasin No-till (CARC)

Entry		Cultivar/Line	Origin/Pedigree	Yield bu/ac	Test weight lb/bu	Heading date Julian	Plant height in	Protein %
		+ = new for 2017		LAT	LAT	RCB	LAT	RCB
			lattice efficiency relative to RCB	161%	112%		110%	
14		**Keldin**	Westbred, 2011	**71.9**	59.5	161.7	30.1	13.5
12		**SY Wolf**	Syngenta (AgriPro), 2010	**67.0**	**60.6**	158.3	28.5	13.3
6		**SY Clearstone 2CL**	Montana/Syngenta, 2012	**65.3**	58.2	161.3	33.7	13.7
11		**MT1265**	Yellowstone*4/KS96WGRC40 (Lr41,	**64.4**	58.5	162.3	32.8	14.1
17	+	**MT1444**	Yellowstone*2/MTW0590	**63.9**	59.2	160.0	30.1	14.0
23	+	**MTF1435**	MT08186//Yellowstone(L)*2/98X168E	63.4	57.4	164.3	36.4	13.9
19	+	**MT1471**	Yellowstone/NuDakota	62.9	57.7	161.0	28.7	**15.1**
13		**MT1348**	PI572290/BigSky	62.8	58.5	159.0	27.5	13.9
18	+	**MT1465**	Yellowstone/MT0684	62.8	58.7	160.0	28.9	14.1
21	+	**MTW1491**	MT08189//MT08187/(MTW08166, W	62.5	59.2	162.3	31.3	13.6
15	+	**Brawl CLP**	Colorado Research Foundation, 201	61.8	**61.2**	153.0	27.2	12.9
22	+	**MTF1432**	Yellowstone*2/98X168E1	61.6	56.6	166.0	34.5	14.2
1		**Yellowstone**	Montana 2005	61.6	57.4	162.3	30.4	14.5
16	+	**SY Monument**	Syngenta, 2015	61.1	58.4	158.0	27.6	12.4
3		**Decade**	Montana/North Dakota, 2010	59.6	58.3	159.0	28.3	14.1
7		**Warhorse**	Montana, 2013	59.5	58.0	159.7	29.9	14.3
2		**Judee**	Montana, 2011	59.5	**60.4**	159.0	29.5	14.3
9		**Northern**	Montana, 2015	59.2	58.4	165.3	28.9	**15.0**
10		**Loma**	Montana, 2016	58.8	57.6	163.3	28.0	14.6
20	+	**MT1488**	MTR00118/MT0241//CDC Falcon	57.7	59.0	165.0	29.4	14.0
25	+	**MTS1588**	MT0598/98X366E29-1	57.2	59.2	163.3	27.2	13.7
5		**Bearpaw**	Montana, 2011	56.5	58.5	159.0	28.5	14.2
24	+	**MTS1573**	Danby/2*MTS04114	55.9	**60.4**	157.0	26.9	13.2
4		**CDC Falcon**	Sask/WestBred, 1999	54.9	57.8	162.0	26.7	13.7
8		**WB-Quake**	WestBred, 2011	51.6	57.7	163.3	28.7	14.6
		Average		**60.9**	**58.6**	**161.0**	**29.6**	**14.0**
		LSD (0.05)		**8.2**	**1.0**	**2.4**	**2.2**	**0.4**
		C.V. (%)		**7.3**	**1.0**	**0.9**	**4.2**	**1.8**
		P-value (Varieties)		**0.0162**	**<.0001**	**<.0001**	**<.0001**	**<.0001**

bold = indicates highest value within a column

bold = indicates varieties with values equal to highest variety within a column based on Fisher's Protected LSD (p =0.05)

Table 42. 2017 Off-Station Winter Wheat Test (Exp. 3871): Denton (CARC)

Entry		Cultivar/Line	Origin/Pedigree	Yield bu/ac	Test weight lb/bu	Plant height in	Protein %
	+ = new for 2017			LAT	LAT	RCB	LAT
			lattice efficiency relative to RCB	259%	114%		124%
12		**SY Wolf**	Syngenta (AgriPro), 2010	**49.8**	55.6	25.3	12.8
13		**MT1348**	PI572290/BigSky	**49.3**	54.9	23.7	12.8
15	+	**Brawl CLP**	Colorado Research Foundation, 201	**47.8**	**58.3**	22.5	12.7
21	+	**MTW1491**	MT08189//MT08187/(MTW08166, W	**45.9**	51.5	23.7	12.9
14		**Keldin**	Westbred, 2011	**45.6**	53.7	25.5	13.3
23	+	**MTF1435**	MT08186//Yellowstone(L)*2/98X168	44.1	49.5	27.7	13.7
1		**Yellowstone**	Montana 2005	43.7	50.2	24.0	13.8
11		**MT1265**	Yellowstone*4/KS96WGRC40 (Lr41,	43.4	50.4	24.7	13.6
17	+	**MT1444**	Yellowstone*2/MTW0590	42.0	51.4	24.0	13.5
19	+	**MT1471**	Yellowstone/NuDakota	41.9	51.5	25.0	**14.5**
3		**Decade**	Montana/North Dakota, 2010	41.6	53.2	22.0	13.2
6		**SY Clearstone 2CL**	Montana/Syngenta, 2012	41.6	50.2	26.0	13.2
4		**CDC Falcon**	Sask/WestBred, 1999	41.5	53.1	24.8	13.9
22	+	**MTF1432**	Yellowstone*2/98X168E1	40.9	46.8	25.0	13.9
18	+	**MT1465**	Yellowstone/MT0684	40.1	51.3	22.5	13.3
16	+	**SY Monument**	Syngenta, 2015	39.6	50.7	23.0	12.7
20	+	**MT1488**	MTR00118/MT0241//CDC Falcon	38.2	53.3	25.0	13.7
9		**Northern**	Montana, 2015	37.6	50.6	22.7	**14.3**
24	+	**MTS1573**	Danby/2*MTS04114	36.1	55.9	25.3	13.1
7		**Warhorse**	Montana, 2013	36.0	51.5	21.7	14.0
2		**Judee**	Montana, 2011	36.0	53.4	23.7	13.8
25	+	**MTS1588**	MT0598/98X366E29-1	30.2	53.0	21.3	13.8
8		**WB-Quake**	WestBred, 2011	28.5	52.0	24.0	13.7
5		**Bearpaw**	Montana, 2011	24.5	52.9	19.3	**14.0**
10		**Loma**	Montana, 2016	23.8	50.0	20.7	**14.4**
		Average		**39.6**	**52.2**	**23.7**	**13.5**
		LSD (0.05)		**5.4**	**1.3**	**3.7**	**0.5**
		C.V. (%)		**7.3**	**1.4**	**9.5**	**2.1**
		P-value (Varieties)		**<.0001**	**<.0001**	**0.0257**	**<.0001**

bold = indicates highest value within a column

bold = indicates varieties with values equal to highest variety within a column based on Fisher's Protected LSD (p =0.05)

Table 43. 2017 Off-Station Winter Wheat Test (Exp. 3872): Geraldine (CARC)

Entry		Cultivar/Line	Origin/Pedigree	Yield bu/ac	Test weight lb/bu	Plant height in	Protein %
	+ = new for 2017			LAT	LAT	LAT	LAT
			lattice efficiency relative to RCB	113%	130%	108%	220%
12		**SY Wolf**	Syngenta (AgriPro), 2010	**91.6**	**64.1**	29.5	11.2
14		**Keldin**	Westbred, 2011	**91.4**	63.4	32.4	10.4
13		**MT1348**	PI572290/BigSky	**91.1**	62.5	31.7	11.3
17	+	**MT1444**	Yellowstone*2/MTW0590	**87.7**	62.4	33.1	11.1
16	+	**SY Monument**	Syngenta, 2015	**87.0**	61.9	30.2	10.5
21	+	**MTW1491**	MT08189//MT08187/(MTW08166, W	**85.4**	62.4	33.0	10.9
11		**MT1265**	Yellowstone*4/KS96WGRC40 (Lr41,	**85.1**	61.3	34.2	11.1
22	+	**MTF1432**	Yellowstone*2/98X168E1	**85.0**	60.5	38.3	11.3
18	+	**MT1465**	Yellowstone/MT0684	83.4	63.2	31.0	11.1
6		**SY Clearstone 2CL**	Montana/Syngenta, 2012	81.5	61.5	32.8	10.9
1		**Yellowstone**	Montana 2005	81.3	61.9	34.9	11.3
3		**Decade**	Montana/North Dakota, 2010	81.0	63.4	31.4	11.8
5		**Bearpaw**	Montana, 2011	80.6	63.5	32.0	11.1
15	+	**Brawl CLP**	Colorado Research Foundation, 201	79.9	**64.8**	31.2	**12.0**
9		**Northern**	Montana, 2015	79.9	62.5	32.2	**12.1**
25	+	**MTS1588**	MT0598/98X366E29-1	78.5	63.4	28.6	11.4
4		**CDC Falcon**	Sask/WestBred, 1999	75.1	62.2	29.2	**11.8**
19	+	**MT1471**	Yellowstone/NuDakota	74.4	62.9	29.4	**12.3**
23	+	**MTF1435**	MT08186//Yellowstone(L)*2/98X168	74.2	61.4	38.6	11.5
10		**Loma**	Montana, 2016	73.3	62.1	29.9	11.3
24	+	**MTS1573**	Danby/2*MTS04114	72.9	63.4	30.7	**11.9**
20	+	**MT1488**	MTR00118/MT0241//CDC Falcon	71.1	62.4	30.9	11.6
8		**WB-Quake**	WestBred, 2011	70.2	62.9	31.3	11.3
2		**Judee**	Montana, 2011	70.2	62.3	31.2	11.4
7		**Warhorse**	Montana, 2013	69.8	62.7	30.5	**12.4**
		Average		**80.1**	**62.6**	**31.9**	**11.4**
		LSD (0.05)		**7.2**	**1.0**	**2.3**	**0.6**
		C.V. (%)		**5.0**	**0.9**	**4.0**	**2.6**
		P-value (Varieties)		**<.0001**	**<.0001**	**<.0001**	**<.0001**

bold = indicates highest value within a column

bold = indicates varieties with values equal to highest variety within a column based on Fisher's Protected LSD (p =0.05)

Table 44. 2017 Off-Station Winter Wheat Test (Exp. 3875): Belt (CARC)

Entry		Cultivar/Line	Origin/Pedigree	Yield bu/ac	Test weight lb/bu	Plant height in	Protein %
	+ = new for 2017			LAT	LAT	RCB	LAT
			lattice efficiency relative to RCB	229%	129%		398%
13		**MT1348**	PI572290/BigSky	**55.0**	62.3	29.7	8.5
23	+	**MTF1435**	MT08186//Yellowstone(L)*2/98X168E	**54.8**	60.3	35.3	8.5
6		**SY Clearstone 2CL**	Montana/Syngenta, 2012	**54.6**	61.2	29.7	8.6
15	+	**Brawl CLP**	Colorado Research Foundation, 2011	**54.1**	**64.6**	28.1	**9.1**
12		**SY Wolf**	Syngenta (AgriPro), 2010	**52.2**	63.4	28.3	8.4
22	+	**MTF1432**	Yellowstone*2/98X168E1	**52.1**	59.7	34.7	8.6
1		**Yellowstone**	Montana 2005	**51.7**	61.6	29.2	8.6
21	+	**MTW1491**	MT08189//MT08187/(MTW08166, W	**51.1**	62.4	29.3	8.8
9		**Northern**	Montana, 2015	**50.9**	61.5	28.6	8.8
14		**Keldin**	Westbred, 2011	**50.1**	63.0	28.8	8.3
11		**MT1265**	Yellowstone*4/KS96WGRC40 (Lr41,	**49.6**	61.4	28.1	8.7
18	+	**MT1465**	Yellowstone/MT0684	**49.5**	62.2	28.4	8.8
16	+	**SY Monument**	Syngenta, 2015	**49.5**	60.9	27.9	8.6
17	+	**MT1444**	Yellowstone*2/MTW0590	48.1	61.8	30.1	**9.3**
20	+	**MT1488**	MTR00118/MT0241//CDC Falcon	47.5	61.9	29.1	8.8
3		**Decade**	Montana/North Dakota, 2010	46.9	62.5	28.1	**9.3**
24	+	**MTS1573**	Danby/2*MTS04114	46.7	63.3	28.3	**9.2**
7		**Warhorse**	Montana, 2013	46.6	62.4	29.4	**9.0**
25	+	**MTS1588**	MT0598/98X366E29-1	46.1	62.5	26.4	**9.5**
19	+	**MT1471**	Yellowstone/NuDakota	45.7	62.3	27.7	**9.2**
10		**Loma**	Montana, 2016	45.5	61.7	29.2	**9.0**
2		**Judee**	Montana, 2011	44.3	63.2	29.0	**9.0**
8		**WB-Quake**	WestBred, 2011	42.4	62.6	29.1	8.8
4		**CDC Falcon**	Sask/WestBred, 1999	41.4	61.5	26.1	**9.3**
5		**Bearpaw**	Montana, 2011	41.2	62.7	27.3	8.6
		Average		**48.7**	**62.1**	**29.0**	**8.9**
		LSD (0.05)		**6.5**	**0.7**	**2.6**	**0.6**
		C.V. (%)		**7.2**	**0.6**	**5.2**	**2.9**
		P-value (Varieties)		**0.0004**	**<.0001**	**<.0001**	**<.0001**

bold = indicates highest value within a column

bold = indicates varieties with values equal to highest variety within a column based on Fisher's Protected LSD (p =0.05)

Table 45. 2017 Off-Station Winter Wheat Test (Exp. 3876): Highwood (CARC)

Entry		Cultivar/Line	Origin/Pedigree	Yield bu/ac	Test weight lb/bu	Plant height in	Vigour (acidity effect) (1-10; 10 = best)		Plot pH	Protein %
	+ = new for 2017			LAT	LAT	RCB	26-May	16-Jun		LAT
			lattice efficiency relative to RCB	176%	109%		110%	116%	117%	154%
6		**SY Clearstone 2CL**	Montana/Syngenta, 2012	**67.6**	61.2	26.3	**5.2**	6.3	4.70	11.7
16	+	**SY Monument**	Syngenta, 2015	**65.0**	62.2	23.7	3.7	5.3	4.87	11.3
21	+	**MTW1491**	MT08189//MT08187/(MTW08166, W	**64.9**	62.4	26.0	**5.6**	**6.7**	5.22	11.6
20	+	**MT1488**	MTR00118/MT0241//CDC Falcon	**64.3**	61.5	23.5	**6.4**	**7.5**	5.23	12.6
3		**Decade**	Montana/North Dakota, 2010	**64.2**	**63.3**	24.4	**5.6**	6.3	4.69	12.0
13		**MT1348**	PI572290/BigSky	**61.7**	62.8	21.5	**6.2**	5.6	5.06	11.8
18	+	**MT1465**	Yellowstone/MT0684	**61.5**	62.7	24.2	4.6	5.8	4.88	12.1
10		**Loma**	Montana, 2016	**60.9**	62.0	21.6	4.0	5.2	5.12	12.3
11		**MT1265**	Yellowstone*4/KS96WGRC40 (Lr41,	**60.7**	61.8	25.0	**5.3**	6.3	4.94	11.9
9		**Northern**	Montana, 2015	**60.5**	62.2	23.8	4.7	6.2	4.95	12.6
12		**SY Wolf**	Syngenta (AgriPro), 2010	**60.4**	**63.8**	21.8	**5.9**	5.9	4.72	12.2
22	+	**MTF1432**	Yellowstone*2/98X168E1	**60.0**	60.0	25.7	5.1	6.0	4.96	12.0
17	+	**MT1444**	Yellowstone*2/MTW0590	**59.9**	61.8	26.2	**5.6**	**6.9**	5.06	12.1
2		**Judee**	Montana, 2011	56.5	62.6	23.0	4.9	5.9	5.13	12.9
5		**Bearpaw**	Montana, 2011	56.4	61.8	22.6	4.1	5.4	5.06	13.0
14		**Keldin**	Westbred, 2011	55.4	61.7	22.9	3.4	4.4	4.93	12.5
4		**CDC Falcon**	Sask/WestBred, 1999	54.8	61.9	20.7	3.9	4.5	4.75	12.4
23	+	**MTF1435**	MT08186//Yellowstone(L)*2/98X168E	54.6	61.2	28.1	**5.3**	5.6	4.83	11.8
19	+	**MT1471**	Yellowstone/NuDakota	53.9	60.9	24.6	**5.6**	5.2	4.91	13.3
1		**Yellowstone**	Montana 2005	53.2	61.7	21.7	4.5	5.6	5.04	13.0
7		**Warhorse**	Montana, 2013	51.2	60.7	23.0	4.5	5.2	4.97	**13.7**
24	+	**MTS1573**	Danby/2*MTS04114	50.9	62.4	22.7	3.1	3.9	5.17	12.7
25	+	**MTS1588**	MT0598/98X366E29-1	48.3	62.1	21.5	2.7	4.0	5.06	12.7
8		**WB-Quake**	WestBred, 2011	46.8	62.4	20.7	3.0	4.2	4.82	12.7
15	+	**Brawl CLP**	Colorado Research Foundation, 2011	35.6	**63.5**	17.9	3.5	3.8	4.62	**14.4**
		Average		**57.2**	**62.0**	**23.3**	**4.7**	**5.5**	**4.95**	**12.4**
		LSD (0.05)		**8.9**	**0.6**	**3.1**	**1.2**	**1.1**	**ns**	**0.8**
		C.V. (%)		**8.4**	**0.6**	**7.7**	**14.9**	**10.9**	**4.7**	**3.3**
		P-value (Varieties)		**<.0001**	**<.0001**	**<.0001**	**<.0001**	**<.0001**	**0.1445**	**<.0001**

Note: Yellowstone plots are a mixture of both yellowstone and warhorse

bold = indicates highest value within a column

bold = indicates varieties with values equal to highest variety within a column based on Fisher's Protected LSD (p =0.05)

Table 46. 2017 Off-Station Winter Wheat Test (Exp. 3880): Huntley Irrigated (SARC)

Entry		Cultivar/Line	Origin/Pedigree	Yield bu/ac	Test weight lb/bu	Heading date	Plant height in	Lodg-ing (0-9)	Lodg-ing %	Protein %
		+ = new for 2017		LAT	LAT	LAT	RCB	LAT	LAT	LAT
			lattice efficiency relative to RCB	123%	136%	128%		157%	157%	123%
18	**+**	**MT1465**	Yellowstone/MT0684	**133.1**	**64.6**	152.1	42.8	**0.1**	**1.1**	11.3
25	**+**	**MTS1588**	MT0598/98X366E29-1	117.8	**64.3**	152.4	42.2	**0.4**	**4.4**	11.5
1		**Yellowstone**	Montana 2005	116.9	63.0	152.1	44.6	3.5	38.9	11.4
21	**+**	**MTW1491**	MT08189//MT08187/(MTW08166, W	113.6	**63.5**	151.5	44.8	**1.7**	**18.9**	11.3
14		**Keldin**	Westbred, 2011	111.6	61.8	152.5	45.3	4.8	53.3	12.6
17	**+**	**MT1444**	Yellowstone*2/MTW0590	109.2	62.8	151.3	43.4	4.5	50.0	10.8
16	**+**	**SY Monument**	Syngenta, 2015	106.3	63.0	149.6	45.1	3.5	38.9	11.5
10		**Loma**	Montana, 2016	106.2	62.5	153.4	44.5	4.1	45.6	12.0
4		**CDC Falcon**	Sask/WestBred, 1999	106.0	**63.7**	150.5	40.8	**0.8**	**8.9**	11.5
19	**+**	**MT1471**	Yellowstone/NuDakota	105.5	**63.7**	152.0	44.2	3.5	38.9	**12.7**
11		**MT1265**	Yellowstone*4/KS96WGRC40 (Lr41,	104.9	62.0	152.5	47.1	5.0	55.6	11.5
9		**Northern**	Montana, 2015	104.6	62.0	152.9	44.0	4.4	48.9	11.8
12		**SY Wolf**	Syngenta (AgriPro), 2010	104.1	**63.2**	149.5	43.4	4.3	47.8	12.4
6		**SY Clearstone 2CL**	Montana/Syngenta, 2012	102.4	62.5	151.6	44.8	5.6	62.2	11.6
13		**MT1348**	PI572290/BigSky	101.8	62.1	150.3	44.9	5.9	65.6	12.0
7		**Warhorse**	Montana, 2013	100.7	**63.2**	152.7	44.0	3.4	37.8	**13.0**
15	**+**	**Brawl CLP**	Colorado Research Foundation, 201	100.0	**64.7**	146.6	43.4	**0.8**	**8.9**	**12.7**
5		**Bearpaw**	Montana, 2011	99.5	61.9	150.4	44.6	3.1	34.4	11.0
20	+	**MT1488**	MTR00118/MT0241//CDC Falcon	97.2	62.2	154.4	43.2	3.6	40.0	11.8
22	**+**	**MTF1432**	Yellowstone*2/98X168E1	97.1	61.4	155.2	46.2	5.2	57.8	11.8
2		**Judee**	Montana, 2011	95.0	**64.2**	151.5	42.0	4.6	51.1	12.2
3		**Decade**	Montana/North Dakota, 2010	90.7	61.2	153.3	42.8	3.6	40.0	11.7
8		**WB-Quake**	WestBred, 2011	88.7	61.4	152.6	43.4	6.3	70.0	**12.7**
24	**+**	**MTS1573**	Danby/2*MTS04114	85.2	62.1	152.4	40.9	4.2	46.7	**13.7**
23	**+**	**MTF1435**	MT08186//Yellowstone(L)*2/98X168E	83.4	62.4	154.7	43.2	5.4	60.0	12.1
		Average		**103.3**	**62.8**	**151.9**	**43.8**	**3.7**	**41.1**	**11.9**
		LSD (0.05)		**13.9**	**1.6**	**1.0**	**ns**	**2.4**	**26.7**	**1.0**
		C.V. (%)		**7.5**	**1.4**	**0.4**	**6.2**	**35.9**	**35.9**	**4.6**
		P-value (Varieties)								

bold = indicates highest value within a column

bold = indicates varieties with values equal to highest variety within a column based on Fisher's Protected LSD (p =0.05)

Table 47. 2017 Off-Station Winter Wheat Test (Exp. 3881): Rapelje (SARC)

Entry		Cultivar/Line	Origin/Pedigree	Yield bu/ac	Test weight lb/bu	Plant height in	Protein %
	+ = new for 2017			LAT	RCB	RCB	RCB
			lattice efficiency relative to RCB	148%			
11		**MT1265**	Yellowstone*4/KS96WGRC40 (Lr41,	**64.6**	61.2	32.7	7.7
9		**Northern**	Montana, 2015	**64.2**	63.4	30.6	8.4
14		**Keldin**	Westbred, 2011	**63.6**	64.2	32.9	7.9
21	+	**MTW1491**	MT08189//MT08187/(MTW08166, W	**61.9**	62.8	32.5	7.9
24	+	**MTS1573**	Danby/2*MTS04114	**61.7**	64.5	29.3	8.9
12		**SY Wolf**	Syngenta (AgriPro), 2010	**61.6**	65.0	28.2	8.3
17	+	**MT1444**	Yellowstone*2/MTW0590	**61.4**	62.5	31.2	8.1
6		**SY Clearstone 2CL**	Montana/Syngenta, 2012	**60.9**	62.0	32.3	7.7
13		**MT1348**	PI572290/BigSky	**60.5**	64.1	29.8	8.2
19	+	**MT1471**	Yellowstone/NuDakota	**60.4**	65.2	31.0	9.0
3		**Decade**	Montana/North Dakota, 2010	59.3	64.5	31.1	9.1
22	+	**MTF1432**	Yellowstone*2/98X168E1	59.1	60.8	37.4	8.0
18	+	**MT1465**	Yellowstone/MT0684	58.8	62.9	29.3	7.9
1		**Yellowstone**	Montana 2005	58.5	62.6	32.3	7.9
2		**Judee**	Montana, 2011	58.4	64.9	30.8	8.7
23	+	**MTF1435**	MT08186//Yellowstone(L)*2/98X168E	58.0	61.9	38.6	8.2
4		**CDC Falcon**	Sask/WestBred, 1999	57.9	64.0	29.5	8.3
5		**Bearpaw**	Montana, 2011	57.1	64.1	28.9	8.1
25	+	**MTS1588**	MT0598/98X366E29-1	56.5	64.8	28.7	8.5
16	+	**SY Monument**	Syngenta, 2015	56.2	61.9	28.7	7.6
15	+	**Brawl CLP**	Colorado Research Foundation, 2011	55.4	**66.1**	29.3	**9.6**
10		**Loma**	Montana, 2016	54.9	63.6	29.1	8.5
20	+	**MT1488**	MTR00118/MT0241//CDC Falcon	54.1	64.1	28.1	**9.2**
7		**Warhorse**	Montana, 2013	53.5	63.6	28.7	8.5
8		**WB-Quake**	WestBred, 2011	52.2	63.9	29.8	8.2
		Average		**58.8**	**63.5**	**30.8**	**8.3**
		LSD (0.05)		**4.8**	**0.7**	**2.0**	**0.4**
		C.V. (%)		**4.5**	**0.6**	**3.9**	**3.3**
		P-value (Varieties)					

bold = indicates highest value within a column

bold = indicates varieties with values equal to highest variety within a column based on Fisher's Protected LSD (p =0.05)

Table 48. 2017 Off-Station Winter Wheat Test (Exp. 3882): Hysham (SARC)

Entry		Cultivar/Line	Origin/Pedigree	Yield bu/ac	Test weight lb/bu	Plant height in	Protein %
		+ = new for 2017		LAT	RCB	LAT	RCB
			lattice efficiency relative to RCB	137%		172%	
1		**Yellowstone**	Montana 2005	**63.8**	62.7	32.5	11.5
21	**+**	**MTW1491**	MT08189//MT08187/(MTW08166, W	**63.0**	62.6	32.1	11.7
24	**+**	**MTS1573**	Danby/2*MTS04114	**61.6**	63.2	32.2	11.6
16	**+**	**SY Monument**	Syngenta, 2015	**59.9**	60.8	33.6	11.0
11		**MT1265**	Yellowstone*4/KS96WGRC40 (Lr41,	**59.7**	62.3	34.3	12.1
20	+	**MT1488**	MTR00118/MT0241//CDC Falcon	**59.1**	62.9	30.4	**12.7**
6		**SY Clearstone 2CL**	Montana/Syngenta, 2012	**56.7**	62.0	34.9	12.1
12		**SY Wolf**	Syngenta (AgriPro), 2010	**56.5**	**64.3**	31.9	11.1
23	**+**	**MTF1435**	MT08186//Yellowstone(L)*2/98X168E	**56.3**	63.0	40.4	11.9
15	**+**	**Brawl CLP**	Colorado Research Foundation, 2011	**55.8**	**63.6**	34.2	12.2
14		**Keldin**	Westbred, 2011	54.9	62.8	32.6	11.8
10		**Loma**	Montana, 2016	54.7	61.5	28.5	12.0
7		**Warhorse**	Montana, 2013	54.4	62.1	30.2	**13.7**
18	**+**	**MT1465**	Yellowstone/MT0684	53.9	62.8	31.1	12.4
17	**+**	**MT1444**	Yellowstone*2/MTW0590	53.8	62.8	33.2	12.1
13		**MT1348**	PI572290/BigSky	53.7	61.3	35.1	12.2
9		**Northern**	Montana, 2015	53.6	61.6	31.2	**13.2**
25	**+**	**MTS1588**	MT0598/98X366E29-1	53.1	62.5	29.9	**12.7**
5		**Bearpaw**	Montana, 2011	51.1	62.5	32.0	12.0
4		**CDC Falcon**	Sask/WestBred, 1999	49.1	61.0	30.4	**12.8**
3		**Decade**	Montana/North Dakota, 2010	48.9	61.1	34.3	**12.8**
2		**Judee**	Montana, 2011	48.9	62.0	32.1	12.6
19	**+**	**MT1471**	Yellowstone/NuDakota	48.6	62.6	31.6	**12.8**
8		**WB-Quake**	WestBred, 2011	48.6	62.5	30.3	11.7
22	**+**	**MTF1432**	Yellowstone*2/98X168E1	48.5	61.4	33.7	**13.0**
		Average		**54.7**	**62.3**	**32.5**	**12.2**
		LSD (0.05)		**8.1**	**1.0**	**1.9**	**1.0**
		C.V. (%)		**8.2**	**0.9**	**3.2**	**5.2**
		P-value (Varieties)					

bold = indicates highest value within a column

bold = indicates varieties with values equal to highest variety within a column based on Fisher's Protected LSD (p =0.05)

Table 49. 2017 Off-Station Winter Wheat Test (Exp. 3884): Fly Creek (Hardin Area, SARC)

Entry	Cultivar/Line	Origin/Pedigree	Yield bu/ac	Test weight lb/bu	Plant height in	Sawfly cutting %	Protein %
	+ = new for 2017		LAT	LAT	LAT	RCB	LAT
		lattice efficiency relative to RCB	115%	154%	111%		148%
1	**Yellowstone**	Montana 2005	**40.5**	60.8	32.1	33	14.0
2	**Judee**	Montana, 2011	32.3	60.8	28.0	**10**	**14.9**
3	**Decade**	Montana/North Dakota, 2010	34.3	60.9	29.9	43	13.7
4	**CDC Falcon**	Sask/WestBred, 1999	21.7	58.5	27.7	67	14.0
5	**Bearpaw**	Montana, 2011	29.8	60.2	28.0	**10**	**15.0**
6	**SY Clearstone 2CL**	Montana/Syngenta, 2012	**41.3**	60.4	31.7	33	**14.6**
7	**Warhorse**	Montana, 2013	36.7	61.2	28.7	**3**	**14.6**
8	**WB-Quake**	WestBred, 2011	35.8	60.5	28.0	**10**	**14.5**
9	**Northern**	Montana, 2015	32.7	60.6	28.8	33	**14.9**
10	**Loma**	Montana, 2016	37.4	60.5	28.7	**17**	**14.7**
11	**MT1265**	Yellowstone*4/KS96WGRC40 (Lr41,	**42.0**	60.5	31.0	40	**14.7**
12	**SY Wolf**	Syngenta (AgriPro), 2010	**39.4**	**62.8**	29.2	53	13.4
13	**MT1348**	PI572290/BigSky	30.9	60.3	31.5	5	13.9
14	**Keldin**	Westbred, 2011	**44.5**	61.6	30.9	37	12.6
15	**+ Brawl CLP**	Colorado Research Foundation, 201	**38.7**	**62.3**	32.3	73	13.7
16	**+ SY Monument**	Syngenta, 2015	**43.0**	60.8	32.6	43	11.9
17	**+ MT1444**	Yellowstone*2/MTW0590	38.1	61.3	30.3	43	13.9
18	**+ MT1465**	Yellowstone/MT0684	**44.4**	61.0	29.7	33	14.1
19	**+ MT1471**	Yellowstone/NuDakota	**40.7**	59.6	30.1	40	**14.9**
20	+ **MT1488**	MTR00118/MT0241//CDC Falcon	26.8	61.1	29.0	73	13.6
21	**+ MTW1491**	MT08189//MT08187/(MTW08166, W	33.7	61.3	31.5	43	13.7
22	**+ MTF1432**	Yellowstone*2/98X168E1	36.1	60.4	32.7	27	**14.5**
23	**+ MTF1435**	MT08186//Yellowstone(L)*2/98X168	37.2	61.5	37.9	27	13.8
24	**+ MTS1573**	Danby/2*MTS04114	37.2	61.4	30.0	**3**	12.9
25	**+ MTS1588**	MT0598/98X366E29-1	34.4	60.5	26.4	**7**	**14.5**
	Average		**36.4**	**60.8**	**30.3**	**34.0**	**14.0**
	LSD (0.05)		**5.9**	**0.6**	**2.3**	**15.0**	**0.7**
	C.V. (%)		**9.2**	**0.6**	**4.3**	**26.8**	**2.6**
	P-value (Varieties)						

bold = indicates highest value within a column

bold = indicates varieties with values equal to highest variety within a column based on Fisher's Protected LSD (p =0.05)

Table 50. 2017 Off-Station Winter Wheat Test (Exp. 3885): Molt (SARC)

Entry		Cultivar/Line	Origin/Pedigree	Yield bu/ac	Test weight lb/bu	Plant height in	Protein %
		+ = new for 2017		LAT	LAT	RCB	LAT
			lattice efficiency relative to RCB	129%	119%		172%
12		**SY Wolf**	Syngenta (AgriPro), 2010	**76.2**	**64.5**	30.3	9.5
11		**MT1265**	Yellowstone*4/KS96WGRC40 (Lr41,	**68.1**	62.0	36.2	8.9
18	+	**MT1465**	Yellowstone/MT0684	65.7	62.6	32.2	8.9
13		**MT1348**	PI572290/BigSky	65.5	62.9	32.9	8.8
1		**Yellowstone**	Montana 2005	65.3	62.1	34.5	9.4
16	+	**SY Monument**	Syngenta, 2015	63.6	61.3	32.9	8.7
15	+	**Brawl CLP**	Colorado Research Foundation, 201	62.9	**64.8**	32.0	**10.6**
17	+	**MT1444**	Yellowstone*2/MTW0590	61.3	62.2	33.7	9.5
19	+	**MT1471**	Yellowstone/NuDakota	60.8	62.2	32.5	**10.5**
21	+	**MTW1491**	MT08189//MT08187/(MTW08166, W	59.8	62.5	33.7	9.0
25	+	**MTS1588**	MT0598/98X366E29-1	59.7	63.7	30.2	9.6
6		**SY Clearstone 2CL**	Montana/Syngenta, 2012	59.4	61.7	34.9	9.0
14		**Keldin**	Westbred, 2011	57.7	62.8	30.6	9.3
4		**CDC Falcon**	Sask/WestBred, 1999	57.3	62.7	29.7	9.4
9		**Northern**	Montana, 2015	56.8	62.2	31.0	9.6
20	+	**MT1488**	MTR00118/MT0241//CDC Falcon	55.7	61.7	30.4	**10.0**
24	+	**MTS1573**	Danby/2*MTS04114	55.5	63.5	31.8	9.4
5		**Bearpaw**	Montana, 2011	55.3	62.2	32.2	**10.1**
3		**Decade**	Montana/North Dakota, 2010	55.3	62.9	32.7	9.4
22	+	**MTF1432**	Yellowstone*2/98X168E1	54.2	59.9	38.2	9.6
2		**Judee**	Montana, 2011	53.4	63.4	31.5	9.3
23	+	**MTF1435**	MT08186//Yellowstone(L)*2/98X168	53.2	61.3	40.2	9.4
10		**Loma**	Montana, 2016	53.1	61.4	32.7	**10.0**
7		**Warhorse**	Montana, 2013	51.9	62.2	32.9	**10.3**
8		**WB-Quake**	WestBred, 2011	50.0	62.3	32.7	9.8
		Average		**59.1**	**62.4**	**32.9**	**9.5**
		LSD (0.05)		**9.9**	**0.9**	**2.5**	**0.6**
		C.V. (%)		**9.3**	**0.8**	**4.7**	**3.3**
		P-value (Varieties)					

bold = indicates highest value within a column

bold = indicates varieties with values equal to highest variety within a column based on Fisher's Protected LSD (p =0.05)

Table 51. 2017 Off-Station Winter Wheat Test (Exp. 38): Multi-Location Yield (bu/a)

Cultivar/Line	Turner NARC	Loma NARC	Knees WTARC	Cut Bank	Shelby WTARC	Choteau WTARC	Devon/ Mocc. No-Till	Denton CARC	Gerald-ine	Wini-fred	Belt CARC	High-wood	Fly Cr/ Huntley SARC	Rapelje SARC	Hysham SARC	Hardin SARC	Molt SARC	16 Loc. Average
+ = new for 2017	LAT	LAT	LAT	LAT	LAT	LAT	LAT	LAT	LAT	not harv.	LAT	LAT	LAT	LAT	LAT	LAT	LAT	
	199%	568%	105%	123%	107%	126%	161%	259%	113%		229%	176%	123%	148%	137%	115%	129%	
Keldin	20.8	38.7	**89.9**	**98.0**	65.5	**57.6**	**71.9**	**45.6**	**91.4**		**50.1**	55.4	111.6	**63.6**	54.9	**44.5**	57.7	**63.6**
+ **MTW1491**	**23.1**	42.6	**85.6**	84.3	75.2	**63.1**	62.5	**45.9**	**85.4**		**51.1**	**64.9**	113.6	**61.9**	**63.0**	33.7	59.8	**63.5**
MT1265	20.6	42.8	**82.9**	**91.4**	70.4	**54.9**	**64.4**	43.4	**85.1**		**49.6**	**60.7**	104.9	**64.6**	**59.7**	**42.0**	**68.1**	**62.8**
+ **MT1465**	19.1	43.4	76.2	**91.5**	64.3	**56.8**	62.8	40.1	83.4		**49.5**	**61.5**	**133.1**	58.8	53.9	**44.4**	65.7	**62.8**
SY Wolf	17.7	41.9	**85.3**	82.4	65.0	52.2	**67.0**	**49.8**	**91.6**		**52.2**	**60.4**	104.1	**61.6**	**56.5**	**39.4**	**76.2**	**62.7**
MT1348	20.0	**49.1**	**82.3**	86.7	72.9	**55.9**	62.8	**49.3**	**91.1**		**55.0**	**61.7**	101.8	**60.5**	53.7	30.9	65.5	**62.5**
+ **SY Monument**	18.7	40.0	**90.0**	**94.1**	69.4	**55.4**	61.1	39.6	**87.0**		**49.5**	**65.0**	106.3	56.2	**59.9**	**43.0**	63.6	**62.4**
Yellowstone	19.1	42.5	**84.9**	84.9	66.5	50.6	61.6	43.7	81.3		**51.7**	53.2	116.9	58.5	**63.8**	**40.5**	65.3	**61.6**
+ **MT1444**	20.4	38.4	**81.4**	**90.5**	67.5	**54.9**	**63.9**	42.0	**87.7**		48.1	**59.9**	109.2	**61.4**	53.8	38.1	61.3	**61.2**
SY Clearstone 2Cl	19.0	38.4	**80.3**	85.4	67.6	**56.0**	**65.3**	41.6	81.5		**54.6**	**67.6**	102.4	**60.9**	**56.7**	**41.3**	59.4	**61.1**
+ **Brawl CLP**	16.4	**48.8**	**90.2**	79.7	63.9	**59.4**	61.8	**47.8**	79.9		**54.1**	35.6	100.0	55.4	**55.8**	**38.7**	62.9	59.4
Northern	21.3	**43.9**	**79.9**	87.3	64.7	52.2	59.2	37.6	79.9		**50.9**	**60.5**	104.6	**64.2**	53.6	32.7	56.8	59.3
+ **MTS1588**	**22.9**	**49.7**	**82.1**	86.7	67.7	52.6	57.2	30.2	78.5		46.1	48.3	117.8	56.5	53.1	34.4	59.7	59.0
+ **MTF1432**	18.2	41.4	**80.2**	82.8	65.3	53.3	61.6	40.9	**85.0**		**52.1**	**60.0**	97.1	59.1	48.5	36.1	54.2	58.5
+ **MT1471**	20.4	38.6	78.5	79.9	58.4	52.5	62.9	41.9	74.4		45.7	53.9	105.5	**60.4**	48.6	**40.7**	60.8	57.7
+ **MTS1573**	18.4	**51.6**	**86.1**	77.1	64.2	**59.8**	55.9	36.1	72.9		46.7	50.9	85.2	**61.7**	**61.6**	37.2	55.5	57.6
Loma	21.3	41.5	**88.2**	80.9	67.7	49.1	58.8	23.8	73.3		45.5	**60.9**	106.2	54.9	54.7	37.4	53.1	57.3
+ **MTF1435**	17.4	40.8	74.7	78.6	59.8	**55.4**	63.4	44.1	74.2		**54.8**	54.6	83.4	58.0	**56.3**	37.2	53.2	56.6
Decade	21.1	40.4	71.6	78.2	62.5	48.6	59.6	41.6	81.0		46.9	**64.2**	90.7	59.3	48.9	34.3	55.3	56.5
+ **MT1488**	17.3	37.8	70.3	86.0	65.1	47.4	57.7	38.2	71.1		47.5	**64.3**	97.2	54.1	**59.1**	26.8	55.7	56.0
CDC Falcon	17.2	40.2	71.8	82.0	66.6	51.0	54.9	41.5	75.1		41.4	54.8	106.0	57.9	49.1	21.7	57.3	55.5
Warhorse	16.9	40.6	77.1	79.7	61.8	52.0	59.5	36.0	69.8		46.6	51.2	100.7	53.5	54.4	36.7	51.9	55.5
Judee	18.1	41.1	72.9	79.9	62.4	48.8	59.5	36.0	70.2		44.3	56.5	95.0	58.4	48.9	32.3	53.4	54.9
Bearpaw	19.0	27.9	75.5	75.0	63.2	49.4	56.5	24.5	80.6		41.2	56.4	99.5	57.1	51.1	29.8	55.3	53.9
WB-Quake	16.9	40.2	65.0	74.5	62.1	40.7	51.6	28.5	70.2		42.4	46.8	88.7	52.2	48.6	35.8	50.0	50.9
Average	**19.2**	**41.7**	**80.1**	**83.9**	**65.6**	**53.2**	**60.9**	**39.6**	**80.1**		**48.7**	**57.2**	**103.3**	**58.8**	**54.7**	**36.4**	**59.1**	**58.9**
LSD (0.05)	**1.8**	**7.7**	**10.7**	**8.0**	**ns**	**8.5**	**8.2**	**5.4**	**7.2**		**6.5**	**8.9**	**13.9**	**4.8**	**8.1**	**5.9**	**9.9**	**3.4**
C.V. (%)	**5.1**	**9.9**	**7.6**	**5.3**	**9.6**	**8.9**	**7.3**	**7.3**	**5.0**		**7.2**	**8.4**	**7.5**	**4.5**	**8.2**	**9.2**	**9.3**	**8.2**

bold = indicates highest value within a column

bold = indicates varieties with values equal to highest variety within a column based on Fisher's Protected LSD (p =0.05)

Table 52. 2017 Off-Station Winter Wheat Test (Exp. 38): Multi-Location Test Weight (lb/bu)

Cultivar/Line + = new for 2017	Turner NARC LAT	Loma NARC LAT	Knees WTARC RCB	Cut Bank LAT	Shelby WTARC LAT	Choteau WTARC LAT	Devon/ Mocc. No-Till LAT	Denton CARC LAT	Gerald- ine LAT	Wini- fred not	Belt CARC LAT	High- wood LAT	Huntley SARC LAT	Rapelje SARC RCB	Hysham SARC RCB	Fly Cr/ Hardin SARC LAT	Molt SARC LAT	16 Loc. Average
	125%	122%		110%	158%	152%	112%	114%	130%	harv.	129%	109%	136%			154%	119%	
+ Brawl CLP	**59.1**	**61.7**	**64.1**	**63.9**	**63.3**	**61.6**	**61.2**	**58.3**	**64.8**		**64.6**	**63.5**	**64.7**	**66.1**	**63.6**	**62.3**	**64.8**	**63.0**
SY Wolf	58.0	**61.8**	63.2	**64.4**	**62.9**	59.6	**60.6**	55.6	**64.1**		63.4	**63.8**	**63.2**	65.0	**64.3**	**62.8**	**64.5**	62.3
+ MTS1573	57.7	**61.5**	62.8	**63.4**	62.0	**60.5**	**60.4**	55.9	63.4		63.3	62.4	62.1	64.5	63.2	61.4	63.5	61.8
WB-Quake	56.3	**61.2**	62.1	62.8	61.4	56.9	57.7	52.0	62.9		62.6	62.4	61.4	63.9	62.5	60.5	62.3	60.6
+ MTS1588	57.6	**61.1**	62.0	63.2	61.6	58.3	59.2	53.0	63.4		62.5	62.1	**64.3**	64.8	62.5	60.5	63.7	61.2
Judee	57.7	**60.9**	61.9	**63.8**	61.3	58.3	**60.4**	53.4	62.3		63.2	62.6	**64.2**	64.9	62.0	60.8	63.4	61.3
Keldin	57.5	60.2	61.9	63.2	61.1	59.6	59.5	53.7	63.4		63.0	61.7	61.8	64.2	62.8	61.6	62.8	61.1
Decade	56.7	60.0	61.3	62.7	60.6	59.3	58.3	53.2	63.4		62.5	**63.3**	61.2	64.5	61.1	60.9	62.9	60.7
Bearpaw	55.9	60.4	61.3	63.0	61.8	57.1	58.5	52.9	63.5		62.7	61.8	61.9	64.1	62.5	60.2	62.2	60.6
+ MT1471	55.2	59.5	61.2	62.9	60.8	57.0	57.7	51.5	62.9		62.3	60.9	**63.7**	65.2	62.6	59.6	62.2	60.3
Warhorse	54.7	60.8	61.0	62.5	61.4	57.4	58.0	51.5	62.7		62.4	60.7	**63.2**	63.6	62.1	61.2	62.2	60.3
Loma	57.1	60.5	60.9	62.1	61.4	57.1	57.6	50.0	62.1		61.7	62.0	62.5	63.6	61.5	60.5	61.4	60.1
+ MT1465	56.6	60.8	60.8	62.4	61.7	57.9	58.7	51.3	63.2		62.2	62.7	**64.6**	62.9	62.8	61.0	62.6	60.8
Yellowstone	55.5	59.9	60.7	61.5	60.7	56.1	57.4	50.2	61.9		61.6	61.7	63.0	62.6	62.7	60.8	62.1	59.9
CDC Falcon	56.1	58.3	60.6	62.5	60.6	57.7	57.8	53.1	62.2		61.5	61.9	**63.7**	64.0	61.0	58.5	62.7	60.1
+ MTW1491	57.1	**61.2**	60.4	62.4	61.5	59.0	59.2	51.5	62.4		62.4	62.4	**63.5**	62.8	62.6	61.3	62.5	60.8
Northern	57.3	60.2	60.4	61.7	60.9	57.6	58.4	50.6	62.5		61.5	62.2	62.0	63.4	61.6	60.6	62.2	60.2
+ MT1444	57.1	60.4	60.2	62.1	61.3	57.9	59.2	51.4	62.4		61.8	61.8	62.8	62.5	62.8	61.3	62.2	60.5
MT1348	57.0	60.5	60.1	62.7	60.9	58.3	58.5	54.9	62.5		62.3	62.8	62.1	64.1	61.3	60.3	62.9	60.7
+ **MT1488**	55.5	59.1	60.1	62.8	61.8	56.8	59.0	53.3	62.4		61.9	61.5	62.2	64.1	62.9	61.1	61.7	60.4
+ SY Monument	56.9	60.1	59.8	61.1	59.5	55.8	58.4	50.7	61.9		60.9	62.2	63.0	61.9	60.8	60.8	61.3	59.7
+ MTF1435	56.0	60.1	59.7	61.3	60.4	56.9	57.4	49.5	61.4		60.3	61.2	62.4	61.9	63.0	61.5	61.3	59.6
MT1265	56.2	60.0	59.6	61.6	60.2	57.0	58.5	50.4	61.3		61.4	61.8	62.0	61.2	62.3	60.5	62.0	59.8
SY Clearstone 2CL	56.6	60.2	59.6	60.9	60.3	56.3	58.2	50.2	61.5		61.2	61.2	62.5	62.0	62.0	60.4	61.7	59.7
+ MTF1432	54.9	58.4	58.8	60.5	58.7	56.5	56.6	46.8	60.5		59.7	60.0	61.4	60.8	61.4	60.4	59.9	58.5
Average	**56.6**	**60.3**	**61.0**	**62.4**	**61.1**	**57.9**	**58.6**	**52.2**	**62.6**		**62.1**	**62.0**	**62.8**	**63.5**	**62.3**	**60.8**	**62.4**	**60.6**
LSD (0.05)	**0.7**	**0.9**	**0.8**	**1.1**	**0.9**	**1.6**	**1.0**	**1.3**	**1.0**		**0.7**	**0.6**	**1.6**	**0.7**	**1.0**	**0.6**	**0.9**	**0.5**
C.V. (%)	**0.7**	**0.8**	**0.8**	**1.0**	**0.8**	**1.5**	**1.0**	**1.4**	**0.9**		**0.6**	**0.6**	**1.4**	**0.6**	**0.9**	**0.6**	**0.8**	**1.3**

bold = indicates highest value within a column

bold = indicates varieties with values equal to highest variety within a column based on Fisher's Protected LSD (p =0.05)

Table 53. 2017 Off-Station Winter Wheat Test (Exp. 38): Multi-Location Plant height (in)

Cultivar/Line	Turner	Loma	Knees	Cut	Shelby	Choteau	Devon/ Mocc.	Denton	Gerald-	Wini-	Belt	High-	Fly Cr/ Huntley	Rapelje	Hysham	Hardin	Molt	15 Loc.
	NARC	NARC	WTARC	Bank	WTARC	WTARC	No-Till	CARC	ine	fred	CARC	wood	SARC	SARC	SARC	SARC	SARC	Average
+ = new for 2017	LAT	LAT	LAT	RCB	LAT	LAT	LAT	RCB	LAT	not	RCB	RCB	not	RCB	LAT	LAT	RCB	
	117%	192%	117%		108%	144%	110%		108%	harv.			used		172%	111%		
+ **MTS1588**	16.8	22.3	26.4	30.0	24.9	26.5	27.2	21.3	28.6		26.4	21.5		28.7	29.9	26.4	30.2	25.8
CDC Falcon	13.0	21.6	27.1	32.3	23.5	28.6	26.7	24.8	29.2		26.1	20.7		29.5	30.4	27.7	29.7	26.1
Bearpaw	14.5	19.4	27.1	33.0	22.0	28.3	28.5	19.3	32.0		27.3	22.6		28.9	32.0	28.0	32.2	26.3
Loma	15.5	22.2	28.8	33.0	23.8	29.5	28.0	20.7	29.9		29.2	21.6		29.1	28.5	28.7	32.7	26.7
SY Wolf	17.3	22.3	27.6	31.7	23.5	31.5	28.5	25.3	29.5		28.3	21.8		28.2	31.9	29.2	30.3	27.1
+ **Brawl CLP**	16.0	25.3	29.5	30.3	23.8	28.4	27.2	22.5	31.2		28.1	17.9		29.3	34.2	32.3	32.0	27.2
Warhorse	16.7	23.5	26.4	34.7	23.7	29.5	29.9	21.7	30.5		29.4	23.0		28.7	30.2	28.7	32.9	27.3
+ **MT1465**	17.9	23.6	27.4	32.0	24.1	29.5	28.9	22.5	31.0		28.4	24.2		29.3	31.1	29.7	32.2	27.5
+ **MT1488**	14.1	24.1	29.5	34.3	23.8	30.2	29.4	25.0	30.9		29.1	23.5		28.1	30.4	29.0	30.4	27.5
WB-Quake	16.5	22.1	27.6	34.0	27.0	31.1	28.7	24.0	31.3		29.1	20.7		29.8	30.3	28.0	32.7	27.5
+ **MTS1573**	18.3	24.6	28.5	32.7	23.9	29.1	26.9	25.3	30.7		28.3	22.7		29.3	32.2	30.0	31.8	27.6
Decade	16.0	23.0	27.7	33.7	24.5	28.5	28.3	22.0	31.4		28.1	24.4		31.1	34.3	29.9	32.7	27.7
+ **MT1471**	17.6	23.2	29.5	33.0	25.4	28.3	28.7	25.0	29.4		27.7	24.6		31.0	31.6	30.1	32.5	27.8
Northern	16.3	22.2	29.0	35.3	25.8	30.9	28.9	22.7	32.2		28.6	23.8		30.6	31.2	28.8	31.0	27.8
+ **SY Monument**	18.5	25.0	27.5	33.0	24.9	27.3	27.6	23.0	30.2		27.9	23.7		28.7	33.6	32.6	32.9	27.8
Judee	17.2	24.3	29.2	33.7	25.7	30.5	29.5	23.7	31.2		29.0	23.0		30.8	32.1	28.0	31.5	28.0
Keldin	18.4	23.4	29.3	32.3	24.2	29.1	30.1	25.5	32.4		28.8	22.9		32.9	32.6	30.9	30.6	28.2
MT1348	18.2	25.2	28.0	34.7	24.9	29.2	27.5	23.7	31.7		29.7	21.5		29.8	35.1	31.5	32.9	28.2
Yellowstone	17.7	24.8	28.9	35.0	26.2	27.4	30.4	24.0	34.9		29.2	21.7		32.3	32.5	32.1	34.5	28.8
+ **MT1444**	19.1	23.8	29.9	37.0	24.0	33.3	30.1	24.0	33.1		30.1	26.2		31.2	33.2	30.3	33.7	29.3
+ **MTW1491**	21.6	25.8	30.0	35.0	26.6	30.9	31.3	23.7	33.0		29.3	26.0		32.5	32.1	31.5	33.7	29.5
MT1265	20.1	25.0	31.5	37.3	28.9	31.7	32.8	24.7	34.2		28.1	25.0		32.7	34.3	31.0	36.2	30.2
SY Clearstone 2CL	21.3	23.9	31.9	37.7	28.9	33.4	33.7	26.0	32.8		29.7	26.3		32.3	34.9	31.7	34.9	30.6
+ **MTF1432**	20.9	26.6	34.8	39.0	28.9	33.9	34.5	25.0	38.3		34.7	25.7		37.4	33.7	32.7	38.2	32.3
+ **MTF1435**	22.6	26.8	35.1	43.3	30.7	33.3	36.4	27.7	38.6		35.3	28.1		38.6	40.4	37.9	40.2	34.3
Average	**17.7**	**23.8**	**29.1**	**34.3**	**25.3**	**30.0**	**29.6**	**23.7**	**31.9**		**29.0**	**23.3**		**30.8**	**32.5**	**30.3**	**32.9**	**28.3**
LSD (0.05)	**3.1**	**3.0**	**1.8**	**2.0**	**2.5**	**2.6**	**2.2**	**3.7**	**2.3**		**2.6**	**3.1**		**2.0**	**1.9**	**2.3**	**2.5**	**0.9**
C.V. (%)	**9.9**	**6.8**	**3.5**	**3.5**	**5.5**	**4.8**	**4.2**	**9.5**	**4.0**		**5.2**	**7.7**		**3.9**	**3.2**	**4.3**	**4.7**	**4.6**

bold = indicates highest value within a column

bold = indicates varieties with values equal to highest variety within a column based on Fisher's Protected LSD (p =0.05)

Table 54. 2017 Off-Station Winter Wheat Test (Exp. 38): Multi-Location Protein (%)

Cultivar/Line	Turner	Loma	Knees	Cut	Shelby	Choteau	Devon/ Mocc.	Denton	Gerald-	Wini-	Belt	High-	Fly Cr/ Huntley	Rapelje	Hysham	Hardin	Molt	16 Loc.
	NARC	NARC	WTARC	Bank	WTARC	WTARC	No-Till	CARC	ine	fred	CARC	wood	SARC	SARC	SARC	SARC	SARC	Average
+ = new for 2017	LAT	LAT	LAT	LAT	RCB	LAT	RCB	LAT	LAT	not	LAT	LAT	LAT	RCB	RCB	LAT	LAT	
	160%	854%	114%	235%		204%		124%	220%	harv.	398%	154%	123%			148%	172%	
+ **MT1471**	14.6	**16.2**	**12.8**	**10.6**	13.7	**14.8**	**15.1**	**14.5**	**12.3**		**9.2**	13.3	**12.7**	9.0	**12.8**	**14.9**	**10.5**	**12.9**
Warhorse	14.3	**16.0**	**12.6**	**10.4**	13.3	**14.2**	14.3	14.0	**12.4**		**9.0**	**13.7**	**13.0**	8.5	**13.7**	**14.6**	**10.3**	**12.8**
Judee	**14.9**	**16.0**	**12.5**	**10.1**	12.8	**14.6**	14.3	13.8	11.4		**9.0**	12.9	12.2	8.7	12.6	**14.9**	9.3	12.5
Northern	14.3	**15.6**	**12.5**	10.0	13.4	14.0	**15.0**	**14.3**	**12.1**		8.8	12.6	11.8	8.4	**13.2**	**14.9**	9.6	12.5
Bearpaw	14.7	**16.0**	**12.6**	**10.1**	12.9	**14.5**	14.2	**14.0**	11.1		8.6	13.0	11.0	8.1	12.0	**15.0**	**10.1**	12.4
Loma	14.7	14.9	11.9	9.7	12.8	13.7	14.6	**14.4**	11.3		**9.0**	12.3	12.0	8.5	12.0	**14.7**	**10.0**	12.3
+ **MT1488**	**15.3**	15.3	11.8	**10.6**	12.4	14.0	14.0	13.7	11.6		8.8	12.6	11.8	**9.2**	**12.7**	13.6	**10.0**	12.3
+ **MTS1588**	14.1	15.2	**12.4**	10.0	12.5	**14.1**	13.7	13.8	11.4		**9.5**	12.7	11.5	8.5	**12.7**	**14.5**	9.6	12.3
WB-Quake	14.5	15.1	**12.5**	9.9	13.1	**14.3**	14.6	13.7	11.3		8.8	12.7	**12.7**	8.2	11.7	**14.5**	9.8	12.3
+ **Brawl CLP**	13.0	14.7	11.5	**10.8**	13.2	12.8	12.9	12.7	**12.0**		**9.1**	**14.4**	**12.7**	**9.6**	12.2	13.7	**10.6**	12.2
CDC Falcon	13.6	14.8	**12.5**	9.8	13.0	**14.3**	13.7	13.9	**11.8**		**9.3**	12.4	11.5	8.3	**12.8**	14.0	9.4	12.2
Decade	14.5	15.3	**12.6**	**10.1**	12.6	13.5	14.1	13.2	11.8		**9.3**	12.0	11.7	9.1	**12.8**	13.7	9.4	12.2
+ **MTF1432**	13.6	15.1	12.1	9.3	12.9	13.7	14.2	13.9	11.3		8.6	12.0	11.8	8.0	**13.0**	**14.5**	9.6	12.1
Yellowstone	13.7	15.3	11.9	9.6	13.0	**14.3**	14.5	13.8	11.3		8.6	13.0	11.4	7.9	11.5	14.0	9.4	12.1
MT1265	13.8	15.5	**12.3**	9.8	12.6	13.6	14.1	13.6	11.1		8.7	11.9	11.5	7.7	12.1	**14.7**	8.9	12.0
+ **MT1444**	13.7	15.2	12.1	9.7	12.6	**14.1**	14.0	13.5	11.1		**9.3**	12.1	10.8	8.1	12.1	13.9	9.5	12.0
+ **MT1465**	14.2	15.0	12.1	9.6	12.8	13.9	14.1	13.3	11.1		8.8	12.1	11.3	7.9	12.4	14.1	8.9	12.0
+ **MTF1435**	13.1	14.9	**12.4**	9.9	12.8	13.9	13.9	13.7	11.5		8.5	11.8	12.1	8.2	11.9	13.8	9.4	12.0
+ **MTS1573**	13.2	14.1	12.1	**10.6**	12.6	13.4	13.2	13.1	**11.9**		**9.2**	12.7	**13.7**	8.9	11.6	12.9	9.4	12.0
MT1348	13.3	14.9	**12.4**	9.8	12.7	13.3	13.9	12.8	11.3		8.5	11.8	12.0	8.2	12.2	13.9	8.8	11.9
SY Clearstone 2Cl	14.2	**15.6**	11.9	**10.1**	12.5	13.3	13.7	13.2	10.9		8.6	11.7	11.6	7.7	12.1	**14.6**	9.0	11.9
SY Wolf	13.9	14.9	12.2	**10.5**	12.4	**14.1**	13.3	12.8	11.2		8.4	12.2	12.4	8.3	11.1	13.4	9.5	11.9
Keldin	13.3	15.0	11.8	9.6	12.9	13.8	13.5	13.3	10.4		8.3	12.5	12.6	7.9	11.8	12.6	9.3	11.8
+ **MTW1491**	13.1	14.9	11.9	9.7	12.7	13.5	13.6	12.9	10.9		8.8	11.6	11.3	7.9	11.7	13.7	9.0	11.7
+ **SY Monument**	12.1	13.7	11.4	9.4	12.5	13.1	12.4	12.7	10.5		8.6	11.3	11.5	7.6	11.0	11.9	8.7	11.2
Average	**13.9**	**15.2**	**12.2**	**10.0**	**12.8**	**13.9**	**14.0**	**13.5**	**11.4**		**8.9**	**12.4**	**11.9**	**8.3**	**12.2**	**14.0**	**9.5**	**12.1**
LSD (0.05)	**0.5**	**0.7**	**0.5**	**0.7**	**ns**	**0.8**	**0.4**	**0.5**	**0.6**		**0.6**	**0.8**	**1.0**	**0.4**	**1.0**	**0.7**	**0.6**	**0.3**
C.V. (%)	**1.8**	**2.3**	**2.3**	**3.9**	**4.3**	**3.3**	**1.8**	**2.1**	**2.6**		**2.9**	**3.3**	**4.6**	**3.3**	**5.2**	**2.6**	**3.3**	**3.6**

bold = indicates highest value within a column

bold = indicates varieties with values equal to highest variety within a column based on Fisher's Protected LSD (p =0.05)

Table 55. 2017 Off-Station Winter Wheat Test (Exp. 38): Multi-Location Lodging (%)

Cultivar/Line	Origin/Pedigree	Western Triangle Ag Res.[1/]			Huntley	4 Loc
		Knees	Shelby/ Devon	Choteau	Irrig. SARC	Average
+ = new for 2017		RCB	LAT	LAT	LAT	
	lattice efficiency relative to RCB		124%	109%	157%	
+ **MTS1588**	Yellowstone*2/MTW0590	**9**	**0**	**6**	**4**	**5**
Warhorse	MT08186//Yellowstone(L)*2/98X168E	**29**	**6**	**17**	38	**22**
+ **Brawl CLP**	Montana, 2011	**19**	26	39	**9**	**23**
Loma	Montana, 2013	**26**	**13**	31	46	29
CDC Falcon	Montana/North Dakota, 2010	36	20	58	**9**	31
Bearpaw	Montana 2005	44	**11**	45	34	34
WB-Quake	Danby/2*MTS04114	44	**7**	**18**	70	35
+ **MTS1573**	Syngenta, 2015	37	**10**	47	47	35
+ **MTW1491**	Yellowstone/MT0684	**23**	23	79	**19**	36
Decade	Sask/WestBred, 1999	**29**	**14**	64	40	37
+ **MT1488**	PI572290/BigSky	**20**	24	64	40	37
Yellowstone	MT0598/98X366E29-1	34	**13**	62	39	37
Judee	Montana, 2011	42	**6**	53	51	38
+ **SY Monument**	MT08189//MT08187/(MTW08166, W	44	**15**	72	39	42
+ **MT1444**	Montana, 2016	34	27	66	50	44
+ **MT1465**	Yellowstone*4/KS96WGRC40 (Lr41,	59	43	75	**1**	45
Northern	Yellowstone/NuDakota	39	24	74	49	46
SY Wolf	Yellowstone*2/98X168E1	37	38	70	48	48
+ **MTF1432**	Westbred, 2011	**29**	38	75	58	50
+ **MTF1435**	Colorado Research Foundation, 201	**27**	28	85	60	50
MT1265	WestBred, 2011	45	28	75	56	51
SY Clearstone 2CL	MTR00118/MT0241//CDC Falcon	40	26	80	62	52
Keldin	Montana/Syngenta, 2012	53	26	77	53	52
+ **MT1471**	Syngenta (AgriPro), 2010	66	30	75	39	53
MT1348	Montana, 2015	55	18	77	66	54
Average		**36.8**	**20.6**	**59.4**	**41.1**	**39.5**
LSD (0.05)		**20.0**	**16.8**	**22.8**	**26.7**	**19.9**
C.V. (%)		**31.4**	**45.3**	**21.7**	**35.9**	**35.8**

bold = indicates highest value within a column 1/ = most likely combined with sawfly cutting

bold = indicates varieties with values equal to highest variety within a column based on Fisher's Protected LSD (p =0.05)

Table 56. 2017 Off-Station Winter Wheat Test (Exp. 38): Falling Number

Entry		Cultivar/Line	Origin/Pedigree	Target ≥ 300[1/] Turner NARC RCB	Loma NARC LAT	2 Loc Average
	+ = new for 2017					
			lattice efficiency relative to RCB		236%	
9		**Northern**	Montana, 2015	375	417	396
7		**Warhorse**	Montana, 2013	377	408	393
11		**MT1265**	Yellowstone*4/KS96WGRC40 (Lr41,	377	407	392
1		**Yellowstone**	Montana 2005	374	401	388
21	+	**MTW1491**	MT08189//MT08187/(MTW08166, W	364	404	384
6		**SY Clearstone 2CL**	Montana/Syngenta, 2012	365	401	383
20	+	**MT1488**	MTR00118/MT0241//CDC Falcon	370	393	382
13		**MT1348**	PI572290/BigSky	380	382	381
24	+	**MTS1573**	Danby/2*MTS04114	370	391	381
17	+	**MT1444**	Yellowstone*2/MTW0590	369	387	378
4		**CDC Falcon**	Sask/WestBred, 1999	370	382	376
23	+	**MTF1435**	MT08186//Yellowstone(L)*2/98X168E	353	398	376
22	+	**MTF1432**	Yellowstone*2/98X168E1	353	397	375
3		**Decade**	Montana/North Dakota, 2010	367	376	372
19	+	**MT1471**	Yellowstone/NuDakota	354	381	368
14		**Keldin**	Westbred, 2011	352	375	364
2		**Judee**	Montana, 2011	355	370	363
25	+	**MTS1588**	MT0598/98X366E29-1	363	361	362
18	+	**MT1465**	Yellowstone/MT0684	356	367	362
5		**Bearpaw**	Montana, 2011	348	373	361
15	+	**Brawl CLP**	Colorado Research Foundation, 201	358	362	360
16	+	**SY Monument**	Syngenta, 2015	349	370	360
10		**Loma**	Montana, 2016	346	367	357
8		**WB-Quake**	WestBred, 2011	341	369	355
12		**SY Wolf**	Syngenta (AgriPro), 2010	333	350	342
		Average		**360.8**	**383.6**	**372**
		LSD (0.05)		**12.5**	**12.6**	**19**
		C.V. (%)		**2.1**	**1.8**	**2.4**
		P-value (Varieties)		**<.0001**	**<.0001**	**0.0002**

bold = indicates highest value within a column

bold = indicates varieties with values equal to highest variety within a column based on Fisher's Protected LSD (p =0.05)

Table 57. 2017 Off-Station Winter Wheat Test (Exp. 38): Sawfly Cutting %

Entry		Cultivar/Line	Origin/Pedigree	Loma NARC LAT	Fly Creek SARC RCB	2 Loc Average
	+ = new for 2017					
			lattice efficiency relative to RCB	177%		
7		**Warhorse**	Montana, 2013	**13**	**3**	**8**
5		**Bearpaw**	Montana, 2011	**11**	**10**	**11**
25	**+**	**MTS1588**	MT0598/98X366E29-1	**24**	**7**	**16**
8		**WB-Quake**	WestBred, 2011	**25**	**10**	**17**
24	**+**	**MTS1573**	Danby/2*MTS04114	39	**3**	**21**
13		**MT1348**	PI572290/BigSky	45	5	**25**
2		**Judee**	Montana, 2011	41	**10**	**25**
10		**Loma**	Montana, 2016	38	**17**	**28**
1		**Yellowstone**	Montana 2005	**31**	33	**32**
23	**+**	**MTF1435**	MT08186//Yellowstone(L)*2/98X168	37	27	**32**
9		**Northern**	Montana, 2015	**32**	33	**32**
22	**+**	**MTF1432**	Yellowstone*2/98X168E1	51	27	39
6		**SY Clearstone 2CL**	Montana/Syngenta, 2012	46	33	40
18	**+**	**MT1465**	Yellowstone/MT0684	58	33	45
19	**+**	**MT1471**	Yellowstone/NuDakota	51	40	46
17	**+**	**MT1444**	Yellowstone*2/MTW0590	49	43	46
21	**+**	**MTW1491**	MT08189//MT08187/(MTW08166, W	49	43	46
3		**Decade**	Montana/North Dakota, 2010	52	43	47
16	**+**	**SY Monument**	Syngenta, 2015	54	43	48
11		**MT1265**	Yellowstone*4/KS96WGRC40 (Lr41,	57	40	48
12		**SY Wolf**	Syngenta (AgriPro), 2010	45	53	49
15	**+**	**Brawl CLP**	Colorado Research Foundation, 201	**31**	73	52
14		**Keldin**	Westbred, 2011	78	37	57
4		**CDC Falcon**	Sask/WestBred, 1999	57	67	62
20	+	**MT1488**	MTR00118/MT0241//CDC Falcon	61	73	67
		Average		**43.0**	**34.0**	**39**
		LSD (0.05)		**25.6**	**15.0**	**25**
		C.V. (%)		**32.2**	**26.8**	**31.7**
		P-value (Varieties)		**0.0012**	**<.0001**	**0.0022**

bold = indicates highest value within a column

bold = indicates varieties with values equal to highest variety within a column based on Fisher's Protected LSD (p =0.05)

Table 58. 2015-2017 Off-Station Winter Wheat Test (Exp. 3851): Turner (NARC) Yield, Test Weight and Protein

Cultivar/Line	Grain Yield (bu/a)				Test Weight (lb/bu)			Protein (%)		
	2017	2016-17	2015-17		2017	2016-17	2015-17	2017	2016-17	2015-17
	1y	2y	3y		1y	2y	3y	1y	2y	3y
Bearpaw	19.0	40.4	39.8	**2014, no**	55.9	56.6	57.1	14.7	**13.0**	**13.2**
+ **Brawl CLP**	16.4			**harvest**	**59.1**			13.0		
CDC Falcon	17.2	38.3	39.0	**hailed**	56.1	57.5	57.9	13.6	12.5	12.6
Decade	21.1	38.2	39.4	**out**	56.7	57.5	58.0	14.5	**13.0**	**13.5**
Judee	18.1	44.2	41.7		57.7	59.1	**59.6**	**14.9**	**13.3**	**13.4**
Keldin	20.8	38.7			57.5	58.4		13.3	12.1	
Loma	21.3	41.3	40.3		57.1	58.7	**58.9**	14.7	**13.1**	**13.2**
MT1265	20.6	45.1	44.0		56.2	57.9	58.5	13.8	12.5	12.6
MT1348	20.0	44.2			57.0	58.2		13.3	12.2	
+ **MT1444**	20.4				57.1			13.7		
+ **MT1465**	19.1				56.6			14.2		
+ **MT1471**	20.4				55.2			14.6		
+ **MT1488**	17.3				55.5			**15.3**		
+ **MTF1432**	18.2				54.9			13.6		
+ **MTF1435**	17.4				56.0			13.1		
+ **MTS1573**	18.4				57.7			13.2		
+ **MTS1588**	**22.9**				57.6			14.1		
+ **MTW1491**	**23.1**				57.1			13.1		
Northern	21.3	44.1	42.3		57.3	58.8	**58.9**	14.3	**13.1**	**13.3**
SY Clearstone 2CL	19.0	39.7	39.7		56.6	58.0	58.4	14.2	**12.7**	12.9
+ **SY Monument**	18.7				56.9			12.1		
SY Wolf	17.7	40.3	39.9		58.0	58.6	**58.7**	13.9	12.5	12.9
Warhorse	16.9	39.8	38.6		54.7	57.2	57.9	14.3	**13.2**	**13.5**
WB-Quake	16.9	42.2	40.7		56.3	57.6	58.0	14.5	**13.2**	**13.2**
Yellowstone	19.1	45.7	43.5		55.5	57.6	58.2	13.7	12.3	12.6
Average	**19.2**	**41.6**	**40.7**		**56.6**	**58.0**	**58.3**	**13.9**	**12.7**	**13.1**
LSD (0.05)	**1.8**	**ns**	**ns**		**0.7**	**ns**	**1.1**	**0.5**	**0.7**	**0.5**
C.V. (%)	**5.1**	**9.8**	**8.2**		**0.7**	**1.3**	**0.0**	**1.8**	**2.4**	**2.3**

+ = new for 2017

bold = indicates highest value within a column

bold = indicates varieties with values equal to highest variety within a column based on Fisher's protected LSD (p=0.05)

Table 59. 2014-2017 Off-Station Winter Wheat Test (Exp. 3853): Loma (NARC) Yield, Test Weight and Protein

Cultivar/Line	Grain Yield (bu/a)				Test Weight (lb/bu)				Protein (%)			
	2017	2016-17	2015-17	2014-17	2017	2016-17	2015-17	2014-17	2017	2016-17	2015-17	2014-17
	1y	2y	3y	4y	1y	2y	3y	4y	1y	2y	3y	4y
Bearpaw	27.9	33.2	39.0	38.8	60.4	57.0	56.9	58.2	**16.0**	16.3	15.6	**15.6**
+ **Brawl CLP**	**48.8**				**61.7**				14.7			
CDC Falcon	40.2	41.2	45.2	44.4	58.3	56.3	56.4	57.8	14.8	16.1	15.5	15.2
Decade	40.4	38.2	41.0	39.3	60.0	56.9	56.7	58.1	15.3	16.2	15.7	**15.7**
Judee	41.1	41.3	42.0	42.8	**60.9**	57.6	57.3	58.7	**16.0**	17.1	**16.5**	**16.1**
Keldin	38.7	44.1			60.2	58.5			15.0	15.8		
Loma	41.5	36.3	39.6		60.5	56.7	56.6		14.9	16.2	15.7	
MT1265	42.8	45.5	47.9		60.0	57.6	**57.7**		15.5	16.0	15.4	
MT1348	**49.1**	49.3			60.5	57.5			14.9	15.5		
+ **MT1444**	38.4				60.4				15.2			
+ **MT1465**	43.4				60.8				15.0			
+ **MT1471**	38.6				59.5				**16.2**			
+ **MT1488**	37.8				59.1				15.3			
+ **MTF1432**	41.4				58.4				15.1			
+ **MTF1435**	40.8				60.1				14.9			
+ **MTS1573**	**51.6**				**61.5**				14.1			
+ **MTS1588**	**49.7**				**61.1**				15.2			
+ **MTW1491**	42.6				**61.2**				14.9			
Northern	**43.9**	42.2	46.5	46.0	60.2	56.2	56.6	58.0	**15.6**	16.9	**16.2**	**16.0**
SY Clearstone 2CL	38.4	40.3	43.3	44.6	60.2	57.2	57.1	58.2	**15.6**	16.3	15.6	15.3
+ **SY Monument**	40.0				60.1				13.7			
SY Wolf	41.9	43.8	45.8		**61.8**	58.7	**58.8**		14.9	15.8	15.2	
Warhorse	40.6	38.8	40.6	41.8	60.8	58.3	**57.8**	59.0	**16.0**	16.5	15.8	15.5
WB-Quake	40.2	38.5	40.3	40.4	**61.2**	58.0	57.6	58.8	15.1	15.9	15.3	15.1
Yellowstone	42.5	43.5	44.4	44.9	59.9	57.2	57.0	58.1	15.3	16.2	15.5	15.2
Average	**41.7**	**41.1**	**43.0**	**42.6**	**60.3**	**57.4**	**57.2**	**58.3**	**15.2**	**16.2**	**15.7**	**15.5**
LSD (0.05)	**7.7**	**ns**	**ns**	**ns**	**0.9**	**ns**	**1.2**	**ns**	**0.7**	**ns**	**0.6**	**0.6**
C.V. (%)	**9.9**	**10.0**	**8.7**	**8.6**	**0.8**	**1.6**	**1.3**	**1.2**	**2.3**	**2.8**	**2.3**	**2.5**

+ = new for 2017

bold = indicates highest value within a column

bold = indicates varieties with values equal to highest variety within a column based on Fisher's protected LSD (p=0.05)

Table 60. 2014-2017 Off-Station Winter Wheat Test (Exp. 3865): The Knees (WTARC) Yield, Test Weight and Protein

Cultivar/Line	Grain Yield (bu/a)				Test Weight (lb/bu)				Protein (%)			
	2017	2016-17	2015-17	2014-17	2017	2016-17	2015-17	2014-17	2017	2016-17	2015-17	2014-17
	1y	2y	3y	4y	1y	2y	3y	4y	1y	2y	3y	4y
Bearpaw	75.5	70.8	68.4	65.7	61.3	58.7	58.7	59.5	**12.6**	12.6	**12.1**	12.5
+ **Brawl CLP**	**90.2**				**64.1**				11.5			
CDC Falcon	71.8	80.0	73.0	69.3	60.6	59.4	58.9	59.6	**12.5**	12.7	**12.2**	12.7
Decade	71.6	77.6	74.9	73.9	61.3	59.7	59.5	**60.3**	**12.6**	12.6	11.8	12.4
Judee	72.9	95.1	83.3	77.7	61.9	61.6	**61.0**	**61.2**	**12.5**	12.7	**12.3**	12.7
Keldin	**89.9**	105.9			61.9	60.7			11.8	10.3		
Loma	**88.2**	85.7	81.5		60.9	58.4	58.5		11.9	12.8	**12.3**	
MT1265	**82.9**	87.6	79.2		59.6	58.7	58.6		**12.3**	11.8	11.4	
MT1348	**82.3**	91.7			60.1	59.9			**12.4**	12.4		
+ **MT1444**	**81.4**				60.2				12.1			
+ **MT1465**	76.2				60.8				12.1			
+ **MT1471**	78.5				61.2				**12.8**			
+ **MT1488**	70.3				60.1				11.8			
+ **MTF1432**	**80.2**				58.8				12.1			
+ **MTF1435**	74.7				59.7				**12.4**			
+ **MTS1573**	**86.1**				62.8				12.1			
+ **MTS1588**	**82.1**				62.0				**12.4**			
+ **MTW1491**	**85.6**				60.4				11.9			
Northern	**79.9**	85.1	80.0	75.8	60.4	58.6	58.8	59.3	**12.5**	12.4	**12.1**	12.4
SY Clearstone 2CL	**80.3**	97.3	88.0	80.9	59.6	59.2	58.7	58.8	11.9	12.1	11.5	12.1
+ **SY Monument**	**90.0**				59.8				11.4			
SY Wolf	**85.3**	94.8	87.1		63.2	61.3	**61.1**		12.2	12.1	11.4	
Warhorse	77.1	79.3	75.7	72.1	61.0	59.6	59.5	**60.0**	**12.6**	12.9	**12.3**	12.5
WB-Quake	65.0	75.3	68.5	67.2	62.1	60.3	**59.8**	**60.3**	**12.5**	13.0	**12.7**	12.8
Yellowstone	**84.9**	92.2	84.4	81.8	60.7	58.8	58.7	59.2	11.9	11.9	11.6	11.9
Average	**80.1**	**87.0**	**78.7**	**73.8**	**61.0**	**59.6**	**59.3**	**59.8**	**12.2**	**12.3**	**12.0**	**12.4**
LSD (0.05)	**10.7**	**ns**	**ns**	**ns**	**0.8**	**ns**	**1.4**	**1.3**	**0.5**	**ns**	**0.7**	**ns**
C.V. (%)	**7.6**	**11.8**	**11.4**	**11.8**	**0.8**	**1.8**	**1.4**	**1.4**	**2.3**	**6.2**	**3.6**	**3.5**

+ = new for 2017

bold = indicates highest value within a column

bold = indicates varieties with values equal to highest variety within a column based on Fisher's protected LSD (p=0.05)

Table 61. 2014-2017 Off-Station Winter Wheat Test (Exp. 3864): Cut Bank (WTARC) Yield, Test Weight and Protein

Cultivar/Line	Grain Yield (bu/a)				Test Weight (lb/bu)				Protein (%)			
	2017	2016-17	2015-17	2014-17	2017	2016-17	2015-17	2014-17	2017	2016-17	2015-17	2014-17
	1y	2y	3y	4y	1y	2y	3y	4y	1y	2y	3y	4y
Bearpaw	75.0	70.7	66.2	**67.2**	63.0	59.8	59.3	58.0	**10.1**	12.4	12.4	12.8
+ **Brawl CLP**	79.7				**63.9**				**10.8**			
CDC Falcon	82.0	80.8	**71.7**	**69.9**	62.5	59.9	59.3	57.6	9.8	12.0	12.2	12.7
Decade	78.2	76.1	69.3	**68.0**	62.7	60.2	60.0	58.6	**10.1**	12.0	12.3	12.6
Judee	79.9	77.4	69.2	**69.7**	**63.8**	61.5	61.4	**59.9**	**10.1**	12.2	12.3	12.6
Keldin	**98.0**	**96.6**			63.2	61.4			9.6	11.6		
Loma	80.9	82.6	**73.6**		62.1	60.7	60.5		9.7	11.9	12.0	
MT1265	**91.4**	84.8	**77.5**		61.6	60.4	60.5		9.8	12.1	12.2	
MT1348	86.7	84.0			62.7	60.7			9.8	11.6		
+ **MT1444**	**90.5**				62.1				9.7			
+ **MT1465**	**91.5**				62.4				9.6			
+ **MT1471**	79.9				62.9				**10.6**			
+ **MT1488**	86.0				62.8				**10.6**			
+ **MTF1432**	82.8				60.5				9.3			
+ **MTF1435**	78.6				61.3				9.9			
+ **MTS1573**	77.1				**63.4**				**10.6**			
+ **MTS1588**	86.7				63.2				10.0			
+ **MTW1491**	84.3				62.4				9.7			
Northern	87.3	84.0	**77.2**	**73.2**	61.7	60.5	60.6	**59.1**	10.0	12.3	12.4	**12.9**
SY Clearstone 2CL	85.4	81.5	**71.0**	**69.3**	60.9	59.8	59.9	58.4	**10.1**	12.0	12.3	12.7
+ **SY Monument**	**94.1**				61.1				9.4			
SY Wolf	82.4	**87.0**	**77.8**		**64.4**	61.9	61.4		**10.5**	12.2	12.3	
Warhorse	79.7	72.2	59.5	60.7	62.5	60.5	60.3	**58.9**	**10.4**	12.7	12.7	**13.1**
WB-Quake	74.5	72.9	64.4	61.9	62.8	60.7	60.4	**59.1**	9.9	12.2	12.1	12.6
Yellowstone	84.9	82.8	**76.0**	**73.9**	61.5	60.4	60.2	58.6	9.6	11.9	12.1	12.5
Average	**83.9**	**80.9**	**71.1**	**68.2**	**62.4**	**60.6**	**60.3**	**58.7**	**10.0**	**12.1**	**12.3**	**12.7**
LSD (0.05)	**8.0**	**9.3**	**8.3**	**7.4**	**1.1**	**ns**	**ns**	**1.1**	**0.7**	**ns**	**ns**	**0.3**
C.V. (%)	**5.3**	**5.3**	**6.9**	**7.5**	**1.0**	**1.6**	**1.4**	**1.2**	**3.9**	**2.5**	**2.2**	**1.9**

+ = new for 2017

bold = indicates highest value within a column

bold = indicates varieties with values equal to highest variety within a column based on Fisher's protected LSD (p=0.05)

Table 62. 2014//2017 Off-Station Winter Wheat Test (Exp. 3865): Shelby area - Devon (WTARC) Yield, Test Weight and Protein

Cultivar/Line	Grain Yield (bu/a)				Test Weight (lb/bu)			Protein (%)		
	2017	2016-17		2014//17	2017	2016-17	2014//17	2017		2013
	1y	2y		3y	1y	2y	3y	1y		2y
Bearpaw	63.2	69.9	**herbicide**	63.8	61.8	61.1	61.8	12.9	**2016**	**2014**
+ Brawl CLP	63.9		**damage,**		**63.3**			13.2	**data**	**data**
CDC Falcon	66.6	73.8	**data not**	**67.8**	60.6	60.7	61.4	13.0	**not**	**not**
Decade	62.5	73.2	**used**	**69.1**	60.6	60.9	61.9	12.6	**used**	**used**
Judee	62.4	70.5		63.7	61.3	61.5	62.2	12.8		
Keldin	65.5	78.4			61.1	62.1		12.9		
Loma	67.7	76.0			61.4	61.1		12.8		
MT1265	70.4	73.4			60.2	60.3		12.6		
MT1348	72.9	80.5			60.9	61.4		12.7		
+ MT1444	67.5				61.3			12.6		
+ MT1465	64.3				61.7			12.8		
+ MT1471	58.4				60.8			13.7		
+ MT1488	65.1				61.8			12.4		
+ MTF1432	65.3				58.7			12.9		
+ MTF1435	59.8				60.4			12.8		
+ MTS1573	64.2				62.0			12.6		
+ MTS1588	67.7				61.6			12.5		
+ MTW1491	75.2				61.5			12.7		
Northern	64.7	75.9		**71.1**	60.9	61.0	61.5	13.4		
SY Clearstone 2CL	67.6	74.0		**67.9**	60.3	60.7	61.2	12.5		
+ SY Monument	69.4				59.5			12.5		
SY Wolf	65.0	75.8			**62.9**	62.9		12.4		
Warhorse	61.8	68.1		63.4	61.4	61.6	62.0	13.3		
WB-Quake	62.1	67.4		65.3	61.4	61.0	61.7	13.1		
Yellowstone	66.5	78.4		**73.0**	60.7	61.0	61.3	13.0		
Average	**65.6**	**73.9**		**67.2**	**61.1**	**61.2**	**61.7**	**12.8**		
LSD (0.05)	**ns**	**ns**		**5.9**	**0.9**	**ns**	**ns**	**ns**		
C.V. (%)	**9.6**	**5.4**		**5.1**	**0.8**	**0.9**	**0.8**	**4.3**		

+ = new for 2017

bold = indicates highest value within a column

bold = indicates varieties with values equal to highest variety within a column based on Fisher's protected LSD (p=0.05)

Table 63. 2014//2017 Off-Station Winter Wheat Test (Exp. 3863): Choteau area (WTARC) Yield, Test Weight and Protein

Cultivar/Line	Grain Yield (bu/a)				Test Weight (lb/bu)			Protein (%)		
	2017	2016-17		2014//17	2017	2016-17	2014//17	2017	2016-17	2014//17
	1y	2y		3y	1y	2y	3y	1y	2y	3y
Bearpaw	49.4	56.3	**poor**	59.4	57.1	59.2	**59.5**	**14.5**	14.6	14.7
+ **Brawl CLP**	**59.4**		**stand,**		**61.6**			12.8		
CDC Falcon	51.0	60.3	**no**	62.7	57.7	58.8	58.7	**14.3**	14.3	14.5
Decade	48.6	60.1	**harvest**	**64.4**	59.3	**60.1**	**60.3**	13.5	14.3	14.4
Judee	48.8	62.5		**64.1**	58.3	**60.4**	**59.8**	**14.6**	14.8	15.0
Keldin	**57.6**	**70.1**			59.6	**60.8**		13.8	13.7	
Loma	49.1	63.1			57.1	58.6		13.7	14.3	
MT1265	**54.9**	**67.1**			57.0	58.3		13.6	14.0	
MT1348	**55.9**	**69.2**			58.3	59.8		13.3	13.8	
+ **MT1444**	**54.9**				57.9			**14.1**		
+ **MT1465**	**56.8**				57.9			13.9		
+ **MT1471**	52.5				57.0			**14.8**		
+ **MT1488**	47.4				56.8			14.0		
+ **MTF1432**	53.3				56.5			13.7		
+ **MTF1435**	**55.4**				56.9			13.9		
+ **MTS1573**	**59.8**				**60.5**			13.4		
+ **MTS1588**	52.6				58.3			**14.1**		
+ **MTW1491**	**63.1**				59.0			13.5		
Northern	52.2	**64.1**		**67.5**	57.6	59.0	58.5	14.0	14.1	14.5
SY Clearstone 2CL	**56.0**	**65.9**		**69.1**	56.3	58.0	57.9	13.3	14.1	14.3
+ **SY Monument**	**55.4**				55.8			13.1		
SY Wolf	52.2	**66.0**			59.6	**61.2**		**14.1**	14.1	
Warhorse	52.0	61.8		62.5	57.4	59.1	58.7	**14.2**	14.5	14.4
WB-Quake	40.7	51.7		56.8	56.9	59.2	**59.2**	**14.3**	14.2	14.4
Yellowstone	50.6	**64.4**		**68.0**	56.1	58.2	57.9	**14.3**	14.3	14.6
Average	**53.2**	**63.0**		**63.8**	**57.9**	**59.3**	**59.0**	**13.9**	**14.2**	**14.5**
LSD (0.05)	**8.5**	**6.5**		**5.5**	**1.6**	**1.3**	**1.2**	**0.8**	**ns**	**ns**
C.V. (%)	**8.9**	**4.8**		**5.0**	**1.5**	**1.0**	**1.2**	**3.3**	**3.1**	**2.7**

+ = new for 2017

bold = indicates highest value within a column

bold = indicates varieties with values equal to highest variety within a column based on Fisher's protected LSD (p=0.05)

Table 64. 2015-2017 Off-Station Winter Wheat Test (Exp. 3870): Moccasin No-till (CARC) Yield, Test Weight and Protein

Cultivar/Line	Grain Yield (bu/a)				Test Weight (lb/bu)			Protein (%)		
	2017	2016-17	2015-17		2017	2016-17	2015-17	2017	2016-17	2015-17
	1y	2y	3y		1y	2y	3y	1y	2y	3y
Bearpaw	56.5	47.3	44.5	**2014, no**	58.5	57.9	56.8	14.2	14.2	14.0
+ **Brawl CLP**	61.8			**harvest**	**61.2**			12.9		
CDC Falcon	54.9	45.4	44.1	**cheat-**	57.8	57.3	56.6	13.7	13.7	13.8
Decade	59.6	48.9	47.6	**grass**	58.3	58.0	57.3	14.1	13.9	13.6
Judee	59.5	46.1	41.0	**infest-**	**60.4**	59.2	57.7	14.3	14.1	14.1
Keldin	**71.9**	**59.7**		**ation**	59.5	58.6		13.5	13.3	
Loma	58.8	50.2	47.5		57.6	58.3	57.1	14.6	14.1	14.0
MT1265	**64.4**	**58.0**	**54.2**		58.5	59.3	57.9	14.1	13.4	13.6
MT1348	62.8	51.1			58.5	57.0		13.9	14.4	
+ **MT1444**	**63.9**				59.2			14.0		
+ **MT1465**	62.8				58.7			14.1		
+ **MT1471**	62.9				57.7			**15.1**		
+ **MT1488**	57.7				59.0			14.0		
+ **MTF1432**	61.6				56.6			14.2		
+ **MTF1435**	63.4				57.4			13.9		
+ **MTS1573**	55.9				**60.4**			13.2		
+ **MTS1588**	57.2				59.2			13.7		
+ **MTW1491**	62.5				59.2			13.6		
Northern	59.2	49.3	45.5		58.4	58.9	57.8	**15.0**	14.3	14.1
SY Clearstone 2CL	**65.3**	**54.9**	**50.2**		58.2	57.9	56.8	13.7	13.7	13.7
+ **SY Monument**	61.1				58.4			12.4		
SY Wolf	**67.0**	53.8	**49.6**		**60.6**	58.7	58.3	13.3	13.5	13.3
Warhorse	59.5	49.4	46.5		58.0	57.1	56.1	14.3	14.2	14.0
WB-Quake	51.6	40.9	39.0		57.7	56.8	55.9	14.6	14.8	14.6
Yellowstone	61.6	51.8	**49.9**		57.4	57.5	56.9	14.5	14.2	14.0
Average	**60.9**	**50.5**	**46.6**		**58.6**	**58.0**	**57.1**	**14.0**	**14.0**	**13.9**
LSD (0.05)	**8.2**	**5.6**	**5.0**		**1.0**	**ns**	**ns**	**0.4**	**ns**	**ns**
C.V. (%)	**7.3**	**5.2**	**6.3**		**1.0**	**2.0**	**1.7**	**1.8**	**3.6**	**3.2**

+ = new for 2017

bold = indicates highest value within a column

bold = indicates varieties with values equal to highest variety within a column based on Fisher's protected LSD (p=0.05)

Table 65. 2015//2017 Off-Station Winter Wheat Test (Exp. 3871): Denton (CARC) Yield, Test Weight and Protein

Cultivar/Line	Grain Yield (bu/a)				Test Weight (lb/bu)		Protein (%)	
	2017		2015//17		2017	2015//17	2017	2015//17
	1y		2y		1y	2y	1y	2y
Bearpaw	24.5	**2016, no**	31.5	**2014,**	52.9	53.8	**14.0**	12.6
+ **Brawl CLP**	**47.8**	**harvest**		**Clear-**	**58.3**		12.7	
CDC Falcon	41.5	**hailed**	39.4	**field**	53.1	54.3	13.9	13.0
Decade	41.6	**out**	42.4	**wheat**	53.2	54.8	13.2	12.6
Judee	36.0		32.1	**infest-**	53.4	55.4	13.8	12.6
Keldin	**45.6**			**ation -**	53.7		13.3	
Loma	23.8		34.8	**data**	50.0	53.8	**14.4**	12.4
MT1265	43.4		44.2	**not**	50.4	53.7	13.6	12.2
MT1348	**49.3**			**used**	54.9		12.8	
+ **MT1444**	42.0				51.4		13.5	
+ **MT1465**	40.1				51.3		13.3	
+ **MT1471**	41.9				51.5		**14.5**	
+ **MT1488**	38.2				53.3		13.7	
+ **MTF1432**	40.9				46.8		13.9	
+ **MTF1435**	44.1				49.5		13.7	
+ **MTS1573**	36.1				55.9		13.1	
+ **MTS1588**	30.2				53.0		13.8	
+ **MTW1491**	**45.9**				51.5		12.9	
Northern	37.6		38.6		50.6	53.8	**14.3**	13.3
SY Clearstone 2CL	41.6		39.1		50.2	52.4	13.2	13.2
+ **SY Monument**	39.6				50.7		12.7	
SY Wolf	**49.8**		41.1		55.6	56.2	12.8	12.4
Warhorse	36.0		37.1		51.5	53.2	14.0	13.1
WB-Quake	28.5		32.0		52.0	53.6	13.7	12.5
Yellowstone	43.7		41.7		50.2	53.2	13.8	12.6
Average	**39.6**		**37.8**		**52.2**	**54.0**	**13.5**	**12.7**
LSD (0.05)	**5.4**		**ns**		**1.3**	**ns**	**0.5**	**ns**
C.V. (%)	**7.3**		**19.1**		**1.4**	**2.7**	**2.1**	**5.6**

+ = new for 2017

bold = indicates highest value within a column

bold = indicates varieties with values equal to highest variety within a column based on Fisher's protected LSD (p=0.05)

Table 66. 2014-2017 Off-Station Winter Wheat Test (Exp. 3872): Geraldine (CARC) Yield, Test Weight and Protein

Cultivar/Line	Grain Yield (bu/a)				Test Weight (lb/bu)				Protein (%)			
	2017	2016-17	2015-17	2014-17	2017	2016-17	2015-17	2014-17	2017	2016-17	2015-17	2014-17
	1y	2y	3y	4y	1y	2y	3y	4y	1y	2y	3y	4y
Bearpaw	80.6	78.8	79.3	74.4	63.5	62.5	61.3	62.0	11.1	10.4	11.1	11.6
+ **Brawl CLP**	79.9				**64.8**				**12.0**			
CDC Falcon	75.1	76.3	75.3	72.4	62.2	62.2	61.2	61.7	**11.8**	**11.0**	**11.7**	**11.8**
Decade	81.0	76.4	75.9	71.9	63.4	63.2	**62.2**	**62.5**	11.8	10.4	11.2	11.6
Judee	70.2	70.9	73.2	71.9	62.3	63.2	**62.8**	**63.3**	11.4	10.6	11.3	11.4
Keldin	**91.4**	**96.3**			63.4	63.6			10.4	9.8		
Loma	73.3	75.3	76.0		62.1	62.1	61.0		11.3	10.6	11.3	
MT1265	**85.1**	**90.0**	**86.1**		61.3	61.9	61.4		11.1	10.3	10.9	
MT1348	**91.1**	**90.4**			62.5	62.8			11.3	10.3		
+ **MT1444**	**87.7**				62.4				11.1			
+ **MT1465**	83.4				63.2				11.1			
+ **MT1471**	74.4				62.9				**12.3**			
+ **MT1488**	71.1				62.4				11.6			
+ **MTF1432**	**85.0**				60.5				11.3			
+ **MTF1435**	74.2				61.4				11.5			
+ **MTS1573**	72.9				63.4				**11.9**			
+ **MTS1588**	78.5				63.4				11.4			
+ **MTW1491**	**85.4**				62.4				10.9			
Northern	79.9	85.0	**81.9**	**78.6**	62.5	62.4	61.1	61.6	**12.1**	**10.9**	**11.9**	**12.2**
SY Clearstone 2CL	81.5	**87.1**	**82.3**	**79.2**	61.5	61.9	61.2	61.7	10.9	10.1	10.8	10.8
+ **SY Monument**	**87.0**				61.9				10.5			
SY Wolf	**91.6**	**92.8**	**89.3**		**64.1**	64.4	**63.3**		11.2	10.3	10.9	
Warhorse	69.8	75.2	74.0	70.6	62.7	62.7	61.7	62.2	**12.4**	**11.4**	**11.9**	**12.3**
WB-Quake	70.2	72.0	72.9	70.8	62.9	62.7	61.8	62.3	11.3	10.7	11.2	11.6
Yellowstone	81.3	85.6	**85.9**	**82.2**	61.9	62.3	61.8	62.2	11.3	10.3	10.8	11.1
Average	**80.1**	**82.3**	**79.3**	**74.6**	**62.6**	**62.7**	**61.7**	**62.2**	**11.4**	**10.5**	**11.3**	**11.6**
LSD (0.05)	**7.2**	**9.4**	**8.4**	**6.9**	**1.0**	**ns**	**1.2**	**0.9**	**0.6**	**0.7**	**0.6**	**0.7**
C.V. (%)	**5.0**	**5.3**	**6.3**	**6.3**	**0.9**	**1.0**	**1.1**	**1.0**	**2.6**	**3.0**	**3.1**	**4.0**

+ = new for 2017

bold = indicates highest value within a column

bold = indicates varieties with values equal to highest variety within a column based on Fisher's protected LSD (p=0.05)

Table 67. 2014-2016 Off-Station Winter Wheat Test (Exp. 3874): Winifred (CARC) Yield, Test Weight and Protein

Cultivar/Line	Grain Yield (bu/a)			Test Weight (lb/bu)			Protein (%)		
	2016	2015-16	2014-16	2016	2015-16	2014-16	2016	2015-16	2014-16
	1y	2y	3y	1y	2y	3y	1y	2y	3y
Bearpaw	79.7	65.1	56.8	61.6	59.2	59.8	9.5	9.1	10.5
+ Brawl CLP									
CDC Falcon	76.5	66.2	59.3	62.1	58.7	59.7	10.1	9.4	10.5
Decade	75.5	67.4	59.9	62.1	59.0	**60.0**	9.5	9.5	11.3
Judee	88.4	67.0	58.0	**63.8**	60.4	**61.2**	10.0	9.4	11.2
Keldin	**105.7**			63.0			9.1		
Loma	92.4	78.6		62.6	60.3		10.5	9.8	
MT1265	87.7	71.1		61.9	57.9		9.5	9.0	
MT1348	91.9			**63.4**			8.9		
+ MT1444									
+ MT1465									
+ MT1471									
+ MT1488									
+ MTF1432									
+ MTF1435									
+ MTS1573									
+ MTS1588									
+ MTW1491									
Northern	91.3	72.3	63.8	62.1	58.4	59.6	9.6	9.1	10.5
SY Clearstone 2CL	89.7	64.1	55.7	62.2	58.1	59.2	9.1	9.3	11.2
+ SY Monument									
SY Wolf	**101.5**	77.9		**63.9**	59.8		9.7	10.0	
Warhorse	84.2	66.8	58.7	62.5	58.8	60.0	10.3	**10.3**	11.2
WB-Quake	81.2	67.3	58.2	62.6	59.9	**60.5**	9.3	8.9	10.7
Yellowstone	92.5	76.0	64.4	62.5	59.9	**60.3**	9.9	9.4	11.1
Average	**86.4**	**67.8**	**58.6**	**62.3**	**58.9**	**59.8**	**9.7**	**9.6**	**10.9**
LSD (0.05)	**8.4**	**ns**	**ns**	**0.7**	**ns**	**1.2**		**1.2**	**ns**
C.V. (%)	**5.2**	**9.1**	**9.4**	**0.5**	**1.5**	**1.2**		**5.8**	**7.3**

+ = new for 2017

bold = indicates highest value within a column

bold = indicates varieties with values equal to highest variety within a column based on Fisher's protected LSD (p=0.05)

Table 68. 2014//2017 Off-Station Winter Wheat Test (Exp. 3875): Belt (CARC) Yield, Test Weight and Protein

Cultivar/Line	Grain Yield (bu/a)				Test Weight (lb/bu)			Protein (%)		
	2017		2015//17	2014//17	2017	2015//17	2014//17	2017	2015//17	2014//17
	1y		2y	3y	1y	2y	3y	1y	2y	3y
Bearpaw	41.2	**2016, no**	47.2	**50.1**	62.7	57.8	59.4	8.6	8.6	10.2
+ **Brawl CLP**	**54.1**	**harvest,**			**64.6**			**9.1**		
CDC Falcon	41.4	**jointed**	47.8	**50.3**	61.5	57.9	59.7	**9.3**	9.0	10.4
Decade	46.9	**goat-**	45.3	**48.5**	62.5	57.9	59.6	**9.3**	9.4	9.9
Judee	44.3	**grass**	40.5	44.0	63.2	59.0	60.5	**9.0**	8.9	9.8
Keldin	**50.1**	**infest-**			63.0			8.3		
Loma	45.5	**ation**	45.5		61.7	57.9		**9.0**	9.0	
MT1265	**49.6**		54.2		61.4	58.5		8.7	8.6	
MT1348	**55.0**				62.3			8.5		
+ **MT1444**	48.1				61.8			**9.3**		
+ **MT1465**	**49.5**				62.2			8.8		
+ **MT1471**	45.7				62.3			**9.2**		
+ **MT1488**	47.5				61.9			8.8		
+ **MTF1432**	**52.1**				59.7			8.6		
+ **MTF1435**	**54.8**				60.3			8.5		
+ **MTS1573**	46.7				63.3			**9.2**		
+ **MTS1588**	46.1				62.5			**9.5**		
+ **MTW1491**	**51.1**				62.4			8.8		
Northern	**50.9**		50.6	**53.5**	61.5	57.1	59.0	8.8	8.7	10.1
SY Clearstone 2CL	**54.6**		53.0	**54.2**	61.2	57.5	59.0	8.6	9.1	9.8
+ **SY Monument**	**49.5**				60.9			8.6		
SY Wolf	**52.2**		54.6		63.4	60.0		8.4	9.4	
Warhorse	46.6		47.2	**48.8**	62.4	58.3	59.4	**9.0**	9.6	10.9
WB-Quake	42.4		34.8	40.3	62.6	58.5	60.0	8.8	8.6	9.4
Yellowstone	**51.7**		52.7	**56.0**	61.6	58.2	59.6	8.6	8.8	9.7
Average	**48.7**		**47.8**	**49.5**	**62.1**	**58.2**	**59.6**	**8.9**	**8.9**	**10.0**
LSD (0.05)	**6.5**		**ns**	**8.5**	**0.7**	**ns**	**ns**	**0.6**	**ns**	**ns**
C.V. (%)	**7.2**		**12.0**	**10.0**	**0.6**	**1.4**	**1.0**	**2.9**	**5.9**	**7.1**

+ = new for 2017

bold = indicates highest value within a column

bold = indicates varieties with values equal to highest variety within a column based on Fisher's protected LSD (p=0.05)

Table 69. 2016-2017 Off-Station Winter Wheat Test (Exp. 3876): Highwood (CARC) Yield, Test Weight and Protein

Cultivar/Line	Grain Yield (bu/a)				Test Weight (lb/bu)		Protein (%)	
	2017	2016-17			2017	2016-17	2017	2016-17
	1y	2y			1y	2y	1y	2y
Bearpaw	56.4	52.3	**2015, not planted**	**2014, not planted**	61.8	60.5	13.0	11.8
+ Brawl CLP	35.6				**63.5**		**14.4**	
CDC Falcon	54.8	56.7			61.9	61.7	12.4	11.8
Decade	**64.2**	59.6			**63.3**	61.7	12.0	11.5
Judee	56.5	61.3			62.6	63.0	12.9	12.5
Keldin	55.4	56.9			61.7	61.9	12.5	12.1
Loma	**60.9**	58.2			62.0	61.8	12.3	12.1
MT1265	**60.7**	57.8			61.8	61.9	11.9	11.6
MT1348	**61.7**	56.7			62.8	63.0	11.8	11.4
+ MT1444	**59.9**				61.8		12.1	
+ MT1465	**61.5**				62.7		12.1	
+ MT1471	53.9				60.9		13.3	
+ MT1488	**64.3**				61.5		12.6	
+ MTF1432	**60.0**				60.0		12.0	
+ MTF1435	54.6				61.2		11.8	
+ MTS1573	50.9				62.4		12.7	
+ MTS1588	48.3				62.1		12.7	
+ MTW1491	**64.9**				62.4		11.6	
Northern	**60.5**	59.5			62.2	62.2	12.6	12.6
SY Clearstone 2CL	**67.6**	68.1			61.2	61.4	11.7	11.8
+ SY Monument	**65.0**				62.2		11.3	
SY Wolf	**60.4**	51.8			**63.8**	63.0	12.2	11.7
Warhorse	51.2	59.8			60.7	60.8	**13.7**	13.0
WB-Quake	46.8	49.2			62.4	62.2	12.7	12.4
Yellowstone	53.2	52.2			61.7	61.8	13.0	12.2
Average	**57.2**	**57.1**			**62.0**	**61.9**	**12.4**	**12.0**
LSD (0.05)	**8.9**	**ns**			**0.6**	**ns**	**0.8**	**ns**
C.V. (%)	**8.4**	**11.0**			**0.6**	**1.4**	**3.3**	**3.8**

+ = new for 2017

bold = indicates highest value within a column

bold = indicates varieties with values equal to highest variety within a column based on Fisher's protected LSD (p=0.05)

Table 70. 2014//2017 Off-Station Winter Wheat Test (Exp. 3880): Huntley Irrigated (SARC) Yield, Test Weight and Protein

Cultivar/Line	Grain Yield (bu/a)				Test Weight (lb/bu)			Protein (%)		
	2017	2016-17		2014//17	2017	2016-17	2014//17	2017	2016-17	2014//17
	1y	2y		3y	1y	2y	3y	1y	2y	3y
Bearpaw	99.5	89.5	**2015, no**	83.5	61.9	61.0	59.4	11.0	11.7	12.6
+ **Brawl CLP**	100.0		**test**		**64.7**			**12.7**		
CDC Falcon	106.0	**104.6**	**plant-**	**99.3**	**63.7**	62.6	**60.5**	11.5	11.6	12.4
Decade	90.7	96.2	**ed**	87.1	61.2	61.0	58.7	11.7	11.6	12.3
Judee	95.0	87.9		80.9	**64.2**	63.0	**61.1**	12.2	11.9	12.9
Keldin	111.6	**116.1**			61.8	62.1		12.6	11.7	
Loma	106.2	**106.2**			62.5	61.8		12.0	12.0	
MT1265	104.9	**108.1**			62.0	61.5		11.5	11.6	
MT1348	101.8	96.6			62.1	61.2		12.0	12.0	
+ **MT1444**	109.2				62.8			10.8		
+ **MT1465**	**133.1**				**64.6**			11.3		
+ **MT1471**	105.5				**63.7**			**12.7**		
+ **MT1488**	97.2				62.2			11.8		
+ **MTF1432**	97.1				61.4			11.8		
+ **MTF1435**	83.4				62.4			12.1		
+ **MTS1573**	85.2				62.1			**13.7**		
+ **MTS1588**	117.8				**64.3**			11.5		
+ **MTW1491**	113.6				**63.5**			11.3		
Northern	104.6	**107.9**		**101.9**	62.0	61.4	59.7	11.8	11.9	12.6
SY Clearstone 2CL	102.4	101.4		**99.2**	62.5	61.2	59.5	11.6	11.7	12.6
+ **SY Monument**	106.3				63.0			11.5		
SY Wolf	104.1	101.0			**63.2**	62.4		12.4	12.3	
Warhorse	100.7	97.4		91.4	**63.2**	62.6	**60.5**	**13.0**	12.9	**13.9**
WB-Quake	88.7	85.2		81.0	61.4	61.1	59.4	**12.7**	12.2	13.1
Yellowstone	116.9	**114.8**		**108.0**	63.0	62.1	**60.3**	11.4	11.7	12.5
Average	**103.3**	**100.9**		**92.5**	**62.8**	**61.8**	**59.9**	**11.9**	**11.9**	**12.8**
LSD (0.05)	**13.9**	**13.7**		**10.0**	**1.6**	**ns**	**1.0**	**1.0**	**ns**	**0.6**
C.V. (%)	**7.5**	**6.3**		**6.3**	**1.4**	**1.0**	**1.0**	**4.6**	**4.4**	**2.9**

+ = new for 2017

bold = indicates highest value within a column

bold = indicates varieties with values equal to highest variety within a column based on Fisher's protected LSD (p=0.05)

Table 71. 2014-2017 Off-Station Winter Wheat Test (Exp. 3881): Rapelje (SARC) Yield, Test Weight and Protein

Cultivar/Line	Grain Yield (bu/a)				Test Weight (lb/bu)				Protein (%)			
	2017	2016-17	2015-17	2014-17	2017	2016-17	2015-17	2014-17	2017	2016-17	2015-17	
	1y	2y	3y	4y	1y	2y	3y	4y	1y	2y	3y	
Bearpaw	57.1	53.9	58.8	65.6	64.1	62.8	61.8	62.0	8.1	9.2	10.0	**2014, data not used**
+ **Brawl CLP**	55.4				**66.1**				**9.6**			
CDC Falcon	57.9	50.4	58.9	67.8	64.0	62.4	61.6	62.0	8.3	9.5	9.9	
Decade	59.3	55.6	60.4	68.2	64.5	**63.4**	62.2	62.5	9.1	9.7	10.0	
Judee	58.4	55.3	58.8	65.4	64.9	**63.6**	**62.2**	62.4	8.7	9.8	10.6	
Keldin	**63.6**	60.4			64.2	**63.4**			7.9	8.6		
Loma	54.9	56.3	**63.4**		63.6	62.9	61.7		8.5	9.4	10.2	
MT1265	**64.6**	58.4	**67.6**		61.2	61.1	60.8		7.7	9.0	9.9	
MT1348	**60.5**	58.2			64.1	**63.3**			8.2	8.9		
+ **MT1444**	**61.4**				62.5				8.1			
+ **MT1465**	58.8				62.9				7.9			
+ **MT1471**	**60.4**				65.2				9.0			
+ **MT1488**	54.1				64.1				**9.2**			
+ **MTF1432**	59.1				60.8				8.0			
+ **MTF1435**	58.0				61.9				8.2			
+ **MTS1573**	**61.7**				64.5				8.9			
+ **MTS1588**	56.5				64.8				8.5			
+ **MTW1491**	**61.9**				62.8				7.9			
Northern	**64.2**	60.1	**66.6**	69.3	63.4	62.8	61.5	62.0	8.4	9.6	10.5	
SY Clearstone 2CL	**60.9**	60.6	**65.9**	70.9	62.0	61.7	60.9	61.5	7.7	8.9	9.8	
+ **SY Monument**	56.2				61.9				7.6			
SY Wolf	**61.6**	60.4	**66.6**		65.0	**64.3**	**63.4**		8.3	9.2	9.8	
Warhorse	53.5	53.9	59.6	63.3	63.6	62.6	61.4	61.9	8.5	9.6	10.7	
WB-Quake	52.2	48.7	54.0	61.2	63.9	63.0	62.1	62.3	8.2	9.5	10.1	
Yellowstone	58.5	59.4	**68.3**	72.4	62.6	62.0	61.4	61.8	7.9	9.1	9.5	
Average	**58.8**	**56.5**	**62.4**	**67.1**	**63.5**	**62.8**	**61.7**	**62.0**	**8.3**	**9.3**	**10.1**	
LSD (0.05)	**4.8**	**ns**	**7.1**	**ns**	**0.7**	**1.2**	**1.2**	**ns**	**0.4**	**ns**	**ns**	
C.V. (%)	**4.5**	**6.5**	**6.7**	**7.9**	**0.6**	**0.9**	**1.1**	**1.0**	**3.3**	**3.5**	**4.6**	

+ = new for 2017

bold = indicates highest value within a column

bold = indicates varieties with values equal to highest variety within a column based on Fisher's protected LSD (p=0.05)

Table 72. 2014-2017 Off-Station Winter Wheat Test (Exp. 3882): Hysham [SARC] Yield, Test Weight and Protein

Cultivar/Line	Grain Yield (bu/a)				Test Weight (lb/bu)				Protein (%)			
	2017	2016-17	2015-17	2014-17	2017	2016-17	2015-17	2014-17	2017	2016-17	2015-17	2014-17
	1y	2y	3y	4y	1y	2y	3y	4y	1y	2y	3y	4y
Bearpaw	51.1	40.8	44.5	49.5	62.5	58.5	**59.8**	60.5	12.0	13.0	13.3	13.0
+ **Brawl CLP**	**55.8**				**63.6**				12.2			
CDC Falcon	49.1	41.5	42.8	46.2	61.0	57.2	59.1	59.7	**12.8**	13.7	13.5	13.3
Decade	48.9	**46.1**	**48.1**	**52.6**	61.1	58.6	**60.0**	60.6	**12.8**	12.8	13.2	13.1
Judee	48.9	35.9	39.7	44.1	62.0	57.4	59.4	60.4	12.6	13.8	14.0	13.5
Keldin	54.9	**47.7**			62.8	58.4			11.8	12.5		
Loma	54.7	44.3	46.1		61.5	57.3	58.6		12.0	13.5	13.9	
MT1265	**59.7**	**51.1**	**51.2**		62.3	58.6	**59.8**		12.1	12.8	13.0	
MT1348	53.7	44.7			61.3	56.4			12.2	13.4		
+ **MT1444**	53.8				62.8				12.1			
+ **MT1465**	53.9				62.8				12.4			
+ **MT1471**	48.6				62.6				**12.8**			
+ **MT1488**	**59.1**				62.9				**12.7**			
+ **MTF1432**	48.5				61.4				**13.0**			
+ **MTF1435**	**56.3**				63.0				11.9			
+ **MTS1573**	**61.6**				63.2				11.6			
+ **MTS1588**	53.1				62.5				**12.7**			
+ **MTW1491**	**63.0**				62.6				11.7			
Northern	53.6	43.1	46.0	50.7	61.6	57.4	58.5	59.6	**13.2**	13.9	13.7	13.3
SY Clearstone 2CL	**56.7**	**49.9**	**50.4**	**55.9**	62.0	57.8	59.1	59.8	12.1	13.0	13.2	13.0
+ **SY Monument**	**59.9**				60.8				11.0			
SY Wolf	**56.5**	42.9	45.5		**64.3**	59.6	**60.9**		11.1	12.1	12.6	
Warhorse	54.4	44.8	46.3	49.6	62.1	58.3	59.6	60.3	**13.7**	14.1	13.8	13.5
WB-Quake	48.6	36.9	40.2	47.2	62.5	58.5	**59.7**	60.5	11.7	13.3	13.4	13.1
Yellowstone	**63.8**	**54.0**	**54.0**	**56.9**	62.7	58.6	**59.8**	60.5	11.5	12.7	13.0	12.5
Average	**54.7**	**44.5**	**46.2**	**50.3**	**62.3**	**58.0**	**59.5**	**60.2**	**12.2**	**13.2**	**13.4**	**13.1**
LSD (0.05)	**8.1**	**8.4**	**6.3**	**5.9**	**1.0**	**ns**	**1.3**	**ns**	**1.0**	**ns**	**ns**	**ns**
C.V. (%)	**8.2**	**8.8**	**8.0**	**8.0**	**0.9**	**1.4**	**1.2**	**1.2**	**5.2**	**4.6**	**4.6**	**4.5**

+ = new for 2017

bold = indicates highest value within a column

bold = indicates varieties with values equal to highest variety within a column based on Fisher's protected LSD (p=0.05)

Table 73. 2014-2017 Off-Station Winter Wheat Test (Exp. 3884): Fly Creek (Hardin area - SARC) Yield, Test Weight and Protein

Cultivar/Line	Grain Yield (bu/a)				Test Weight (lb/bu)				Protein (%)			
	2017	2016-17	2015-17	2014-17	2017	2016-17	2015-17	2014-17	2017	2016-17	2015-17	2014-17
	1y	2y	3y	4y	1y	2y	3y	4y	1y	2y	3y	4y
Bearpaw	29.8	31.9	43.2	45.9	60.2	57.6	58.3	59.0	**15.0**	14.0	13.5	13.4
+ **Brawl CLP**	**38.7**				**62.3**				13.7			
CDC Falcon	21.7	33.4	43.8	45.1	58.5	56.6	57.5	58.3	14.0	14.4	14.1	13.7
Decade	34.3	38.8	45.2	50.9	60.9	58.3	58.5	59.0	13.7	13.7	13.7	13.6
Judee	32.3	32.8	42.4	47.5	60.8	57.8	58.9	60.0	**14.9**	14.4	14.4	14.0
Keldin	**44.5**	48.4			61.6	**59.5**			12.6	13.0		
Loma	37.4	42.5	49.3		60.5	57.9	58.0		**14.7**	14.4	14.0	
MT1265	**42.0**	46.3	53.2		60.5	58.3	58.7		**14.7**	14.3	13.9	
MT1348	30.9	40.4			60.3	58.1			13.9	13.6		
+ **MT1444**	38.1				61.3				13.9			
+ **MT1465**	**44.4**				61.0				14.1			
+ **MT1471**	**40.7**				59.6				**14.9**			
+ **MT1488**	26.8				61.1				13.6			
+ **MTF1432**	36.1				60.4				**14.5**			
+ **MTF1435**	37.2				61.5				13.8			
+ **MTS1573**	37.2				61.4				12.9			
+ **MTS1588**	34.4				60.5				**14.5**			
+ **MTW1491**	33.7				61.3				13.7			
Northern	32.7	35.6	44.5	49.7	60.6	58.5	58.6	59.3	**14.9**	14.5	14.2	14.0
SY Clearstone 2CL	**41.3**	45.5	52.5	53.9	60.4	58.0	58.4	58.8	**14.6**	14.0	13.8	13.6
+ **SY Monument**	**43.0**				60.8				11.9			
SY Wolf	**39.4**	41.5	48.5		**62.8**	**60.3**	60.2		13.4	13.3	13.4	
Warhorse	36.7	34.6	43.2	46.5	61.2	57.5	58.4	59.2	**14.6**	14.5	14.3	14.2
WB-Quake	35.8	35.3	43.4	46.3	60.5	58.0	58.5	59.3	**14.5**	14.1	13.7	13.4
Yellowstone	**40.5**	44.6	49.0	52.3	60.8	58.3	58.8	59.1	14.0	13.8	14.0	13.7
Average	**36.4**	**39.8**	**46.5**	**48.7**	**60.8**	**58.2**	**58.6**	**59.1**	**14.0**	**14.0**	**13.9**	**13.7**
LSD (0.05)	**5.9**	**ns**	**ns**	**ns**	**0.6**	**1.4**	**ns**	**ns**	**0.7**	**ns**	**ns**	**ns**
C.V. (%)	**9.2**	**12.9**	**10.3**	**11.2**	**0.6**	**1.1**	**1.4**	**1.3**	**2.6**	**3.6**	**3.7**	**3.6**

+ = new for 2017

bold = indicates highest value within a column

bold = indicates varieties with values equal to highest variety within a column based on Fisher's protected LSD (p=0.05)

Table 74. 2014-2017 Off-Station Winter Wheat Test (Exp. 3885): Molt (SARC) Yield, Test Weight and Protein

Cultivar/Line	Grain Yield (bu/a)				Test Weight (lb/bu)				Protein (%)			
	2017	2016-17	2015-17	2014-17	2017	2016-17	2015-17	2014-17	2017	2016-17	2015-17	2014-17
	1y	2y	3y	4y	1y	2y	3y	4y	1y	2y	3y	4y
Bearpaw	55.3	53.6	61.6	58.0	62.2	61.8	**62.3**	**61.8**	**10.1**	9.7	9.8	11.6
+ **Brawl CLP**	62.9				**64.8**				**10.6**			
CDC Falcon	57.3	52.5	60.9	60.5	62.7	60.8	61.5	61.3	9.4	9.8	9.9	11.2
Decade	55.3	53.7	59.4	59.0	62.9	61.9	**62.3**	**62.3**	9.4	9.4	9.6	11.4
Judee	53.4	50.5	60.0	57.0	63.4	61.6	62.0	**61.5**	9.3	9.8	9.8	11.5
Keldin	57.7	58.4			62.8	62.0			9.3	9.0		
Loma	53.1	55.8	62.5		61.4	60.8	61.4		**10.0**	10.0	10.1	
MT1265	**68.1**	61.4	67.6		62.0	60.4	60.6		8.9	9.2	9.4	
MT1348	65.5	59.8			62.9	61.2			8.8	9.0		
+ **MT1444**	61.3				62.2				9.5			
+ **MT1465**	65.7				62.6				8.9			
+ **MT1471**	60.8				62.2				**10.5**			
+ **MT1488**	55.7				61.7				**10.0**			
+ **MTF1432**	54.2				59.9				9.6			
+ **MTF1435**	53.2				61.3				9.4			
+ **MTS1573**	55.5				63.5				9.4			
+ **MTS1588**	59.7				63.7				9.6			
+ **MTW1491**	59.8				62.5				9.0			
Northern	56.8	54.0	63.7	60.5	62.2	61.8	**62.1**	**61.5**	9.6	9.7	9.8	11.5
SY Clearstone 2CL	59.4	56.9	60.2	56.5	61.7	60.6	60.9	60.6	9.0	9.5	9.6	11.2
+ **SY Monument**	63.6				61.3				8.7			
SY Wolf	**76.2**	64.8	68.9		**64.5**	63.4	**63.2**		9.5	9.5	9.8	
Warhorse	51.9	50.3	58.1	56.0	62.2	61.2	61.7	61.4	**10.3**	10.4	10.4	11.9
WB-Quake	50.0	48.0	56.9	53.5	62.3	61.1	61.8	61.4	9.8	9.7	9.6	11.3
Yellowstone	65.3	61.7	65.9	60.6	62.1	60.5	60.9	60.2	9.4	9.8	9.7	11.4
Average	**59.1**	**55.8**	**62.1**	**57.9**	**62.4**	**61.4**	**61.7**	**61.3**	**9.5**	**9.6**	**9.8**	**11.4**
LSD (0.05)	**9.9**	**ns**	**ns**	**ns**	**0.9**	**ns**	**1.1**	**0.9**	**0.6**	**ns**	**ns**	**ns**
C.V. (%)	**9.3**	**8.5**	**8.2**	**8.0**	**0.8**	**1.2**	**1.1**	**1.0**	**3.3**	**4.1**	**3.5**	**3.5**

+ = new for 2017

bold = indicates highest value within a column

bold = indicates varieties with values equal to highest variety within a column based on Fisher's protected LSD (p=0.05)

Table 75. 2014//2016 Off-Station Winter Wheat Test (Exp. 3886): Fort Smith (SARC) Yield, Test Weight and Protein

Cultivar/Line	Grain Yield (bu/a)				Test Weight (lb/bu)		Protein (%)	
	2016			2014//16	2016	2014//16	2016	2014//16
	1y			2y	1y	2y	1y	2y
Bearpaw	**2017, not planted**	36.8	**2015, not planted**	59.0	54.9	57.2	**13.0**	13.8
+ Brawl CLP								
CDC Falcon		42.7		58.7	55.1	57.5	**12.9**	13.5
Decade		50.8		58.2	**56.0**	57.3	**13.0**	13.7
Judee		44.7		67.1	**57.9**	59.0	12.2	13.5
Keldin		**65.3**			**58.6**		11.9	
Loma		41.5			54.0		**13.5**	
MT1265		51.2			54.3		**13.3**	
MT1348		**53.2**			55.9		12.2	
+ MT1444								
+ MT1465								
+ MT1471								
+ MT1488								
+ MTF1432								
+ MTF1435								
+ MTS1573								
+ MTS1588								
+ MTW1491								
Northern		39.8		63.9	52.5	56.7	**14.2**	14.4
SY Clearstone 2CL		44.8		59.6	55.3	57.3	12.5	14.0
+ SY Monument								
SY Wolf		46.0			**57.1**		**12.9**	
Warhorse		47.2		61.1	**56.5**	58.6	12.8	14.3
WB-Quake		39.3		62.6	**56.1**	57.3	12.3	13.5
Yellowstone		47.3		65.2	55.8	58.4	12.3	13.4
Average		**43.3**		**59.3**	**54.9**	**57.5**	**13.1**	**13.9**
LSD (0.05)		**12.7**		**ns**	**2.6**	**ns**	**1.3**	**ns**
C.V. (%)		**16.2**		**12.3**	**2.7**	**2.4**	**5.5**	**4.1**

+ = new for 2017

bold = indicates highest value within a column

bold = indicates varieties with values equal to highest variety within a column based on Fisher's protected LSD (p=0.05)

Table 76. 2014-2017 Off-Station Winter Wheat Test (Exp. 38): Combined Locations - Yield, Test Weight and Protein

Cultivar/Line	Grain Yield (bu/a)				Test Weight (lb/bu)				Protein (%)			
	2017	2016-17	2015-17	2014-17	2017	2016-17	2015-17	2014-17	2017	2016-17	2015-17	2014-17
location-years	16	32	47	61	16	32	47	61	16	31	46	58
Bearpaw	53.9	55.0	54.9	56.1	60.6	59.4	59.0	59.4	12.4	12.4	12.2	12.6
+ **Brawl CLP**	59.4				**63.0**				12.2			
CDC Falcon	55.5	58.5	57.5	58.6	60.1	59.3	58.9	59.3	12.2	12.4	12.3	12.6
Decade	56.5	59.1	57.9	59.0	60.7	59.9	59.4	59.8	12.2	12.2	12.2	12.6
Judee	54.9	58.6	55.5	56.9	61.3	60.6	60.1	**60.4**	12.5	12.6	**12.6**	12.8
Keldin	**63.6**	**69.4**			61.1	60.6			11.8	11.7		
Loma	57.3	60.9	59.3		60.1	59.4	59.0		12.3	12.5	12.5	
MT1265	**62.8**	65.6	**63.4**		59.8	59.4	59.1		12.0	12.1	12.0	
MT1348	**62.5**	65.1			60.7	59.9			11.9	12.0		
+ **MT1444**	**61.2**				60.5				12.0			
+ **MT1465**	**62.8**				60.8				12.0			
+ **MT1471**	57.7				60.3				**12.9**			
+ **MT1488**	56.0				60.4				12.3			
+ **MTF1432**	58.5				58.5				12.1			
+ **MTF1435**	56.6				59.6				12.0			
+ **MTS1573**	57.6				61.8				12.0			
+ **MTS1588**	59.0				61.2				12.3			
+ **MTW1491**	**63.5**				60.8				11.7			
Northern	59.3	62.5	60.7	61.7	60.2	59.5	59.1	59.4	12.5	12.6	**12.6**	12.9
SY Clearstone 2CL	**61.1**	64.9	61.0	61.8	59.7	59.2	58.7	59.0	11.9	12.1	12.2	12.5
+ **SY Monument**	**62.4**				59.7				11.2			
SY Wolf	**62.7**	65.1	**62.2**		62.3	**61.3**	**60.8**		11.9	12.0	12.1	
Warhorse	55.5	58.2	55.7	56.7	60.3	59.7	59.2	59.6	**12.8**	**12.9**	**12.7**	**13.1**
WB-Quake	50.9	53.7	51.9	53.9	60.6	59.8	59.3	59.7	12.3	12.5	12.3	12.6
Yellowstone	**61.6**	65.5	**63.2**	**64.0**	59.9	59.4	59.1	59.4	12.1	12.2	12.1	12.4
Average	**58.9**	**61.6**	**58.6**	**58.7**	**60.6**	**59.8**	**59.3**	**59.6**	**12.1**	**12.3**	**12.3**	**12.7**
LSD (0.05)	**3.4**	**2.7**	**2.1**	**1.9**	**0.5**	**0.4**	**0.3**	**0.3**	**0.3**	**0.2**	**0.2**	**0.2**
C.V. (%)	**8.2**	**8.9**	**9.0**	**9.1**	**1.3**	**1.4**	**1.4**	**1.3**	**3.6**	**3.6**	**3.7**	**3.9**

+ = new for 2017

bold = indicates highest value within a column

bold = indicates varieties with values equal to highest variety within a column based on Fisher's protected LSD (p=0.05)

Table 77. 2012-2017 Intrastate (Exp. 35) and Off-Station (Exp. 38) Winter Wheat Tests: Combined Locations Yield

Cultivar/Line	Grain Yield (bu/a)											
	2017		2016-17		2015-17		2014-17		2013-17		2012-17	
+ = new for 2017 in Off Sta.	no YII	w/YII	no YII	w/YII	no YII	w/YII	no YII	w/YII	no YII	w/YII	no YII	w/YII
Location-years	23	16	48	41	69	62	89	82	110	103	135	128
Bearpaw	53.2	53.9	55.6	55.8	55.7	55.8	58.2	58.5	58.2	58.4	56.2	56.3
+ **Brawl CLP**	59.7	59.4										
Decade	57.1	56.5	60.3	60.3	59.0	58.9	61.4	61.5	61.3	61.4	59.3	59.3
Judee	57.4	54.9	62.7	62.2	59.8	59.2	61.9	61.6	61.5	61.2	59.0	58.6
Keldin	**66.0**	**63.6**	**73.7**	**73.5**								
Loma	60.0	57.3	66.0	65.6	64.9	64.5						
MT1265	**64.3**	**62.8**	**71.6**	**71.5**	**69.3**	**69.0**						
MT1348	**64.4**	**62.5**	**70.8**	**70.5**								
+ **MT1444**	**63.2**	**61.2**										
+ **MT1465**	**64.3**	**62.8**										
+ **MT1471**	60.4	57.7										
+ **MT1488**	57.1	56.0										
+ **MTF1432**	60.8	58.5										
+ **MTF1435**	58.5	56.6										
+ **MTS1573**	60.6	57.6										
+ **MTS1588**	61.7	59.0										
+ **MTW1491**	**65.7**	**63.5**										
Northern	60.5	59.3	67.7	67.8	66.3	**66.3**	**68.3**	**68.4**	**68.1**	**68.2**		
SY Clearstone 2CL	**63.0**	**61.1**	69.6	69.4	**66.5**	**66.1**	**68.2**	**68.0**	**67.7**	**67.5**	**65.6**	**65.3**
+ **SY Monument**	**64.1**	**62.4**										
SY Wolf	62.2	**62.7**	69.3	69.6	**66.6**	**66.5**						
Warhorse	57.2	55.5	62.9	62.4	60.7	60.1	62.2	61.8	62.1	61.8	60.0	59.6
WB-Quake	52.6	50.9	58.9	58.4	57.1	56.6	59.4	59.2	59.6	59.4	57.6	57.3
Yellowstone[1/]		**61.6**		69.8		**68.2**		**70.2**		**69.6**		**66.7**
Average	**61.7**	**58.9**	**65.8**	**65.9**	**62.6**	**62.8**	**62.8**	**63.7**	**62.6**	**63.5**	**59.6**	**60.5**
LSD (0.05)	**3.7**	**3.4**	**3.5**	**3.7**	**3.0**	**3.0**	**2.6**	**2.5**	**2.4**	**2.3**	**2.2**	**2.1**
C.V. (%)	**10.3**	**8.2**	**13.3**	**12.8**	**14.1**	**13.5**	**14.0**	**13.0**	**14.5**	**13.5**	**15.2**	**14.2**

bold = indicates highest value within a column

1/ = Yellowstone misplanted as Warhorse in 2017 Intrastate Tests

bold = indicates varieties with values equal to highest variety within a column based on Fisher's protected LSD (p=0.05)

Table 78. 2012-2017 Intrastate (Exp. 35) and Off-Station (Exp. 38) Winter Wheat Tests: Combined Locations Test Weight

Cultivar/Line	Test Weight (lb/bu)											
	2017		2016-17		2015-17		2014-17		2013-17		2012-17	
+ = new for 2017 in Off Sta.	no YII	w/YII	no YII	w/YII	no YII	w/YII	no YII	w/YII	no YII	w/YII	no YII	w/YII
Location-years	23	16	48	41	69	62	89	82	110	103	135	128
Bearpaw	60.6	60.6	59.2	59.0	58.9	58.7	59.3	59.2	59.1	59.0	58.8	58.8
+ Brawl CLP	**62.6**	**63.0**										
Decade	60.8	60.7	59.7	59.5	59.3	59.2	59.6	59.6	59.4	59.3	59.2	59.1
Judee	61.4	61.3	**60.8**	**60.7**	60.4	60.3	**60.6**	**60.5**	**60.4**	**60.4**	**59.9**	**59.8**
Keldin	61.3	61.1	**60.7**	60.6								
Loma	60.4	60.1	59.7	59.5	59.3	59.2						
MT1265	60.1	59.8	59.7	59.6	59.4	59.3						
MT1348	60.9	60.7	60.2	60.1								
+ MT1444	60.6	60.5										
+ MT1465	61.0	60.8										
+ MT1471	60.6	60.3										
+ MT1488	60.5	60.4										
+ MTF1432	58.9	58.5										
+ MTF1435	60.0	59.6										
+ MTS1573	61.9	61.8										
+ **MTS1588**	61.3	61.2										
+ **MTW1491**	61.0	60.8										
Northern	60.2	60.2	59.7	59.6	59.4	59.3	59.6	59.6	59.6	59.6		
SY Clearstone 2CL	60.0	59.7	59.4	59.3	59.0	58.9	59.2	59.1	59.1	59.0	58.7	58.6
+ **SY Monument**	59.5	59.7										
SY Wolf	61.8	62.3	**61.2**	**61.2**	**60.8**	**60.8**						
Warhorse	60.1	60.3	60.0	59.9	59.5	59.4	59.8	59.7	59.6	59.6	59.3	59.3
WB-Quake	60.5	60.6	60.1	60.0	59.7	59.6	59.9	59.9	59.8	59.7	59.4	59.4
Yellowstone[1/]		59.9		59.6		59.4		59.6		59.4		59.1
Average	**60.6**	**60.6**	**60.0**	**59.9**	**59.6**	**59.5**	**59.7**	**59.6**	**59.6**	**59.5**	**59.2**	**59.2**
LSD (0.05)	**0.5**	**0.5**	**0.5**	**0.5**	**0.4**	**0.4**	**0.4**	**0.4**	**0.4**	**0.4**	**0.4**	**0.4**
C.V. (%)	**1.5**	**1.3**	**2.1**	**2.1**	**2.1**	**2.0**	**2.0**	**2.0**	**2.4**	**2.4**	**2.6**	**2.5**

bold = indicates highest value within a column

1/ = Yellowstone misplanted as Warhorse in 2017 Intrastate Tests

bold = indicates varieties with values equal to highest variety within a column based on Fisher's protected LSD (p=0.05)

Table 79. 2012-2017 Intrastate (Exp. 35) and Off-Station (Exp. 38) Winter Wheat Tests: Combined Locations Protein

Cultivar/Line	Protein (%)											
	2017		2016-17		2015-17		2014-17		2013-17		2012-17	
+ = new for 2017 in Off Sta.	no Yll	w/Yll	no Yll	w/Yll	no Yll	w/Yll	no Yll	w/Yll	no Yll	w/Yll	no Yll	w/Yll
Location-years	23	16	46	39	67	60	85	78	107	100	132	125
Bearpaw	12.4	12.4	12.3	12.2	12.3	12.3	12.6	12.6	12.9	12.8	**13.1**	**13.1**
+ Brawl CLP	12.3	12.2										
Decade	12.2	12.2	12.2	12.0	12.2	12.2	12.5	12.5	12.7	12.7	13.0	13.0
Judee	12.6	12.5	**12.5**	**12.4**	**12.5**	**12.4**	12.8	12.7	12.9	12.8	**13.2**	**13.2**
Keldin	11.9	11.8	11.6	11.5								
Loma	12.3	12.3	12.3	12.2	12.3	12.3						
MT1265	12.1	12.0	11.9	11.8	12.0	11.9						
MT1348	11.9	11.9	11.9	11.8								
+ MT1444	12.1	12.0										
+ MT1465	12.0	12.0										
+ MT1471	**12.9**	**12.9**										
+ MT1488	12.4	12.3										
+ MTF1432	12.1	12.1										
+ MTF1435	12.0	12.0										
+ MTS1573	12.0	12.0										
+ **MTS1588**	12.3	12.3										
+ **MTW1491**	11.8	11.7										
Northern	12.6	12.5	12.5	**12.4**	12.5	12.4	12.7	12.7	12.8	12.8		
SY Clearstone 2CL	12.0	11.9	11.9	11.8	12.0	12.0	12.3	12.3	12.4	12.4	12.7	12.7
+ **SY Monument**	11.5	11.2										
SY Wolf	12.2	11.9	12.0	11.8	12.1	12.0						
Warhorse	**13.0**	**12.8**	**12.7**	**12.6**	**12.7**	**12.6**	**13.0**	**12.9**	**13.0**	**13.0**	**13.2**	**13.2**
WB-Quake	12.6	12.3	12.4	12.3	12.3	12.2	12.6	12.5	12.7	12.7	12.9	12.9
Yellowstone[1/]		12.1		11.9		11.9		12.2		12.4		12.7
Average	**12.3**	**12.1**	**12.2**	**12.0**	**12.3**	**12.2**	**12.6**	**12.6**	**12.8**	**12.7**	**13.0**	**13.0**
LSD (0.05)	**0.3**	**0.3**	**0.2**	**0.2**	**0.2**	**0.2**	**0.2**	**0.2**	**0.2**	**0.2**	**0.2**	**0.2**
C.V. (%)	**3.7**	**3.6**	**4.5**	**4.5**	**4.7**	**4.7**	**4.4**	**4.5**	**4.6**	**4.7**	**4.8**	**4.8**

bold = indicates highest value within a column

1/ = Yellowstone misplanted as Warhorse in 2017 Intrastate Tests

bold = indicates varieties with values equal to highest variety within a column based on Fisher's protected LSD (p=0.05)

Table 80. 2012//2017 Combined Locations Yield under Sawfly Pressure and % Sawfly Cutting
(Note: Sawfly cutting in each location-year ≥10%, see table on next page for locations)

Cultivar/Line	Grain Yield (bu/a)					Sawfly Cutting (%)				
+ = new for 2017 in Off Sta.	2017	2016-17	2015-17	2013//17	2012//17	2016	2015-16	2013//16	2012//16	2011//16
Location-years	3	5	6	8	11	3	5	6	8	11
Bearpaw	34.6	46.9	40.7	51.4	47.5	**13**	**12**	**9**	**11**	**12**
+ **Brawl CLP**	45.1					55				
Decade	42.5	56.7	47.2	57.1	**52.1**	44	39	28	29	31
Judee	42.6	61.5	50.1	61.2	**54.7**	24	25	18	20	18
Keldin	46.8	67.0				54	54			
Loma	45.3	59.4	49.0			**27**	23	18		
MT1265	42.8	58.2	49.2			55	53	40		
MT1348	41.8	58.7				60	61			
+ **MT1444**	39.5					53				
+ **MT1465**	46.8					53				
+ **MT1471**	40.0					47				
+ **MT1488**	34.6					59				
+ **MTF1432**	39.1					46				
+ **MTF1435**	39.4					40				
+ **MTS1573**	49.9					**15**				
+ **MTS1588**	47.2					**11**				
+ **MTW1491**	42.9					52				
Northern	39.8	56.0	47.9	60.3		42	34	27	26	
SY Clearstone 2CL	41.1	61.9	51.2	62.0	**57.2**	52	51	39	39	39
+ **SY Monument**	42.5					56				
SY Wolf	42.6	60.4	50.2			47	40	31		
Warhorse	43.4	54.9	45.5	56.2	**52.0**	**6**	**4**	**3**	**5**	**4**
WB-Quake	41.8	55.0	45.6	56.9	50.3	**14**	**18**	**13**	19	**14**
Yellowstone[1/]										
Average	**42.3**	**58.0**	**55.6**	**57.9**	**52.3**	**40**	**35**	**26**	**21**	**20**
LSD (0.05)	**ns**	**ns**	**ns**	**ns**	**5.9**	**22**	**16**	**14**	**12**	**12**
C.V. (%)	**11.6**	**13.9**	**13.3**	**12.5**	**13.1**	**34**	**37**	**45**	**58**	**70**

bold = indicates highest value within a column

1/ = Yellowstone misplanted as Warhorse in 2017 Intrastate Tests

bold = indicates varieties with values equal to highest variety within a column based on Fisher's protected LSD (p=0.05)

Table 81. 2003-2017 All Locations with % Sawfly Cutting data (incl. selected variety cutting)

	Location	Year	Cutting	Rampart	Genou	Judee	Bearpaw	WB-Quake	Warhorse	Loma	CDC Falcon	Yellowstone
√ = locations used in analysis in Table. 72				% cutting								
	Havre	2017	<1									
	Havre	2016	none recorded									
	Havre	2015	5	1	1	1	2	1	2	2	7	2
	Havre	2014	2	1	1	1	1	5	1	2	1	2
√	Havre	2013	10	4	7	5	6	4	2		5	10
	Havre	2012	8	0	6	2	3	4	2		7	9
	Havre (no harv.)	2011	6	0	1	4	1	3	1		2	4
	Havre	2010	12	6	16	5	2	2	1		7	9
	Havre	2009	22	0	1	4	1				16	21
	Havre	2008	23	13	9	8					33	18
	Havre	2007	27	0	8						28	40
	Havre	2006	25	3	8						27	23
	Havre	2005	32	8	18						31	43
	Turner	2017	<1									
	Turner	2014	hail - no harvest									
	Turner	2013	3	2	1	1	1	1	1		4	7
√	Turner	2012	18	12	18	8	20	10	2		18	18
	Turner	2011	13	1	7	1	4	2	1		12	20
	North Havre	2010	6	1	4	4	1				2	10
	North Havre	2009	poor stand - no harv.									
	North Havre	2008	40	22	30						40	50
	North Havre	2007	53	12	20						50	82
	North Havre	2006	34	4	4						53	73
	North Havre	2005	54	7	8						48	70
	North Havre	2004	winterkill - no harv.									
	North Havre	2003	46	3	8						43	43
√	Loma	2017	43	-	-	41	11	25	13	38	-	31
	Loma	2016	2	0	-	1	0	2	0	4	1	2
√	Loma	2015	12	2	9	1	7	3	0	12	3	15
	Loma	2014	4	1	4	4	1	4	1		4	5
√	Loma	2013	20	17	23	30	20	33	8		10	15
√	Loma	2012	65	17	27	32	13	13	5		87	98
	Loma	2011	19	10	22	10	10	15	5		15	22
	Loma	2010	72	10	52	53	8				100	99
	Loma	2009	60	17	50	32					63	85

Table 81. 2003-2017 All Locations with % Sawfly Cutting data (incl. selected variety cutting)

	Location	Year	Cutting	Rampart	Genou	Judee	Bearpaw	WB-Quake	Warhorse	Loma	CDC Falcon	Yellowstone
√ = locations used in analysis in Table. 72				% cutting								
	Loma	**2008**	**7**	**4**	**4**						**1**	**10**
	Loma	**2007**	**4**	**0**	**2**						**1**	**2**
	Loma	**2006**	none recorded									
	Loma	**2005**	**2**	**0**	**0**						**0**	**0**
√	**Carter/Ft. Benton**	**2017**	**54**	**-**	**-**	**22**	**18**	**7**	**2**	**27**	**-**	**-**
√	**Carter/Ft. Benton**	**2016**	**27**	**5**	**-**	**6**	**8**	**6**	**1**	**8**	**23**	**20**
√	**Fly Creek (SARC)**	**2017**	**34**	**-**	**-**	**10**	**10**	**10**	**3**	**17**	**-**	**33**
√	**Knees**	**2016**	**65**	**36**	**-**	**46**	**12**	**42**	**0**	**24**	**91**	**81**
√	**Willow Creek**	**2012**	**10**	**1**	**2**	**2**	**2**	**2**	**1**		**13**	**12**
	Denton	**2010**	**7**	**2**	**2**	**2**	**1**				**6**	**25**
	Geraldine	**2008**	**4**	**2**	**1**						**2**	**5**