

Intrastate Winter Wheat averages of selected agronomic characteristics, 1949 - present: Bozeman (Post Farm)

Year	Yield bu/a	MT yield avg	Test weight	Heading date		Plant height in	Protein %	Winter survival %	Lodging %	Stripe rust %	Stem rust %	Comments
				from 1-Jan	Actual							
1949	59.5	17	62.8									
1950												
1951	58.5	21.5	61.5	180.0	29-Jun	42.4						
1952	44.6	18.5	63.4	172.6	20-Jun	35.9						
1953	74.3	21	61.4	175.7	25-Jun	44.1						
1954	48.7	24	58.8	177.0	26-Jun	39.9			11			
1955	71.0	27	64.0	184.6	4-Jul	48.4			21			
1956	51.1	20.5	60.5	174.2	22-Jun	37.6			3			
1957	52.8	25	62.1	172.6	22-Jun	46.9						
1958	69.6	27.5	60.9	161.5	11-Jun	41.9						
1959	74.9	25.5	62.5	173.9	23-Jun	49.5			16			
1960	60.1	23	59.5	176.4	24-Jun	47.7						
1961												
1962	49.1	22	60.8	173.6	23-Jun	50.1			9	26		
1963	44.5	26	59.4	168.1	17-Jun				14			
1964	39.5	28.5	57.0	178.0	26-Jun	42.0			18			
1965	64.8	29	58.0	179.6	29-Jun	49.1			6	30		
1966	56.7	30	60.4	169.9	19-Jun	42.5			4			
1967	48.5	30	58.2	175.5	25-Jun	47.7			5	17		
1968	37.4	31.5	58.0	173.7	22-Jun	47.6			4			
1969												???
1970	51.2	27	62.3	182.0	1-Jul	37.1						
1971	61.1	30	62.2	175.3	24-Jun	41.5						
1972								24	12			severe winterkill, no harvest
1973	47.5	27	61.6	172.6	22-Jun	37.9						
1974	63.8	30	60.2	169.8	19-Jun	42.3						
1975	58.7	35	61.8	184.0	3-Jul	39.7						
1976	41.2	32	57.2	169.1	17-Jun	35.4	13.7			35	10	spring stand = 55%
1977	59.8	29	62.4	167.1	16-Jun	48.6	13.9			58	37	
1978	40.1	31	58.2		20-Jun	43.6	12.8			50	39	hail, July 17
1979	64.3	26	61.9	172.1	21-Jun	39.8	13.1					
1980	84.0	26	58.2	166.2	14-Jun	47.6	14.3					
1981	73.2	35	61.3	172.9	21-Jun	49.5	13.2			48	11	Psuedo. spot = 3.4 out of 10
1982	79.3	38	59.8	175.7	25-Jun	41.5	13.9		24			
1983	74.1	35	59.1	170.3	19-Jun	42.1	14.8			46	23	
1984	64.0	27	57.7	175.7	24-Jun	43.2	13.8		24			
1985	57.5	16	62.5	162.4	11-Jun	30.3	13.9					shatter score = 2.0 out of 5
1986	59.3	32	61.6	162.3	11-Jun	36.1	13.7		2	20	59	
1987	71.8	36	61.9	155.8	5-Jun	38.9	14.1		10	21	46	
1988	49.4	19	58.9	164.3	12-Jun	37.1	16.3		8		36	
1989	65.7	36	58.9	173.5	23-Jun	43.2	13.4		8			
1990	63.5	35	60.7	172.6	22-Jun	47.4	15.6		10			
1991	70.9	40	61.8	175.0	24-Jun	38.3	13.2	50				spring stand = 88%
1992	88.1	29	62.8	157.9	6-Jun	44.2	12.0		21			
1993	55.9	42	55.8	170.1	19-Jun	47.4	-		18			
1994	81.8	35	63.1	161.6	11-Jun	38.9	13.2					stripe rust = 5.1 out of 9
1995	109.2	40	61.3	171.3	20-Jun	40.8	12.6		31			rust complex = 1.9 out of 5
1996	81.2	31	61.0	174.4	22-Jun	35.8	14.5					
1997	88.0	38	60.7	168.0	17-Jun	37.6	12.4					
1998	106.0	39	62.7	165.5	15-Jun	40.0	14.1					
1999	108.5	38	59.6	171.0	20-Jun	42.1	13.8		13			stripe rust = 3.2 out of 5
2000	113.7	33	61.2	164.7	12-Jun	38.8	13.2		2			
2001	99.3	22	63.7	165.2	14-Jun	28.9	13.3		3			
2002	87.0	28	56.6	174.0	23-Jun	43.1	15.1		8			
2003	98.0	37	59.1	167.6	17-Jun	38.1	14.3					
2004	118.7	41	62.9	164.4	12-Jun	38.5	12.8					

Intrastate Winter Wheat averages of selected agronomic characteristics, 1949 - present: Bozeman (Post Farm)

Year	Yield bu/a	MT yield avg	Test weight	Heading date		Plant height in	Protein %	Winter survival %	Lodging %	Stripe rust %	Stem rust %	Comments
				from 1-Jan	Actual							
2005	103.7	45	59.4	171.3	20-Jun	41.8	14.5		8			
2006	79.5	43	62.3	161.2	10-Jun	34.8	11.2			36		
2007	104.5	38	61.3	161.7	11-Jun	41.0	12.8			11		
2008	-	-	-	179.4	27-Jun	40.0	-			8		hailed out July 22nd
2009	95.0	37	62.6	169.0	18-Jun	36.1	13.3			8		hail damage = 11.3% from 6/30 storm
2010	-	-	-	177.3	26-Jun	38.7	-					hailed out June 30th
2011	67.7	41	59.0	182.1	1-Jul	35.3	12.8			32		
2012	76.5	39	58.8	169.2	17-Jun	36.1	15.2					
2013	86.4	43	59.9	164.3	13-Jun	35.9	14.5					
2014	100.1	42	62.6	164.7	14-Jun	36.3	13.2					
2015	72.0	41	56.2	161.7	11-Jun	38.3	17.0			15		
2016	79.9	49	60.3	161.6	10-Jun	36.0	13.4			25		
2017	89.3	42	59.7	160.2	9-Jun	37.5	13.1			27		
2018	131.8	50	64.1	164.9	14-Jun	36.6	12.3			-		
Avg	72.3	32.1	60.6	170.5	20-Jun	40.8	13.7					

Intrastate Winter Wheat averages of selected agronomic characteristics, 1954-present: Havre (NARC)

Year	Yield bu/a	MT yield avg	Test weight	Heading date		Plant height in	Protein %	Winter survival %	Lodging %	Shatter %	Sawfly cutting %	Comment
				from 1-Jan	Actual							
1954	26.1	24	56.0									
1955	45.2	27	62.1	168.1	17-Jun	36.5						
1956												insufficient fall moisture
1957												
1958	29.6	27.5	61.3	152.8	2-Jun	22.9						
1959												
1960	20.4	23	59.5	169.9	18-Jun							
1961	13.3	19	57.2	154.8	4-Jun	24.1						
1962	10.1	22	55.2	166.0	15-Jun	27.2		44				
1963	11.2	26	59.7	157.2	6-Jun	23.9		76				
1964												
1965	31.8	29	61.8	170.4	19-Jun	23.5		61				
1966	24.4	30	63.2			23.8						
1967	25.9	30	58.1	173.9	23-Jun	26.9						
1968	29.7	31.5	59.3	162.4	11-Jun	34				13		
1969	25.1	26	63.7	159.1	8-Jun	23.4						
1970	31.6	27	60.2	168.7	18-Jun	29.7						
1971			60.6	164.7	14-Jun	26.7						spring emergence, spotty stands, no harv for YD
1972	29.7	27	60.5	163.0	11-Jun	24.1						
1973	47.5	27	59.4	165.3	14-Jun	34.0			54			
1974	34.6	30	59.5	167.0	16-Jun	36.0						
1975	50.6	35	61.5	173.1	22-Jun	36.5						
1976	50.6	32	63.6			28.6	10.5					
1977	37.6	29	60.9	159.6	9-Jun	33.5	12.7					
1978	37.2	31	63.3	168.2	17-Jun	33.5	8.1					
1979												winterkill, no harvest
1980	36.5	26	63.4	158.4	6-Jun	24.5	14.2					
1981	45.9	35	59.8	154.3	3-Jun	35.6	14.1					
1982	53.7	38	60.5	169.1	18-Jun	36.1	13.6					
1983	50.4	35	63.5	162.2	11-Jun	30.8	11.6					
1984	36.0	27	61.5	159.2	7-Jun	25.9	12.7					
1985			-	-		-	-					hailed out
1986	51.3	32	57.4	158.7	8-Jun	36.3	14.7					
1987	33.3	36	60.9	155.2	4-Jun	26.7	13.4					
1988	11.7	19	58.2	-		17.2	12.1					drought
1989	37.0	36	57.9	-		27.0	14.6					
1990	39.0	35	54.8	162.8	12-Jun	33.1	14.8					
1991	59.3	40	60.5	165.5	15-Jun	39.1	13.1					
1992			-	155.6	5-Jun	24.3	-					hailed out
1993	22.8	42	47.4	168.2	17-Jun	25.2	-					WSMV = 2.2 out of 4
1994	53.5	35	61.4	156.5	6-Jun	30.8	13.5					
1995	68.2	40	62.6	165.4	14-Jun	30.8	11.7					spring stand =92%, leaf dis=3.3 out of 5
1996	46.4	31	61.9	167.0	15-Jun	25.4	12.8					spring stand = 85%
1997	45.7	38	63.3	158.7	8-Jun	26.0	12.6					cutting = 3.7 out of 5
1998	46.0	39	63.3	155.1	4-Jun	21.8	13.9					
1999	60.3	38	61.5	-		39.7	10.7					
2000	59.7	33	61.2	154.9	2-Jun	31.2	11.5					
2001	22.2	22	59.3	160.8	10-Jun	19.2	14.0					spring stand = 73%
2002	36.2	28	58.6	176.4	25-Jun	25.7	14.6					spring stand = 79%
2003	29.3	37	60.9	159.7	9-Jun	29.2	15.8					spring stand = 65%
2004	65.2	41	59.2	157.0	5-Jun	33.5	13.9			9		
2005	55.9	45	60.2	163.4	12-Jun	32.3	12.9				32	spring stand = 70%
2006	53.9	43	62.5	151.5	1-Jun	26.0	13.3				25	
2007	54.8	38	59.6	158.1	7-Jun	33.4	14.4				27	spring stand = 74%

Intrastate Winter Wheat averages of selected agronomic characteristics, 1954-present: Havre (NARC)

Year	Yield bu/a	MT yield avg	Test weight	Heading date		Plant height in	Protein %	Winter survival %	Lodging %	Shatter %	Sawfly cutting %	Comment
				from 1-Jan	Actual							
2008	63.4	39	59.4	166.8	15-Jun	34.9	14.9				23	
2009	37.6	37	61.6	167.3	16-Jun	24.9	13.6				22	
2010	70.9	48	61.8	170.0	19-Jun	36.8	11.8				12	
2011	-	-	-	174.6	24-Jul	34.9	-				6	spring stand = 80%: no harvest, uneven stands
2012	52.9	39	58.5	165.4	13-Jun	31.0	13.2				8	
2013	68.2	43	58.8	163.6	13-Jun	30.5	12.1		11		10	
2014	57.6	42	61.1	160.7	10-Jun	26.1	12.6				2	
2015	61.4	41	61.1	151.1	31-May	31.0	12.6				5	
2016	94.5	49	59.9	155.7	4-Jun	39.7	10.4				0	
2017	50.1	42	62.1	151.4	31-May	25.2	14.0					
2018	58.6	50	62.5	158.6	8-Jun	25.1	14.2				6	
Avg	42.9	33.8	60.3	162.3	11-Jun	29.4	13.0					

Intrastate Winter Wheat averages of selected agronomic characteristics, 1951-present: Sidney (EARC)

Year	Yield bu/a	MT yield avg	Test weight	Heading date		Plant height in	Protein %	Winter survival %	Lodging %	Shatter %	Stem rust %	Comments
				from 1-Jan	Actual							
1951	26.9	21.5	57.5									
1952												
1953	14.1	21	42.9					5				Stem Rust insufficient fall moisture
1954	14.1	24	42.7									
1955												
1956												
1957												
1958												
1959												
1960												
1961	28.0	19	55.0									
1962	18.0	22	56.0	175.4	24-Jun	26.5		41			57	
1963	20.7	26	54.8	168.9	18-Jun	34.1						
1964	27.0	28.5	62.5	164.3	12-Jun	31.8						
1965	15.9	29	49.9	176.2	25-Jun	38.1		47			26	
1966	24.5	30	60.9	171.9	21-Jun	31.2		39				
1967	39.4	30	60.6	171.6	21-Jun	38.7						
1968	39.6	31.5	59.1	168.8	17-Jun	35.7		44				
1969												late planted, no survival
1970	34.9	27	59.5	175.5	24-Jun	31.2		58		5		
1971	37.0	30	57.4	165.1	14-Jun	40.4		57		4		
1972												severe winterkill
1973	60.1	27	61.7	166.4	15-Jun	38.3			43			
1974	53.0	30	60.4	171.1	20-Jun	37.7						
1975	49.0	35	61.1	174.6	24-Jun	36.8						
1976	61.2	32	61.8	159.4	7-Jun	35.2	11.2	71				
1977												
1978												winterkill, no harvest
1979												
1980												winterkill, no harvest
1981	51.1	35	58.7	155.3	4-Jun	31.8	13.2					
1982												
1983	49.1	35	61.2	168.9	18-Jun	28.7	14.4					spring stand = 87%
1984												
1985	-		-	-		-	-					
1986	-		-	-		-	11.1					
1987	48.7	36	61.4	146.7	26-May	31.7	12.7					
1988	9.7	19	57.0	148.7	27-May	14.8	-					drought ???
1989	-		-			-	-					
1990	38.0	35	59.1	166.2	15-Jun	32.6	14.1	19				
1991	40.7	40	60.0	-		29.8	13.0	6				
1992	86.6	29	63.2	162.8	11-Jun	31.4	12.5	37				
1993	39.7	42	60.3	164.5	14-Jun	34.5	10.2		8			
1994	51.1	35	60.3	161.5	11-Jun	32.0	11.5	49				
1995	58.7	40	59.7	167.2	16-Jun	30.2	12.9	88	1			
1996	32.7	31	60.6	171.4	19-Jun	25.4	12.7	31				
1997	-		-			-	-					not grown in 1997
1998	-		-			-	-					not grown in 1998
1999	61.2	38	63.4	159.3	8-Jun	32.4	9.8					spring stand = 92%
2000	64.4	33	62.5	154.9	3-Jun	30.4	11.8					spring stand = 83%
2001	-		-			-	-					extreme winterkill
2002	39.5	28	59.2	172.1	21-Jun	30.2	13.3	59				
2003	63.9	37	62.4	160.8	10-Jun	34.8	12.6	69				
2004	53.4	41	59.7	168.1	16-Jun	27.6	14.2	47				
2005	46.1	45	61.3	160.2	9-Jun	28.6	9.6	70				
2006	51.8	43	60.7	156.3	5-Jun	26.6	13.0	69				
2007	60.4	38	60.2	162.3	11-Jun	35.4	11.9					spring stand = 73%
2008	19.7	39	58.9	166.5	15-Jun	24.6	13.4	27				

Intrastate Winter Wheat averages of selected agronomic characteristics, 1951-present: Sidney (EARC)

Year	Yield bu/a	MT yield avg	Test weight	Heading date		Plant height in	Protein %	Winter survival %	Lodging %	Shatter %	Stem rust %	Comments
				from 1-Jan	Actual							
2009												extreme winterkill
2010	54.8	48	59.4	164.4	13-Jun	31.1	10.7	50				
2011	56.8	41	58.8	172.9	22-Jun	34.3	11.7	56				
2012	57.4	39	58.4	157.5	6-Jun	29.7	11.7					
2013	-		-	171.6	21-Jun	30.3	-	23				Hailed out, Aug 10 extreme winterkill extreme winterkill
2014	-							6				
2015	-							2				
2016	64.1	49	61.0	-		36.4	10.3					
2017	37.7	42	64.5	153.0	2-Jun	21.0	9.4	40				
2018	66.9	50	62.6	159.9	9-Jun	26.9	11.2	47				
Avg	43.4	33.8	59.0	164.8	14-Jun	31.5	12.0					

Intrastate Winter Wheat averages of selected agronomic characteristics, 1997-present: Williston, ND (WREC)

Year	Yield bu/a	MT yield avg	Test weight	Heading date		Plant height in	Protein %	Winter survival %	Lodging %	TKW g	Comments
				from 1-Jan	Actual						
1997	20.6	38	58.4	158.4	7-Jun	20.1	-	20			
1998	47.1	39	63.0	147.8	28-May	24.8	14.1				spring stand = 91%
1999	60.3	38	62.4	157.5	7-Jun	29.2	12.0	49			
2000	57.9	33	62.2	156.4	4-Jun	29.1	14.0				spring stand = 63%
2001	-	-	-	-	-	-	-				extreme winterkill
2002	30.4	28	55.0	174.5	24-Jun	26.2	14.9	20			
2003	57.3	37	62.2	164.0	13-Jun	31.4	14.2	42			
2004	33.7	41	59.9	-	-	29.1	13.9	7			
2005	59.4	45	61.2	157.3	6-Jun	31.8	13.1	82			leaf rust = 32%
2006	33.3	43	57.5	160.5	10-Jun	27.5	14.2	36			
2007	63.1	38	59.2	158.1	7-Jun	32.6	14.0	59			
2008	16.9	39	57.5	166.6	15-Jun	24.4	13.9	9			
2009	43.7	37	62.9	161.9	11-Jun	26.8	15.0			32.5	
2010								3			extreme winterkill
2011	61.5	41	60.3	168.9	18-Jun	31.6	12.2			31.2	
2012	42.2	39	57.2	155.5	4-Jun	27.7	13.9	22		28.7	
2013	54.4	43	58.9	171.8	21-Jun	28.1	11.5	25			
2014											extreme winterkill
2015	43.2	41	60.8	159.2	8-Jun	27.8	13.0	71			
2016	51.8	49	57.4	148.1	27-May	23.4	11.6				
2017								7			extreme winterkill
2018	44.0	50	59.8	155.2	4-Jun	23.3	13.6				
Avg	45.6	39.9	59.8	160.1	9-Jun	27.5	13.5				

Intrastate Winter Wheat averages of selected agronomic characteristics, 1951-present: Kalispell (NWARC)

Year	Yield bu/a	MT yield avg	Test weight	Heading date		Plant height in	Protein %	Winter survival %	Lodging %	Stripe rust %	Smut/ bunt %	Comments
				from 1-Jan	Actual							
1951	36.8	21.5	58.1			38.9		23				
1952	28.4	18.5		166.6	15-Jun	42.3		5				
1953												
1954	45.4	24	60.6	169.0	18-Jun							
1955	57.9	27	63.5	176.6	26-Jun	40.9		12				
1956	65.5	20.5	61.5	161.5	10-Jun	36.9		16				
1957	51.5	25	61.8	182.2	1-Jul	42.4		15				
1958												
1959												
1960	34.2	23	61.3	171.7	20-Jun							
1961	47.5	19	60.8	160.7	10-Jun	49.3		72	25			
1962	51.7	22	60.1	165.0	14-Jun	42.8		23		22		
1963	50.2	26	53.4	170.4	19-Jun	46.2		75	19			
1964												
1965	40.5	29	55.8	163.2	12-Jun	34.3		18				snow mold, cold
1966	61.2	30	60.2	163.5	13-Jun	40.3		9	25			
1967	49.1	30	62.2	160.3	9-Jun	37.9		4	14			
1968	55.4	31.5	60.3	168.9	17-Jun	45.6		73	6			
1969	54.7	26	61.3	157.3	6-Jun	37.1				21	9	
1970	59.3	27	59.6	163.6	13-Jun	47.2		60				
1971	52.3	30	60.6	161.7	11-Jun	47.9		70				
1972	61.7	27	62.6	158.5	8-Jun	44.5		16	30	4		
1973	51.0	27	61.2	158.0	7-Jun	41.2		50				
1974												
1975												
1976												
1977												
1978												
1979												
1980												
1981												
1982												
1983												
1984												
1985												
1986	112.4	32	61.3	159.1		40.4	11.4					Stem Rust = 35.9%
1987	85.1	36	61.3	151.1	31-May	40.4	11.5					
1988	91.5	19	61.4	156.8	5-Jun	42.5	11.8			23		
1989	-	-	-	-		-	-					
1990	87.3	35	62.5	165.9	15-Jun	47.8	11.8	17		4		
1991	95.2	40	60.7	164.4	13-Jun	44.8	12.6	51		5		
1992	94.0	29	60.2	152.9	1-Jun	44.5	11.8	19				
1993	46.9	42	47.1	159.9	9-Jun	44.6	-	23				leaf spot = 1.2 out of 5, leaf streak = 1.3 out of 5
1994	100.0	35	60.7	156.7	6-Jun	43.0	-	4				
1995	103.8	40	57.9	156.8	6-Jun	41.3	10.4	16				
1996	93.2	31	60.9	166.9	15-Jun	40.8	10.7	8				stripe R = 2.1 out of 3, leaf rust = 1.5 out of 3, tan spot = 2.0 out of 3
1997	102.3	38	60.3	163	12-Jun	42.0	11.4	42				TCK bunt = 1.6 out of 3, leaf rust = 1.3 out of 3
1998	55.5	39	58.1	146.8	27-May	34.1	10.5	7				tan spot = 1.8 out of 3, Rhizoctonia = 21.9%
1999	144.4	38	60.3	157.1	6-Jun	38.3	11.5	12				tan spot = 1.8 out of 3
2000	116.5	33	62.3	158.5	7-Jun	48.2	12.3	15				

Intrastate Winter Wheat averages of selected agronomic characteristics, 1951-present: Kalispell (NWARC)

Year	Yield bu/a	MT yield avg	Test weight	Heading date		Plant height in	Protein %	Winter survival %	Lodging %	Stripe rust %	Smut/ bunt %	Comments
				from 1-Jan	Actual							
2001	73.1	22	62.2	157.5	7-Jun	26.5	13.2					
2002	119.4	28	62.5	165.8	15-Jun	38.0	12.6					
2003	56.8	37	61.9	154.1	3-Jun	26.1	13.3					
2004	110.5	41	61.0	154.5	3-Jun	42.5	12.7	13	9			
2005	78.1	45	55.9	154.7	4-Jun	40.0	12.3	79	38			
2006	59.6	43	65.0	148.0	28-May	29.5	12.7		32			
2007	91.1	38	59.2	155.1	4-Jun	38.3	12.7		8			
2008	127.2	39	64.5	166.2	14-Jun	39.5	12.2	30				
2009	86.3	37	62.2	156.2	5-Jun	29.8	12.7					
2010	142.3	48	61.9	164.7	14-Jun	42.2	12.3	6	19			
2011	66.3	41	57.1	176.3	25-Jun	36.2	12.6	4	63			
2012	53.1	39	53.7	168.2	16-Jun	42.1	14.0		79			yield range 9 - 108bu/a
2013	91.5	43	56.1	158.6	8-Jun	42.0	12.9	10	77			
2014	136.2	42	62.0	159.6	9-Jun	38.4	12.3	3	7			
2015	115.0	41	62.4	152.8	2-Jun	38.2	9.9		41			
2016	97.3	49	53.7	149.4	28-May	41.0	12.3	8	70			late harvest-rain delayed flooding, weed problems
2017												
2018	85.4	50	58.4	157.9	7-Jun	37.0	11.8					
Avg	77.4	33.1	60.0	161.1	10-Jun	40.3	12.1					

Intrastate Winter Wheat averages of selected agronomic characteristics, 1948-present: Moccasin (CARC)

Year	Yield bu/a	MT yield avg	Test weight	Heading date		Plant height in	Protein %	Winter survival %	Lodging %	Shatter %	Comments
				from 1-Jan	Actual						
1948	45.8	24									
1949	26.1	17	60.6								
1950											
1951	13.1	21.5	55.0	163.4	12-Jun	28.5		48.0			
1952	16.5	18.5	60.0	165.1	13-Jun	24.8					
1953	34.3	21	58.6	179.9	29-Jun	41.7					
1954	37.0	24	60.1	175.1	24-Jun	40.9					
1955											hailed out, 6/26
1956	23.8	20.5	58.9	176.6	25-Jun	24.7		66.9			
1957	35.6	25	60.6	165.1	14-Jun	38.3					
1958	36.7	27.5	62.8	160.9	10-Jun	27.4					
1959											
1960											
1961											
1962								65.1			no harvest
1963	28.6	26	61.3	167.3	16-Jun	42.8					
1964	46.2	28.5	62.4	173.8	22-Jun	45.0					
1965								25.8			Severe winterkill - no harvest
1966	35.3	30	63.3	173.1	22-Jun	31.2					
1967	39.6	30	62.8	182.0	1-Jul	43.4					
1968	38.7	31.5	61.3	171.8	20-Jun	39.2					
1969				167.0	16-Jun						nursery lost, freezing temps at flowering
1970	30.3	27		175.8	25-Jun	32.3					
1971	39.4	30	61.4	171.7	21-Jun	32.9	14.5				
1972	44.5	27	61.2	165.0	13-Jun	35.4	14.7			31.4	
1973	29.9	27	57.8	174.3	23-Jun	32.6					
1974											hailed out
1975	37.2	35	60.9	182.2	1-Jul	38.5					
1976	44.4	32	60.4	172.3	20-Jun	35.1	13.9				
1977	36.6	29	61.6	159.1	8-Jun	26.4	12.3				
1978											
1979	46.8	26	63.1	173.0	22-Jun	38.0	9.4				spring stand = 85%
1980											
1981	52.9	35	60.0	171.0	20-Jun	42.2	11.9				
1982	40.8	38	no	181.9	1-Jul	29.3	13.9				spring stand = 64%, winterkill = non-signif. yield
1983	50.4	35	63.1	167.0	16-Jun	33.1	11.6				
1984	29.8	27	56.4	166.5	15-Jun	28.2	14.5				
1985	23.5	16	54.8	-		27.1	13.7				
1986	49.7	32	62.4	165.2	14-Jun	29.4	11.6				
1987	66.1	36	61.6	161.3	10-Jun	35.9	10.8				
1988	34.8	19	59.1	158.7	7-Jun	28.8	13.5		10.9		
1989	43.8	36	59.6	174.0	27-Jun	31.5	12.7				
1990	37.1	35	59.66	171.3	20-Jun	37.9	13.5				
1991	-		-	-		-	-				hailed out
1992	22.8	29	58.6	155.7	4-Jun	22.2	15.2				drought, late spring freeze
1993	53.6	42	58.0	163.3	12-Jun	30.6	10.6				leaf spot = 1.2 out of 5, leaf streak = 1.3 out of 5
1994	-		-	-		-	-				hailed out
1995	50.8	40	62.6	174.3	23-Jun	33.5	10.2				spring stand = 90%

Intrastate Winter Wheat averages of selected agronomic characteristics, 1948-present: Moccasin (CARC)

Year	Yield bu/a	MT yield avg	Test weight	Heading date		Plant height in	Protein %	Winter survival %	Lodging %	Shatter %	Comments
				from 1-Jan	Actual						
1996	40.6	31	57.6	175.3	23-Jun	29.2	14.8	70.2			
1997	64.5	38	61.0	170.8	20-Jun	35.6	8.9			spring stand = 81%	
1998	66.1	39	60.9	163.0	12-Jun	34.2	12.6			spring stand = 93%	
1999	57.2	38	60.1	168.5	18-Jun	34.6	11.8				
2000	-			163.8	12-Jun	-	-			hailed out	
2001	47.2	22	57.6	166.5	16-Jun	26.8	15.4			spring stand = 79%	
2002	46.1	28	59.7	174.1	23-Jun	31.6	15.0			spring stand = 84%	
2003	42.1	37	55.4	167.8	17-Jun	35.8	15.5				
2004	51.1	41	58.3	161.5	10-Jun	31.0	13.8	84.0			
2005	39.0	45	55.9	172.0	21-Jun	34.7	16.2				
2006	53.9	43	62.0	155.1	4-Jun	34.9	12.1				
2007	72.4	38	61.9	161.2	10-Jun	41.0	10.0				
2008	44.6	39	58.2	173.4	21-Jun	29.8	12.0			hail on 6/11	
2009	42.9	37	62.6	170.0	19-Jun	25.0	12.6				
2010	55.8	48	60.5	176.7	26-Jun	35.8	11.4				
2011	45.9	41	62.7	180.6	30-Jun	32.9	9.1			stripe rust and tan spot were present	
2012	32.7	39	59.1	168.0	16-Jun	24.8	13.8			hail on 6/5	
2013	60.1	43	59.4	171.6	21-Jun	32.8	12.2				
2014	56.3	42	60.7	167.3	16-Jun	32.6	13.3				
2015	55.8	41	59.3	160.4	9-Jun	33.4	9.6				
2016	60.8	49	62.3	160.7	9-Jun	32.2	7.8				
2017	62.5	42	58.1	157.8	7-Jun	27.8	13.3				
2018	66.2	50	62.8	165.9	15-Jun	29.3	12.2				
Avg	43.6	32.8	60.1	168.9	18-Jun	33.0	12.5				

Intrastate Winter Wheat averages of selected agronomic characteristics, 1951-present: Huntley (SARC)

Year	Yield bu/a	MT yield avg	Test weight	Heading date		Plant height in	Protein %	Winter survival %	Lodging %	Stripe rust %	Comments
				from 1-Jan	Actual						
1948	50.8	24									
1949	43.7	17	60.9								
1950											
1951	26.6	21.5		168.0	17-Jun	34.6					
1952	14.0	18.5	53.3	148.7	27-May	26.1					
1953	11.6	21	49.3	174.2	23-Jun	31.0					
1954	6.7	24	55.6	172.5	22-Jun	22.7					
1955											winterkill
1956	9.8	20.5	57.2	167.8	16-Jun	19.6					
1957	34.3	25	54.0	168.2	17-Jun	41.6					
1958	22.4	27.5	57.5			23.0					
1959											
1960											
1961											drought
1962	20.2	22									
1963	43.1	26	58.5	159.6	9-Jun						
1964	43.1	28.5	60.7	159.9	8-Jun						
1965	40.4	29	61.8	168.0	17-Jun	32.7					
1966	23.5	30	59.4	160.0	9-Jun	30.2					
1967	48.9	30	62.3	163.3	12-Jun	45.9					
1968	45.8	31.5	60.7	165.9	15-Jun						
1969	37.2	26	58.4	166.0	15-Jun						
1970	27.9	27	61.5	171.3	20-Jun						
1971	41.3	30	57.0	165.0	14-Jun	41.2					
1972	41.1	27	57.6	160.8	9-Jun	33.3					
1973	42.5	27	55.2	168.3	17-Jun	39.6					
1974	43.5	30	59.5	165.5	15-Jun	39.5					
1975	53.7	35	59.3	174.8	24-Jun	39.4					
1976	58.3	32	60.5	163.3	11-Jun	37.5	14.0				
1977	33.9	29	62.3	153.1	2-Jun	42.4	11.6				
1978	53.5	31	62.1	164.0	13-Jun	37.8	8.1				
1979	59.2	26	63.0	no		38.1	11.2				
1980	28.7	26	60.7	160.9	9-Jun	32.4	13.6				
1981	60.7	35	59.3	151.6	31-May	41.9	10.3				
1982	70.6	38	61.4	166.3	15-Jun	41.4	12.3				
1983	56.7	35	61.1	160.9	10-Jun	33.5	10.5				
1984	38.1	27	60.5	159.1	7-Jun	29.3					high CV = 23.8
1985	24.0	16	56.9	155.0	4-Jun	22.4	14.7				
1986	49.8	32	57.8	153.3	2-Jun	35.5	14.1				
1987	62.6	36	61.0	148.4	28-May	28.8	13.8				
1988	15.6	19	55.0	148.4	28-May	22.9	17.7				drought
1989	47.8	36	56.7	161.0	10-Jun	35.5	14.1				
1990	56.8	35	55.4	158.9	8-Jun	44.1	17.0				
1991	52.1	40	60.9	157.8	7-Jun	36.7	11.5				
1992	84.5	29	60.4	150.2	29-May	41.2	12.9				
1993	55.9	42	58.9	149.0	29-May	30.4	11.9				
1994	57.3	35	57.9	150.6	31-May	33.3	15.0				
1995	87.5	40	60.5	162.1	11-Jun	40.7	13.0	29			
1996	60.2	31	58.4	163.8	12-Jun	-	14.8				
1997	92.3	38	60.9	-		-	13.1				
1998	-		-			-	-				hailed out
1999	68.7	38	60.1	156.0	5-May	36.0	16.0				

Intrastate Winter Wheat averages of selected agronomic characteristics, 1951-present: Huntley (SARC)

Year	Yield bu/a	MT yield avg	Test weight	Heading date		Plant height in	Protein %	Winter survival %	Lodging %	Stripe rust %	Comments
				from 1-Jan	Actual						
2000	63.7	33	62.2	149.8	30-May	32.3	14.1				shatter 1.2 out of 3
2001	15.2	22	59.7	158.0	7-Mar	14.4	16.0				extremely dry, no harvest
2002	-	-	-	-	-	-	-				
2003	91.3	37	61.2	156.2	5-Jun	39.7	14.4				
2004	9.1	41	58.7	155.6	4-Jun	15.3	16.7				
2005	66.4	45	60.3	157.6	7-Jun	41.2	11.2				
2006	82.0	43	61.1	149.7	30-May	36.0	13.4				
2007	89.1	38	60.8	153.4	2-Jun	39.7	13.5				
2008	80.7	39	62.8	167.4	15-Jun	34.9	11.4				
2009	87.6	37	60.5	159.7	9-Jun	36.9	13.0				
2010	84.5	48	60.8	162.5	12-Jun	38.2	12.9				
2011	75.7	41	61.0	170.3	19-Jun	40.4	11.9		6		
2012	64.8	39	63.2	155.8	4-Jun	33.7	11.0				
2013	65.3	43	59.2	160.7	10-Jun	34.1	14.2				
2014	90.6	42	54.5	153.2	2-Jun	37.1	13.5				late harvest = Sept. 9
2015											not planted
2016	107.9	49	61.8	155.8	4-Jun	39.8	11.4				'sub-irrigated'
2017	114.4	42	62.3	152.3	1-Jun	42.1	13.3			13	
2018	111.5	50	62.1	158.4	7-Jun	40.2	12.4				
Avg	53.1	32.3	59.4	160.0	9-Jun	34.7	13.2				

Intrastate Winter Wheat averages of selected agronomic characteristics, 1977-present: Conrad (WTARC)

Year	Yield bu/a	MT yield avg	Test weight	Heading date		Plant height in	Protein %	Winter survival %	Sawfly cutting %	Lodging %	Comments
				from 1-Jan	Actual						
1977											
1978	52.1	31	63.4	no		33.0	7.2				
1979											
1980	19.9	26	57.8		recrop	25.0					
1981	61.5	35	60.4	no		35.0					
1982											
1983											
1984	19.9	27	60.4	no		22.1	13.2	71			winterkill
1985	-	-	-	-		-					
1986	67.9	32	62.3	-		34.5	12.6				
1987	71.6	36	61.3	-		32.3	12.4				
1988	35.0	19	62.9	156.3	4-Jun	24.0	13.3				
1989	61.6	36	63.1	174.0	23-Jun	34.1	11.8				
1990	73.8	35	62.5	171.0	20-Jun	41.0	11.0				
1991	-	-	-			-	-				not harvested
1992	-	-	-			25.6	-				moderate winterkill, hailed out
1993	53.0	42	60.7	172.3	21-Jun	33.1	8.9				
1994	59.3	35	60.0	168.5	18-Jun	33.0	14.3				
1995	89.5	40	60.5	178.9	28-Jun	38.9	10.8				
1996	54.9	31	62.6	173.3	21-Jun	32.9	14.3	30			
1997	73.2	38	61.9	168.0	17-Jun	34.1	11.7				
1998	78.0	39	62.6	156.7	6-Jun	33.5	11.9			9	
1999	-	-	-			-	-				not harvested
2000	45.1	33	60.8	160.6	9-Jun	28.8	14.7				
2001	11.9	22	59.1	163.5	13-Jun	20.8	14.2				spring stand = 62%
2002	-	-	-			-	-				not harvested, extremely dry
2003	62.4	37	61.9	165.6	15-Jun	36.0	13.9				spring stand = 70%
2004	70.0	41	61.9	169.7	18-Jun	39.1	12.3				
2005	84.3	45	62.7	166.0	15-Jun	38.7	13.3				
2006	75.8	43	62.8	154.9	4-Jun	33.7	13.1				
2007	56.1	38	61.0	159.7	9-Jun	33.2	12.8				
2008	51.3	39	62.1	172.1	20-Jun	29.9	11.5				
2009	75.7	37	62.9	167.8	17-Jun	31.3	11.1				
2010	97.8	48	59.7	175.6	25-Jun	35.6	12.2			4	
2011	93.7	41	62.2	177.9	27-Jun	36.6	10.0				sprayed for stripe rust
2012	87.2	39	60.8	167.9	16-Jun	32.4	11.7				
2013	90.0	43	60.1	166.8	16-Jun	35.1	13.0				
2014	106.6	42	60.8	172.3	21-Jun	31.3	12.3				spring stand = 61%
2015	78.2	41	59.7	156.4	5-Jun	34.1	13.3				
2016	98.5	49	62.5	158.3	6-Jun	34.1	11.7				
2017	73.7	42	60.8	156.8	6-Jun	30.1	13.0				
2018	61.0	50	61.7	159.2	8-Jun	26.9	14.0			18	
Avg	66.4	37.3	61.4	166.3	16-Jun	32.3	12.3				