

**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							
<b>2005</b>	103.7	45	59.4	171.3	20-Jun	41.8	14.5		8			
<b>2006</b>	79.5	43	62.3	161.2	10-Jun	34.8	11.2			36		
<b>2007</b>	104.5	38	61.3	161.7	11-Jun	41.0	12.8			11		
<b>2008</b>	-	-	-	179.4	27-Jun	40.0	-			8		hailed out July 22nd
<b>2009</b>	95.0	37	62.6	169.0	18-Jun	36.1	13.3			8		hail damage = 11.3% from 6/30 storm
<b>2010</b>	-	-	-	177.3	26-Jun	38.7	-					hailed out June 30th
<b>2011</b>	67.7	41	59.0	182.1	1-Jul	35.3	12.8			32		
<b>2012</b>	76.5	39	58.8	169.2	17-Jun	36.1	15.2					
<b>2013</b>	86.4	43	59.9	164.3	13-Jun	35.9	14.5					
<b>2014</b>	100.1	42	62.6	164.7	14-Jun	36.3	13.2					
<b>2015</b>	72.0	41	56.2	161.7	11-Jun	38.3	17.0			15		
<b>2016</b>	79.9	49	60.3	161.6	10-Jun	36.0	13.4			25		
<b>2017</b>	89.3	42	59.7	160.2	9-Jun	37.5	13.1			27		
<b>Avg</b>	<b>71.4</b>	<b>31.8</b>	<b>60.5</b>	<b>170.6</b>	<b>20-Jun</b>	<b>40.9</b>	<b>13.7</b>					

**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							
<b>2008</b>	63.4	39	59.4	166.8	15-Jun	34.9	14.9				23	
<b>2009</b>	37.6	37	61.6	167.3	16-Jun	24.9	13.6				22	spring stand = 80%: no harvest, uneven stands
<b>2010</b>	70.9	48	61.8	170.0	19-Jun	36.8	11.8				12	
<b>2011</b>	-	-	-	174.6	24-Jul	34.9	-				6	
<b>2012</b>	52.9	39	58.5	165.4	13-Jun	31.0	13.2				8	
<b>2013</b>	68.2	43	58.8	163.6	13-Jun	30.5	12.1		11		10	
<b>2014</b>	57.6	42	61.1	160.7	10-Jun	26.1	12.6				2	
<b>2015</b>	61.4	41	61.1	151.1	31-May	31.0	12.6				5	
<b>2016</b>	94.5	49	59.9	155.7	4-Jun	39.7	10.4				0	
<b>2017</b>	50.1	42	62.1	151.4	31-May	25.2	14.0					
<b>Avg</b>	<b>42.6</b>	<b>33.5</b>	<b>60.2</b>	<b>162.4</b>	<b>12-Jun</b>	<b>29.5</b>	<b>13.0</b>					

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							
<b>2009</b>												extreme winterkill
<b>2010</b>	54.8	48	59.4	164.4	13-Jun	31.1	10.7	50				
<b>2011</b>	56.8	41	58.8	172.9	22-Jun	34.3	11.7	56				
<b>2012</b>	57.4	39	58.4	157.5	6-Jun	29.7	11.7					
<b>2013</b>	-		-	171.6	21-Jun	30.3	-	23				Hailed out, Aug 10 extreme winterkill extreme winterkill
<b>2014</b>	-							6				
<b>2015</b>	-							2				
<b>2016</b>	64.1	49	61.0	-		36.4	10.3					
<b>2017</b>	37.7	42	64.5	153.0	2-Jun	21.0	9.4	40				
<b>Avg</b>	<b>42.9</b>	<b>33.4</b>	<b>58.9</b>	<b>164.9</b>	<b>14-Jun</b>	<b>31.6</b>	<b>12.0</b>					

**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
<b>Avg</b>	<b>45.7</b>	<b>39.4</b>	<b>59.8</b>	<b>160.4</b>	<b>10-Jun</b>	<b>27.7</b>	<b>13.5</b>				

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												
<b>Avg</b>	<b>77.3</b>	<b>32.7</b>	<b>60.0</b>	<b>161.2</b>	<b>10-Jun</b>	<b>40.4</b>	<b>12.1</b>					

**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				
<b>Avg</b>	<b>43.2</b>	<b>32.5</b>	<b>60.1</b>	<b>168.9</b>	<b>18-Jun</b>	<b>33.1</b>	<b>12.6</b>				

**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 not planted 'sub-irrigated'
2015											
2016	107.9	49	61.8	155.8	4-Jun	39.8	11.4				
2017	114.4	42	62.3	152.3	1-Jun	42.1	13.3			13	
<b>Avg</b>	<b>52.2</b>	<b>32.0</b>	<b>59.3</b>	<b>160.0</b>	<b>9-Jun</b>	<b>34.6</b>	<b>13.2</b>				

**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 %	Lodging %	Comments
				from 1-Jan	Actual					
<b>1977</b>										
<b>1978</b>	52.1	31	63.4	no		33.0	7.2			
<b>1979</b>										
<b>1980</b>	19.9	26	57.8		recrop	25.0				
<b>1981</b>	61.5	35	60.4	no		35.0				
<b>1982</b>										
<b>1983</b>										
<b>1984</b>	19.9	27	60.4	no		22.1	13.2	70.5		winterkill
<b>1985</b>	-	-	-	-		-				
<b>1986</b>	67.9	32	62.3	-		34.5	12.6			
<b>1987</b>	71.6	36	61.3	-		32.3	12.4			
<b>1988</b>	35.0	19	62.9	156.3	4-Jun	24.0	13.3			
<b>1989</b>	61.6	36	63.1	174.0	23-Jun	34.1	11.8			
<b>1990</b>	73.8	35	62.5	171.0	20-Jun	41.0	11.0			
<b>1991</b>	-	-	-			-	-			not harvested
<b>1992</b>	-	-	-			25.6	-			moderate winterkill, hailed out
<b>1993</b>	53.0	42	60.7	172.3	21-Jun	33.1	8.9			
<b>1994</b>	59.3	35	60.0	168.5	18-Jun	33.0	14.3			
<b>1995</b>	89.5	40	60.5	178.9	28-Jun	38.9	10.8			
<b>1996</b>	54.9	31	62.6	173.3	21-Jun	32.9	14.3	29.8		
<b>1997</b>	73.2	38	61.9	168.0	17-Jun	34.1	11.7			
<b>1998</b>	78.0	39	62.6	156.7	6-Jun	33.5	11.9		8.6	
<b>1999</b>	-	-	-			-	-			not harvested
<b>2000</b>	45.1	33	60.8	160.6	9-Jun	28.8	14.7			
<b>2001</b>	11.9	22	59.1	163.5	13-Jun	20.8	14.2			spring stand = 62%
<b>2002</b>	-	-	-			-	-			not harvested, extremely dry
<b>2003</b>	62.4	37	61.9	165.6	15-Jun	36.0	13.9			spring stand = 70%
<b>2004</b>	70.0	41	61.9	169.7	18-Jun	39.1	12.3			
<b>2005</b>	84.3	45	62.7	166.0	15-Jun	38.7	13.3			
<b>2006</b>	75.8	43	62.8	154.9	4-Jun	33.7	13.1			
<b>2007</b>	56.1	38	61.0	159.7	9-Jun	33.2	12.8			
<b>2008</b>	51.3	39	62.1	172.1	20-Jun	29.9	11.5			
<b>2009</b>	75.7	37	62.9	167.8	17-Jun	31.3	11.1			
<b>2010</b>	97.8	48	59.7	175.6	25-Jun	35.6	12.2		4.2	
<b>2011</b>	93.7	41	62.2	177.9	27-Jun	36.6	10.0			sprayed for stripe rust
<b>2012</b>	87.2	39	60.8	167.9	16-Jun	32.4	11.7			
<b>2013</b>	90.0	43	60.1	166.8	16-Jun	35.1	13.0			
<b>2014</b>	106.6	42	60.8	172.3	21-Jun	31.3	12.3			spring stand = 61%
<b>2015</b>	78.2	41	59.7	156.4	5-Jun	34.1	13.3			
<b>2016</b>	98.5	49	62.5	158.3	6-Jun	34.1	11.7			
<b>2017</b>	73.7	42	60.8	156.8	6-Jun	30.1	13			
<b>Avg</b>	<b>66.5</b>	<b>36.9</b>	<b>61.4</b>	<b>166.6</b>	<b>16-Jun</b>	<b>32.5</b>	<b>12.3</b>			