



2016 SPRING BARLEY REPORT



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Department of Research Centers

2016 Spring Barley Report

A collaborative effort of MSU Barley Breeding and the [Montana Agricultural Experiment Station:](#)

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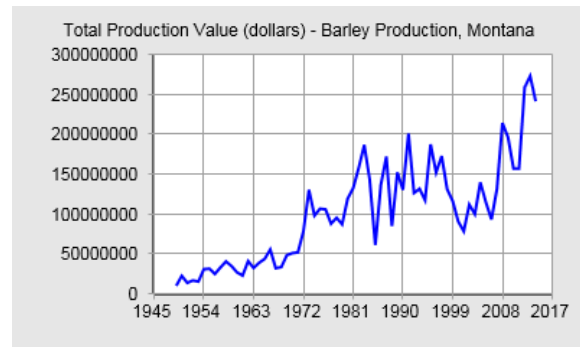
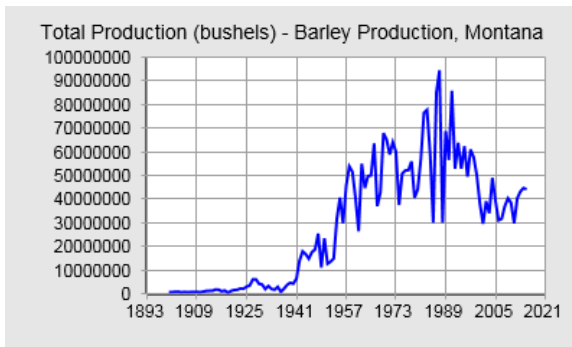
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2016 USDA Montana Barley Statistics

Statewide Production	Value
BARLEY - ACRES PLANTED	928,000
BARLEY - ACRES HARVESTED	770,000
BARLEY - PRODUCTION, MEASURED IN BU	46,800,000
BARLEY - YIELD, MEASURED IN BU / ACRE	60
Nationwide Production	
BARLEY - ACRES PLANTED	2.97 million
Change since 2015	-17%



Country/Region	Area (Million hectares)				Yield (Metric tons per hectare)			
			2016/17 Proj.				2016/17 Proj.	
	2014/15	Prel. 2015/16	Oct	Nov	2014/15	Prel. 2015/16	Oct	Nov
World	49.58	50.08	48.87	48.87	2.86	2.97	2.94	2.95
United States	1.01	1.28	1.04	1.04	3.91	3.72	4.19	4.19
Total Foreign	48.57	48.80	47.84	47.84	2.84	2.95	2.91	2.92
European Union	12.42	12.19	12.47	12.47	4.88	5.05	4.78	4.79

Country/Region	Production (Million metric tons)				Change in Production			
			2016/17 Proj.		From last month		From last year	
	2014/15	Prel. 2015/16	Oct	Nov	MMT	Percent	MMT	Percent
World	141.80	148.66	143.75	144.01	0.25	0.18	-4.66	-3.13
United States	3.95	4.75	4.34	4.34	0.00	0.00	-0.41	-8.65
Total Foreign	137.84	143.91	139.41	139.67	0.25	0.18	-4.25	-2.95
European Union	60.66	61.52	59.58	59.74	0.16	0.27	-1.78	-2.89

MSU Barley Production Guide:

<http://agresearch.montana.edu/wtarc/producerinfo/agronomy-nutrient-management/Barley/MTBarleyProdGuide.pdf>

Variety Performance - Bozeman Dryland

	Yield bu/ac	Protein %	Test Weight lb/bu	Plump %	Height cm	Heading julian	Maturity julian
Balster	92.3	12.9	54.6	87.7	58.9	179	204
Champion	102.9	13.4	56.6	91.8	62.6	177	209
Copeland	90.3	13.9	54.6	90.6	61.2	180	207
Genie	90.7	12.8	55.8	94.3	54.8	181	210
Growler	78.4	13.5	53.6	90.0	57.4	177	205
Harrington	89.6	13.9	55.7	92.7	61.6	177	207
Haxby	82.9	13.6	56.6	89.2	62.0	175	202
Hockett	94.9	13.2	56.2	92.8	66.2	177	204
Metcalfe	81.1	13.8	55.2	90.2	67.5	176	202
Odyssey	101.8	12.6	55.6	101.6	57.0	180	211
Overture	81.7	13.6	55.5	94.7	57.4	183	209
Synergy	92.6	12.7	54.9	91.8	63.7	177	204
Vespa	82.2	13.5	54.8	85.7	52.1	181	207
Westminster	89.4	13.7	55.7	92.8	59.9	180	206
GRAND MEAN	89.3	13.4	55.4	91.8	60.2	178.5	206.2
CV	7.95	4.52	1.26	5.22	4.65	0.48	0.87
LSD	14.99	1.27	1.51	10.33	6.13	1.83	3.87

Variety Performance - Broadview Dryland

	Yield bu/ac	Protein %	Test Weight lb/bu	Plump %	Height cm
Champion	19.7	8.8	52.2	76.2	43.7
Conlon	15.9	9.8	51.1	95.7	45.0
Conrad	13.8	9.9	50.0	87.9	44.3
Copeland	19.5	8.7	51.1	91.2	40.0
Craft	16.5	9.8	51.6	90.8	46.7
Eslick	17.3	8.5	51.2	58.2	34.0
Genesis	17.5	9.3	50.6	84.8	46.7
Harrington	14.8	8.9	51.6	89.1	44.3
Haxby	15.7	9.1	54.4	91.1	45.7
Hockett	15.9	8.8	53.0	92.9	43.3
Lavina	11.2	9.4	46.0	64.8	41.7
Metcalf	17.3	8.9	52.3	86.9	42.7
Moravian 150	17.1	9.2	50.6	88.7	39.3
Moravian 153	20.1	8.7	48.9	75.4	42.7
Moravian 69	18.2	9.0	49.7	81.7	38.7
Moravian115	18.1	9.2	50.8	94.1	34.3
MT090182	16.8	9.1	51.0	81.9	47.0
MT090190	16.9	9.2	52.4	87.7	45.0
MT100120	15.1	9.5	51.7	87.6	45.3
MT100126	12.2	9.2	52.1	87.7	45.7
MT124555	17.1	8.8	52.5	92.1	45.7
Pinnacle	15.1	9.8	52.1	92.8	42.0
Rawson	14.6	10.6	50.6	93.4	45.0
Stepford	14.6	10.8	46.8	90.0	43.3
Stockford	14.4	9.0	49.8	92.0	45.7
GRAND MEAN	16.22	9.28	50.97	86.18	43.11
CV	16.21	3.99	2.21	3.21	10.16
LSD	5.76	0.81	2.47	6.05	9.59

Variety Performance - Conrad Dryland

	Yield bu/ac	Protein %	Test Weight lb/bu	Plump %	Height cm	Heading julian
Balster	107.4	9.2	51.3	98.5	59.3	174
Champion	106.1	11.1	54.6	98.3	65.9	172
Copeland	100.3	10.0	53.6	98.2	60.9	178
Genie	107.3	9.1	53.4	97.9	59.2	176
Growler	117.0	8.9	52.3	98.7	63.4	174
Harrington	98.2	9.4	53.7	98.4	59.2	174
Haxby	107.5	11.6	55.0	98.5	70.1	173
Hockett	106.6	10.3	54.2	99.2	62.9	171
Metcalf	97.1	10.3	53.1	98.1	63.5	173
Odyssey	120.0	8.6	52.2	98.5	58.5	178
Overture	104.8	8.5	52.1	97.3	56.6	176
Synergy	107.6	9.6	51.9	98.9	61.9	173
Vespa	110.4	9.5	52.8	98.7	60.2	178
Westminster	103.5	9.4	53.3	98.2	60.0	175
GRAND MEAN	106.7	9.7	53.1	98.4	61.5	174.6
CV	11.71	6.35	1.27	0.52	8.52	0.9
LSD	25.36	1.34	1.46	1.09	11.54	3.36

Variety Performance - Devon Dryland

	Yield bu/ac	Protein %	Test Weight lb/bu	Plump %	Height cm
Champion	73.7	11.0	50.9	90.9	54.2
Conrad	70.7	10.9	50.0	94.6	53.3
Harrington	59.8	10.7	49.5	82.1	52.5
Haxby	59.4	10.8	51.0	84.7	57.6
Haybet	52.6	10.6	48.1	72.6	63.5
Hays	68.7	10.5	47.6	74.9	49.1
Hockett	67.1	10.2	49.5	89.0	57.6
Lavina	64.8	9.3	49.1	84.8	54.2
Merit	66.4	10.0	48.3	90.3	50.8
Metcalf	62.7	10.7	49.5	88.4	55.0
Moravian115	67.4	11.0	48.2	90.3	41.5
MT090182	68.1	9.6	50.3	93.4	58.4
MT090190	60.7	9.7	50.0	95.2	54.2
MT100120	68.0	9.7	50.7	95.1	57.5
MT100126	60.7	10.4	49.7	91.4	58.4
MT124555	66.7	10.7	51.6	95.0	52.5
GRAND MEAN	64.9	10.4	49.6	88.3	54.4
CV	8.7	6.6	2.7	7.8	5.1
LSD	12.7	1.5	3.0	15.4	6.2

Variety Performance - Dillon Irrigated

	Yield bu/ac	Protein %	Test Weight lb/bu	Height cm
Champion	146.1	12.1	52.5	73.4
Moravian115	131.5	13.2	46.1	58.4
Odyssey	138.2	12.0	49.4	61.0
Eslick	125.9	12.7	52.1	68.1
Haxby	131.9	12.0	53.3	70.4
Harrington	129.7	13.3	49.7	71.1
MT124555	135.7	12.1	52.0	71.4
Conrad	126.8	14.0	51.7	73.4
Hays	129.0	13.2	47.9	74.9
Lavina	79.5	13.7	48.3	74.9
MT090190	117.6	12.0	52.5	74.9
Synergy	125.7	12.3	52.1	76.2
Metcalfe	130.8	12.6	52.8	76.5
Hockett	119.1	12.7	52.8	77.0
Voyager	141.2	12.6	52.3	77.5
Rawson	122.8	12.6	49.6	78.2
Pinnacle	118.5	6.9	53.0	78.5
Craft	127.3	12.8	53.4	79.0
MT100126	128.2	11.0	52.5	79.5
Merit	136.3	13.2	47.3	80.3
MT100120	126.7	11.8	52.6	80.5
Genesis	129.4	11.5	52.0	81.5
Stockford	26.1	13.4	43.3	83.6
Stepford	134.7	12.9	48.0	84.6
Haybet	107.2	14.6	45.5	85.1
GRAND MEAN	122.7	12.5	50.5	75.6
CV	15.7	11.4	4.2	6.6
LSD	42.2	3.1	4.6	4.3

Variety Performance - Fromberg Irrigated

	Yield bu/ac	Protein %	Test Weight lb/bu	Plump %	Height cm	Lodging %
Champion	130.8	12.8	52.4	95.2	108.7	60
Conlon	79.7	13.6	53.8	99.0	102.7	60
Conrad	120.5	13.7	51.5	91.5	99.7	50
Copeland	122.1	13.0	51.0	91.1	105.7	70
Craft	91.1	14.8	50.8	86.7	109.7	80
Eslick	141.5	11.5	52.9	90.5	98.7	50
Genesis	107.0	12.6	52.4	98.3	105.0	60
Harrington	97.4	12.9	47.7	83.6	100.7	70
Haxby	114.8	12.7	53.4	95.3	104.0	70
Hockett	113.3	12.4	51.8	92.1	96.0	60
Lavina	93.0	14.0	45.1	64.1	109.7	70
Metcalfe	106.7	12.7	51.9	93.3	105.3	60
Moravian 115	110.3	12.3	46.8	86.8	86.7	40
Moravian 150	136.2	12.5	50.4	95.5	87.7	40
Moravian 153	148.5	11.3	49.6	90.0	88.7	30
Moravian 69	142.1	12.0	49.5	88.9	88.0	40
MT090182	112.3	12.7	50.6	86.0	108.7	80
MT090190	123.4	11.7	52.0	91.5	107.0	70
MT100120	124.9	11.8	51.6	92.7	103.7	70
MT100126	124.4	11.2	53.5	97.1	105.7	60
MT124555	112.1	13.5	51.9	87.5	107.0	70
Pinnacle	128.1	11.6	51.5	98.3	105.7	40
Rawson	101.6	12.7	50.9	97.9	111.0	60
Stepford	93.9	14.9	42.9	81.5	111.3	80
Stockford	120.2	12.4	49.0	92.8	115.3	70
GRAND MEAN	115.8	12.7	50.6	90.7	102.9	60.4
CV	9.8	6.4	2.6	6.4	3.7	24.0
LSD	25.0	1.8	2.9	12.6	8.2	3.2

Variety Performance - Geraldine Dryland

	Yield bu/ac	Protein %	Test Weight lb/bu	Plump %	Height cm	Heading julian
Champion	87.7	10.1	57.4	91.4	54.3	176
Conlon	67.7	11.9	54.9	94.7	45.7	174
Conrad	86.9	11.9	55.0	94.2	55.7	177
Craft	64.3	12.1	56.3	92.7	61.7	177
Eslick	106.0	11.2	55.6	88.7	47.7	176
Genesis	75.8	10.4	55.9	90.0	56.0	176
Harrington	78.2	11.6	56.5	92.0	53.0	177
Haxby	79.3	10.9	57.1	91.7	54.0	175
Haybet	58.1	12.1	54.7	69.7	60.7	177
Hays	89.1	10.9	54.1	87.2	58.0	177
Hockett	84.1	10.5	58.3	95.1	49.7	176
Lavina	87.0	10.9	53.4	76.7	59.7	177
Merit	84.1	11.2	56.2	87.9	50.7	177
Metcalfe	79.1	11.7	56.1	91.9	55.3	176
Moravian115	91.5	10.8	55.9	92.2	45.0	177
MT090182	81.6	9.6	55.5	89.8	58.3	177
MT090190	82.5	10.2	55.2	90.9	60.7	177
MT100120	82.9	10.1	55.4	89.9	62.7	177
MT100126	71.9	11.1	55.5	89.0	61.7	178
MT124555	87.2	10.7	55.9	94.4	52.3	176
Overature	90.9	11.4	57.3	93.5	50.0	178
Pinnacle	75.8	10.8	56.1	94.0	60.0	176
Rawson	63.5	12.0	56.6	89.0	58.0	176
Stepford	69.6	11.7	50.7	93.1	64.0	174
Stockford	84.1	10.9	54.0	93.7	63.3	177
GRAND MEAN	80.4	11.1	55.6	90.1	55.9	176.5
CV	8.1	6.1	1.2	6.1	6.3	0.3
LSD	14.2	0.0	1.9	0.0	7.7	1.2

Variety Performance - Havre Dryland

	Yield bu/ac	Protein %	Test Weight lb/bu	Plump %	Height cm	Heading julian
Balster	88.2	14.0	52.0	91.9	66.5	181
Champion	94.9	13.3	53.2	91.2	70.4	179
Copeland	82.0	12.6	52.0	91.6	65.0	182
Genie	86.9	13.3	52.1	95.6	58.7	183
Growler	81.7	13.5	52.6	89.6	67.4	181
Harrington	85.6	15.0	53.1	92.5	68.7	181
Haxby	80.8	14.2	52.5	90.7	68.1	178
Hockett	97.0	14.1	52.9	95.8	70.4	179
Metcalfe	76.1	13.7	52.7	91.8	73.5	179
Odyssey	90.3	14.8	53.0	97.8	64.7	183
Overture	85.3	12.6	51.9	95.9	62.1	183
Synergy	86.9	13.2	53.0	93.6	71.2	181
Vespa	95.9	13.4	52.6	95.2	61.1	181
Westminster	90.2	13.3	52.4	94.8	66.9	183
GRAND MEAN	87.3	13.6	52.6	93.4	66.8	181.0
CV	6.33	5.36	2.6	1.3	4.91	0.56
LSD	11.15	1.57	2.94	2.57	7.15	2.18

Variety Performance - Highland Dryland Acid Soils

	Yield bu/ac	Protein %	Test Weight lb/bu	Plump %	Height cm	Heading julian
Champion	38.5	8.4	55.5	89.0	38.0	175
Conlon	26.4	11.1	52.0	76.8	44.5	175
Conrad	36.3	10.2	54.8	86.2	35.7	176
Hocket	40.2	11.3	55.6	86.3	41.0	174
Craft	39.1	10.2	56.2	90.1	38.5	175
Lavina	37.6	9.7	54.7	70.0	41.3	175
Harrington	46.1	9.7	56.3	89.1	39.3	175
Haxby	38.6	10.1	56.0	90.1	36.5	174
Haybet	32.3	11.8	54.2	69.1	47.0	175
Hays	40.9	9.9	54.2	78.7	39.3	176
Hockett	42.1	10.6	56.3	94.0	43.7	175
Merit 57	42.9	8.9	55.8	86.3	45.5	176
Metcalfe	31.0	9.5	55.7	90.3	42.7	176
Moravian	31.7	9.3	54.8	95.2	33.0	176
MT090182	38.0	9.2	54.1	88.1	47.5	176
MT090190	29.6	11.7	54.4	88.2	45.3	176
MT100120	40.3	9.5	53.9	88.5	44.7	176
MT100126	22.5	12.9	52.0	87.2	41.5	177
MT124555	20.2	13.2	53.3	89.8	37.0	176
Stockford	18.6	12.3	50.3	93.6	44.0	176
GRAND MEAN	34.6	10.5	54.5	86.3	41.3	175.5
CV	16.6	12.5	2.0	8.1	9.4	0.4
LSD	12.9	0.0	3.2	0.0	8.7	1.6

Variety Performance - Huntley Dryland

	Yield bu/ac	Protein %	Test Weight lb/bu	Plump %	Height cm	Heading julian
Champion	100.4	14.8	53.7	90.5	97.8	157
Conlon	52.7	16.5	51.6	96.1	100.2	153
Conrad	97.4	15.0	52.2	95.0	93.4	162
Copeland	105.0	15.0	52.7	95.8	96.9	161
Craft	79.0	16.1	52.7	92.8	101.8	159
Eslick	111.2	14.2	53.1	86.5	88.6	164
Genesis	65.2	14.1	51.4	91.2	105.9	156
Harrington	88.0	16.0	51.9	90.1	99.5	160
Haxby	76.4	16.2	54.1	89.2	102.1	158
Hockett	76.4	15.5	51.8	92.2	100.5	158
Lavina	74.2	17.1	49.7	78.2	108.4	156
Metcalfe	85.9	15.2	53.2	92.1	100.9	158
Moravian 150	109.2	14.7	51.7	93.3	76.6	161
Moravian 153	124.7	13.9	52.2	93.9	77.1	163
Moravian 69	122.1	13.4	51.9	93.7	77.6	164
Moravian115	98.7	15.3	49.5	89.0	70.0	164
MT090182	95.1	12.8	51.8	93.4	95.6	161
MT090190	93.6	13.6	52.6	90.9	96.7	160
MT100120	91.3	13.2	52.3	93.0	96.4	159
MT100126	89.1	13.5	51.6	91.5	93.0	161
MT124555	96.9	15.5	53.6	92.5	95.5	161
Pinnacle	82.5	13.2	51.4	95.7	96.4	158
Rawson	75.0	14.5	49.8	95.4	107.3	155
Stepford	50.0	15.5	44.9	79.2	114.9	155
Stockford	76.0	14.9	49.2	92.5	116.1	157
GRAND MEAN	88.64	14.79	51.62	91.34	96.37	159.2
CV	5.75	4.29	1.69	2.14	2.79	1.06
LSD	11.17	1.39	1.92	4.27	5.89	3.7

Variety Performance - Hysham Irrigated

	Yield bu/ac	Protein %	Test Weight lb/bu	Plump %	Height cm	lodging
Champion	123.8	12.5	52.4	89.8	109.0	40
Conlon	80.6	13.4	52.7	98.6	108.3	20
Conrad	118.5	13.7	52.5	96.9	97.3	30
Copeland	100.1	13.3	51.2	89.5	105.3	50
Craft	101.7	13.2	50.4	95.9	110.3	20
Eslick	108.7	13.0	52.3	86.1	101.3	70
Genesis	97.9	12.1	50.5	96.4	109.0	30
Harrington	113.0	13.1	50.1	92.0	106.7	30
Haxby	102.1	13.3	52.6	90.6	111.0	60
Hockett	110.8	13.3	51.1	84.3	104.7	60
Metcalfe	102.0	14.4	51.3	83.1	105.7	70
Moravian 150	143.2	11.4	51.9	97.0	84.3	20
Moravian 153	142.3	11.6	50.6	87.9	82.3	40
Moravian 69	147.4	11.0	51.4	92.6	82.3	40
Moravian115	135.4	12.1	51.0	97.2	78.3	30
MT090182	116.9	11.7	52.6	94.3	104.3	20
MT090190	118.4	11.9	52.5	93.1	102.0	20
MT100120	116.9	11.4	52.7	95.0	106.0	10
MT100126	111.3	11.5	53.2	96.7	106.7	0
MT124555	113.8	12.4	52.9	95.3	100.0	20
Pinnacle	112.2	11.3	51.2	97.2	107.3	10
Rawson	91.4	12.6	51.2	97.2	112.7	30
GRAND MEAN	114.02	12.46	51.73	93.03	101.59	31.5
CV	10.5	5.09	1.88	3.95	3.46	51.4
LSD	26.41	1.4	2.14	8.09	7.75	3.57

Variety Performance - Kalispell Dryland

	Yield bu/ac	Protein %	Test Weight lb/bu	Plump %	Height cm	Heading julian
Champion	79.2	9.7	55.1	98.1	70.0	176
Conlon	72.7	10.2	51.5	99.2	66.7	169
Conrad	76.6	9.5	53.4	98.2	68.3	177
Copeland	89.7	9.6	53.8	98.1	75.3	177
Craft	87.1	9.5	54.0	98.4	77.7	173
Eslick	89.5	8.8	53.1	97.1	63.7	178
Harrington	81.8	9.5	54.7	97.9	73.3	177
Haxby	100.9	9.7	55.0	98.2	76.7	171
Haybet	56.0	9.9	52.1	91.1	72.7	175
Hays	83.6	9.9	51.1	90.8	66.7	178
Hockett	111.0	9.9	54.9	98.6	76.7	176
Lavina	80.6	10.2	51.6	89.0	72.0	175
Merit	105.7	9.3	53.9	97.1	77.3	179
Metcalfe	83.5	9.8	53.9	96.6	74.7	176
Moravian115	89.9	9.3	52.7	98.6	54.7	179
MT090182	87.1	8.9	53.0	97.9	77.7	177
MT090190	107.3	9.5	54.3	97.7	76.0	178
MT100120	80.5	8.4	53.7	98.3	69.3	178
MT100126	59.3	6.1	36.3	65.3	69.3	179
MT124555	85.3	9.1	54.1	98.6	64.7	175
Pinnacle	79.5	9.2	54.0	98.7	70.7	175
Stepford	90.3	10.4	48.0	96.4	79.3	172
Stockford	69.1	10.1	51.3	95.7	70.0	176
Synergy	102.4	9.8	52.8	98.3	74.3	177
GRAND MEAN	85.35	9.44	52.43	95.58	71.57	176.0
CV	27.91	13.96	12.34	12.16	8.11	0.75
LSD	52.26	2.89	14.19	25.5	12.73	2.9

Variety Performance - Moccasin Dryland

	Yield bu/ac	Protein %	Test Weight lb/bu	Plump %	Height cm	Heading julian	Maturity julian
Champion	57.6	14.4	55.3	85.1	55.7	173	206
Conlon	41.5	15.2	53.2	76.8	55.3	171	205
Conrad	46.5	16.3	54.2	65.3	55.7	174	206
Craft	40.5	14.9	56.3	75.9	55.3	173	207
Eslick	70.9	13.4	55.8	90.6	55.3	176	208
Genesis	42.2	13.3	54.7	84.4	60.7	173	207
Harrington	46.8	15.3	53.7	40.8	55.0	174	205
Haxby	60.0	13.6	56.5	87.6	57.0	173	205
Haybet	36.7	16.4	52.3	30.2	57.7	174	204
Hays	53.4	15.9	53.9	74.8	52.3	175	207
Hockett	59.3	13.8	56.1	32.3	59.0	174	208
Lavina	59.8	14.3	53.0	21.0	61.7	174	207
Merit	52.2	16.5	53.7	43.3	56.0	175	207
Metcalfe	48.4	15.3	55.4	89.2	58.3	174	207
Moravian115	39.1	15.4	52.7	73.4	48.7	176	206
MT090182	59.1	13.3	55.6	85.5	58.7	175	208
MT090190	54.4	12.7	56.8	86.3	61.7	176	208
MT100120	46.7	12.8	55.6	61.2	58.3	174	207
MT100126	56.2	12.8	56.5	95.1	63.7	175	209
MT124555	45.9	14.8	54.1	66.1	53.0	175	206
Overature	58.8	13.2	55.2	86.9	49.0	177	209
Pinnacle	48.9	13.6	55.7	96.5	58.0	173	208
Rawson	49.5	13.3	56.3	94.3	59.7	173	208
Stepford	45.8	13.8	49.2	89.7	61.0	173	207
Stockford	64.1	13.1	54.7	93.0	59.3	175	209
GRAND MEAN	51.4	14.3	54.6	73.0	57.0	174.2	207.1
CV	19.2	8.3	2.4	30.2	9.8	0.5	0.7
LSD	21.6		3.7		12.3	1.9	3.0

Variety Performance - Sidney Dryland

	Yield bu/ac	Protein %	Test Weight lb/bu	Plump %	Height cm	Heading julian
Balster	94.5	11.3	51.2	93.7	69.0	166
Champion	117.9	11.8	55.0	97.5	78.0	165
Copeland	115.9	12.0	53.3	95.0	74.3	167
Genie	114.7	10.9	52.8	92.6	66.7	167
Growler	87.5	11.9	52.6	93.7	62.0	168
Harrington	100.0	12.2	53.1	94.4	66.3	167
Haxby	111.1	11.9	55.2	97.4	62.0	165
Hockett	109.6	10.4	53.8	96.1	61.7	166
Metcalfe	95.5	12.1	53.6	95.4	67.3	165
Odyssey	119.1	10.8	52.3	92.4	67.7	167
Overture	113.3	11.5	53.1	79.3	72.7	169
Synergy	104.9	11.4	52.4	95.7	71.3	167
Vespa	98.5	11.0	52.6	97.2	62.7	167
Westminster	114.4	12.2	53.4	95.9	71.0	166
GRAND MEAN	107.9	11.5	53.3	94.0	68.0	166.7
CV	10.41	7.25	1.33	2.29	8.36	0.54
LSD	22.74	1.78	1.52	4.65	12.52	1.92

Intrastate Irrigated 2016 Statewide Summary

	Yield bu/ac	Test Weight lb/bu	Protein %	Plump %	Height cm	Heading julian	Maturity julian
Balster	116.4	52.4	10.7	96.0	75.3	168	210
Champion	110.8	54.2	10.7	94.7	78.9	167	210
Copeland	117.4	53.9	10.8	96.6	81.1	170	211
Genie	127.3	53.7	10.0	95.7	69.1	171	212
Growler	120.2	52.3	10.5	95.2	78.4	168	211
Harrington	105.3	54.0	10.7	95.7	78.1	168	210
Haxby	103.6	54.8	11.3	96.0	78.8	166	207
Hockett	108.0	54.0	11.1	94.9	77.4	167	208
Metcalfe	103.4	54.0	11.1	94.9	82.9	166	208
Odyssey	130.4	52.6	10.0	95.5	67.8	172	215
Overture	130.3	52.6	9.7	95.9	69.9	171	214
Sirish	121.0	53.0	10.6	95.8	69.1	170	212
Synergy	107.2	52.5	10.6	97.1	80.6	168	208
Vespa	130.1	53.3	10.0	95.4	67.9	171	211
Westminster	120.0	53.6	10.3	97.7	72.6	171	212
08ARS012-79	111.0	53.6	10.6	94.3	76.8	166	209
08ARS028-20	120.0	53.2	10.1	94.8	73.2	169	211
08ARS116-91	116.6	53.3	10.6	93.5	75.9	165	210
10WA-117.17	108.2	53.4	10.8	93.9	80.1	168	211
10WA-117.24	89.7	52.1	11.4	95.7	82.9	168	210
11WA-107.43	111.5	54.3	10.9	95.1	77.0	166	210
ME08032-156	121.6	53.5	10.5	96.8	68.2	168	211
ME08053-050	114.2	53.3	11.7	95.6	77.9	166	208
MT080087	114.0	54.1	10.8	96.9	72.1	171	210
MT080112	116.5	54.5	10.6	96.9	80.1	169	210
MT080243	109.3	53.6	10.5	92.8	79.4	168	208
MT080370	101.6	53.4	11.2	83.1	83.9	167	209
MT090182	109.7	53.7	9.7	95.2	80.3	168	214
MT090190	115.4	53.9	9.8	96.3	81.8	168	214
MT090193	109.4	53.2	10.1	96.6	80.3	169	214
MT100120	110.1	53.8	9.8	96.8	83.0	169	214
MT100126	111.2	53.9	10.0	95.8	82.2	171	214
MT124016	117.8	53.4	10.0	94.2	76.2	167	210
MT124069	109.7	53.1	10.3	96.3	80.3	171	211
MT124073	108.6	53.5	10.6	95.9	82.8	169	212
MT124112	104.5	53.0	10.3	96.1	78.0	165	209
MT124118	108.0	54.7	10.9	95.5	78.3	166	208
MT124243	120.2	53.2	9.8	95.4	82.6	168	212
MT124411	96.3	53.7	11.0	95.1	78.1	167	211
MT124454	109.3	54.8	11.3	96.5	79.3	166	207
MT124457	112.7	55.0	11.4	85.3	79.1	166	206
MT124555	116.9	54.4	10.4	97.0	78.9	168	211
MT124582	105.9	54.1	11.3	94.8	77.4	165	208
MT124645	104.7	53.5	10.3	96.1	79.6	168	209
MT124663	94.3	53.3	11.0	97.3	77.6	166	214
MT124673	96.9	53.7	10.8	95.5	74.1	164	211
MT124688	119.1	54.3	9.8	95.7	80.3	167	212
MT124716	110.3	53.7	11.1	95.4	78.9	168	209
MT124728	111.9	53.6	11.5	94.3	78.3	167	209
GRAND MEAN	112.0	53.6	10.6	95.2	77.6	167.8	210.5

EYT Irrigated 2016 Statewide Summary

	Yield	Test Weight	Protein	Plump	Height	Heading	Maturity
	bu/ac	lb/bu	%	%	cm	julian	julian
Champion	116.4	55.2	11.7	91.6	87	166	210
Conrad	116.6	52.4	12.6	88.7	82	169	211
Geraldine	118.3	53.9	11.4	84.9	77	168	209
Harrington	96.4	53.2	12.5	88.7	89	168	209
Haxby	93.4	55.1	12.5	87.0	84	166	208
Hays	103.3	50.4	12.8	76.3	91	170	211
Hockett	99.7	53.7	11.9	89.7	84	166	206
Lavina	99.1	50.0	13.3	68.2	91	166	208
Metcalfe	98.8	53.7	11.9	89.3	95	167	209
Scarlett	110.6	53.8	11.8	94.6	72	170	209
Stellar	80.5	52.6	11.9	89.7	90	164	210
Stepford	68.6	46.8	13.1	83.2	96	164	208
UT10902-91	98.1	50.1	12.2	90.1	88	163	207
UT10905-72	103.8	51.3	11.7	90.7	90	163	210
UT10905-91	92.1	52.5	11.7	91.4	87	163	209
11WA-107.58	113.2	55.2	11.8	91.2	85	166	213
12WA-120.14	109.6	53.3	12.7	90.5	87	167	211
12WA-120.17	109.4	53.4	12.7	92.6	86	167	211
2B10-4162	114.0	53.3	11.4	80.7	82	167	211
2B11-4949	117.4	53.7	11.7	88.7	83	168	211
2B11-5166	106.4	53.0	11.5	87.5	85	166	208
MT050051	122.2	53.3	11.5	85.9	81	167	210
MT050059	104.6	53.1	12.2	86.5	89	167	210
MT050169	111.8	54.2	12.7	90.6	82	166	207
MT070043	102.6	53.2	12.6	85.0	86	169	212
MT070144	103.5	53.8	12.9	93.7	88	168	206
MT080192	128.1	54.5	11.0	90.6	81	172	213
MT080256	109.6	54.2	12.7	92.7	86	167	212
MT080351	104.1	53.0	13.4	93.6	88	167	209
MT090025	97.5	50.9	9.2	50.5	76	162	209
MT090169	107.3	52.7	11.1	83.4	80	166	208
MT090184	107.0	53.1	11.3	90.4	87	169	212
MT090202	95.7	54.1	11.5	92.9	87	169	214
MT090234	105.2	52.7	11.2	90.2	89	167	212
MT090236	92.7	53.1	11.3	87.3	80	162	208
MT103038-4	81.2	49.1	15.5	85.9	91	167	212
MT103038-6	71.4	49.1	16.0	82.3	88	167	211
MT103089-3	72.5	43.3	15.1	39.5	103	168	209
MT103097-1	70.2	50.3	14.8	78.1	100	168	205
MT103101-5	54.2	50.1	14.8	81.4	95	166	206
MT124001	106.0	52.9	11.3	82.8	89	166	210
MT124007	103.1	53.1	11.7	86.4	90	167	210
MT124008	108.6	53.3	11.6	86.1	88	166	210
MT124015	99.5	53.1	12.3	89.7	90	168	210
MT124018	108.4	52.7	12.0	89.1	87	166	212
MT124025	106.0	52.6	11.8	88.0	89	168	211
MT124026	105.1	52.8	11.7	87.5	91	167	211
MT124027	114.8	52.6	11.4	87.0	84	167	210
MT124071	104.4	53.4	11.1	88.6	87	166	213
MT124093	92.4	54.3	13.5	94.4	95	168	211
MT124113	90.1	53.6	11.7	93.9	84	163	212
MT124127	103.1	54.1	12.7	89.0	82	165	208
MT124128	101.6	53.9	11.4	93.1	81	162	211
MT124134	93.3	53.7	11.6	93.3	85	162	210
MT124148	121.9	53.7	11.3	85.9	85	168	209
MT124163	100.8	53.3	11.0	92.5	77	165	215
MT124164	121.2	53.0	10.6	88.2	81	167	213
MT124361	101.6	54.1	13.0	90.1	83	166	208
MT124370	114.6	53.9	11.1	89.8	81	168	214
MT124380	111.4	53.4	11.2	88.8	77	167	213
MT124601	104.0	52.9	11.1	86.7	90	168	213
MT124659	93.4	54.1	11.8	92.2	75	162	211
MT124664	90.4	54.4	12.0	93.2	78	166	211
MT124677	104.2	54.0	11.7	88.9	80	165	212
GRAND MEAN	101.6	52.8	12.1	86.9	85.9	166.4	210.1

Intrastate Dryland 2016 Statewide Summary

	Yield bu/ac	Test Weight lb/bu	Protein %	Plump %	Height cm	Heading julian	Maturity julian
Balster	91.5	52.4	12.0	93.4	69.7	175	206
Champion	94.4	54.8	12.5	93.9	71.5	173	208
Copeland	90.1	53.3	12.2	94.4	70.7	175	207
Genie	94.4	53.9	11.6	94.3	62.3	177	209
Growler	90.5	52.4	11.9	93.3	68.1	174	206
Harrington	87.8	53.8	12.9	94.1	72.8	174	207
Haxby	85.0	54.7	13.0	92.7	73.7	172	204
Hockett	91.0	54.0	12.6	95.6	74.1	173	206
Metcalfe	82.8	53.6	13.0	93.7	75.0	173	205
Odyssey	98.8	53.4	11.9	97.6	63.8	177	210
Overture	90.6	53.4	11.6	95.8	63.6	178	210
Synergy	89.5	53.0	12.0	95.9	72.9	173	206
Vespa	93.9	53.4	12.3	93.6	62.2	177	208
Westminster	88.3	53.3	12.3	95.4	67.1	176	207
08ARS012-79	86.2	53.6	12.2	94.9	71.9	173	207
08ARS028-20	93.6	53.0	11.9	90.1	67.7	176	207
08ARS116-91	92.4	53.1	12.5	91.5	69.6	172	206
10WA-117.17	90.4	53.2	12.2	90.8	69.3	175	206
10WA-117.24	78.4	52.5	12.5	92.7	74.8	174	206
11WA-107.43	89.9	54.6	12.3	93.4	70.8	172	208
ME08032-156	93.4	53.5	12.2	91.3	63.6	174	206
ME08053-050	81.9	53.4	13.0	95.6	69.7	173	207
MT080087	85.7	53.4	12.7	95.4	63.2	176	208
MT080112	86.5	53.9	12.4	93.6	74.7	174	207
MT080243	87.1	53.6	12.1	90.9	75.1	174	206
MT080370	83.9	53.6	12.4	94.2	77.8	173	206
MT090182	91.5	53.8	11.3	93.2	75.2	175	210
MT090190	83.6	53.5	11.2	94.3	71.8	175	210
MT090193	85.1	53.6	11.7	94.7	74.9	175	210
MT100120	87.1	54.1	11.5	95.1	75.3	175	210
MT100126	80.9	54.0	11.3	94.8	72.8	176	211
MT124016	91.4	53.3	11.9	92.8	70.1	174	207
MT124069	84.1	53.0	12.0	93.7	71.9	176	207
MT124073	89.7	54.0	11.9	93.6	77.6	174	208
MT124112	80.0	53.3	11.7	95.5	71.6	171	207
MT124118	81.7	54.3	12.2	95.1	74.3	172	207
MT124243	89.3	53.5	11.4	93.0	73.8	174	209
MT124411	76.4	53.6	13.1	95.7	73.5	171	209
MT124454	82.9	54.5	12.7	95.9	75.8	172	206
MT124457	80.5	54.5	12.5	95.2	74.9	172	206
MT124555	85.4	54.5	12.0	95.7	71.8	174	208
MT124582	84.0	53.9	12.6	94.8	74.5	172	206
MT124645	79.4	53.4	12.1	94.3	71.1	173	207
MT124663	74.5	53.6	12.4	97.2	71.7	171	210
MT124673	68.1	53.1	12.1	94.0	67.1	173	210
MT124688	89.2	53.9	11.7	93.4	74.9	174	209
MT124716	80.5	54.2	13.1	91.9	71.4	174	206
MT124728	85.4	53.7	13.0	92.5	71.2	173	206
GRAND MEAN	86.6	53.6	12.2	94.1	71.1	174.0	207.4

EYT Dryland 2016 Statewide Summary

	Yield	Test Weight	Protein	Plump	Height	Heading	Maturity
	bu/ac	lb/bu	%	%	cm	julian	julian
Champion	92.2	54.3	13.2	90.3	71.4	172	208
Conrad	82.5	52.9	14.7	87.8	66.7	174	207
Geraldine	87.3	53.0	13.4	78.7	64.7	175	207
Harrington	77.5	51.5	13.8	89.3	72.0	174	206
Haxby	74.2	54.1	14.0	89.3	71.7	171	204
Hays	83.3	52.1	14.3	80.3	69.3	175	208
Hockett	86.3	54.0	13.5	93.5	73.6	172	205
Lavina	78.9	51.2	14.2	72.2	75.3	172	204
Metcalf	73.8	53.3	14.3	89.7	73.4	172	205
Scarlett	71.2	53.7	13.8	88.2	61.6	174	206
Stellar	68.7	52.0	13.1	82.3	71.8	170	205
Stepford	62.1	49.5	13.8	90.3	79.8	170	204
UT10902-91	86.6	50.3	12.5	77.7	75.6	169	205
UT10905-72	90.1	51.3	12.6	89.9	73.2	170	206
UT10905-91	87.1	51.1	12.7	87.7	73.9	169	206
11WA-107.58	85.4	54.7	13.6	90.9	70.4	172	209
12WA-120.14	83.3	52.4	13.9	92.2	69.9	174	208
12WA-120.17	91.2	52.9	14.2	93.4	71.9	173	208
2B10-4162	85.9	53.1	13.5	76.8	66.3	174	206
2B11-4949	87.3	52.8	12.9	86.5	63.3	174	209
2B11-5166	83.6	51.5	13.9	83.2	68.2	171	205
MT050051	79.7	53.2	13.7	85.8	68.4	173	206
MT050059	76.1	53.6	14.0	90.0	70.0	174	206
MT050169	82.3	53.9	13.6	91.4	68.6	172	207
MT070043	77.4	52.0	14.6	79.5	66.7	174	208
MT070144	83.7	53.6	13.2	94.0	72.5	175	206
MT080192	83.6	52.2	13.1	87.1	67.7	177	209
MT080256	78.6	52.7	13.9	90.2	72.9	172	207
MT080351	76.6	52.5	14.8	90.2	70.6	174	206
MT090025	73.7	50.6	10.4	47.6	62.2	170	207
MT090169	75.4	53.8	12.3	89.3	71.0	172	207
MT090184	79.2	53.4	12.2	90.7	71.9	175	211
MT090202	75.5	53.7	13.0	92.7	71.5	173	210
MT090234	75.6	51.0	12.6	92.2	72.7	173	208
MT090236	71.8	53.3	12.3	90.6	70.7	170	207
MT103038-4	52.5	47.1	17.8	77.3	69.7	173	205
MT103038-6	52.1	47.6	18.2	77.2	65.3	173	207
MT103089-3	63.7	45.5	15.6	26.1	76.3	173	205
MT103097-1	56.4	51.3	15.2	63.5	80.3	173	204
MT103101-5	46.8	50.3	15.5	80.9	81.1	173	204
MT124001	76.4	53.6	13.3	89.8	72.4	173	207
MT124007	76.4	53.3	13.5	91.7	74.4	172	209
MT124008	76.0	53.4	12.9	90.6	74.8	173	207
MT124015	82.2	53.2	14.1	91.3	75.3	173	208
MT124018	77.3	53.2	13.3	93.0	70.0	172	207
MT124025	78.6	52.8	13.5	91.3	75.4	174	208
MT124026	79.0	53.1	12.9	91.7	76.4	173	209
MT124027	82.4	53.2	13.5	89.1	70.5	173	207
MT124071	77.7	52.9	12.8	90.2	72.8	172	208
MT124093	67.5	53.3	14.4	93.7	78.6	173	208
MT124113	64.7	52.8	12.6	94.8	73.4	170	209
MT124127	75.0	54.4	13.8	93.1	70.4	171	205
MT124128	66.9	54.2	12.3	96.6	70.0	169	206
MT124134	72.4	53.9	12.2	96.8	71.8	169	209
MT124148	83.8	53.2	12.7	76.9	66.1	174	208
MT124163	74.6	53.3	12.4	93.7	66.9	172	208
MT124164	73.7	52.6	11.8	84.0	66.8	173	208
MT124361	73.6	53.3	13.7	92.9	68.5	172	206
MT124370	75.2	53.0	12.5	89.3	63.0	174	208
MT124380	75.1	53.0	12.7	88.8	65.2	173	207
MT124601	74.6	51.9	12.8	90.8	72.0	174	209
MT124659	61.0	53.3	12.3	91.8	65.5	170	208
MT124664	66.9	53.3	12.6	93.4	68.2	171	209
MT124677	69.3	53.9	12.9	93.4	68.3	171	207
GRAND MEAN	75.9	52.5	13.5	86.5	70.8	172.4	206.9

	Yield	Test Wt	Protein	Height	Plump	Dry Matter	Tons/Acre	Heading	Maturity
	bu/ac	lb/bu	%	cm	%	%		julian	julian
Hays	92.1	52.7	13.9	60.8	75.04	33.6	2.7	180	208
Lavina	90.6	51.9	14.1	63.5	61.91	36.5	2.9	177	201
Stepford	83.6	50.8	13.6	69.9	93.98	37.0	2.7	173	202
MT103038-4	66.9	52.9	18.2	60.9	74.69	33.8	3.0	177	204
MT103038-6	59.8	51.0	18.1	55.2	68.62	33.4	2.3	178	207
MT103089-3	78.1	47.5	15.7	67.1	35.49	33.2	2.5	179	205
MT103097-1	65.4	52.0	14.8	70.5	61.13	38.9	2.6	176	202
MT103101-5	70.8	52.6	15.5	72.6	88.24	35.8	2.5	178	201
GRAND MEAN	75.9	51.42	15.5	65.07	69.9	35.28	2.6	177.42	203.7
CV	10.6	1.32	3.65	6.03	10.77	3.29	14.61	0.5	0.85
LSD	19.56	1.65	1.37	9.54	18.3	2.82	0.94	2.16	4.22

Irrigated Hulless 2016 Statewide Means

	Yield (59lb bu/ac)				
	Sidney	Huntley	Conrad	Bozeman	Average
PI596299	66.3	66.0	72.5	90.9	73.9
Purple Prairie	45.3	31.9	40.4	43.2	40.2
PPB-TS2	59.9	30.6	48.2	54.8	48.4
09WA-265.12	70.7	73.7	79.2	95.9	79.9
X05013-T1	76.2	74.4	80.8	98.9	82.6
X0626-T229	78.0	58.3	86.0	95.9	79.6
X07G30-T131	71.7	64.7	80.9	97.8	78.8
MT110008	64.2	62.5	76.1	80.0	70.7
MT110009	54.5	63.0	70.2	85.2	68.2
MT110016	60.8	62.8	76.8	85.3	71.4
MT110061	68.0	48.6	69.5	81.9	67.0
MT110065	64.9	56.9	75.4	89.3	71.6
MT110066	73.7	50.7	79.5	88.9	73.2
MT110097	56.8	53.2	75.3	87.0	68.1
MT110139	70.0	43.9	67.3	82.3	65.9
MT110141	61.5	42.6	53.0	66.4	55.9
GRAND MEAN	65.1	55.3	70.7	82.7	68.5
CV	7.61	6.95	8.78	7.61	
LSD	11.13	8.88	14	14.56	

	Protein (%)				
	Sidney	Huntley	Conrad	Bozeman	Average
PI596299	16.7	12.7	12.0	14.0	13.9
Purple Prairie	17.5	13.9	15.1	15.6	15.5
PPB-TS2	16.9	13.2	15.1	14.3	14.9
09WA-265.12	13.8	9.2	9.8	11.4	11.1
X05013-T1	15.0	11.0	11.5	13.7	12.8
X0626-T229	14.9	12.0	12.3	12.7	13.0
X07G30-T131	14.9	10.4	11.4	13.3	12.5
MT110008	14.8	10.3	11.1	12.1	12.1
MT110009	15.9	10.2	11.8	12.6	12.6
MT110016	15.2	10.2	11.8	11.9	12.3
MT110061	15.6	12.1	13.0	12.8	13.4
MT110065	15.4	11.0	11.3	12.4	12.5
MT110066	15.4	11.7	12.8	12.8	13.2
MT110097	15.4	13.2	13.5	13.4	13.9
MT110139	13.1	9.3	10.4	10.8	10.9
MT110141	15.8	13.0	14.9	13.9	14.4
GRAND MEAN	15.4	11.5	12.4	13.0	13.0
CV	2.99	3.93	5.65	5.22	
LSD	1.03	1.01	1.58	1.57	

	Test Weight (lb/bu)				
	Sidney	Huntley	Conrad	Bozeman	Average
PI596299	47.4	48.7	48.7	53.7	49.6
Purple Prairie	60.9	60.5	62.5	64.6	62.1
PPB-TS2	61.4	63.0	62.1	65.1	62.9
09WA-265.12	59.4	61.6	60.5	63.9	61.3
X05013-T1	57.1	60.3	60.9	63.2	60.4
X0626-T229	56.0	57.9	56.1	60.5	57.6
X07G30-T131	57.2	59.8	60.5	63.3	60.2
MT110008	55.4	59.7	58.0	61.8	58.7
MT110009	52.8	59.6	58.7	62.6	58.4
MT110016	55.9	60.5	59.5	63.6	59.9
MT110061	56.0	59.1	58.4	62.3	58.9
MT110065	55.6	59.3	57.5	62.2	58.6
MT110066	56.9	59.3	57.3	62.3	59.0
MT110097	56.3	56.1	53.9	58.5	56.2
MT110139	60.2	62.3	57.5	63.9	61.0
MT110141	59.1	60.0	57.8	62.9	59.9
GRAND MEAN	56.7	59.2	58.1	62.1	59.0
CV	2.13	1.02	1.08	0.75	
LSD	2.8	1.4	1.41	1.07	

	Height (cm)				
	Sidney	Huntley	Conrad	Bozeman	Average
PI596299	82.0	84.3	65.2	76.4	77.0
Purple Prairie	84.2	73.9	79.6	72.3	77.5
PPB-TS2	74.6	89.6	81.3	79.1	81.2
09WA-265.12	91.6	97.7	86.4	82.3	89.5
X05013-T1	86.2	92.7	79.6	77.6	84.0
X0626-T229	84.0	89.1	71.1	83.6	82.0
X07G30-T131	87.9	93.8	77.9	78.8	84.6
MT110008	85.5	91.6	80.4	70.5	82.0
MT110009	89.2	102.1	88.9	77.5	89.4
MT110016	83.4	92.9	79.6	80.4	84.1
MT110061	84.3	92.9	83.0	83.4	85.9
MT110065	85.7	97.9	82.1	80.4	86.5
MT110066	85.6	91.4	77.9	76.0	82.7
MT110097	81.9	94.2	80.4	81.7	84.6
MT110139	82.4	108.8	83.8	70.4	86.4
MT110141	86.4	99.1	83.8	78.2	86.9
GRAND MEAN	84.7	93.3	80.1	78.0	84.0
CV	4.15	2.98	5.18	8.83	
LSD	8.13	6.43	9.3	15.93	

Irrigated Hulless 2016 Statewide Means

	Heading (julian)			
	Sidney	Huntley	Bozeman	Average
PI596299	170	153	173	165
Purple Prairie	161	150	170	160
PPB-TS2	169	154	174	166
09WA-265.12	172	158	180	170
X05013-T1	171	157	180	169
X0626-T229	170	156	177	168
X07G30-T131	173	160	180	171
MT110008	172	157	179	169
MT110009	176	161	182	173
MT110016	172	157	179	169
MT110061	172	157	179	169
MT110065	176	161	181	173
MT110066	172	157	179	169
MT110097	169	152	172	164
MT110139	169	155	177	167
MT110141	170	157	177	168
GRAND MEAN	171	156	178	168
CV	0.27	0.6	0.72	
LSD	1.06	2.16	2.87	

	Maturity	Lodging (%)
	Bozeman	Conrad
PI596299	206	77
Purple Prairie	205	40
PPB-TS2	206	95
09WA-265.12	213	43
X05013-T1	211	20
X0626-T229	211	57
X07G30-T131	212	47
MT110008	212	40
MT110009	212	47
MT110016	212	77
MT110061	205	43
MT110065	208	30
MT110066	205	57
MT110097	207	50
MT110139	211	90
MT110141	205	87
GRAND MEAN	209	56.2
CV	0.57	32.18
LSD	2.65	40.57

Hulless Dryland Statewide 2016

	Yield (59lb bu/ac)						
	Sidney	Moccasin	Huntley	Havre	Conrad	Bozeman	Average
PI596299	65.0	48.8	26.0	77.2	64.5	59.9	56.9
Purple Prairie	38.7	18.8	15.9	24.9	24.3	29.7	25.4
PPB-TS2	29.5	24.1	10.1	33.8	41.2	31.1	28.3
09WA-265.12	61.5	56.4	20.3	76.4	70.1	72.5	59.5
X05013-T1	61.0	46.9	22.2	60.8	60.5	61.0	52.1
X0626-T229	64.5	52.7	17.4	61.0	70.2	64.4	55.0
X07G30-T131	61.0	42.6	25.7	58.9	61.7	61.6	51.9
MT110008	49.7	43.2	19.6	48.6	59.5	54.1	45.8
MT110009	56.0	44.4	8.4	42.0	57.3	60.0	44.7
MT110016	60.8	47.3	19.2	41.7	58.5	57.8	47.6
MT110061	57.3	45.1	17.7	53.0	72.2	49.4	49.1
MT110065	60.5	43.9	16.9	53.4	69.3	61.5	50.9
MT110066	55.9	49.2	20.5	57.0	63.2	59.2	50.8
MT110097	58.0	37.1	17.7	50.3	52.7	54.3	45.0
MT110139	52.3	35.2	10.1	60.5	61.5	63.8	47.2
MT110141	45.1	37.8	18.0	47.0	47.3	47.4	40.4
GRAND MEAN	54.8	42.1	17.9	52.9	58.4	55.5	46.9
CV	10.58	11.08	21.1	6.55	16.35	9.5	
LSD	13.34	10.47	8.71	8.02	21.43	11.83	

	Test Weight (lb/bu)						
	Sidney	Moccasin	Huntley	Havre	Conrad	Bozeman	Average
PI596299	50.1	52.8	48.3	49.4	49.5	53.4	50.6
Purple Prairie	63.3	61.8	63.5	59.2	61.9	56.0	60.9
PPB-TS2	62.7	64.2	60.3	58.1	63.4	65.0	62.3
09WA-265.12	58.7	62.1	58.1	58.2	60.5	63.4	60.2
X05013-T1	60.4	61.1	59.5	56.3	61.1	63.0	60.2
X0626-T229	58.4	59.3	55.0	52.6	57.3	59.9	57.1
X07G30-T131	61.0	62.3	58.4	53.9	60.4	62.9	59.8
MT110008	59.3	61.0	58.3	54.0	57.9	61.1	58.6
MT110009	59.8	61.9	55.5	54.4	58.8	61.9	58.7
MT110016	61.5	62.4	59.9	54.9	61.2	62.9	60.4
MT110061	59.6	61.3	58.5	55.8	58.1	61.8	59.2
MT110065	60.9	62.4	58.0	54.4	60.4	61.9	59.7
MT110066	59.6	61.5	58.1	55.5	60.1	62.3	59.5
MT110097	56.4	58.4	55.4	52.8	55.0	58.3	56.0
MT110139	62.0	63.0	60.1	58.8	62.4	64.2	61.7
MT110141	60.4	61.4	59.6	55.4	59.1	62.5	59.7
GRAND MEAN	59.6	61.1	57.9	55.2	59.2	61.3	59.0
CV	2.9	0.9	2.35	1.79	1.7	3.51	
LSD	4.26		3.14	2.29	2.32	4.82	

Hulless Dryland Statewide 2016

							Protein (%)
	Sidney	Moccasin	Huntley	Havre	Conrad	Bozeman	Average
PI596299	15.2	14.5	20.1	15.8	12.1	14.4	15.4
Purple Prairie	17.0	18.3	16.0	17.8	0.0	17.6	14.5
PPB-TS2	15.1	15.6	18.2	17.4	12.8	16.1	15.9
09WA-265.12	13.2	13.6	18.2	13.9	9.3	13.4	13.6
X05013-T1	14.2	15.9	18.5	16.6	10.3	13.7	14.9
X0626-T229	13.7	15.9	19.2	16.6	11.7	15.0	15.4
X07G30-T131	15.1	16.6	18.2	16.7	10.4	14.8	15.3
MT110008	14.0	14.3	18.9	15.9	10.5	14.4	14.7
MT110009	14.1	15.9	20.3	17.5	10.1	14.8	15.5
MT110016	13.7	14.9	18.3	16.8	11.8	14.4	15.0
MT110061	13.3	14.8	18.7	16.3	11.0	14.2	14.7
MT110065	13.6	14.0	18.4	16.0	10.8	14.4	14.5
MT110066	13.5	14.3	18.0	16.1	12.2	14.7	14.8
MT110097	14.2	16.0	19.0	16.1	13.4	14.9	15.6
MT110139	12.5	13.9	16.7	12.7	10.6	12.2	13.1
MT110141	14.5	15.8	17.7	17.9	13.6	16.3	16.0
GRAND MEAN	14.2	15.3	18.4	16.3	11.4	14.7	15.0
CV	4.9	7.71	3.55	2.62	4.65	5.45	
LSD	1.71		1.51	0.98		1.8	

							Height (cm)
	Sidney	Moccasin	Huntley	Havre	Conrad	Bozeman	Average
PI596299	61.8	63.0	69.8	26.4	61.8	54.6	56.2
Purple Prairie	62.4	56.7	72.2	26.5	59.3	55.2	55.4
PPB-TS2	66.2	70.7	75.0	26.5	60.1	63.1	60.3
09WA-265.12	71.7	62.8	69.1	28.6	67.7	63.3	60.5
X05013-T1	73.3	65.7	70.6	28.0	58.4	60.1	59.4
X0626-T229	65.2	62.8	69.5	27.6	60.9	59.7	57.6
X07G30-T131	74.0	64.7	77.6	27.3	68.6	62.2	62.4
MT110008	73.5	63.2	84.1	27.8	69.4	67.3	64.2
MT110009	70.2	68.2	74.9	29.1	67.7	68.2	63.1
MT110016	71.6	65.8	80.7	30.3	60.9	62.7	62.0
MT110061	64.2	60.3	70.4	27.0	66.1	59.5	57.9
MT110065	70.2	63.5	74.3	28.7	66.0	65.6	61.4
MT110066	65.8	61.2	75.7	27.3	62.7	58.4	58.5
MT110097	68.8	66.7	77.0	24.5	66.0	59.1	60.4
MT110139	77.2	66.7	82.0	30.6	66.0	69.0	65.3
MT110141	66.4	64.2	80.6	28.4	64.3	66.0	61.7
GRAND MEAN	68.9	64.1	75.2	27.8	64.1	62.1	60.4
CV	6.21	7.48	3.95	3.34	8.22	7.69	
LSD	10.53	10.76	6.67	2.08	11.83	10.73	

Hulless Dryland Statewide 2016

	Heading (julian)						
	Sidney	Moccasin	Huntley	Havre	Conrad	Bozeman	Average
PI596299	167	172	157	177	178	175	171
Purple Prairie	165	167	150	179	164	168	166
PPB-TS2	165	174	156	179	170	172	169
09WA-265.12	167	175	174	182	175	180	175
X05013-T1	167	175	169	184	170	179	174
X0626-T229	165	174	163	180	173	176	172
X07G30-T131	167	176	172	183	171	180	175
MT110008	168	176	159	181	173	177	172
MT110009	171	177	167	185	174	182	176
MT110016	168	177	166	181	172	177	173
MT110061	167	176	169	183	172	179	174
MT110065	169	176	176	185	177	181	177
MT110066	167	176	167	182	176	178	174
MT110097	166	167	156	177	171	171	168
MT110139	166	174	167	179	166	177	171
MT110141	166	176	164	180	169	176	172
GRAND MEAN	167	174	164	181	172	177	173
CV	0.51	0.38	2.18	0.44	3.09	0.6	
LSD	1.96	1.49	8.05	1.83	12.75	2.46	

	Maturity (julian)			Lodging (%)
	Moccasin	Bozeman	Average	
PI596299	207	202	204	10
Purple Prairie	208	201	205	0
PPB-TS2	207	201	204	65
09WA-265.12	209	209	209	0
X05013-T1	208	210	209	0
X0626-T229	208	207	208	10
X07G30-T131	210	209	210	0
MT110008	210	209	209	10
MT110009	210	209	209	0
MT110016	210	207	209	10
MT110061	206	204	205	10
MT110065	208	208	208	0
MT110066	208	204	206	0
MT110097	207	202	205	0
MT110139	208	207	208	0
MT110141	208	203	206	85
GRAND MEAN	208	206	207	12.5
CV	0.33	0.55		115.79
LSD	1.53	2.63		27.29

Pedigrees

Name	Pedigree	Alias	Name	Pedigree	Alias
Balster			MT090202	MT910189//Lk644/Eslick///MT910189///MT910189	09MT-78
Champion	Baronesse/Camas		MT090234	MT910189//Lk644/Eslick///MT910189///MT910189	09MT-92
Conlon		ND13299	MT090236	MT910189//Lk644/Eslick///MT910189///MT910189	09MT-94
Conrad	B1215//B1202/TR488	2B965057	MT100120	LK644/Eslick//Hockett///Hockett	
Copeland			MT100126	LK644/Eslick//Hockett///Hockett	
Craft	Klages / Baronesse	MT970116	MT103038-4	Hays/WCC100	
Eslick		MT960228	MT103038-6	Hays/WCC100	
Genesis			MT103089-3	Hays/WCC129	
Genie			MT103097-1	Hays/WCC129	
Geraldine		MT960101	MT103101-5	Hays/WCC129	
Growler			MT110008	Craft/Prowashonupana	
Harrington	Klages//Gazelle/Betzes///Centennial///Klages	SK76333	MT110009	Craft/Prowashonupana	
Haxby	Gallatin/Bellona//Clark/Lamont	MT950186	MT110016	Craft/Prowashonupana	
Haybet	Betzes/Strip Tease		MT110061	Haxby/Prowashonupana	
Hays			MT110065	Haxby/Prowashonupana	
Hockett	ND7293/Bearpaw	MT910189	MT110066	Haxby/Prowashonupana	
Lavina	Baronesse/Haybet		MT110097		
Merit 57	Manley//S974234/Summit		MT110139		
Metcalfe	Oxbow/Manley	TR232	MT110141		
Moravian115			MT124001	MT010158/MT070175	
Odyssey			MT124007	MT010158/MT070175	
Overature			MT124008	MT010158/MT070175	
PI596299	Prowashonupana		MT124015	MT010158/MT070175	
Pinnacle		PI643354	MT124016	MT010158/MT070175	
PPB-Ts2			MT124018	MT010158/MT070175	
Purple Prairie			MT124025	MT010158/MT070175	
Rawson			MT124026	MT010158/MT070175	
Scarlett			MT124027	MT010158/MT070175	
Sirish			MT124069	MT010158/MT070175	
Stellar			MT124071	MT010158/MT070175	
Stepford			MT124073	MT010158/MT070175	
Stockford	Baronesse/Canadian6row//Westford		MT124093		
Synergy			MT124112	Hockett/MT070174	
Tradition		6B952482	MT124113	Hockett/MT070174	
Vespa			MT124118	Hockett/MT070174	
Westminster			MT124127	Hockett/MT070174	
MT050051		06MT-26	MT124128	Hockett/MT070174	
MT050059		06MT-29	MT124134	Hockett/MT070174	
MT050169		06MT-57	MT124148	Craft/MT070174	
MT070043		07MT-21	MT124163		
MT070144			MT124164		
MT080087	Coors37/Metcalfe	08MT-15	MT124243		
MT080112	Haxby/MT020020	08MT-19	MT124361	MT020204/MT070175	
MT080192			MT124370	MT020204/MT070175	
MT080243	MT960101/MT981210	08MT-63	MT124380	MT020204/MT070175	
MT080256	MT970026/Eslick	08MT-68	MT124411		
MT080351	MT010105/MT970229	08MT93	MT124454	MT010158/MT070176	
MT080370	Haxby/MT970229	08MT-95	MT124457	MT010158/MT070176	
MT080087		08MT-15	MT124555	MT040073/MT040075	
MT080112		08MT-19	MT124582		
MT080192			MT124601	MT020204/MT070175	
MT080243		08MT-63	MT124645	MT010158/MT070176	
MT080256		08MT-68	MT124659		
MT080351		08MT-93	MT124663	Hockett/MT070174	
MT080370		08MT-95	MT124664		
MT090025	LK6-44/Conlon75-26	09MT-08	MT124673	Hockett/MT070174	
MT090169			MT124677	Hockett/MT070174	
MT090182	MT910189/MT910189/Lk644/Eslick BC3F3		MT124688		
MT090184			MT124716	MT010158/MT070175	
MT090190	MT910189//Lk644/Eslick///MT910189///MT910189		MT124728	MT010158/MT070175	
MT090193	MT910189//Lk644/Eslick///MT910189///MT910189				