PROJECT TITLE: Statewide Spring Wheat Variety Performance - 2002

PROJECT LEADER:

L. Talbert, Spring Wheat breeder/Geneticist, Bozeman

PROJECT PERSONNEL:

S.P. Lanning, Research Associate, Bozeman
G.R. Carlson, NARC, Havre
J.L.A. Eckhoff, EARC, Sidney
D.M. Wichman, CARC, Moccasin
G.D. Kushnak, WTARC, Conrad
K.D. Kephart, SARC. Huntley
R.N. Stougaard, NWARC Kalispell

OBJECTIVE: To evaluate new and existing varieties and experimental lines of spring wheat under various growing conditions and environments in Montana.

RESULTS: The 2002 Advanced Spring Wheat yield trial was grown at three irrigated and six rainfed sites across Montana. Irrigated sites were at Sidney , Huntley, and Bozeman. Kalispell is usually considered a high-rainfall site. Replicated multiple-row plots were established at all locations using standard research techniques. Summaries of yield, test weight, protein content, heading date, and plant height at maturity are shown in Tables 1,2, 3, 4, and 5, respectively.

SUMMARY: Highest yielding lines on a statewide basis were SX1501B, Plata, SX1502B, and MT9918. Highest yielding varieties at individual sites were MT9874 (Outlook) at **Havre**, Reeder at **Sidney dryland**, MT0118 at **Sidney irrigated**, MT0013 at **Huntley dryland**, GM40003 at **Huntley irrigated**, MT0154 at **Conrad**, MT9874 (Outlook) at **Kalispell**, SX1501B at **Bozeman dryland**, and SX1501B at **Bozeman irrigated**.

FUTURE PLANS: New and existing varieties and experimental lines will continue to be evaluated at Bozeman and the Research Centers in Montana, so that breeders can release improved varieties and producers can have information on varieties best adapted to conditions in their areas.

Table 1. 2002 yield (bu/ac) summary for the advanced spring wheat nursery grown across Montana.

	PEDIGREE	Havre dry	Sidney dry	Sidney irr	Huntley dry	Huntley irr	Conrad dry	Bozeman dry	Bozeman irr	Kalispell	Ave	Rank	BYX	RSQ
AGRIPRO1	NORPRO	34.2	45.6	53.6*	6.5	126.6*	46.4*	78.5*	93.4	106.3*	65.7*	5	1.15	0.99
AGRIPRO2	KNUDSON	33.0	45.7	59.7*	10.9	107.0	43.6	71.1	79.6	105.3*	61.8*	21	0.96	0.96
BZ992322	HANK	37.8	39.4	53.3	11.9	123.0*	42.0	78.6*	99.5	91.9	64.1*	7	1.07	0.97
BZ992588	Conan	33.7	39.5	47.3	11.0	109.5	40.8	68.9	84.1	91.6	58.5	41	0.96	0.99
BZ996434	WPB BZ996434	34.8	40.3	55.1*	13.1	119.2*	45.2*	71.7	86.5	94.2	62.2*	15	1.01	0.99
BZ996472	WPB BZ996472	36.6	39.0	48.5	12.3	110.0	40.1	79.6*	92.6	89.1	60.9	26	0.97	0.96
CI 10003	THATCHER	34.0	33.0	42.6	5.5	104.3	43.8	48.5	61.5	88.8	51.3	64	0.89	0.96
CI 13596	FORTUNA	28.5	35.5	37.4	11.4	107.4	42.8	50.5	72.1	85.7	52.4	63	0.91	0.98
CI 17430	NEWANA	39.1*	34.3	56.9*	7.8	108.4	44.6*	59.8	82.7	109.0*	60.3	30	1.01	0.96
GM40002	GENERAL MILLS 40002	27.7	39.3	54.1*	17.3*	110.2	43.0	65.2	90.1	96.7	60.4	28	0.97	0.97
GM40003	GENERAL MILLS GM40003	32.9	45.3	52.0	15.1	127.8	41.9	67.8	76.1	103.2*	62.5*	14	1.07	0.98
GM40004	GENERAL MILLS GM40004	33.7	48.1*	51.7	11.2	126.9*	43.4	64.2	87.9	102.3*	63.3*	11	1.09	0.99
GM40019	PLATA	40.3*	44.4	50.1	13.3	124.5*	39.0	76.6	102.5	105.7*	66.3*	2	1.13	0.98
MT 0008	MCNEAL/MT9408	35.6	37.0	48.6	10.5	118.1*	34.0	62.6	70.7	88.0	56.1	55	0.98	0.98
MT 0009	MCNEAL/MT9410	37.2	43.4	58.5*	13.8	118.4*	39.6	72.8	90.9	84.7	62.1*	18	0.97	0.97
MT 0012	MCNEAL/MT9410	32.8	42.7	44.4	14.1	108.0	37.3	71.8	95.4	100.5	60.8	27	1.01	0.96
MT 0013	MCNEAL/MT9410	32.9	43.1	57.3*	17.7	115.7	43.0	68.0	90.8	98.1	63.0*	12	0.99	0.99
MT 0063	REDWIN/LEW//MT9406	39.7*	41.9	47.3	12.3	105.7	39.7	65.9	83.1	102.3*	59.8	33	0.95	0.98
MT 0076	MT9406/MTHW9520	38.3	40.8	46.8	14.2	103.5	33.2	68.0	88.1	88.6	57.9	45	0.90	0.96
MT 0103	BZ992632/MCNEAL	40.7*	39.7	50.1	13.7	121.7*	44.3*	69.6	87.7	91.4	62.1*	19	1.00	0.99
MT 0108	ERNEST/MCNEAL	40.6*	38.8	47.3	8.0	104.5	39.3	53.0	69.2	84.6	53.9	60	0.86	0.99
MT 0112	ERNEST/MT9410	30.0	39.3	52.0	10.2	119.9*	41.3	60.3	79.9	93.2	58.5	42	1.03	0.99
MT 0113	ERNEST/MT9410	37.2	38.1	52.6	11.4	119.8*	41.9	60.7	76.4	90.1	58.7	39	0.98	0.99
MT 0117	ERNEST/MT9410	36.7	37.2	59.5*	7.8	118.9*	39.4	61.4	86.5	87.9	59.5	36	1.02	0.98
MT 0118	ERNEST/MT9410	35.6	38.9	61.8	9.5	120.7	49.2*	57.5	72.7	94.7	60.1	32	0.98	0.96
MT 0121	ERNEST/MT9619	32.7	38.7	44.0	11.4	111.7	40.1	48.9	54.3	94.6	52.9	61	0.91	0.92
MT 0124	ERNEST/MT9668	32.8	32.6	53.8*	7.7	114.0	43.9	62.9	81.4	90.4	57.7	49	1.00	0.99
MT 0125	ERNEST/MT9668	34.5	38.6	49.8	7.1	116.5*	41.2	59.0	81.3	84.1	56.9	52	0.98	0.99
MT 0127	MCNEAL/MT9410	36.7	37.1	51.8	10.7	116.5*	34.2	71.9	99.5	74.1	59.2	37	0.98	0.90
MT 0134	MT9410/ERNEST	39.0*	38.9	47.7	7.2	125.4*	47.8*	61.1	72.2	89.3	58.7	40	1.01	0.97
MT 0135	MT9410/ERNEST	36.3	36.3	48.9	8.3	116.0	43.4	60.5	60.3	94.1	56.0	56	0.96	0.96
MT 0140	MT9410/MT9619	36.2	28.5	48.3	6.2	107.7	39.5	57.7	66.6	85.2	52.9	62	0.92	0.98
MT 0141	MT9410/MT9619	37.8	34.2	51.3	7.0	110.6	38.0	58.9	82.6	85.7	56.2	53	0.96	0.99
MT 0147	MT9565/ERNEST	38.0	40.8	54.3*	11.5	111.5	41.2	72.4	84.5	95.3	61.1	24	0.97	0.99
MT 0148	MT9565/MCNEAL	34.6	37.6	49.4	11.1	113.4	45.8*	64.6	82.0	105.4*	60.4	29	1.02	0.98
MT 0149	MT9565/MCNEAL	37.1	38.4	53.5*	6.6	111.7	45.3*	61.1	78.9	93.7	58.5	43	0.97	0.99
MT 0154	MT9565/MONROE	37.6	41.4	52.2	6.3	108.9	49.5	61.4	82.9	83.7	58.2	44	0.91	0.98
MT 0158	MT9619/ERNEST	32.5	39.3	51.2	7.4	119.6*	48.8*	65.1	76.3	101.9*	60.2	31	1.05	0.99
MT 9806	MINNPRO/AMIDON	37.2	42.9	51.4	10.8	113.3	47.1*	72.3	83.2	101.7*	62.2*	16	0.99	0.99
MT 9874	RGABC199/MT9312	44.5	44.3	49.7	9.8	119.0*	43.0	72.8	73.6	114.1	63.4*	10	1.05	0.96

(continued)

Table 1 (continued). 2002 yield (bu/ac) summary for the advanced spring wheat nursery grown across Montana.

	PEDIGREE	Havre dry	Sidney dry	Sidney irr	Huntley dry	Huntley irr	Conrad dry	Bozeman dry	Bozeman irr	Kalispell	Ave	Rank	BYX	RSQ
MT 9905	MT9311/MT9328	36.3	34.3	54.3*	4.9	116.0	45.1*	64.6	81.2	92.6	58.8	38	1.02	0.99
MT 9918	MT9328/MT9419	40.6*	41.0	56.0*	10.0	124.8*	44.0	72.7	93.2	112.3*	66.0*	4	1.14	0.99
MT 9923	MT9401/MT9311	34.5	39.1	49.9	6.3	111.0	39.9	71.3	77.0	72.9	55.8	58	0.91	0.96
MT 9929	MT9401/MT9328	34.9	42.8	60.6*	9.8	119.0*	45.2*	73.6	93.8	98.7	64.3*	6	1.05	0.98
MT 9931	MT9401/MT9328	35.1	39.3	53.9*	12.1	117.9*	40.3	75.4	86.6	88.4	61.0	25	1.00	0.98
MT 9955	MCNEAL/KS27//MCNEAL	37.5	46.5	52.4	9.5	116.0	42.2	73.8	94.3	99.7	63.5*	9	1.04	0.98
MTHW0001	MTHW9520/MTHW9427	34.1	38.2	46.3	8.9	110.3	41.6	67.3	79.8	94.5	57.9	46	0.98	1.00
MTHW0002	MTHW9520/MTHW9427	31.9	38.3	55.5*	13.2	119.5*	42.3	65.7	88.4	105.2*	62.2*	17	1.07	0.99
MTHW0167	MTHW9420/SRHW4	29.7	34.9	41.2	11.7	120.8*	32.4	71.0	71.1	89.9	55.9	57	1.04	0.97
MTHW0168	MTHW9520/ID493	41.1*	47.8*	52.9	7.6	125.9*	44.0	59.3	78.3	100.4	61.9*	20	1.05	0.98
MTHW9901	MT9311/MTHW9417	31.9	39.6	51.7	9.2	111.0	43.5	63.8	71.5	98.1	57.8	47	0.97	0.99
MTHW9905	MTHW9417/MTHW9430	32.9	36.3	47.7	10.3	117.9*	45.0*	65.9	86.1	94.0	59.6	35	1.03	0.99
ND 695	Reeder	34.9	52.5	52.0	13.8	125.5*	49.1*	63.3	73.4	109.5*	63.8*	8	1.04	0.96
PI527682	AMIDON	41.4*	40.6	48.0	9.1	117.9*	44.0	56.6	74.7	87.3	57.7	50	0.95	0.98
PI549275	HI-LINE	38.0	40.1	51.9	11.4	110.8	43.7	66.4	80.1	95.1	59.7	34	0.95	1.00
PI574642	MCNEAL	36.3	43.4	56.7*	9.3	118.5*	41.5	69.6	88.1	102.0*	62.8*	13	1.06	1.00
PI592761	ERNEST	36.4	40.8	49.9	7.6	117.0*	45.7*	56.9	69.8	95.8	57.8	48	0.98	0.98
PI607557	SCHOLAR	36.4	41.6	50.9	10.3	111.7	43.0	55.8	65.7	99.9	57.2	51	0.94	0.96
PI612605	MTHW9420	28.3	41.4	46.8	11.0	115.6	41.2	54.9	63.2	103.7*	56.2	54	1.00	0.95
PI619086	EXPLORER	37.6	43.7	47.3	12.5	105.5	39.1	60.4	64.7	89.7	55.6	59	0.85	0.98
SAXON	SAXON	32.5	39.5	51.0	10.7	121.3*	40.8	69.9	88.1	100.9	61.6*	22	1.09	1.00
SX1501B	SEEDEX SX1501B	41.9*	39.6	56.0*	4.4	118.6*	47.1*	83.9	119.6	90.2	66.8	1	1.11	0.89
SX1502B	SEEDEX SX1502B	38.8*	39.2	57.8*	5.3	121.3*	43.7	80.3*	111.8*	98.3	66.3*	3	1.15	0.95
WB 926	WESTBRED 926	29.9	43.9	51.6	14.0	122.2*	40.9	66.1	82.1	100.6	61.2	23	1.05	0.99
********	SITE MEAN ********	35.7	40.1	51.4	10.2	115.8	42.4	65.8	81.9	95.1	59.8		1.00	1.00
	C.V. (S/MEAN %)	9.89	7.41	9.69	13.54	5.99	7.15	4.97	6.42	7.66	9.71			
	LSD (.05)	5.97	4.80	8.37	2.24	11.62	5.16	5.55	8.84	12.45	5.38			

Means followed by an asterisk are not significantly different at the .05 level when compared to the highest yielding wheat which is underlined)

Table 2. 2002 test weight (lb/bu) summary for the advanced spring wheat nursery grown across Montana.

	PEDIGREE	Havre dry	Sidney dry	Sidney irr	Huntley dry	Huntley irr	Conrad dry	Bozeman dry	Bozeman irr	Kalispell	Ave	Rank	BYX	RSQ
AGRIPRO1	NORPRO	61.5	56.0	60.3	47.9	62.4	61.9	59.1	62.2	62.0	59.2	40	1.14	0.98
AGRIPRO2	KNUDSON	60.9	57.2	60.5	51.7	62.4	61.0	60.2	62.5	61.4	59.7	24	0.82	0.98
BZ992322	HANK	59.6	54.5	59.4	48.2	61.5	62.0	57.3	61.7	57.0	57.9	61	1.02	0.90
BZ992588	Conan	60.9	58.3	61.5	49.9	62.5	61.9	59.5	62.8	61.4	59.9	20	0.97	0.99
BZ996434	WPB BZ996434	61.1	55.5	60.4	50.9	62.8	62.7	60.3	61.8	61.5	59.7	25	0.93	0.94
BZ996472	WPB BZ996472	61.3	59.0	61.0	52.6	64.1	63.4	62.6	64.2	62.4	61.2*	5	0.87	0.97
CI 10003	THATCHER	58.3	55.4	59.5	47.4	60.9	60.5	59.4	60.5	60.2	58.0	58	1.04	0.98
CI 13596	FORTUNA	59.2	58.3	59.6	50.4	63.1	61.4	61.3	62.2	61.0	59.6	26	0.90	0.96
CI 17430	NEWANA	62.0	56.0	60.3	50.0	62.3	62.4	59.0	61.7	61.1	59.4	31	0.96	0.95
GM40002	GENERAL MILLS 40002	58.9	54.7	59.0	50.2	62.4	61.0	58.7	62.4	60.0	58.6	50	0.92	0.93
GM40003	GENERAL MILLS GM40003	61.0	57.7	59.7	52.7	64.0	62.9	60.2	61.8	60.9	60.1	14	0.78	0.93
GM40004	GENERAL MILLS GM40004	60.1	57.2	59.5	49.4	62.3	61.2	58.7	62.2	61.2	59.1	44	0.97	0.99
GM40019	PLATA	60.4	58.3	60.3	46.0	62.7	62.0	59.5	63.0	60.8	59.2	41	1.25	0.99
MT 0008	MCNEAL/MT9408	60.6	58.8	59.6	49.0	62.6	61.2	60.5	61.7	59.8	59.3	36	0.96	0.97
MT 0009	MCNEAL/MT9410	61.0	58.8	61.6	52.3	63.3	62.4	61.3	62.8	61.1	60.5	10	0.81	1.00
MT 0012	MCNEAL/MT9410	59.9	58.3	60.1	49.7	61.6	60.5	60.0	62.4	60.4	59.2	42	0.90	0.98
MT 0013	MCNEAL/MT9410	59.4	54.2	58.9	48.7	61.5	60.3	58.4	61.0	60.1	58.0	59	0.98	0.97
MT 0063	REDWIN/LEW//MT9406	58.7	56.3	59.9	48.5	62.2	61.0	58.5	61.4	60.4	58.5	51	1.01	0.99
MT 0076	MT9406/MTHW9520	60.1	57.0	58.9	50.1	62.6	62.2	60.3	62.0	62.2	59.5	27	0.95	0.96
MT 0103	BZ992632/MCNEAL	60.4	57.7	60.1	50.2	62.8	61.8	60.1	61.9	60.1	59.4	32	0.91	0.99
MT 0108	ERNEST/MCNEAL	59.5	57.5	59.6	48.8	62.1	60.2	59.7	61.4	59.4	58.7	48	0.95	0.99
MT 0112	ERNEST/MT9410	60.5	56.8	60.2	50.2	61.9	61.2	59.6	61.8	61.1	59.3	37	0.90	0.99
MT 0113	ERNEST/MT9410	61.0	58.8	60.6	50.6	62.4	61.7	60.0	62.0	61.7	59.9	21	0.88	0.99
MT 0117	ERNEST/MT9410	60.2	58.3	61.4	50.9	62.7	61.4	61.3	63.1	61.8	60.1	15	0.89	0.97
MT 0118	ERNEST/MT9410	58.7	55.7	59.7	49.2	61.5	60.9	58.8	61.4	60.7	58.5	52	0.95	0.98
MT 0121	ERNEST/MT9619	62.4	60.8	61.4	53.6	63.7	62.5	62.6	63.0	62.8	61.4*	3	0.73	0.97
MT 0124	ERNEST/MT9668	60.1	58.5	59.6	48.7	62.5	61.6	60.9	61.7	61.1	59.4	33	1.01	0.98
MT 0125	ERNEST/MT9668	60.3	57.3	60.5	47.2	62.5	60.9	59.8	61.8	61.8	59.1	45	1.14	0.99
MT 0127	MCNEAL/MT9410	61.1	56.8	61.1	49.7	63.3	61.7	59.6	62.7	59.0	59.4	34	0.99	0.96
MT 0134	MT9410/ERNEST	59.9	57.7	60.0	49.6	62.1	60.4	60.6	62.3	61.0	59.3	38	0.94	0.99
MT 0135	MT9410/ERNEST	61.4	58.5	60.3	49.6	62.3	61.7	60.9	62.0	61.9	59.9	22	0.97	0.99
MT 0140	MT9410/MT9619	62.0	59.6	63.1	44.5	64.5	64.3	63.1	63.8	63.8	61.0*	6	1.52	0.97
MT 0141	MT9410/MT9619	61.2	59.0	62.0	48.6	63.0	61.9	59.9	62.1	60.8	59.8	23	1.05	0.97
MT 0147	MT9565/ERNEST	62.4	61.1	62.6	53.1	63.7	62.9	62.7	63.3	63.1	61.7*	1	0.79	0.97
MT 0148	MT9565/MCNEAL	62.7	60.2	62.6	51.7	64.6	63.8	62.8	64.0	62.9	61.7	2	0.96	0.99
MT 0149	MT9565/MCNEAL	62.2	60.0	61.8	48.5	64.7	63.6	62.3	64.1	62.0	61.0*	7	1.18	0.98
MT 0154	MT9565/MONROE	61.5	59.3	62.2	50.0	63.2	62.0	60.3	63.5	61.7	60.4	11	0.99	0.98
MT 0158	MT9619/ERNEST	61.1	59.7	60.2	49.3	62.5	62.2	60.9	62.5	61.7	60.0	17	0.99	0.97
MT 9806	MINNPRO/AMIDON	60.7	56.8	60.8	46.9	63.2	61.9	60.9	62.9	61.6	59.5	28	1.23	0.99
MT 9874	RGABC199/MT9312	59.7	57.2	59.4	47.1	62.3	60.5	58.9	60.9	60.0	58.4	54	1.08	0.99

(continued)

Table 2 (continued). 2002 test weight (lb/bu) summary for the advanced spring wheat nursery grown across Montana.

	PEDIGREE	Havre dry	Sidney dry	Sidney irr	Huntley dry	Huntley irr	Conrad dry	Bozeman dry	Bozeman irr	Kalispell	Ave	Rank	BYX	RSQ
MT 9905	MT9311/MT9328	61.9	60.8	62.2	51.6	64.4	62.9	62.4	63.7	62.7	61.4*	4	0.91	0.97
MT 9918	MT9328/MT9419	59.0	56.0	59.4	48.0	61.8	60.4	59.5	62.1	60.5	58.5	53	1.05	0.99
MT 9923	MT9401/MT9311	61.9	61.7	62.2	47.5	64.0	62.3	63.0	63.1	61.9	60.8	8	1.17	0.91
MT 9929	MT9401/MT9328	60.0	57.0	61.0	49.6	62.7	60.8	59.8	62.3	61.4	59.4	35	0.98	0.99
MT 9931	MT9401/MT9328	61.6	59.0	61.7	51.3	63.8	61.5	61.4	63.8	62.5	60.7	9	0.92	0.98
MT 9955	MCNEAL/KS27//MCNEAL	60.3	56.8	60.1	47.3	62.7	62.4	60.4	62.8	61.0	59.3	39	1.18	1.00
MTHW0001	MTHW9520/MTHW9427	61.5	58.2	60.7	51.3	63.7	62.7	60.4	61.9	61.3	60.2	13	0.89	0.99
MTHW0002	MTHW9520/MTHW9427	59.8	54.8	58.9	47.6	61.4	60.5	56.9	61.6	59.7	57.9	62	1.06	0.97
MTHW0167	MTHW9420/SRHW4	61.2	56.8	58.9	49.4	63.4	62.5	60.2	62.6	60.0	59.5	29	1.02	0.96
MTHW0168	MTHW9520/ID493	62.6	58.7	61.6	48.8	62.6	61.8	60.0	61.4	62.2	60.0	18	1.04	0.96
MTHW9901	MT9311/MTHW9417	61.1	58.7	60.9	52.2	63.5	61.6	61.7	62.0	61.9	60.4	12	0.80	0.97
MTHW9905	MTHW9417/MTHW9430	60.3	56.5	59.3	49.3	62.6	61.7	59.5	62.5	60.2	59.1	46	0.99	0.98
ND 695	Reeder	60.6	58.3	61.1	50.7	63.2	61.7	60.3	62.3	61.8	60.0	19	0.91	0.99
PI527682	AMIDON	59.9	54.9	59.6	48.7	62.3	60.7	60.4	61.4	60.3	58.7	49	1.02	0.96
PI549275	HI-LINE	60.9	55.2	61.0	46.6	62.1	62.6	57.4	62.7	61.3	58.9	47	1.24	0.95
PI574642	MCNEAL	60.2	58.2	60.3	48.0	62.8	61.9	59.6	62.1	59.9	59.2	43	1.07	0.98
PI592761	ERNEST	60.1	58.0	59.8	48.9	62.3	61.3	60.2	62.4	62.3	59.5	30	1.02	0.98
PI607557	SCHOLAR	61.2	57.7	61.8	51.6	62.9	62.0	60.4	61.8	61.6	60.1	16	0.85	0.98
PI612605	MTHW9420	60.4	55.8	59.0	47.4	61.2	61.4	56.9	61.1	60.5	58.2	57	1.08	0.97
PI619086	EXPLORER	60.2	56.8	58.7	48.0	62.1	61.2	58.3	60.9	59.7	58.4	55	1.02	0.98
SAXON	SAXON	59.1	54.5	58.8	45.6	61.6	61.4	59.3	61.7	59.8	58.0	60	1.24	0.99
SX1501B	SEEDEX SX1501B	60.6	55.2	59.4	45.6	60.4	60.9	57.0	61.6	57.7	57.6	63	1.17	0.95
SX1502B	SEEDEX SX1502B	58.2	54.7	58.6	45.6	60.7	60.0	58.2	61.3	59.5	57.4	64	1.17	0.99
WB 926	WESTBRED 926	60.2	55.3	59.9	48.7	61.5	61.8	56.4	61.3	59.1	58.3	56	0.99	0.93
********	SITE MEAN ********	60.6	57.5	60.4	49.3	62.6	61.7	60.0	62.2	61.0	59.5		1.00	1.00
	C.V. (S/MEAN %)	0.56	1.68	0.95	2.75	0.59	1 rep	1 rep	1 rep	1 rep	1.50			
	LSD (.05)	0.58	1.56	0.96	2.19	0.60					0.83			

Means followed by an asterisk are not significantly different at the .05 level when compared to the highest yielding wheat which is underlined)

Table 3. 2002 protein content (percent) summary for the advanced spring wheat nursery grown across Montana.

	PEDIGREE	Havre dry	Sidney dry	Sidney irr	Huntley dry	Huntley irr	Conrad dry	Bozeman dry	Bozeman irr	Kalispell	Ave	Rank	BYX	RSQ
AGRIPRO1	NORPRO	15.8	15.3	10.4	19.9	12.7	13.4	14.3	14.1	14.9	14.5	50	1.00	0.97
AGRIPRO2	KNUDSON	16.6	15.4	10.4	19.8	12.9	13.6	14.7	13.9	14.5	14.6	45	1.01	0.98
BZ992322	HANK	16.1	16.0	11.6	21.7	13.8	13.3	16.1	14.5	14.4	15.3	15	1.09	0.96
BZ992588	Conan	16.6	16.4	11.4	19.5	14.2	14.4	15.5	14.7	15.1	15.3	16	0.85	0.98
BZ996434	WPB BZ996434	16.4	15.8	11.2	21.2	13.7	13.8	15.1	14.8	14.7	15.2	20	1.06	0.99
BZ996472	WPB BZ996472	15.6	14.6	9.7	18.6	12.6	13.4	12.7	13.9	14.2	13.9	62	0.91	0.92
CI 10003	THATCHER	16.2	17.4	11.3	19.4	15.2	11.9	16.7	15.3	15.0	15.4	9	0.90	0.80
CI 13596	FORTUNA	16.5	15.4	11.6	19.7	14.1	13.8	15.6	15.2	14.5	15.2	21	0.86	0.98
CI 17430	NEWANA	15.2	15.1	10.6	20.0	12.7	13.8	14.4	13.1	13.1	14.2	58	0.99	0.95
GM40002	GENERAL MILLS 40002	16.4	15.4	10.8	20.6	12.6	13.4	14.7	13.9	14.5	14.7	37	1.07	0.98
GM40003	GENERAL MILLS GM40003	15.2	14.1	10.3	19.1	12.5	12.9	13.1	13.1	13.7	13.8	63	0.92	0.95
GM40004	GENERAL MILLS GM40004	15.7	14.5	10.7	20.2	12.8	12.5	13.2	13.4	13.1	14.0	61	1.02	0.93
GM40019	PLATA	16.3	15.2	10.6	21.0	11.6	13.9	13.6	13.3	12.7	14.2	59	1.15	0.91
MT 0008	MCNEAL/MT9408	16.6	16.5	11.2	22.7	14.4	14.3	16.5	16.5	15.7	16.0	1	1.19	0.97
MT 0009	MCNEAL/MT9410	15.7	15.2	9.9	19.5	13.2	14.0	15.5	14.4	14.4	14.6	46	0.98	0.98
MT 0012	MCNEAL/MT9410	17.6	16.5	10.9	21.9	13.0	14.4	15.9	15.7	15.3	15.7*	3	1.20	0.99
MT 0013	MCNEAL/MT9410	16.0	16.5	11.2	21.3	12.8	14.0	15.9	14.3	13.7	15.1	25	1.11	0.96
MT 0063	REDWIN/LEW//MT9406	15.8	15.2	9.9	19.4	12.2	13.4	15.8	15.1	15.1	14.7	38	1.02	0.95
MT 0076	MT9406/MTHW9520	16.7	16.7	11.6	22.1	12.8	13.9	16.4	15.6	15.4	15.7*	4	1.17	0.98
MT 0103	BZ992632/MCNEAL	15.7	16.0	10.6	18.9	13.4	13.5	15.6	13.9	14.6	14.7	39	0.89	0.97
MT 0108	ERNEST/MCNEAL	16.4	16.2	11.6	20.3	13.9	13.9	16.7	16.1	15.8	15.7*	5	0.93	0.96
MT 0112	ERNEST/MT9410	16.1	16.5	10.7	20.0	12.6	15.1	16.3	15.4	14.8	15.3	17	0.99	0.94
MT 0113	ERNEST/MT9410	16.1	16.0	11.1	20.0	13.9	14.1	16.5	15.6	15.0	15.4	10	0.93	0.97
MT 0117	ERNEST/MT9410	15.9	16.6	10.8	19.3	13.4	13.7	15.9	14.4	15.1	15.0	32	0.92	0.96
MT 0118	ERNEST/MT9410	15.7	15.9	11.4	20.2	12.8	14.2	15.9	15.6	14.8	15.2	22	0.95	0.97
MT 0121	ERNEST/MT9619	17.0	16.7	10.6	18.7	14.7	16.1	16.4	15.6	15.2	15.7*	6	0.79	0.81
MT 0124	ERNEST/MT9668	16.4	16.4	11.0	20.0	13.4	14.4	16.1	16.0	15.2	15.4*	11	0.96	0.97
MT 0125	ERNEST/MT9668	15.6	16.4	10.0	20.3	13.1	13.1	15.5	15.4	14.3	14.9	34	1.10	0.98
MT 0127	MCNEAL/MT9410	16.0	15.3	10.0	20.0	12.7	13.8	15.1	14.5	14.8	14.7	40	1.04	0.98
MT 0134	MT9410/ERNEST	15.5	15.5	10.6	20.1	13.5	13.1	15.1	14.7	13.9	14.7	41	1.00	0.99
MT 0135	MT9410/ERNEST	15.8	16.7	10.7	19.2	12.8	14.4	15.6	15.1	14.7	15.0	33	0.91	0.95
MT 0140	MT9410/MT9619	15.7	15.5	11.7	19.0	13.6	13.8	16.0	15.8	15.3	15.2	23	0.78	0.95
MT 0141	MT9410/MT9619	15.8	16.6	10.6	19.2	13.4	13.6	16.6	15.2	15.2	15.1	26	0.92	0.93
MT 0147	MT9565/ERNEST	16.5	16.2	10.7	20.2	13.3	14.7	15.5	15.5	15.1	15.3	18	0.99	0.98
MT 0148	MT9565/MCNEAL	15.9	16.2	9.9	19.0	12.4	14.1	15.3	15.0	14.2	14.7	42	0.97	0.95
MT 0149	MT9565/MCNEAL	17.1	16.8	11.4	20.0	13.7	15.7	16.0	15.8	16.0	15.8*	2	0.90	0.94
MT 0154	MT9565/MONROE	15.2	16.2	11.0	18.8	13.6	13.1	15.8	14.6	14.4	14.7	43	0.84	0.95
MT 0158	MT9619/ERNEST	16.0	15.8	10.9	21.3	12.7	14.0	15.9	15.5	14.4	15.2	24	1.11	0.97
MT 9806	MINNPRO/AMIDON	17.2	16.1	10.8	21.9	13.1	14.4	16.0	15.7	14.1	15.5*	8	1.20	0.98
MT 9874	RGABC199/MT9312	15.6	15.4	10.0	19.0	12.9	13.7	15.9	15.2	13.5	14.6	47	0.95	0.94

(continued)

Table 3 (continued). 2002 protein content (percent) summary for the advanced spring wheat nursery grown across Montana.

	PEDIGREE	Havre dry	Sidney dry	Sidney irr	Huntley dry	Huntley irr	Conrad dry	Bozeman dry	Bozeman irr	Kalispell	Ave	Rank	BYX	RSQ
MT 9905	MT9311/MT9328	15.6	16.8	10.4	19.0	12.9	12.8	16.2	13.7	14.6	14.7	44	0.96	0.91
MT 9918	MT9328/MT9419	15.4	15.5	10.8	19.9	12.3	12.6	15.0	14.2	13.4	14.3	56	1.02	0.98
MT 9923	MT9401/MT9311	16.6	15.8	12.1	19.3	13.8	14.2	16.0	15.5	15.6	15.4*	12	0.78	0.98
MT 9929	MT9401/MT9328	16.3	16.3	11.2	19.3	13.7	14.1	15.5	15.0	14.4	15.1	27	0.87	0.98
MT 9931	MT9401/MT9328	16.0	15.9	11.1	20.2	13.2	14.0	15.7	15.4	14.6	15.1	28	0.97	0.99
MT 9955	MCNEAL/KS27//MCNEAL	15.4	16.3	10.3	20.3	12.5	12.6	14.8	14.6	12.9	14.4	51	1.10	0.96
MTHW0001	MTHW9520/MTHW9427	15.9	16.0	10.5	19.9	12.4	12.6	13.7	13.5	14.8	14.4	52	1.04	0.95
MTHW0002	MTHW9520/MTHW9427	15.7	14.9	10.3	21.9	12.0	11.7	14.5	13.3	13.1	14.2	60	1.29	0.95
MTHW0167	MTHW9420/SRHW4	17.2	14.7	10.9	19.5	12.2	13.2	13.3	14.3	14.5	14.4	53	0.96	0.89
MTHW0168	MTHW9520/ID493	16.1	15.5	9.9	20.3	13.7	12.7	13.3	14.0	14.4	14.4	54	1.08	0.94
MTHW9901	MT9311/MTHW9417	15.9	16.1	11.0	21.4	11.6	13.2	14.4	14.1	13.9	14.6	48	1.18	0.95
MTHW9905	MTHW9417/MTHW9430	15.7	16.0	10.8	22.7	11.9	12.2	14.2	13.9	13.6	14.6	49	1.33	0.93
ND 695	Reeder	16.4	15.6	12.1	19.6	14.4	13.7	16.0	15.8	15.4	15.4*	13	0.79	0.95
PI527682	AMIDON	15.3	15.4	10.9	19.2	13.4	13.5	15.5	15.1	14.7	14.8	35	0.87	0.98
PI549275	HI-LINE	16.1	15.9	10.7	22.2	13.6	14.6	15.8	13.8	13.6	15.1	29	1.20	0.94
PI574642	MCNEAL	15.7	15.8	10.4	19.4	12.9	13.5	15.8	15.0	14.8	14.8	36	0.96	0.98
PI592761	ERNEST	16.5	15.8	10.7	20.0	13.9	14.5	16.7	15.9	14.9	15.4*	14	0.96	0.95
PI607557	SCHOLAR	16.5	16.1	11.1	20.0	13.8	13.9	16.0	15.6	15.1	15.3	19	0.95	0.99
PI612605	MTHW9420	16.1	14.9	10.6	20.1	12.9	13.0	14.1	13.7	13.7	14.3	57	1.02	0.97
PI619086	EXPLORER	15.8	16.0	12.1	20.1	13.8	13.6	14.9	14.9	15.0	15.1	30	0.86	0.97
SAXON	SAXON	16.0	15.7	10.2	22.5	13.9	13.6	14.9	14.6	14.6	15.1	31	1.25	0.96
SX1501B	SEEDEX SX1501B	13.9	14.9	8.3	17.6	11.7	11.1	13.7	11.3	14.6	13.0	64	0.99	0.85
SX1502B	SEEDEX SX1502B	15.9	16.8	10.9	18.6	12.9	12.1	14.2	13.9	14.2	14.4	55	0.89	0.89
WB 926	WESTBRED 926	16.9	16.0	11.5	22.2	14.7	14.1	16.0	14.9	14.2	15.6*	7	1.12	0.95
********	SITE MEAN ********	16.05	15.86	10.79	20.13	13.17	13.62	15.31	14.71	14.52	14.90		1.00	1.00
	C.V. (S/MEAN %)										**C.V. = 4.38**			
	LSD (.05)										**LSD (.05)= .61**			

Means followed by an asterisk are not significantly different at the .05 level when compared to the highest yielding wheat which is underlined)

Table 4. 2002 heading date (days form Jan 1) summary for the advanced spring wheat nursery grown across Montana.

	PEDIGREE	Havre dry	Sidney dry	Sidney irr	Huntley dry	Huntley irr	Conrad dry	Bozeman dry	Bozeman irr	Kalispell	Ave	Rank	BYX	RSQ
AGRIPRO1	NORPRO	188	181	181	174	173	186	184	184	181	181.4	36	0.91	0.97
AGRIPRO2	KNUDSON	187	180	182	173	173	185	186	185	183	181.7	42	0.96	0.97
BZ992322	HANK	186	179	181	171	172	182	183	184	178	179.5	10	0.96	0.94
BZ992588	Conan	188	179	182	171	171	185	183	184	179	180.3	22	1.07	0.98
BZ996434	WPB BZ996434	187	179	181	170	170	185	184	184	180	180.0	19	1.19	0.99
BZ996472	WPB BZ996472	186	178	181	169	169	182	181	181	176	178.2*	3	1.02	0.95
CI 10003	THATCHER	186	183	185	175	173	188	187	187	188	183.6	61	0.98	0.89
CI 13596	FORTUNA	187	181	182	172	172	185	185	184	184	181.4	37	1.01	0.98
CI 17430	NEWANA	188	182	184	175	175	187	187	187	186	183.5	60	0.97	0.98
GM40002	GENERAL MILLS 40002	184	177	180	168	168	181	181	179	176	177.1	1	1.02	0.95
GM40003	GENERAL MILLS GM40003	184	177	180	169	168	182	181	181	176	177.6*	2	1.04	0.98
GM40004	GENERAL MILLS GM40004	187	180	181	169	170	183	184	184	177	179.4	9	1.13	0.94
GM40019	PLATA	188	180	183	170	170	182	183	184	178	179.7	13	1.13	0.94
MT 0008	MCNEAL/MT9408	185	179	181	172	170	183	183	181	182	179.6	11	0.95	0.97
MT 0009	MCNEAL/MT9410	187	179	181	171	171	184	183	183	180	179.9	17	1.03	0.99
MT 0012	MCNEAL/MT9410	187	179	181	170	170	183	182	182	178	179.1	8	1.06	0.97
MT 0013	MCNEAL/MT9410	187	180	181	171	171	183	184	184	181	180.3	23	1.04	0.98
MT 0063	REDWIN/LEW//MT9406	187	179	181	171	171	184	183	183	181	180.0	20	1.01	1.00
MT 0076	MT9406/MTHW9520	186	179	180	171	170	185	183	183	180	179.6	12	1.07	0.99
MT 0103	BZ992632/MCNEAL	187	182	184	175	175	187	186	186	184	182.9	53	0.90	0.99
MT 0108	ERNEST/MCNEAL	187	181	183	173	173	186	183	185	181	181.3	34	0.97	0.98
MT 0112	ERNEST/MT9410	187	179	181	173	172	186	183	183	181	180.5	26	0.96	0.98
MT 0113	ERNEST/MT9410	187	179	181	173	172	186	183	185	182	180.9	32	0.98	0.97
MT 0117	ERNEST/MT9410	187	179	181	172	171	186	183	185	182	180.6	28	1.09	0.99
MT 0118	ERNEST/MT9410	186	179	181	172	171	186	184	183	183	180.6	29	1.02	0.97
MT 0121	ERNEST/MT9619	187	179	181	174	171	185	183	183	181	180.4	24	0.92	0.97
MT 0124	ERNEST/MT9668	187	181	181	175	173	186	184	184	184	181.6	41	0.87	0.97
MT 0125	ERNEST/MT9668	187	179	181	175	173	186	183	184	184	181.4	38	0.88	0.94
MT 0127	MCNEAL/MT9410	187	178	180	169	169	183	182	182	178	178.8	4	1.12	0.98
MT 0134	MT9410/ERNEST	187	181	183	175	174	185	185	185	187	182.3	49	0.88	0.92
MT 0135	MT9410/ERNEST	187	181	181	174	173	185	184	183	185	181.5	39	0.88	0.94
MT 0140	MT9410/MT9619	189	182	185	175	174	187	186	186	185	183.1	58	0.98	0.99
MT 0141	MT9410/MT9619	188	182	184	175	174	187	185	186	186	183.0	56	0.94	0.96
MT 0147	MT9565/ERNEST	186	179	181	170	169	185	181	182	177	179.0	7	1.07	0.96
MT 0148	MT9565/MCNEAL	188	181	184	173	173	186	185	186	182	182.0	47	1.03	0.99
MT 0149	MT9565/MCNEAL	188	182	184	174	174	186	186	185	182	182.2	48	0.97	0.99
MT 0154	MT9565/MONROE	189	183	184	175	175	185	188	186	187	183.6	62	0.94	0.92
MT 0158	MT9619/ERNEST	188	181	183	175	174	187	185	183	182	181.9	46	0.87	0.96
MT 9806	MINNPRO/AMIDON	187	181	182	173	172	186	185	183	184	181.5	40	0.99	0.97
MT 9874	RGABC199/MT9312	188	182	184	175	175	186	187	186	186	183.3	59	0.90	0.96

(continued)

Table 4 (continued). 2002 heading date (days form Jan 1) summary for the advanced spring wheat nursery grown across Montana.

	PEDIGREE	Havre dry	Sidney dry	Sidney irr	Huntley dry	Huntley irr	Conrad dry	Bozeman dry	Bozeman irr	Kalispell	Ave	Rank	BYX	RSQ
MT 9905	MT9311/MT9328	188	182	185	175	175	186	186	186	184	182.9	54	0.92	0.99
MT 9918	MT9328/MT9419	186	179	182	172	170	182	183	183	181	179.7	14	1.01	0.98
MT 9923	MT9401/MT9311	187	182	183	175	173	186	185	185	185	182.3	50	0.94	0.96
MT 9929	MT9401/MT9328	187	180	182	173	173	186	184	183	181	181.0	33	0.96	0.98
MT 9931	MT9401/MT9328	187	181	182	172	172	186	183	184	185	181.3	35	1.01	0.95
MT 9955	MCNEAL/KS27//MCNEAL	188	182	184	174	174	186	186	186	181	182.3	51	0.96	0.97
MTHW0001	MTHW9520/MTHW9427	187	179	181	171	171	184	185	184	181	180.4	25	1.09	0.99
MTHW0002	MTHW9520/MTHW9427	188	179	181	171	170	185	184	184	178	179.9	18	1.15	0.98
MTHW0167	MTHW9420/SRHW4	186	179	182	171	171	185	183	183	179	179.8	16	1.06	0.98
MTHW0168	MTHW9520/ID493	189	182	184	174	174	188	186	186	184	182.9	55	1.04	1.00
MTHW9901	MT9311/MTHW9417	187	181	183	174	173	185	185	184	184	181.7	43	0.92	0.98
MTHW9905	MTHW9417/MTHW9430	187	180	182	172	171	185	184	184	178	180.1	21	1.06	0.96
ND 695	Reeder	187	181	182	173	171	183	184	184	180	180.5	27	0.98	0.98
PI527682	AMIDON	187	181	183	174	172	186	185	184	185	181.8	45	0.96	0.96
PI549275	HI-LINE	187	180	182	171	170	183	183	183	179	179.7	15	1.07	0.98
PI574642	MCNEAL	188	182	184	175	174	186	186	186	184	182.8	52	0.92	0.99
PI592761	ERNEST	187	181	182	175	172	186	184	183	186	181.7	44	0.89	0.92
PI607557	SCHOLAR	189	182	183	174	173	188	186	186	186	183.0	57	1.05	0.97
PI612605	MTHW9420	188	179	181	171	172	185	185	185	179	180.6	30	1.07	0.96
PI619086	EXPLORER	187	181	181	170	169	183	182	181	177	178.9	6	1.06	0.92
SAXON	SAXON	187	181	182	172	170	185	185	184	181	180.7	31	1.12	0.99
SX1501B	SEEDEX SX1501B	189	183	187	176	176	187	189	190	188	185.0	64	0.98	0.92
SX1502B	SEEDEX SX1502B	188	182	183	175	175	186	188	189	186	183.7	63	0.97	0.92
WB 926	WESTBRED 926	187	178	180	170	170	182	183	183	177	178.8	5	1.09	0.95
********	SITE MEAN ********	187	180	182	173	172	185	184	184	182	181.0		1.00	1.00
	C.V. (S/MEAN %)	0.50	0.45	0.29	0.49	0.48	1 rep	1 rep	1 rep	0.82	0.60			
	LSD (.05)	1.55	1.32	0.88	1.36	1.37					1.01			

Means followed by an asterisk are not significantly different at the .05 level when compared to the highest yielding wheat which is underlined)

Table 5. 2002 plant height (inches) summary for the advanced spring wheat nursery grown across Montana.

	PEDIGREE	Havre dry	Sidney dry	Sidney irr	Huntley dry	Huntley irr	Conrad dry	Bozeman dry	Bozeman irr	Kalispell	Ave	Rank	BYX	RSQ
AGRIPRO1	NORPRO	21.7	24.2	25.2	21.0	34.0	27.0	32.3	34.3	28.5	27.6	60	0.80	0.97
AGRIPRO2	KNUDSON	20.7	24.9	25.7	24.0	35.2	27.0	36.0	37.8	31.4	29.2	41	0.95	0.95
BZ992322	HANK	21.9	24.8	28.0	23.6	35.3	30.0	34.6	33.7	28.0	28.9	45	0.76	0.92
BZ992588	Conan	22.5	23.4	25.6	21.3	34.8	26.0	33.1	35.9	28.9	27.9	59	0.88	0.99
BZ996434	WPB BZ996434	23.3	24.9	26.4	23.1	35.7	28.0	36.4	37.8	30.2	29.5	40	0.92	0.98
BZ996472	WPB BZ996472	22.0	23.5	25.5	23.0	32.6	25.0	31.5	33.9	27.4	27.1	61	0.71	0.98
CI 10003	THATCHER	28.7	30.7	35.9	23.4	45.8	34.0	47.0	45.0	35.1	36.2	1	1.29	0.95
CI 13596	FORTUNA	24.9	30.6	32.9	28.1	43.8	33.0	45.1	40.3	35.5	34.9*	5	1.07	0.92
CI 17430	NEWANA	23.5	23.1	28.2	20.9	34.3	26.0	33.8	36.7	30.0	28.5	51	0.88	0.97
GM40002	GENERAL MILLS 40002	20.2	24.9	27.9	25.7	33.7	24.0	35.2	36.2	30.5	28.7	47	0.84	0.89
GM40003	GENERAL MILLS GM40003	22.0	24.5	26.6	24.8	36.2	26.0	34.5	35.8	27.7	28.7	48	0.84	0.95
GM40004	GENERAL MILLS GM40004	22.2	24.8	26.7	23.7	35.1	25.0	33.2	34.6	31.1	28.5	52	0.78	0.94
GM40019	PLATA	20.5	20.6	24.5	21.7	29.4	24.0	28.2	29.2	25.9	24.9	63	0.55	0.95
MT 0008	MCNEAL/MT9408	25.0	29.4	31.3	24.3	39.6	29.0	40.7	42.1	32.8	32.7	18	1.06	0.98
MT 0009	MCNEAL/MT9410	21.6	23.6	28.6	22.9	35.5	24.0	34.8	34.5	29.1	28.3	54	0.87	0.95
MT 0012	MCNEAL/MT9410	21.2	24.7	26.6	24.1	35.0	26.0	34.2	35.3	30.0	28.6	50	0.83	0.97
MT 0013	MCNEAL/MT9410	20.0	21.8	25.1	22.5	33.4	25.0	32.7	32.1	28.3	26.8	62	0.80	0.96
MT 0063	REDWIN/LEW//MT9406	24.0	29.4	30.4	23.5	39.9	30.0	39.4	39.2	31.4	31.9	23	1.00	0.97
MT 0076	MT9406/MTHW9520	24.4	28.7	29.8	24.4	39.4	29.0	40.8	41.1	31.4	32.1	22	1.06	0.97
MT 0103	BZ992632/MCNEAL	24.7	25.2	27.6	23.1	37.5	29.0	35.1	38.6	30.8	30.2	36	0.91	0.98
MT 0108	ERNEST/MCNEAL	24.9	28.7	32.8	25.6	44.0	28.0	43.1	46.3	36.8	34.5	7	1.33	0.97
MT 0112	ERNEST/MT9410	22.8	28.0	33.0	24.5	42.4	32.0	40.2	41.6	31.6	32.9	17	1.14	0.96
MT 0113	ERNEST/MT9410	25.0	28.5	34.1	25.0	43.2	32.0	41.7	42.1	34.5	34.0	10	1.14	0.99
MT 0117	ERNEST/MT9410	25.1	27.4	33.7	25.3	43.2	33.0	40.8	43.0	33.5	33.9	11	1.14	0.98
MT 0118	ERNEST/MT9410	23.6	27.6	33.2	23.4	40.8	30.0	40.2	42.3	32.2	32.6	20	1.15	0.98
MT 0121	ERNEST/MT9619	24.2	28.7	31.4	22.2	39.5	30.0	41.0	42.6	34.4	32.7	19	1.15	0.98
MT 0124	ERNEST/MT9668	23.7	26.8	33.0	21.4	43.8	32.0	42.8	43.7	35.0	33.6	14	1.37	0.99
MT 0125	ERNEST/MT9668	22.7	27.6	30.8	21.9	40.6	27.0	40.5	40.8	32.4	31.6	24	1.20	0.98
MT 0127	MCNEAL/MT9410	22.6	24.8	27.0	23.3	34.5	28.0	33.7	36.0	29.6	28.8	46	0.79	0.98
MT 0134	MT9410/ERNEST	24.9	29.9	34.5	22.9	43.2	32.0	42.6	46.0	31.3	34.1	9	1.28	0.95
MT 0135	MT9410/ERNEST	24.7	29.0	32.8	24.3	44.3	34.0	43.7	45.7	35.1	34.8*	6	1.32	0.99
MT 0140	MT9410/MT9619	24.8	27.3	33.3	22.0	40.8	30.0	43.1	44.6	33.0	33.2	16	1.29	0.98
MT 0141	MT9410/MT9619	24.6	26.5	32.5	23.2	43.0	32.0	42.0	44.8	35.9	33.8	13	1.30	0.99
MT 0147	MT9565/ERNEST	24.0	24.3	29.2	23.2	34.5	27.0	34.2	36.8	29.2	29.1	42	0.80	0.98
MT 0148	MT9565/MCNEAL	23.8	25.3	30.2	24.2	36.8	29.0	36.2	38.0	33.8	30.8	31	0.89	0.97
MT 0149	MT9565/MCNEAL	24.3	26.0	30.0	22.9	36.4	29.0	38.5	39.4	32.7	31.0	27	0.97	0.98
MT 0154	MT9565/MONROE	22.6	24.4	30.1	21.2	37.9	29.0	35.4	39.0	32.3	30.2	37	1.04	0.97
MT 0158	MT9619/ERNEST	23.9	29.9	34.4	24.2	45.9	33.0	43.6	46.1	36.3	35.3*	3	1.37	0.99
MT 9806	MINNPRO/AMIDON	24.7	24.7	28.1	22.9	36.4	29.0	35.7	38.0	32.9	30.3	33	0.90	0.97
MT 9874	RGABC199/MT9312	24.1	26.1	30.4	20.9	37.7	28.0	35.9	37.7	31.7	30.3	34	0.95	0.96

(continued)

Table 5 (continued). 2002 plant height (inches) summary for the advanced spring wheat nursery grown across Montana.

	PEDIGREE	Havre dry	Sidney dry	Sidney irr	Huntley dry	Huntley irr	Conrad dry	Bozeman dry	Bozeman irr	Kalispell	Ave	Rank	BYX	RSQ
MT 9905	MT9311/MT9328	24.1	24.8	31.5	21.3	38.0	29.0	38.2	41.1	33.0	31.2	26	1.11	0.97
MT 9918	MT9328/MT9419	24.8	27.6	30.5	25.5	41.3	31.0	41.1	44.2	36.4	33.6	15	1.17	0.98
MT 9923	MT9401/MT9311	23.2	28.4	31.6	22.6	39.5	31.0	39.4	42.4	32.3	32.3	21	1.13	0.98
MT 9929	MT9401/MT9328	23.0	24.4	28.7	21.3	35.9	26.0	35.5	36.4	29.5	29.0	44	0.93	0.99
MT 9931	MT9401/MT9328	23.8	24.8	27.9	23.7	36.3	28.0	35.0	37.3	31.8	29.9	38	0.86	0.98
MT 9955	MCNEAL/KS27//MCNEAL	23.3	24.8	26.8	21.4	35.2	25.0	35.1	36.9	30.1	28.7	49	0.92	0.98
MTHW0001	MTHW9520/MTHW9427	23.6	26.6	27.5	24.0	38.6	30.0	36.5	39.1	31.9	30.9	28	0.96	0.98
MTHW0002	MTHW9520/MTHW9427	21.1	25.1	27.7	23.2	35.1	29.0	34.5	37.8	28.7	29.1	43	0.90	0.97
MTHW0167	MTHW9420/SRHW4	22.9	24.5	26.4	23.9	37.9	27.0	37.6	38.8	29.1	29.8	39	1.02	0.96
MTHW0168	MTHW9520/ID493	25.1	26.8	29.3	23.7	38.3	30.0	38.0	39.7	30.8	31.3	25	0.96	0.99
MTHW9901	MT9311/MTHW9417	25.0	26.5	32.5	24.6	42.1	31.0	43.6	44.8	35.0	33.9	12	1.28	0.99
MTHW9905	MTHW9417/MTHW9430	23.5	26.1	28.0	23.7	37.9	29.0	36.3	38.6	30.9	30.5	32	0.94	0.99
ND 695	Reeder	23.3	25.6	27.8	24.1	39.8	29.0	36.6	39.8	32.1	30.9	29	1.03	0.97
PI527682	AMIDON	26.4	27.8	36.2	25.0	44.4	32.0	46.0	45.5	36.4	35.5*	2	1.32	0.97
PI549275	HI-LINE	22.7	24.0	26.5	22.9	33.7	26.0	33.8	34.8	28.8	28.1	57	0.78	0.99
PI574642	MCNEAL	24.2	25.9	27.7	23.0	37.1	28.0	35.5	38.9	32.7	30.3	35	0.93	0.97
PI592761	ERNEST	25.7	29.1	34.7	23.6	45.5	33.0	44.1	46.9	35.1	35.3*	4	1.37	0.99
PI607557	SCHOLAR	25.5	28.9	34.7	24.8	42.5	30.0	44.2	43.6	34.4	34.3	8	1.22	0.98
PI612605	MTHW9420	22.3	24.8	25.8	22.1	35.6	27.0	33.6	35.3	27.6	28.2	55	0.84	0.97
PI619086	EXPLORER	22.8	26.1	26.6	23.7	34.4	25.0	33.4	35.7	28.4	28.5	53	0.76	0.96
SAXON	SAXON	23.9	27.6	27.1	25.0	37.1	28.0	37.0	39.2	32.9	30.9	30	0.91	0.96
SX1501B	SEEDEX SX1501B	18.4	21.7	24.4	19.6	30.0	23.0	28.7	30.1	25.6	24.6	64	0.69	0.98
SX1502B	SEEDEX SX1502B	23.5	23.4	26.7	20.2	34.5	26.0	33.0	35.5	29.8	28.1	58	0.86	0.97
WB 926	WESTBRED 926	21.9	23.9	26.1	24.3	34.0	27.0	32.5	37.0	27.1	28.2	56	0.79	0.93
********	SITE MEAN ********	23.4	26.1	29.5	23.3	38.1	28.6	37.5	39.2	31.5	30.8		1.00	1.00
	C.V. (S/MEAN %)	4.02	4.86	4.68	6.10	3.09	7.15	2.47	3.32	5.40	5.30			
	LSD (.05)	1.58	2.05	2.33	2.33	1.95	5.16	1.54	2.11	2.79	1.51			

Means followed by an asterisk are not significantly different at the .05 level when compared to the highest yielding wheat which is underlined)