

PROJECT TITLE: Statewide Spring Wheat Variety Performance

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

SUMMARY:

The 1990 Advanced Yield Spring Wheat trial was grown at seven rainfed and four irrigated locations across Montana. Kalispell and Conrad were considered high rainfall areas. Replicated multiple-row plots were established at all locations using standard research techniques.

RESULTS:

Yield, test weight, heading date and plant height at maturity are summarized in Tables 1, 2, 3 and 4 respectively.

Rainfall was adequate or nearly so at most of the Advanced Yield Trial sites in 1990. Although soil moisture at the Sidney dryland site was not good, an early planting date and timely rains resulted good yields. Test weights of the spring wheat grown at Havre, Sidney, Moccasin and Huntley were reduced due to high temperatures during the grainfill period.

The highest yielding varieties on a statewide average were Owens and Penawawa, soft white wheat varieties. Spring wheats Penawawa, Owens, MT 8182, and MT 8289, and durum Lloyd, generally yielded most in the irrigated and high rainfall nurseries, while Amidon, Klasic, and MT 8849 generally yielded most under dryer conditions.

FUTURE PLANS: New and existing varieties will continue to be evaluated at various sites in Montana so that producers can grow the varieties best adapted to conditions in their areas.

Table 1. Summary of grain yields (bu/ac) of spring wheats grown in the advanced spring wheat nursery grown across Montana.

ID	PEDIGREE	Boz irr	Boz dry	Hav dry	Sid dry	Sid irr	Kat dry	Moc dry	Hun dry	Hun irr	Con dry	Con irr	AVG	BYX	RSR
BZ984326	WPB 8Z 904-326	74.67	38.47	20.18	41.40	34.55	86.03	17.12	39.99	81.57	61.46	74.51	56.4	0.89	0.97
CS82-324	RANKI	92.60	38.39	18.77	41.97	89.93	85.83	20.56	37.45	81.92	58.55	63.32	57.2	0.95	0.98
CI 10003	HATCHER	65.22	40.19	19.26	36.52	71.70	83.33	19.52	34.13	73.61	43.12	56.40	49.4	0.76	0.97
CI 13596	FORTUNA	66.66	34.73	19.43	38.29	75.25	94.60	16.71	41.30	81.29	51.46	67.24	53.4	0.87	0.95
CI 15930	OLAF	81.20	39.57	20.86	41.82	86.91	72.83	18.15	42.71	80.62	57.43	68.73	57.4	0.92	0.97
CI 17282	CRUSKY	71.75	38.81	20.44	36.00	89.59	96.53	15.63	40.54	83.27	45.56	70.67	55.3	0.96	0.96
CI 17427	LEW	81.55	44.71	18.22	38.47	80.44	87.03	18.40	37.98	85.84	52.21	67.03	55.7	0.91	0.99
CI 17430	NEVANA	80.85	41.19	18.06	45.15	90.08	94.47	21.17	35.34	85.31	51.90	66.69	57.5	0.97	0.99
CI 17438	CANNO	77.77	35.33	18.22	37.86	100.48	99.23	15.23	39.65	77.03	49.27	73.64	58.5	1.11	0.97
CI 17790	LEN	91.16	48.28	20.53	38.98	88.05	84.30	19.40	44.50	84.98	53.19	74.44	58.9	0.93	0.98
CI 17828	PONDERA	87.67	42.59	22.41	41.55	93.61	93.83	17.14	40.09	90.82	56.63	76.72	60.5	1.01	1.00
CI 17904	OWENS	107.69	42.31	20.87	43.07	107.43	125.10	20.66	39.32	94.93	46.95	76.30	63.4	1.26	0.95
CI 17910	ALEX	78.98	42.69	20.50	39.69	83.07	90.50	23.91	40.29	93.57	51.53	71.21	57.8	0.92	0.93
DT 433	HELIORA	86.40	39.76	21.09	40.15	95.71	87.10	17.16	36.08	75.20	48.36	74.05	56.4	0.96	0.97
HT 8182	YDING 'S'/PCI 'S'-287	104.95	40.22	17.87	40.74	98.85	103.80	21.84	32.13	93.82	47.37	67.59	60.8	1.17	0.97
HT 8289	TANAGER'S'	96.23	36.61	17.83	38.31	97.51	108.07	18.29	40.10	99.63	67.52	88.87	64.5	1.21	0.98
HT 8402	HT7335/SIDORTANA	96.39	37.82	21.89	42.40	90.53	88.87	20.51	39.04	90.45	60.46	75.60	60.4	1.01	0.93
HT 8612	CI15838/HT7418//PONDORA	87.50	37.54	20.53	43.56	86.80	83.67	19.97	43.27	88.29	59.41	74.93	58.7	0.93	0.98
HT 8626	CI15838/HT7418//PONDORA	83.99	44.44	21.55	44.16	90.26	98.70	19.19	50.40	93.08	55.60	76.64	61.6	0.93	0.98
HT 8651	CI15838/HT7418//PONDORA	90.40	40.24	18.74	42.25	80.26	89.13	20.88	43.41	89.00	55.04	80.80	59.1	0.95	0.97
HT 8824	HAARBERG/HT7746	90.35	44.48	20.06	41.17	87.49	96.77	16.59	41.91	92.45	51.01	74.11	59.9	1.04	1.00
HT 8833	PONDORA/ANGUS	86.75	44.75	21.10	43.00	91.09	83.40	21.65	41.18	84.71	57.65	67.68	58.5	0.90	0.99
HT 8836	HT7648/ANTIZANA	94.19	50.01	20.18	43.73	74.53	99.40	18.92	40.56	77.51	51.91	76.50	62.5	1.07	0.98
HT 8841	HT7648/HT7746	92.70	44.08	22.36	42.22	96.07	95.97	20.46	37.89	93.52	54.50	77.57	61.6	1.05	0.99
HT 8845	HT7648/HT7746	77.99	41.11	18.26	37.38	79.97	76.70	19.47	39.45	77.64	55.57	74.87	61.9	1.14	0.99
HT 8849	RS4180/HT7819	91.91	40.07	22.87	45.98	93.74	93.33	22.96	46.25	87.07	59.09	73.53	61.5	0.96	0.99
HT 8858	HT7421/BUTTE	85.85	41.11	20.33	42.21	97.40	94.57	17.18	37.01	103.81	58.79	66.75	60.5	1.03	0.97
NU 582	STUA	90.47	46.99	18.74	38.54	93.18	85.97	19.74	43.95	94.59	51.23	68.51	59.3	0.99	0.98
NO 606	AXIDON	86.71	46.55	27.46	45.44	74.81	97.70	22.13	39.13	89.02	59.09	67.07	61.6	0.96	0.98
PJ 15852	WAKI	76.85	40.20	19.67	40.31	89.70	81.07	19.45	39.49	72.00	51.69	68.08	54.4	0.85	0.98
PJ476211	LLOYD	105.39	38.37	17.65	39.81	111.31	108.80	16.39	38.76	77.39	50.15	92.02	63.4	1.23	0.74
PJ476289	KONKOL	72.77	39.43	19.49	37.07	90.50	88.60	17.88	42.29	73.39	51.92	72.78	55.1	0.89	0.97
PJ483235	OLENMAN	96.75	44.07	24.37	42.86	90.54	87.57	21.11	41.77	88.79	56.31	70.07	60.6	0.96	0.98
PJ486139	KLASIC	84.88	33.68	22.41	47.81	94.68	79.90	25.20	52.50	98.88	61.72	81.84	62.1	0.93	0.92
WA 8920	PENMANA	103.66	42.73	20.86	46.58	104.57	102.10	23.48	40.31	105.60	60.68	91.29	67.4	1.19	0.97
WB LAKTR	Westbred Loker	89.00	37.20	20.10	39.80	101.53	94.23	13.29	40.83	91.66	54.64	74.95	59.7	1.10	0.99
*****	SITE MEAN *****	88.05	41.00	20.42	41.26	91.91	93.50	19.43	40.59	88.17	54.42	73.42	59.3	1.00	1.00

Table 2. Summary of test weights (lb/bu) of spring wheats grown in the advanced spring wheat nursery grown across Montana.

ID	IDENTIFIER	Boz irr	Boz dry	Hav dry	Sid dry	Sid irr	Kal dry	Moc dry	Hun dry	Hun irr	Con dry	Con irr	AVG	BYX	RSB
82934326	W98 BZ 934-326	61.30	60.20	51.47	53.00	64.00	57.72	52.58	55.10	61.10	61.00	62.90	58.2	1.35	0.97
C982-324	RANBU	62.00	60.40	59.32	57.00	63.50	57.85	58.01	55.23	59.83	57.40	61.70	59.4	0.69	0.69
CI 10003	THATCHER	59.70	59.30	55.90	53.00	63.00	55.56	54.51	54.22	60.50	60.50	62.40	58.1	1.12	0.97
CJ 13596	FORTUNA	61.50	61.10	55.80	55.00	63.50	57.81	57.94	57.40	62.47	61.60	64.60	59.9	1.00	0.91
CI 15930	OLAF	61.60	60.40	56.95	51.50	62.50	56.41	56.81	54.77	60.30	60.70	62.30	58.6	1.09	0.91
CJ 17282	CRUSTY	61.00	62.10	57.74	57.50	64.50	59.44	58.30	57.49	61.67	61.30	64.80	60.6	0.85	0.95
CI 17427	LEW	62.90	60.00	58.44	56.00	64.50	59.32	57.05	57.32	62.87	62.70	64.10	60.5	0.97	0.96
CJ 17430	NEWANA	61.60	58.50	57.87	54.50	63.50	58.94	57.03	53.56	59.93	58.70	61.20	58.7	0.89	0.87
CI 17438	CANOO	61.70	61.00	58.33	57.00	64.50	57.90	56.84	55.33	59.87	61.30	63.40	59.8	0.92	0.92
CJ 17790	LEN	61.10	61.30	54.26	53.50	63.00	57.04	54.03	54.60	60.97	60.30	62.60	58.4	1.19	0.95
CI 17828	PONDERA	61.90	61.00	57.06	56.00	64.00	58.49	57.61	54.71	61.37	62.40	63.70	59.9	1.01	0.97
CJ 17904	DWENS	61.30	59.50	57.20	52.50	62.50	58.44	55.34	51.90	60.37	59.10	60.50	58.1	1.07	0.89
CI 17910	ALEX	61.50	61.60	59.06	56.00	63.50	58.98	57.89	57.53	61.67	63.20	64.00	60.4	0.84	0.93
DI 433	KLIWA	60.30	61.90	59.28	57.00	64.50	58.01	59.29	59.57	60.80	63.10	64.80	60.8	0.71	0.74
HT 3182	YDING 'S'/PCI 'S'-287	59.40	57.80	55.24	51.50	62.00	56.71	54.32	51.54	59.10	57.90	59.80	56.8	1.07	0.95
HI 8269	TANAGER'S'	61.70	58.50	54.21	51.50	63.00	58.65	54.87	52.57	61.47	59.60	62.90	58.1	1.32	0.95
HT 3402	HT7336/SHORTANA	62.30	60.10	54.09	51.00	63.50	58.30	54.41	52.54	61.20	61.30	63.90	58.7	1.34	0.96
HT 8612	C115838/HT7418//PONDERA	61.50	61.00	57.68	56.50	63.50	59.04	58.21	56.84	62.23	62.50	63.60	60.2	0.85	0.97
HT 8626	C115838/HT7418//PONDERA	61.20	61.00	56.75	56.50	64.00	58.27	56.91	56.72	61.33	62.10	63.20	59.8	0.90	0.96
HI 8651	C115838/HT7418//PONDERA	61.10	60.50	58.55	54.50	63.50	58.10	57.93	56.21	62.23	61.40	63.60	59.8	0.93	0.94
HT 8924	HARBERG/HT7746	61.70	60.20	56.08	53.50	64.00	58.06	54.47	54.07	61.40	59.60	64.00	58.8	1.24	0.98
HT 8833	PONDERA/ANGUS	61.00	59.00	55.22	54.00	63.00	56.78	53.61	52.00	59.00	58.60	60.80	57.5	1.10	0.94
HT 8936	HT7648/ANTIZANA	62.30	59.60	57.68	54.00	64.00	58.61	56.16	53.36	59.27	59.30	62.20	58.8	1.04	0.91
HI 8841	HT7648/HT7746	62.00	59.80	55.55	54.50	64.00	57.91	56.61	52.57	60.17	58.80	62.70	58.6	1.13	0.94
HT 8845	HT7648/HT7746	60.80	58.10	55.14	50.50	62.50	58.47	55.58	50.65	60.30	58.50	62.30	57.5	1.27	0.91
HI 8849	RS6880/HT7819	61.10	59.30	57.57	54.50	63.50	58.92	56.35	54.75	59.67	59.50	63.40	59.0	0.96	0.95
HT 8958	HT7421/OUTRE	60.90	60.30	54.83	53.00	62.00	58.03	56.88	50.68	60.97	60.50	62.20	58.2	1.20	0.90
ND 582	SYDA	60.90	60.60	55.58	54.00	63.00	57.95	55.82	54.73	61.37	60.80	62.70	58.9	1.07	0.98
ND 606	AMIDON	60.50	58.80	56.35	55.00	63.00	58.28	57.03	56.80	60.80	61.60	62.70	59.2	0.85	0.93
PI 15892	WARD	61.50	61.10	58.30	57.00	64.00	58.72	58.06	58.30	60.23	61.70	64.10	60.3	0.75	0.91
PI476211	LLOYD	60.90	59.80	56.62	57.00	63.00	56.75	56.36	56.08	56.20	59.60	61.90	58.6	0.69	0.70
PI478289	KONROE	60.60	61.90	56.42	55.00	64.00	57.47	58.18	58.14	60.80	62.70	63.40	59.9	0.90	0.85
PI483235	GLENMAN	61.20	60.60	57.29	55.00	63.00	58.39	56.25	53.21	60.13	60.20	62.20	58.9	0.93	0.95
PI486139	KLASIC	61.00	59.50	55.34	56.50	63.00	56.55	56.82	56.45	62.60	62.70	63.10	59.4	0.93	0.83
NA 8720	PENAWANA	61.60	59.30	56.02	52.00	63.00	57.63	55.74	54.20	61.40	59.30	61.90	58.4	1.12	0.95
WB LAKER	Westbred Laker	62.00	61.00	60.98	57.50	64.00	57.70	58.36	59.19	62.07	61.70	63.60	60.7	0.67	0.83
*****	SITE MEAN *****	61.34	60.21	56.65	54.64	63.43	57.98	56.45	55.02	60.77	60.64	62.87	59.1	1.00	1.00

Table 3. Summary of heading date (days from January 1) of spring wheats grown in the advanced spring wheat nursery grown across Montana.

ID	PEIDGREE	Boz irr	Boz dry	Hav dry	Sid dry	Sid irr	Kal dry	Moc dry	Hun dry	Hun irr	Con dry	Con irr	AVG	BYX	RSQ
BZ984326	WPI K7 984-326	185.00	185.00	174.55	166.78	168.22	174.61	179.06	163.00	162.00	178.00	178.00	174.0	1.09	0.99
C932-324	RAMBO	191.00	190.00	178.15	170.66	173.47	177.62	182.75	171.00	167.00	183.00	183.00	178.9	1.07	1.00
CJ 10003	HATCHER	187.00	187.00	177.49	171.47	172.55	177.62	181.02	171.00	169.00	181.00	181.00	177.8	0.85	1.00
CI 13596	FORTUNA	188.00	186.00	175.81	170.05	172.37	176.69	181.01	170.00	166.00	181.00	181.00	177.1	0.95	1.00
CI 15930	BLAF	189.00	187.00	175.98	168.97	171.07	176.33	181.00	170.00	165.00	180.00	182.00	176.9	1.04	0.99
CI 17282	CROSSBY	186.00	187.00	175.90	168.97	172.10	177.07	181.28	168.00	165.00	180.00	179.00	176.4	0.78	0.77
CJ 17429	LEW	189.00	189.00	178.02	172.37	175.63	178.32	182.98	171.00	170.00	183.00	183.00	179.3	0.90	0.99
CI 17430	NEWANA	191.00	190.00	177.71	172.10	175.04	177.98	182.59	171.00	170.00	183.00	183.00	179.4	0.97	0.73
CJ 17438	CANNO	191.00	189.00	178.63	171.29	173.82	178.33	182.92	170.00	169.00	183.00	183.00	179.1	1.01	0.99
CI 17770	LEN	187.00	185.00	174.82	168.55	169.46	174.34	179.02	164.00	162.00	177.00	178.00	174.5	1.07	0.78
CJ 17828	PONDERA	186.00	184.00	175.67	169.21	171.15	175.99	180.36	169.00	165.00	180.00	182.00	176.4	0.96	0.99
CI 17904	OWENS	189.00	187.00	177.78	169.20	171.65	177.74	181.31	169.00	166.00	183.00	183.00	177.7	1.05	0.79
CJ 17910	ALEX	188.00	188.00	176.89	171.33	173.65	179.00	181.99	171.00	167.00	182.00	181.00	178.2	0.93	0.99
DT 433	MEDORA	188.00	187.00	176.67	170.12	172.06	176.76	181.98	170.00	165.00	181.00	181.00	177.2	1.00	1.00
KY R182	YDING 'S'/'C' 'S'-287	190.00	188.00	176.65	169.99	172.50	176.34	180.37	167.00	165.00	183.00	181.00	177.3	1.10	0.99
HT 8209	WAGER'S	190.00	187.00	175.88	169.05	170.85	175.61	180.02	165.00	165.00	183.00	181.00	176.8	1.18	0.73
KI 8402	HT7336/SHORTANA	187.00	186.00	175.68	168.93	169.36	175.05	180.00	165.00	164.00	180.00	182.00	175.7	1.08	0.98
HT 8612	CI15838/HT7418//PONDERA	187.00	185.00	175.14	169.39	170.38	176.03	179.97	169.00	165.00	180.00	179.00	176.0	0.75	1.00
KI 8626	CI15838/K17418//PONDERA	185.00	185.00	175.33	168.48	170.27	175.66	179.37	167.00	163.00	178.00	178.00	175.0	0.97	1.00
HT 8651	CI15838/HT7418//PONDERA	186.00	187.00	176.51	169.02	171.64	177.32	181.72	170.00	166.00	183.00	181.00	177.2	0.77	0.73
KY 8824	KARKHEIG/K17746	186.00	185.00	175.43	168.96	170.30	175.65	179.69	167.00	164.00	179.00	180.00	175.5	0.98	0.99
HT 8833	PONDERA/ANGUS	187.00	189.00	175.85	169.30	171.74	175.32	180.72	169.00	165.00	183.00	181.00	176.9	1.03	0.78
KI 8836	K17648/ANTIZANA	190.00	190.00	177.63	171.66	173.33	178.95	181.98	170.00	167.00	181.00	183.00	178.6	1.03	0.99
HT 8841	HT7648/HT7746	189.00	187.00	176.51	169.71	171.35	177.37	181.66	169.00	164.00	182.00	182.00	177.2	1.08	1.00
KI 8845	K17648/K17746	188.00	188.00	176.45	169.25	171.93	176.67	180.00	170.00	165.00	180.00	179.00	176.8	0.99	0.98
HT 8847	RS6880/HT7819	189.00	187.00	178.07	171.53	173.36	177.31	181.62	171.00	167.00	182.00	183.00	178.4	0.78	0.77
HT 8858	HT7421/BLUTE	189.00	188.00	177.69	170.75	172.00	178.01	181.98	170.00	166.00	181.00	181.00	177.8	1.01	1.00
NO 892	STOA	186.00	187.00	176.47	167.92	171.02	178.02	180.99	171.00	166.00	181.00	181.00	177.1	0.93	0.77
NI 896	AMITION	187.00	188.00	176.28	171.32	171.89	178.66	181.67	171.00	166.00	182.00	181.00	177.7	0.95	0.99
PI 15892	WARO	186.00	188.00	176.47	167.76	171.63	177.34	180.63	169.00	165.00	181.00	182.00	177.0	1.00	0.99
PI476211	LLOYD	190.00	190.00	177.96	171.92	174.74	179.62	183.02	170.00	169.00	183.00	183.00	179.3	0.99	0.99
PI478209	HUNROE	185.00	185.00	175.27	168.32	169.64	175.03	180.02	165.00	165.00	178.00	179.00	175.0	0.78	0.77
PI483235	GLENHAN	189.00	188.00	177.37	171.58	172.67	178.69	182.05	171.00	169.00	181.00	183.00	178.5	0.93	0.99
PI493139	KLASIC	184.00	183.00	174.47	166.61	168.07	173.39	178.03	163.00	160.00	177.00	177.00	173.1	1.06	0.77
WA 8920	PENNAWAH	189.00	188.00	177.67	170.03	172.53	177.75	182.02	170.00	167.00	183.00	183.00	178.2	1.02	1.00
WA LAKER	Westbred Laker	190.00	190.00	178.73	171.73	175.56	179.97	182.68	171.00	170.00	183.00	183.00	179.6	0.75	0.77
*****	STIF NEAN *****	187.69	187.36	176.60	169.96	171.92	177.01	181.10	168.83	165.86	181.08	181.14	177.2	1.00	1.00

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Table 4. Summary of plant heights (inches) of spring wheats grown in the advanced spring wheat nursery grown across Montana.

ID	PEDIGREE	Boz irr	Boz dry	Hav dry	Sid dry	Sid irr	Kal dry	Moc dry	Hun dry	Hun irr	Con dry	Con irr	AVG	BYX	RSQ
B29R4326	WIP IZ 984-326	30.00	22.97	25.67	30.66	37.27	35.34	25.28	37.00	40.00	33.00	36.00	32.1	1.03	0.98
C932-324	RAHBO	28.00	21.27	22.13	28.57	34.12	32.87	23.87	32.00	37.00	32.00	33.00	29.5	0.75	0.78
C1 10003	WATCHER	41.00	30.61	28.40	35.27	43.31	33.49	27.84	44.00	46.00	41.00	42.00	37.5	1.01	0.68
C1 13576	FORTUNA	37.50	28.25	27.97	33.49	40.27	43.55	28.94	42.00	44.00	40.00	40.00	36.9	1.10	0.74
C1 15930	OLAF	32.00	23.05	23.99	29.43	37.14	36.88	26.43	34.00	38.00	33.00	36.00	31.8	0.96	0.98
C1 17282	CROSBY	34.00	28.91	29.73	35.76	42.65	44.61	30.67	43.00	47.00	40.00	41.00	37.7	1.16	0.77
C1 17429	LEW	37.00	28.44	27.03	33.13	40.16	44.53	26.39	41.00	45.00	40.00	42.00	36.8	1.23	0.92
C1 17430	NEWANA	26.50	20.76	23.13	27.40	35.17	34.86	23.97	31.00	34.00	31.00	33.00	29.2	0.71	0.95
C1 17438	GANNI	25.00	17.95	20.07	24.85	34.65	31.34	19.32	29.00	33.00	24.00	30.00	26.3	1.02	0.93
C1 17790	LEN	30.00	23.59	25.51	29.76	36.75	35.35	24.02	34.00	38.00	31.00	31.00	30.8	0.89	0.75
C1 17828	PONDERA	29.00	22.81	25.55	30.66	36.88	34.85	27.28	35.00	40.00	31.00	34.00	31.5	0.93	0.95
C1 17904	OWENS	30.80	21.85	24.92	30.40	36.88	37.68	27.95	36.00	39.00	35.00	36.00	32.4	1.02	0.76
C1 17910	ALEX	37.00	27.30	26.23	35.52	38.06	42.45	29.43	42.00	41.00	40.00	40.00	36.5	0.97	0.88
OT 433	HEODRA	38.50	28.83	26.38	35.47	42.91	44.42	29.38	46.00	49.00	34.00	44.00	38.1	1.36	0.90
KI 8182	YDING 'S'/'C1 'S'-287	27.20	21.73	24.50	28.91	36.22	34.37	27.29	33.00	37.00	31.00	33.00	30.4	0.88	0.95
KI 9209	TANAGER 'S'	30.00	21.35	23.33	30.21	36.61	33.38	25.45	33.00	38.00	31.00	33.00	30.5	0.95	0.76
KI 8402	K17336/SHORTANA	29.00	21.91	23.56	29.33	35.57	33.48	24.73	34.00	39.00	31.00	34.00	30.5	0.98	0.98
KI 8612	C115838/K17418//PONDERA	31.00	22.35	25.76	29.73	36.22	35.76	27.01	35.00	37.00	34.00	36.00	31.8	0.70	0.76
KI 8626	C115838/K17418//PONDERA	26.50	23.70	25.43	29.86	35.83	35.77	26.07	35.00	36.00	34.00	32.00	30.9	0.83	0.89
KI 8651	C115838/K17418//PONDERA	29.30	22.73	24.18	30.51	36.22	35.29	26.45	35.00	38.00	32.00	37.00	31.5	0.77	0.97
KI 8824	KANKERG/K17746	31.00	23.70	25.94	31.18	37.27	36.73	25.71	38.00	41.00	32.00	36.00	32.6	1.04	0.98
KI 9333	PONDERA/ANGUS	32.00	24.48	26.27	31.27	38.71	36.82	27.86	36.00	45.00	32.00	35.00	33.2	1.05	0.72
KI 8836	K17648/ANTJANA	34.00	24.24	24.50	30.03	37.66	39.92	24.72	35.00	39.00	34.00	38.00	32.8	1.07	0.93
KI 9841	K17648/K17746	27.00	21.16	23.24	28.35	35.04	35.35	23.81	34.00	36.00	29.00	32.00	29.5	0.77	0.98
KI 8845	K17648/K17746	30.50	22.73	24.76	28.86	35.96	36.85	23.78	32.00	37.00	31.00	32.00	30.5	0.91	0.95
KI 9349	RS6880/K17819	30.50	23.66	24.95	30.00	38.32	37.60	27.33	33.00	40.00	33.00	34.00	32.0	0.77	0.76
KI 8858	K17421/BUITE	30.50	21.27	24.99	29.55	37.66	36.42	25.98	34.00	39.00	32.00	33.00	31.3	1.01	0.97
ND 582	SION	34.00	27.28	27.65	34.71	41.47	43.99	29.67	41.00	46.00	37.00	41.00	36.7	1.20	0.98
ND 606	AKTION	34.00	28.63	28.70	34.57	41.47	43.85	28.47	41.00	45.00	38.00	41.00	36.8	1.14	0.98
PI 15892	WARO	38.80	28.94	27.00	35.66	43.96	45.01	31.10	41.00	45.00	37.00	41.00	37.7	1.15	0.95
PI476211	LI OYD	27.00	19.76	20.29	25.67	33.99	30.80	22.74	29.00	34.00	25.00	32.00	27.3	0.91	0.92
PI478209	ROWROE	35.50	28.99	29.31	35.85	40.42	42.20	29.27	42.00	45.00	36.00	38.00	36.7	1.03	0.94
PI483235	GLENMAN	28.30	23.89	25.69	28.99	36.88	36.11	25.50	36.00	36.00	34.00	37.00	31.7	0.92	0.92
PI493139	KLASIC	20.50	16.15	20.47	24.25	27.95	25.87	22.40	28.00	27.00	25.00	25.00	23.9	0.60	0.73
WA 8920	LENAWANA	27.00	20.65	23.45	28.52	36.48	34.57	25.69	32.00	37.00	30.00	35.00	30.0	0.99	0.95
WB LAKER	Westbred Laker	29.20	21.22	20.82	27.32	35.17	36.09	25.28	32.00	36.00	30.00	32.00	29.6	0.78	0.95
*****	SITE MEAN *****	31.09	23.81	25.10	30.67	37.54	37.18	26.30	35.97	39.58	33.19	35.69	32.4	1.00	1.00

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