

SRPN: location of replicated yield trials and regional production zones.

- North central plains
- Central plains
- Northern high plains
- ▲ Southern high plains
- ⊕ Southern plains
- ★ Intermountain
- unassigned

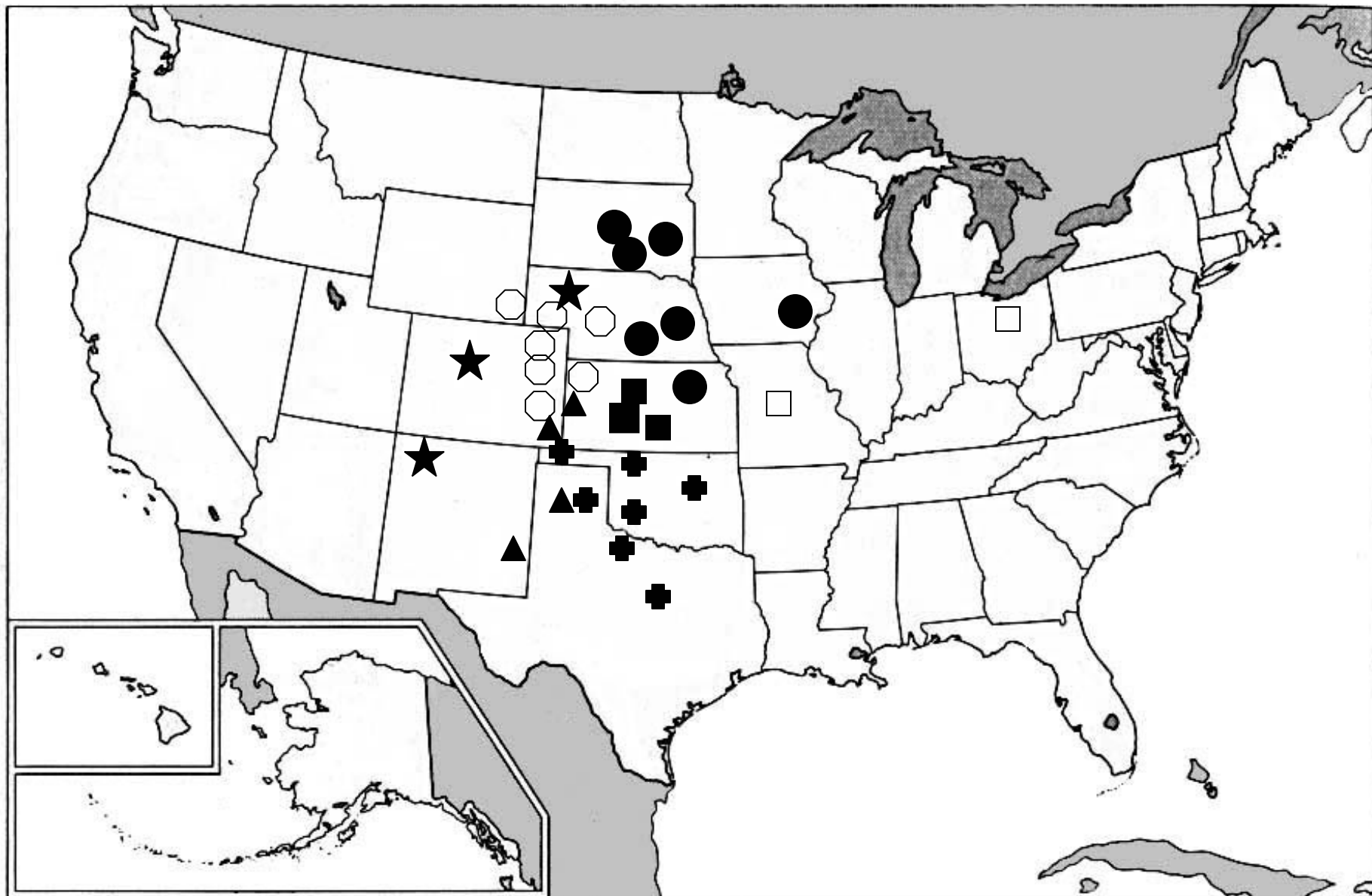


Table 1. Location notes, 2004 SRPN.

Location	Notes
Clovis, NM dryland	Total seasonal precipitation = 28 cm
Clovis, NM irrigated	Total seasonal precipitation = 30 cm; irrigation = 51.6 cm. N applications = 39 lbs/ac, Sept. 4; 24 lbs/ac Dec. 1; 51 lbs/ac, Mar. 9.
Farmington, NM irrigated	Irrigation, center pivot as needed, 76 cm total moisture; fertilization = 135-51-60 N-P2O5-K2O lbs/acre
Prosper, TX	
Chillicothe, TX	
Bushland, TX dryland	
Bushland, TX irrigated	
Altus, OK	Excessive moisture delayed harvest. Moderately high infection of stripe rust and moderately low infection of leaf rust. Other minor diseases present were powdery mildew and septoria.
Lahoma, OK	Primary diseases present were septoria (light), leaf rust (moderate), and stripe rust (moderately high). Low straw yield, high grain yield, with no applied N necessary. Drought-accelerated maturity. Significant shattering even with timely harvest.
Stillwater, OK	Moderate infections of BYDV and leaf rust (relatively late). No soilborne mosaic visually detected. Rain-delayed harvest.
Goodwell, OK irrigated	Severe freeze-induced (April) lodging. Crop finished horizontally with multiple rainfall events following maturity. Nursery harvested before shattering and sprouting.
Manhattan, KS	Lost, excessive rainfall at harvest.
Wichita, KS	Heavy moisture both at planting and harvest.
Hutchinson, KS	
Hays, KS	
Salina, KS	
Winfield, KS	Lost, hail.
Colby, KS	Soil crusting at planting; planted 10/3/03, harvested 6/28/04, fertilized 50-20-0.
Garden City, KS	
Akron, CO	
Burlington, CO	Lost, drought, freeze.
Fort Collins, CO	
Julesburg, CO	
Walsh, CO	Lost, hail.
Lincoln, NE	
Clay Center, NE	
North Platte, NE	
Alliance, NE	
Sidney, NE	
Winner, SD	
Dakota Lakes, SD	Damaged by frost.
Brookings, SD	
St. Paul, MN (field rusts)	Lost, winter-kill.
Lafayette, IN	Lost, excessive rainfall at harvest.
Archer, WY	Lost, hail, drought, etc.
Columbia, MO	Winter steady and long, allowed little or no growth. Plant health good until heading, high rainfall during grainfill. Fusarium head scab pressure uniform and heavy from natural source.
Wooster, OH	Lost, excessive rainfall at harvest.
Bozeman, MT	Single replication, observation only, not included in region-wide analyses.
Crawfordsville, IA	

Table 2. Entries in the 2004 Southern Regional Performance Nursery.

Entry	Line	putative market class	pedigree	Source
1	Kharkof	HRW	Kharkof	check
2	Scout 66	HRW	Scout 66	check
3	TAM-107	HRW	TAM-107	check
4	Trego	HWW	Trego	check
5	G990191	HRW	OK90604/KS6397//SNOWWHITE	WestBred
6	G982238-2	HRW	N87V107/BETTY	WestBred
7	G991324	HRW	97 8/64 MASA	WestBred
8	G980143	HRW	OK88767-11/JAGGER	WestBred
9	AP01T1112	HRW	TAM 105/3/NE70654/BBY//BOW"S"/4/Century*3/TA2450	AgriPro South
10	AP01T1114	HRW	TAM 105/3/NE70654/BBY//BOW"S"/4/Century*3/TA2450	AgriPro South
11	AP01T3131	HRW	W94-320/3/KS85W663-2-4/2/W81-133/Thunderbird	AgriPro South
12	NW99L7068	HWW	KS84HW196*8/RioBlanco/HBY762A//Halt	ARS-LNK
13	T135	HRW	T81/97T2688	Trio
14	T136	HRW	Jagger/T811	Trio
15	T140	HRW	93WGRC27/T811	Trio
16	T141	HRW	T441/T13	Trio
17	OK00611W	HWW	KS96WGRC39/Jagger	Oklahoma State U.
18	OK00618W	HWW	Intrada/WI89-163W	Oklahoma State U.
19	OK00514	HRW	KS96WGRC39/Jagger	Oklahoma State U.
20	OK99212	HRW	Tomahawk/2174//Tonkawa	Oklahoma State U.
21	OK00614	HRW	OK90604/Rio Blanco	Oklahoma State U.
22	KS950811-5-1	HRW	Ogallala/KS95WGRC33//Jagger	Kansas State - Manhattan
23	KS00F5-14-7	HRW	Bulk Selection	Kansas State - Manhattan
24	KS00F5-20-3	HRW	Bulk Selection	Kansas State - Manhattan
25	KS00F5-57-8	HRW	Bulk Selection	Kansas State - Manhattan
26	CO970547-7	HRW	Ike/Halt	Colorado State Univ.
27	CO980607	HRW	Yuma/T-57//TAM 200/3/4*Yuma/4/NEWS08	Colorado State Univ.
28	CO00D007	HRW	Yumar//TXGH12588-120*4/FS2	Colorado State Univ.
29	CO00016	HRW	CO940606/TAM107R-2	Colorado State Univ.
30	CO00698	HRW	CO931083/Oro Blanco//Halt	Colorado State Univ.
31	TX96D1073	HRW	TX86D1310/Kavkaz//TX86D1308 (=WX87D144-10-99-12-18)	Texas A&M
32	TX00V1117	HRW	ARLIN/TX89V4213 (CO723594/YACO'S//TX81V6582)	Texas A&M
33	TX00V1131	HRW	TX87V1613/KS91WGRC11	Texas A&M
34	TX01D3232	HRW	TX92U3060/TX91D6564 (=X95U104-P66)	Texas A&M
35	TX00D1390	HRW	TX89D1253*2/TTCC404 (=WX93D208-9-1-17-13)	Texas A&M

Table 2. Entries in the 2004 Southern Regional Performance Nursery.

Entry	Line	putative market class	pedigree	Source
36	TX01A5936	HRW	JAGGER/3/PSN 'S'/BOW 'S'//T200	Texas A&M
37	NE00403	HRW	PRONGHORN/ARLIN//ABILENE	University of Nebraska
38	NE00435	HRW	WI87-018/2*ARAPAHOE	University of Nebraska
39	NE01481	HRW	NE92458 (=OK83201/REDLAND)/Ike	University of Nebraska
40	NE00564	HRW	T81/NE91635 (=NE82761/NE82599)	University of Nebraska
41	W99-194	HRW	059E//Jagger/Pecos	Agripro North
42	W96x1311-01	HRW	W91-376-20/W9-084	Agripro North
43	W98-159-7	HRW	Ponderosa/Jagger	Agripro North
44	W03-20	HRW	Ogallala/KSU94U261//Jagger	Agripro North
45	KS01HW152-6	HWW	TREGO/BTY SIB	Kansas State - Hays
46	KS01HW163-4	HWW	TREGO/BTY SIB	Kansas State - Hays
47	KS02HW34	HWW	TREGO/JGR 8W	Kansas State - Hays
48	SD97W604	HWW	SD89333/Abilene	South Dakota State
49	CO991132	HRW	Jagger//TXGH12588-120*4/FS2	Colorado State Univ.
50	NW98S097	HWW	WA691213-27/N86L177//AP-WI89-163	ARS-LNK

Table 3. Agronomic summary of 50 hard winter wheats entered in the 2004 SRPN.

Entry	Line/selection	Grain yield, kg/ha		Volume	Days from	Plant
		mean	rank	weight, kg/hl	1/1 to heading	height, cm
1	Kharkof	2585	50	72.2	137	91
2	Scout66	3247	49	74.9	132	88
3	TAM107	3694	44	74.1	126	74
4	Trego	3939	23	76.6	130	71
5	G990191	4041	12	73.1	128	73
6	G982238-2	3861	32	75.2	130	72
7	G991324	4016	16	74.4	133	73
8	G980143	4027	15	75.2	129	78
9	AP01T1112	3726	40	75.6	128	75
10	AP01T1114	3811	33	76.9	127	73
11	AP01T3131	3624	47	76.5	127	72
12	NW99L7068	3929	24	73.2	128	73
13	T135	3689	45	73.6	126	77
14	T136	3894	26	74.9	126	73
15	T140	3708	41	73.7	129	76
16	T141	3452	48	72.9	131	78
17	OK00611W	3739	39	74.2	128	75
18	OK00618W	3890	28	75.9	131	71
19	OK00514	3974	21	76.7	129	78
20	OK99212	3773	37	76.2	129	74
21	OK00614	3634	46	75.6	128	74
22	KS950811-5-1	4082	10	76.3	127	74
23	KS00F5-14-7	4291	2	75.4	127	74
24	KS00F5-20-3	4225	4	75.2	127	75
25	KS00F5-57-8	3789	34	74.0	131	79
26	CO970547-7	4077	11	75.7	127	75
27	CO980607	4182	8	74.7	129	72
28	CO00D007	3869	31	72.4	130	78
29	CO00016	3785	35	72.2	131	73
30	CO00698	3982	20	73.0	129	78
31	TX96D1073	3945	22	74.5	129	74
32	TX00V1117	4211	7	74.4	133	79
33	TX00V1131	4032	13	72.6	129	71
34	TX01D3232	4218	5	72.2	127	70
35	TX00D1390	4335	1	75.8	128	74
36	TX01A5936	4088	9	75.5	128	79
37	NE00403	4003	18	74.7	131	70
38	NE00435	3700	43	74.2	128	76
39	NE01481	3893	27	72.9	131	79
40	NE00564	3780	36	74.2	129	74
41	W99-194	3992	19	73.8	131	79
42	W96x1311-01	3886	29	75.9	128	73
43	W98-159-7	3872	30	73.7	131	74
44	W03-20	4013	17	76.2	129	73
45	KS01HW152-6	4228	3	75.1	128	72
46	KS01HW163-4	4029	14	76.6	130	75
47	KS02HW34	4214	6	77.2	130	75
48	SD97W604	3906	25	75.4	128	70
49	CO991132	3702	42	70.6	126	79
50	NW98S097	3764	38	74.3	133	73
	mean	3887		75	129	75

Table 4. Mean grain yield (kg/ha) of 50 entries at 30 locations in the 2004 SRPN.

entry	Line/selection	region		Prosper, TX		Bushland, TX, dryland		Bushland, TX, irr.	
		mean	rank	mean	rank	mean	rank	mean	rank
1	Kharkof	2585	50	1558	50	1020	50	3479	50
2	Scout66	3247	49	2365	46	1701	49	5862	45
3	TAM107	3694	44	2343	47	2694	10	6499	40
4	Trego	3939	23	3194	35	2560	20	7785	14
5	G990191	4041	12	4039	10	2699	9	6259	43
6	G982238-2	3861	32	3519	24	2665	12	7084	28
7	G991324	4016	16	3304	30	1964	42	8095	8
8	G980143	4027	15	3201	34	2412	30	7182	26
9	AP01T1112	3726	40	3723	22	2468	28	5163	48
10	AP01T1114	3811	33	3977	13	2493	25	6584	39
11	AP01T3131	3624	47	3990	12	2625	14	4138	49
12	NW99L7068	3929	24	3374	28	2591	18	6759	34
13	T135	3689	45	3490	25	2739	7	6337	42
14	T136	3894	26	3208	33	2587	19	7324	22
15	T140	3708	41	2733	44	2345	33	6936	31
16	T141	3452	48	3035	38	1854	47	5174	47
17	OK00611W	3739	39	3463	27	2511	24	6884	33
18	OK00618W	3890	28	4663	1	2307	35	7595	16
19	OK00514	3974	21	3748	21	2612	17	7458	18
20	OK99212	3773	37	4252	4	2820	3	7406	19
21	OK00614	3634	46	3961	14	2634	13	5544	46
22	KS950811-5-1	4082	10	3634	23	2914	2	7927	12
23	KS00F5-14-7	4291	2	4248	5	2441	29	8270	5
24	KS00F5-20-3	4225	4	3934	16	2625	14	8321	3
25	KS00F5-57-8	3789	34	3957	15	1852	48	7019	29
26	CO970547-7	4077	11	3008	40	2966	1	6597	37
27	CO980607	4182	8	3129	36	2486	26	8119	7
28	CO00D007	3869	31	1782	49	2369	32	7232	24
29	CO00016	3785	35	1854	48	1941	45	6638	35
30	CO00698	3982	20	2836	41	2399	31	7019	30
31	TX96D1073	3945	22	3367	29	2560	21	6593	38
32	TX00V1117	4211	7	3849	19	1941	45	7478	17
33	TX00V1131	4032	13	4073	8	2549	23	6422	41
34	TX01D3232	4218	5	4407	3	2791	6	8487	1
35	TX00D1390	4335	1	3995	11	2477	27	8122	6
36	TX01A5936	4088	9	3224	32	2625	14	7960	11
37	NE00403	4003	18	2804	43	2556	22	7364	20
38	NE00435	3700	43	3806	20	2284	36	7225	25
39	NE01481	3893	27	3475	26	2278	38	6936	31
40	NE00564	3780	36	2728	45	1961	43	6064	44
41	W99-194	3992	19	3020	39	2105	41	7640	15
42	W96x1311-01	3886	29	4102	7	2266	40	8361	2
43	W98-159-7	3872	30	4174	6	2284	36	7164	27
44	W03-20	4013	17	3289	31	2712	8	7321	23
45	KS01HW152-6	4228	3	3860	18	2694	10	7983	10
46	KS01HW163-4	4029	14	4057	9	2340	34	8303	4
47	KS02HW34	4214	6	4542	2	2802	4	7799	13
48	SD97W604	3906	25	3100	37	2798	5	8007	9
49	CO991132	3702	42	2809	42	2273	39	6629	36
50	NW98S097	3764	38	3932	17	1961	43	7335	21
	mean	3887		3443		2411		7038	
	cv (%)	11		12.3		8.4		8	
	l.s.d. (0.05)	250		697		330		936	
	n	85		3		3		3	

Table 4. Mean grain yield (kg/ha) of 50 entries at 30 locations in the 2004 SRPN.

entry	Line/selection	region		Chilicothe, TX		Clovis, NM, dryland		Clovis, NM, irr.	
		mean	rank	mean	rank	mean	rank	mean	rank
1	Kharkof	2585	50	2764	50	168	45	3273	50
2	Scout66	3247	49	3389	49	278	24	4393	32
3	TAM107	3694	44	3681	37	574	2	4060	39
4	Trego	3939	23	3903	18	204	35	4199	35
5	G990191	4041	12	4057	5	302	22	4100	38
6	G982238-2	3861	32	3692	34	119	49	4879	14
7	G991324	4016	16	4246	1	95	50	4263	34
8	G980143	4027	15	3775	29	354	15	4584	25
9	AP01T1112	3726	40	3943	14	177	42	4747	18
10	AP01T1114	3811	33	3692	34	159	46	4854	15
11	AP01T3131	3624	47	3688	36	381	10	3858	44
12	NW99L7068	3929	24	4026	7	214	33	4917	13
13	T135	3689	45	3961	12	183	39	4104	37
14	T136	3894	26	3972	11	351	16	4637	23
15	T140	3708	41	3607	40	140	47	3988	42
16	T141	3452	48	3445	45	186	38	3479	49
17	OK00611W	3739	39	3755	31	211	34	5137	9
18	OK00618W	3890	28	3750	32	262	27	4189	36
19	OK00514	3974	21	3883	21	180	40	4731	20
20	OK99212	3773	37	3394	48	189	36	3542	47
21	OK00614	3634	46	3566	42	269	25	3771	45
22	KS950811-5-1	4082	10	4006	8	336	18	4410	30
23	KS00F5-14-7	4291	2	3959	13	442	6	5215	5
24	KS00F5-20-3	4225	4	3820	25	372	13	4947	12
25	KS00F5-57-8	3789	34	3699	33	174	43	4036	41
26	CO970547-7	4077	11	3894	20	574	1	4984	11
27	CO980607	4182	8	3896	19	381	11	5162	8
28	CO00D007	3869	31	3833	23	391	9	4398	31
29	CO00016	3785	35	3598	41	482	5	5415	4
30	CO00698	3982	20	3907	16	565	3	4481	27
31	TX96D1073	3945	22	3439	46	256	28	4711	21
32	TX00V1117	4211	7	4071	4	543	4	5771	1
33	TX00V1131	4032	13	3932	15	171	44	4739	19
34	TX01D3232	4218	5	4055	6	223	31	5499	2
35	TX00D1390	4335	1	4089	3	372	13	5482	3
36	TX01A5936	4088	9	3907	16	375	12	4539	26
37	NE00403	4003	18	3838	22	269	25	5194	6
38	NE00435	3700	43	3822	24	311	21	3625	46
39	NE01481	3893	27	3614	39	180	41	4619	24
40	NE00564	3780	36	3472	44	186	37	5179	7
41	W99-194	3992	19	3995	9	235	29	4441	28
42	W96x1311-01	3886	29	3788	27	403	8	3922	43
43	W98-159-7	3872	30	3806	26	302	22	4652	22
44	W03-20	4013	17	3676	38	137	48	5044	10
45	KS01HW152-6	4228	3	4201	2	409	7	4047	40
46	KS01HW163-4	4029	14	3779	28	345	17	4286	33
47	KS02HW34	4214	6	3974	10	327	19	4765	17
48	SD97W604	3906	25	3488	43	317	20	4425	29
49	CO991132	3702	42	3439	46	217	32	4844	16
50	NW98S097	3764	38	3757	30	229	30	3519	48
	mean	3887		3779		290		4521	
	cv (%)	11		6.6		49		14	
	l.s.d. (0.05)	250		410		232		1053	
	n	85		3		3		3	

Table 4. Mean grain yield (kg/ha) of 50 entries at 30 locations in the 2004 SRPN.

entry	Line/selection	region		Farmington, NM, irr.		Altus, OK		Lahoma, OK	
		mean	rank	mean	rank	mean	rank	mean	rank
1	Kharkof	2585	50	5055	50	716	50	1888	50
2	Scout66	3247	49	5315	46	1903	45	3418	49
3	TAM107	3694	44	5590	43	2981	19	4544	36
4	Trego	3939	23	5793	37	3631	4	4585	35
5	G990191	4041	12	7136	9	3340	9	4770	24
6	G982238-2	3861	32	6833	14	3196	14	4370	42
7	G991324	4016	16	6593	22	1999	43	4807	21
8	G980143	4027	15	6697	19	2989	18	4842	17
9	AP01T1112	3726	40	7345	4	1769	47	4296	44
10	AP01T1114	3811	33	5619	41	2677	26	4721	27
11	AP01T3131	3624	47	6020	33	1411	48	4314	43
12	NW99L7068	3929	24	6821	15	2375	33	4784	23
13	T135	3689	45	5749	39	2429	31	4396	41
14	T136	3894	26	5445	45	2834	22	4753	26
15	T140	3708	41	6165	30	2198	38	4690	28
16	T141	3452	48	5453	44	1408	49	4282	45
17	OK00611W	3739	39	5290	47	2933	20	4638	33
18	OK00618W	3890	28	6032	32	2472	28	4932	13
19	OK00514	3974	21	6269	26	2842	21	4815	20
20	OK99212	3773	37	6190	29	3187	15	4685	29
21	OK00614	3634	46	5949	36	2036	41	4452	38
22	KS950811-5-1	4082	10	6366	25	3355	8	4815	19
23	KS00F5-14-7	4291	2	7133	10	3844	1	5216	5
24	KS00F5-20-3	4225	4	5598	42	3290	11	5633	1
25	KS00F5-57-8	3789	34	5793	37	2452	29	4206	46
26	CO970547-7	4077	11	5194	49	2825	23	4820	18
27	CO980607	4182	8	7221	7	3758	2	4990	12
28	CO00D007	3869	31	7108	11	2385	32	4862	16
29	CO00016	3785	35	6599	21	2224	36	4070	47
30	CO00698	3982	20	6655	20	2625	27	4659	32
31	TX96D1073	3945	22	6583	23	2434	30	5149	9
32	TX00V1117	4211	7	7956	1	1982	44	3986	48
33	TX00V1131	4032	13	6703	18	3301	10	5628	2
34	TX01D3232	4218	5	7578	3	3405	7	5033	11
35	TX00D1390	4335	1	7598	2	3541	5	5178	7
36	TX01A5936	4088	9	7283	5	3284	12	5192	6
37	NE00403	4003	18	7283	5	2022	42	4874	15
38	NE00435	3700	43	6008	34	2116	40	4414	40
39	NE01481	3893	27	6146	31	2220	37	4426	39
40	NE00564	3780	36	7204	8	2349	35	4598	34
41	W99-194	3992	19	6213	28	2356	34	4791	22
42	W96x1311-01	3886	29	5689	40	3220	13	5109	10
43	W98-159-7	3872	30	6262	27	1863	46	4670	31
44	W03-20	4013	17	6514	24	3187	16	5306	4
45	KS01HW152-6	4228	3	6792	16	3437	6	5156	8
46	KS01HW163-4	4029	14	6873	13	3656	3	4918	14
47	KS02HW34	4214	6	5999	35	3140	17	5418	3
48	SD97W604	3906	25	5284	48	2754	25	4762	25
49	CO991132	3702	42	6757	17	2757	24	4538	37
50	NW98S097	3764	38	6972	12	2184	39	4672	30
	mean	3887		6374		2666		4681	
	cv (%)	11		16		12.1		6.9	
	l.s.d. (0.05)	250		1619		529		525	
	n	85		3		3		3	

Table 4. Mean grain yield (kg/ha) of 50 entries at 30 locations in the 2004 SRPN.

entry	Line/selection	region		Goodwell, OK, irr.		Stillwater, OK	
		mean	rank	mean	rank	mean	rank
1	Kharkof	2585	50	2464	48	2076	50
2	Scout66	3247	49	3330	40	2921	47
3	TAM107	3694	44	4031	28	3420	34
4	Trego	3939	23	4515	11	3261	39
5	G990191	4041	12	3431	38	4412	2
6	G982238-2	3861	32	3075	43	3519	28
7	G991324	4016	16	4578	10	3194	41
8	G980143	4027	15	4316	21	3693	15
9	AP01T1112	3726	40	2755	46	3975	11
10	AP01T1114	3811	33	2394	49	3429	32
11	AP01T3131	3624	47	1993	50	3651	19
12	NW99L7068	3929	24	3436	37	3256	40
13	T135	3689	45	3113	42	3646	20
14	T136	3894	26	4123	25	3494	29
15	T140	3708	41	3850	29	3626	21
16	T141	3452	48	4412	16	3165	43
17	OK00611W	3739	39	2728	47	3429	32
18	OK00618W	3890	28	4488	13	3445	31
19	OK00514	3974	21	4323	20	3915	13
20	OK99212	3773	37	4343	17	4034	9
21	OK00614	3634	46	3171	41	3588	22
22	KS950811-5-1	4082	10	4246	23	3854	14
23	KS00F5-14-7	4291	2	4941	4	4022	10
24	KS00F5-20-3	4225	4	4813	5	4047	8
25	KS00F5-57-8	3789	34	4477	14	3407	35
26	CO970547-7	4077	11	3395	39	4381	3
27	CO980607	4182	8	4609	9	3588	22
28	CO00D007	3869	31	4782	8	2676	48
29	CO00016	3785	35	4495	12	2300	49
30	CO00698	3982	20	4255	22	3568	24
31	TX96D1073	3945	22	4802	6	3523	27
32	TX00V1117	4211	7	3816	30	3140	45
33	TX00V1131	4032	13	3756	31	4284	5
34	TX01D3232	4218	5	4455	15	4437	1
35	TX00D1390	4335	1	5322	1	4372	4
36	TX01A5936	4088	9	4795	7	3384	36
37	NE00403	4003	18	4054	27	3543	25
38	NE00435	3700	43	2777	45	3669	18
39	NE01481	3893	27	3711	32	3319	38
40	NE00564	3780	36	3615	36	3165	43
41	W99-194	3992	19	3671	35	3671	17
42	W96x1311-01	3886	29	4139	24	4273	6
43	W98-159-7	3872	30	4061	26	3539	26
44	W03-20	4013	17	2957	44	3447	30
45	KS01HW152-6	4228	3	4343	18	4255	7
46	KS01HW163-4	4029	14	3693	34	3353	37
47	KS02HW34	4214	6	4334	19	3960	12
48	SD97W604	3906	25	4954	3	3684	16
49	CO991132	3702	42	3698	33	3194	41
50	NW98S097	3764	38	5106	2	3111	46
	mean	3887		3939		3566	
	cv (%)	11		11.2		10.4	
	l.s.d. (0.05)	250		709		607	
	n	85		3		3	

Table 4. Mean grain yield (kg/ha) of 50 entries at 30 locations in the 2004 SRPN.

entry	Line/selection	region		Akron, CO		Fort Collins, CO, irr.		Julesburg, CO	
		mean	rank	mean	rank	mean	rank	mean	rank
1	Kharkof	2585	50	2746	40	3909	44	2024	46
2	Scout66	3247	49	2881	36	4634	28	2683	16
3	TAM107	3694	44	3051	25	5118	14	2688	15
4	Trego	3939	23	2643	43	5138	13	2329	43
5	G990191	4041	12	3221	17	4443	35	2672	17
6	G982238-2	3861	32	2475	48	4161	40	2020	47
7	G991324	4016	16	3708	5	4766	22	2807	10
8	G980143	4027	15	3883	3	5441	9	2892	4
9	AP01T1112	3726	40	3250	14	4447	34	2405	40
10	AP01T1114	3811	33	3078	22	4488	30	2242	45
11	AP01T3131	3624	47	3114	19	5026	16	2629	19
12	NW99L7068	3929	24	2533	47	4988	18	2612	22
13	T135	3689	45	2791	39	4889	19	2280	44
14	T136	3894	26	2941	31	4992	17	2623	20
15	T140	3708	41	2981	28	3475	49	2746	12
16	T141	3452	48	2549	46	4093	41	1930	49
17	OK00611W	3739	39	2026	50	4781	21	2475	31
18	OK00618W	3890	28	2988	27	4631	29	2412	38
19	OK00514	3974	21	3082	21	4078	42	2459	34
20	OK99212	3773	37	2730	41	3616	48	2417	37
21	OK00614	3634	46	2607	45	4311	38	2423	36
22	KS950811-5-1	4082	10	2975	29	4804	20	2744	13
23	KS00F5-14-7	4291	2	3073	23	5246	12	2455	35
24	KS00F5-20-3	4225	4	2802	38	5337	10	2845	8
25	KS00F5-57-8	3789	34	3042	26	4414	37	2352	42
26	CO970547-7	4077	11	3071	24	6335	4	2618	21
27	CO980607	4182	8	4102	1	5914	6	2903	3
28	CO00D007	3869	31	3649	6	6351	2	2883	5
29	CO00016	3785	35	2939	32	6373	1	2860	7
30	CO00698	3982	20	3383	10	6102	5	3004	1
31	TX96D1073	3945	22	3215	18	5064	15	2594	24
32	TX00V1117	4211	7	3943	2	6348	3	2549	29
33	TX00V1131	4032	13	3277	13	3679	47	1744	50
34	TX01D3232	4218	5	2883	35	3284	50	2558	27
35	TX00D1390	4335	1	3363	11	4725	24	2878	6
36	TX01A5936	4088	9	2475	48	4642	26	2816	9
37	NE00403	4003	18	3457	7	4461	32	2990	2
38	NE00435	3700	43	2634	44	4430	36	2652	18
39	NE01481	3893	27	3398	9	4308	39	2378	41
40	NE00564	3780	36	3226	15	4447	33	2596	23
41	W99-194	3992	19	3445	8	4699	25	2591	25
42	W96x1311-01	3886	29	2858	37	3901	45	2461	33
43	W98-159-7	3872	30	2957	30	4486	31	2567	26
44	W03-20	4013	17	3224	16	4764	23	2764	11
45	KS01HW152-6	4228	3	2683	42	5483	8	2742	14
46	KS01HW163-4	4029	14	2898	33	5250	11	2502	30
47	KS02HW34	4214	6	3309	12	4636	27	2551	28
48	SD97W604	3906	25	3098	20	4026	43	2468	32
49	CO991132	3702	42	2887	34	5506	7	2412	38
50	NW98S097	3764	38	3719	4	3800	46	1975	48
	mean	3887		3065		4765		2544	
	cv (%)	11		9.7		13.8		10.4	
	l.s.d. (0.05)	250		489		1076		433	
	n	85		3		3		3	

Table 4. Mean grain yield (kg/ha) of 50 entries at 30 locations in the 2004 SRPN.

entry	Line/selection	region		Garden City, KS		Hays, KS		Hutchinson, KS	
		mean	rank	mean	rank	mean	rank	mean	rank
1	Kharkof	2585	50	2016	46	2683	50	1776	50
2	Scout66	3247	49	2258	36	3407	43	2064	48
3	TAM107	3694	44	2629	14	3638	31	2489	46
4	Trego	3939	23	2747	9	3970	23	3278	22
5	G990191	4041	12	2460	22	4234	8	3308	20
6	G982238-2	3861	32	2313	33	3940	24	3318	18
7	G991324	4016	16	2625	15	4128	14	3073	33
8	G980143	4027	15	2794	7	3983	22	2932	40
9	AP01T1112	3726	40	1996	47	3034	48	3635	5
10	AP01T1114	3811	33	2243	39	3343	46	3437	15
11	AP01T3131	3624	47	2472	21	3501	37	3289	21
12	NW99L7068	3929	24	2373	29	3842	27	2937	39
13	T135	3689	45	2392	26	3558	34	2800	42
14	T136	3894	26	2743	10	3429	41	2794	43
15	T140	3708	41	2660	12	3556	35	2962	38
16	T141	3452	48	2131	43	2950	49	3067	34
17	OK00611W	3739	39	1922	50	3431	40	3318	18
18	OK00618W	3890	28	2408	25	3616	32	3016	35
19	OK00514	3974	21	2313	33	4145	13	3156	26
20	OK99212	3773	37	2636	13	3293	47	3389	16
21	OK00614	3634	46	2369	30	3406	44	3464	14
22	KS950811-5-1	4082	10	2213	41	4266	5	3383	17
23	KS00F5-14-7	4291	2	2297	35	4018	19	3813	1
24	KS00F5-20-3	4225	4	2564	16	4077	17	3710	3
25	KS00F5-57-8	3789	34	1990	48	3521	36	3126	28
26	CO970547-7	4077	11	3341	1	4089	16	3083	32
27	CO980607	4182	8	2562	17	3919	25	3121	29
28	CO00D007	3869	31	2498	20	4097	15	2494	45
29	CO00016	3785	35	3015	3	4241	7	1951	49
30	CO00698	3982	20	2374	28	4242	6	3113	30
31	TX96D1073	3945	22	2258	36	4151	12	3553	8
32	TX00V1117	4211	7	2555	18	4479	2	3478	13
33	TX00V1131	4032	13	2019	45	3476	38	3494	12
34	TX01D3232	4218	5	2246	38	4185	10	3789	2
35	TX00D1390	4335	1	2912	4	4278	4	3535	10
36	TX01A5936	4088	9	2181	42	4282	3	3535	10
37	NE00403	4003	18	2431	24	4064	18	2978	37
38	NE00435	3700	43	2384	27	3615	33	3632	6
39	NE01481	3893	27	2756	8	3912	26	3243	23
40	NE00564	3780	36	2831	5	3421	42	2664	44
41	W99-194	3992	19	2553	19	4211	9	3200	24
42	W96x1311-01	3886	29	1941	49	3998	21	3684	4
43	W98-159-7	3872	30	2339	31	3792	28	3005	36
44	W03-20	4013	17	2712	11	4153	11	3135	27
45	KS01HW152-6	4228	3	3162	2	4697	1	3170	25
46	KS01HW163-4	4029	14	2214	40	3688	30	3602	7
47	KS02HW34	4214	6	2797	6	4014	20	3548	9
48	SD97W604	3906	25	2449	23	3726	29	3089	31
49	CO991132	3702	42	2101	44	3445	39	2267	47
50	NW98S097	3764	38	2321	32	3352	45	2829	41
	mean	3887		2450		3810		3135	
	cv (%)	11		11.2		7.3		10	
	l.s.d. (0.05)	250		447		456		506	
	n	85		3		3		3	

Table 4. Mean grain yield (kg/ha) of 50 entries at 30 locations in the 2004 SRPN.

entry	Line/selection	region		Colby, KS		Salina, KS		Wichita, KS	
		mean	rank	mean	rank	mean	rank	mean	rank
1	Kharkof	2585	50	2004	50	2920	50	1985	50
2	Scout66	3247	49	2598	48	3863	49	2785	48
3	TAM107	3694	44	3306	8	4483	47	3434	38
4	Trego	3939	23	3387	5	5269	35	4491	4
5	G990191	4041	12	3661	1	5867	8	4143	16
6	G982238-2	3861	32	2829	41	5755	15	3796	26
7	G991324	4016	16	3127	19	6146	3	2830	47
8	G980143	4027	15	3486	2	5447	28	3595	32
9	AP01T1112	3726	40	3026	24	5615	25	3588	33
10	AP01T1114	3811	33	2970	30	5657	23	4445	5
11	AP01T3131	3624	47	3109	20	5577	26	4093	18
12	NW99L7068	3929	24	3237	10	5113	41	4320	9
13	T135	3689	45	3091	22	5277	34	4147	15
14	T136	3894	26	3419	4	5325	31	4071	20
15	T140	3708	41	3132	17	4957	46	4190	11
16	T141	3452	48	2520	49	5148	39	3182	43
17	OK00611W	3739	39	2609	47	5815	9	4186	13
18	OK00618W	3890	28	2768	44	5436	29	3237	42
19	OK00514	3974	21	3190	14	5678	21	4432	6
20	OK99212	3773	37	3181	16	5178	37	4409	7
21	OK00614	3634	46	2789	43	5241	36	4082	19
22	KS950811-5-1	4082	10	2950	31	5731	18	4334	8
23	KS00F5-14-7	4291	2	2993	26	6080	5	3392	40
24	KS00F5-20-3	4225	4	3192	13	6113	4	4187	12
25	KS00F5-57-8	3789	34	2921	33	5792	12	3128	44
26	CO970547-7	4077	11	3313	7	5094	42	4297	10
27	CO980607	4182	8	3463	3	5400	30	3426	39
28	CO00D007	3869	31	2887	34	4996	44	3061	45
29	CO00016	3785	35	3183	15	4481	48	3602	31
30	CO00698	3982	20	2874	35	4966	45	3867	25
31	TX96D1073	3945	22	3100	21	5177	38	3968	23
32	TX00V1117	4211	7	2923	32	5759	14	3773	28
33	TX00V1131	4032	13	2833	39	6036	6	3969	22
34	TX01D3232	4218	5	2975	29	5973	7	4834	2
35	TX00D1390	4335	1	3226	11	5720	19	5065	1
36	TX01A5936	4088	9	2993	26	5808	11	3508	36
37	NE00403	4003	18	2791	42	5308	32	3662	29
38	NE00435	3700	43	2842	38	5305	33	4151	14
39	NE01481	3893	27	2833	39	5788	13	3459	37
40	NE00564	3780	36	2849	37	5122	40	3533	35
41	W99-194	3992	19	3022	25	5812	10	3964	24
42	W96x1311-01	3886	29	3058	23	6191	2	3325	41
43	W98-159-7	3872	30	2627	46	5679	20	3539	34
44	W03-20	4013	17	3291	9	5670	22	3773	27
45	KS01HW152-6	4228	3	3224	12	5638	24	4140	17
46	KS01HW163-4	4029	14	3315	6	5754	16	3626	30
47	KS02HW34	4214	6	3132	17	6507	1	4015	21
48	SD97W604	3906	25	2730	45	5091	43	4603	3
49	CO991132	3702	42	2874	36	5486	27	2772	49
50	NW98S097	3764	38	2979	28	5744	17	3024	46
	mean	3887		3017		5440		3789	
	cv (%)	11		9.6		6		14.3	
	l.s.d. (0.05)	250		471		522		1085	
	n	85		3		3		2	

Table 4. Mean grain yield (kg/ha) of 50 entries at 30 locations in the 2004 SRPN.

entry	Line/selection	region		Lincoln, NE		Clay Center, NE	
		mean	rank	mean	rank	mean	rank
1	Kharkof	2585	50	4552	50	3071	49
2	Scout66	3247	49	5101	49	3410	48
3	TAM107	3694	44	5369	48	4470	39
4	Trego	3939	23	6350	22	4891	28
5	G990191	4041	12	6758	8	4434	40
6	G982238-2	3861	32	6371	19	4377	42
7	G991324	4016	16	6901	4	4337	44
8	G980143	4027	15	6096	36	5371	13
9	AP01T1112	3726	40	6699	11	5050	25
10	AP01T1114	3811	33	6068	37	5313	16
11	AP01T3131	3624	47	6296	24	3449	47
12	NW99L7068	3929	24	6749	9	4625	37
13	T135	3689	45	6206	30	4119	46
14	T136	3894	26	5759	42	4842	31
15	T140	3708	41	6172	32	4683	36
16	T141	3452	48	5785	41	4414	41
17	OK00611W	3739	39	5992	39	5034	26
18	OK00618W	3890	28	6509	17	4875	30
19	OK00514	3974	21	6110	34	5341	15
20	OK99212	3773	37	5742	44	5169	23
21	OK00614	3634	46	5733	45	2532	50
22	KS950811-5-1	4082	10	6012	38	5243	21
23	KS00F5-14-7	4291	2	6685	12	6109	1
24	KS00F5-20-3	4225	4	6285	26	5907	3
25	KS00F5-57-8	3789	34	6478	18	4804	33
26	CO970547-7	4077	11	6214	28	5437	8
27	CO980607	4182	8	6100	35	5822	5
28	CO00D007	3869	31	6205	31	5281	20
29	CO00016	3785	35	5520	46	4824	32
30	CO00698	3982	20	6356	20	5429	10
31	TX96D1073	3945	22	5420	47	4907	27
32	TX00V1117	4211	7	6928	3	5350	14
33	TX00V1131	4032	13	7055	2	5650	7
34	TX01D3232	4218	5	6271	27	5284	19
35	TX00D1390	4335	1	6777	7	5705	6
36	TX01A5936	4088	9	6668	13	5429	10
37	NE00403	4003	18	5828	40	4358	43
38	NE00435	3700	43	6209	29	4298	45
39	NE01481	3893	27	7325	1	4714	34
40	NE00564	3780	36	6325	23	4606	38
41	W99-194	3992	19	6876	5	5220	22
42	W96x1311-01	3886	29	6645	14	4702	35
43	W98-159-7	3872	30	6713	10	5436	9
44	W03-20	4013	17	6171	33	5296	18
45	KS01HW152-6	4228	3	6617	15	5066	24
46	KS01HW163-4	4029	14	5748	43	5389	12
47	KS02HW34	4214	6	6873	6	5982	2
48	SD97W604	3906	25	6286	25	5857	4
49	CO991132	3702	42	6352	21	4888	29
50	NW98S097	3764	38	6560	16	5313	16
	mean	3887		6256		4922	
	cv (%)	11		5.3		8.8	
	l.s.d. (0.05)	250		538		709	
	n	85		3		3	

Table 4. Mean grain yield (kg/ha) of 50 entries at 30 locations in the 2004 SRPN.

entry	Line/selection	region		North Platte, NE		Sidney, NE		Alliance, NE	
		mean	rank	mean	rank	mean	rank	mean	rank
1	Kharkof	2585	50	2678	48	2957	49	2427	50
2	Scout66	3247	49	3305	35	3831	39	2902	43
3	TAM107	3694	44	3415	28	3814	40	3439	15
4	Trego	3939	23	3222	39	4289	20	3216	26
5	G990191	4041	12	3124	42	4245	22	2974	39
6	G982238-2	3861	32	2730	47	4445	14	2830	47
7	G991324	4016	16	3610	19	4761	5	3470	14
8	G980143	4027	15	3244	36	4366	17	3701	6
9	AP01T1112	3726	40	2428	49	2742	50	3213	27
10	AP01T1114	3811	33	3229	38	3675	41	3244	24
11	AP01T3131	3624	47	2980	46	4089	27	3733	5
12	NW99L7068	3929	24	3802	12	3848	36	3733	4
13	T135	3689	45	3161	40	3838	38	3043	35
14	T136	3894	26	3750	15	4033	28	3412	18
15	T140	3708	41	3468	26	4194	24	2868	45
16	T141	3452	48	3549	22	3592	45	3071	34
17	OK00611W	3739	39	2427	50	3896	33	3521	13
18	OK00618W	3890	28	3516	25	4284	21	3039	37
19	OK00514	3974	21	3238	37	4011	29	3425	17
20	OK99212	3773	37	3318	34	3111	48	3078	33
21	OK00614	3634	46	3605	20	3413	46	3043	35
22	KS950811-5-1	4082	10	3005	45	3602	44	3855	1
23	KS00F5-14-7	4291	2	3452	27	3843	37	3248	23
24	KS00F5-20-3	4225	4	4117	2	3889	34	3097	31
25	KS00F5-57-8	3789	34	3942	7	3988	30	2940	41
26	CO970547-7	4077	11	3541	23	4573	10	3593	10
27	CO980607	4182	8	4104	3	4349	18	3851	2
28	CO00D007	3869	31	3321	32	4135	26	3249	22
29	CO00016	3785	35	4051	4	4186	25	3663	7
30	CO00698	3982	20	3621	17	3926	32	3347	20
31	TX96D1073	3945	22	3398	30	4455	13	3175	29
32	TX00V1117	4211	7	4391	1	4757	6	3661	8
33	TX00V1131	4032	13	3710	16	4241	23	3178	28
34	TX01D3232	4218	5	3777	14	3876	35	3616	9
35	TX00D1390	4335	1	3530	24	3674	42	2967	40
36	TX01A5936	4088	9	3151	41	4619	8	3412	18
37	NE00403	4003	18	3801	13	4636	7	3560	11
38	NE00435	3700	43	3887	8	3338	47	3224	25
39	NE01481	3893	27	3611	18	3971	31	2784	48
40	NE00564	3780	36	3059	43	4584	9	3087	32
41	W99-194	3992	19	3823	11	4370	16	3426	16
42	W96x1311-01	3886	29	3413	29	3672	43	2911	42
43	W98-159-7	3872	30	3851	10	4391	15	2888	44
44	W03-20	4013	17	3321	32	4849	3	3273	21
45	KS01HW152-6	4228	3	3866	9	5054	1	3800	3
46	KS01HW163-4	4029	14	3338	31	4766	4	3173	30
47	KS02HW34	4214	6	3951	6	4897	2	2847	46
48	SD97W604	3906	25	3987	5	4298	19	2767	49
49	CO991132	3702	42	3035	44	4529	11	3540	12
50	NW98S097	3764	38	3605	20	4470	12	3034	38
	mean	3887		3469		4107		3251	
	cv (%)	11		13.5		14.9		11	
	l.s.d. (0.05)	250		762		1001		584	
	n	85		3		3		3	

Table 4. Mean grain yield (kg/ha) of 50 entries at 30 locations in the 2004 SRPN.

entry	Line/selection	region		Brookings, SD		Dakota Lakes, SD		Winner, SD	
		mean	rank	mean	rank	mean	rank	mean	rank
1	Kharkof	2585	50	5314	47	3476	45	3164	28
2	Scout66	3247	49	5856	43	3342	49	2786	41
3	TAM107	3694	44	5905	42	3864	33	2671	44
4	Trego	3939	23	6804	9	3670	37	3794	4
5	G990191	4041	12	6329	27	4352	18	3482	9
6	G982238-2	3861	32	7313	2	3991	28	3189	25
7	G991324	4016	16	7349	1	4927	6	3822	2
8	G980143	4027	15	6230	30	4728	9	2790	40
9	AP01T1112	3726	40	6241	29	3897	32	2958	34
10	AP01T1114	3811	33	6061	36	3863	34	3025	33
11	AP01T3131	3624	47	6558	19	2498	50	3234	22
12	NW99L7068	3929	24	6106	34	4688	10	2488	45
13	T135	3689	45	6230	30	3397	46	2404	47
14	T136	3894	26	6172	33	3504	43	2823	38
15	T140	3708	41	6192	32	4234	22	2903	37
16	T141	3452	48	6005	40	3942	30	3267	21
17	OK00611W	3739	39	6404	25	3496	44	3114	31
18	OK00618W	3890	28	6834	8	4435	17	3203	24
19	OK00514	3974	21	6535	21	3350	48	3299	16
20	OK99212	3773	37	5207	49	3516	40	2768	42
21	OK00614	3634	46	6781	11	4115	24	3444	11
22	KS950811-5-1	4082	10	7003	4	3637	38	3502	8
23	KS00F5-14-7	4291	2	7073	3	4329	19	3480	10
24	KS00F5-20-3	4225	4	6693	13	3516	40	3279	20
25	KS00F5-57-8	3789	34	6094	35	3816	36	3548	7
26	CO970547-7	4077	11	6859	7	4037	26	2812	39
27	CO980607	4182	8	5957	41	3829	35	3215	23
28	CO00D007	3869	31	6057	37	3931	31	3181	26
29	CO00016	3785	35	5557	44	4281	20	3161	29
30	CO00698	3982	20	6657	14	4241	21	3325	15
31	TX96D1073	3945	22	6454	24	4602	13	2266	48
32	TX00V1117	4211	7	6801	10	4515	15	3338	14
33	TX00V1131	4032	13	6558	18	3958	29	2407	46
34	TX01D3232	4218	5	6617	16	4092	25	3141	30
35	TX00D1390	4335	1	6647	15	4220	23	3633	5
36	TX01A5936	4088	9	6543	20	4809	7	3801	3
37	NE00403	4003	18	6773	12	5632	2	3027	32
38	NE00435	3700	43	5463	46	3562	39	2937	36
39	NE01481	3893	27	6879	6	5034	3	3289	18
40	NE00564	3780	36	6497	22	5028	4	3296	17
41	W99-194	3992	19	6589	17	4630	12	3841	1
42	W96x1311-01	3886	29	5540	45	3357	47	2940	35
43	W98-159-7	3872	30	6478	23	4653	11	2703	43
44	W03-20	4013	17	6038	38	5018	5	3425	12
45	KS01HW152-6	4228	3	6904	5	4781	8	3350	13
46	KS01HW163-4	4029	14	6246	28	4443	16	3551	6
47	KS02HW34	4214	6	6342	26	6020	1	3286	19
48	SD97W604	3906	25	6010	39	4554	14	2231	49
49	CO991132	3702	42	5248	48	3509	42	2157	50
50	NW98S097	3764	38	5026	50	3998	27	3167	27
	mean	3887		6320		4146		3118	
	cv (%)	11		8		15		12	
	l.s.d. (0.05)	250		1012		1264		732	
	n	85		2		2		2	

Table 4. Mean grain yield (kg/ha) of 50 entries at 30 locations in the 2004 SRPN.

entry	Line/selection	region		Crawfordsville, IA		Columbia, MO		Bozeman, MT	
		mean	rank	mean	rank	mean	rank	mean	rank
1	Kharkof	2585	50	2801	48	1856	50	4992	42
2	Scout66	3247	49	3473	37	2039	47	4600	47
3	TAM107	3694	44	3564	33	3382	18	4126	48
4	Trego	3939	23	3827	26	2186	46	5311	39
5	G990191	4041	12	3779	28	3829	9	5950	32
6	G982238-2	3861	32	4368	8	3780	11	6690	26
7	G991324	4016	16	3517	35	2217	45	7713	6
8	G980143	4027	15	2821	47	2963	30	7224	14
9	AP01T1112	3726	40	4768	1	3353	20	7178	15
10	AP01T1114	3811	33	4593	4	3741	12	6361	29
11	AP01T3131	3624	47	4304	10	3563	14	5819	35
12	NW99L7068	3929	24	4627	3	3547	15	6923	21
13	T135	3689	45	4523	5	3119	25	5925	33
14	T136	3894	26	3877	23	3900	4	4888	43
15	T140	3708	41	3433	40	2953	31	4881	44
16	T141	3452	48	3467	38	3880	5	4789	45
17	OK00611W	3739	39	3564	33	3872	6	5894	34
18	OK00618W	3890	28	2888	45	2844	35	7281	13
19	OK00514	3974	21	3954	21	3218	22	6801	23
20	OK99212	3773	37	3574	32	3009	27	5985	31
21	OK00614	3634	46	4321	9	3925	3	7170	16
22	KS950811-5-1	4082	10	4294	11	3840	8	5566	38
23	KS00F5-14-7	4291	2	3867	24	3788	10	5086	41
24	KS00F5-20-3	4225	4	3961	20	3938	1	5595	37
25	KS00F5-57-8	3789	34	3827	27	3360	19	7065	19
26	CO970547-7	4077	11	4065	18	3850	7	6623	27
27	CO980607	4182	8	2885	46	2677	38	8214	2
28	CO00D007	3869	31	3705	29	2452	41	7642	7
29	CO00016	3785	35	3931	22	2660	39	7329	12
30	CO00698	3982	20	3020	44	3043	26	7598	8
31	TX96D1073	3945	22	4398	7	3441	17	7769	5
32	TX00V1117	4211	7	3853	25	2800	36	8913	1
33	TX00V1131	4032	13	4637	2	3927	2	6787	24
34	TX01D3232	4218	5	4082	17	3256	21	7051	20
35	TX00D1390	4335	1	4412	6	3000	28	7542	10
36	TX01A5936	4088	9	2781	49	2949	32	7819	4
37	NE00403	4003	18	4153	14	3470	16	7578	9
38	NE00435	3700	43	4227	12	2756	37	3604	50
39	NE01481	3893	27	4085	16	3178	23	7106	18
40	NE00564	3780	36	3595	31	3145	24	7118	17
41	W99-194	3992	19	3971	19	2406	42	7533	11
42	W96x1311-01	3886	29	3436	39	2994	29	5125	40
43	W98-159-7	3872	30	3480	36	2295	43	6414	28
44	W03-20	4013	17	3685	30	2865	33	5724	36
45	KS01HW152-6	4228	3	3204	42	2488	40	6877	22
46	KS01HW163-4	4029	14	4159	13	2225	44	3606	49
47	KS02HW34	4214	6	3312	41	1984	49	6011	30
48	SD97W604	3906	25	4143	15	2864	34	4696	46
49	CO991132	3702	42	2397	50	3699	13	6786	25
50	NW98S097	3764	38	3050	43	1999	48	8119	3
	mean	3887		3773		3090		6388	
	cv (%)	11		12		9.6			
	l.s.d. (0.05)	250		901		483			
	n	85		2		3			

Table 5. Summary of region-wide and state-wide mean grain yields (kg/ha) of entries in the 2004 SRPN.

entry	Line/selection	region		NM State		TX State		OK State		CO State		KS State		NE State		SD State	
		mean	rank	mean	rank	mean	rank	mean	rank	mean	rank	mean	rank	mean	rank	mean	rank
1	Kharkof	2585	50	2832	50	2205	50	1786	50	2893	48	2245	50	3137	50	3985	47
2	Scout66	3247	49	3329	46	3329	49	2893	48	3399	26	2832	49	3710	48	3994	45
3	TAM107	3694	44	3408	39	3804	42	3744	25	3619	14	3324	46	4101	43	4146	41
4	Trego	3939	23	3399	40	4361	16	3998	14	3370	28	3820	9	4394	30	4756	16
5	G990191	4041	12	3846	20	4264	22	3988	15	3445	24	3934	6	4307	34	4721	19
6	G982238-2	3861	32	3944	13	4240	26	3540	34	2885	49	3650	23	4151	41	4831	12
7	G991324	4016	16	3650	27	4402	15	3644	28	3760	8	3703	19	4616	13	5366	1
8	G980143	4027	15	3878	17	4143	31	3960	18	4072	5	3713	17	4556	17	4583	23
9	AP01T1112	3726	40	4090	9	3824	41	3199	47	3368	29	3476	39	4026	47	4365	33
10	AP01T1114	3811	33	3544	34	4186	29	3305	43	3269	35	3638	26	4306	35	4316	37
11	AP01T3131	3624	47	3420	38	3610	45	2842	49	3590	17	3649	24	4109	42	4096	42
12	NW99L7068	3929	24	3984	11	4187	28	3463	36	3377	27	3597	30	4551	18	4427	29
13	T135	3689	45	3345	41	4132	33	3396	40	3320	33	3509	37	4073	46	4010	44
14	T136	3894	26	3478	36	4273	21	3801	22	3519	21	3604	29	4359	31	4166	40
15	T140	3708	41	3431	37	3905	40	3591	32	3067	44	3540	33	4277	36	4443	27
16	T141	3452	48	3039	49	3377	48	3317	41	2857	50	3165	48	4082	45	4404	30
17	OK00611W	3739	39	3546	33	4153	30	3432	37	3094	42	3509	36	4174	40	4338	34
18	OK00618W	3890	28	3495	35	4579	10	3834	21	3344	31	3424	41	4444	25	4824	14
19	OK00514	3974	21	3727	24	4425	13	3974	17	3206	38	3783	13	4425	29	4395	31
20	OK99212	3773	37	3307	48	4468	11	4062	12	2921	45	3638	25	4084	44	3830	49
21	OK00614	3634	46	3329	45	3926	39	3312	42	3114	41	3528	35	3665	49	4780	15
22	KS950811-5-1	4082	10	3704	25	4620	8	4068	11	3507	22	3782	14	4343	32	4714	20
23	KS00F5-14-7	4291	2	4263	4	4729	3	4506	2	3591	16	3787	11	4667	8	4960	8
24	KS00F5-20-3	4225	4	3639	29	4675	5	4446	3	3661	9	3961	4	4659	9	4496	25
25	KS00F5-57-8	3789	34	3334	44	4131	34	3636	29	3269	35	3430	40	4430	28	4486	26
26	CO970547-7	4077	11	3584	31	4116	35	3855	20	4008	7	3844	7	4672	7	4569	24
27	CO980607	4182	8	4255	5	4408	14	4236	7	4306	1	3662	22	4845	4	4333	35
28	CO00D007	3869	31	3966	12	3804	43	3676	27	4294	2	3355	45	4438	26	4390	32
29	CO00016	3785	35	4165	8	3508	47	3272	44	4057	6	3401	42	4449	24	4333	36
30	CO00698	3982	20	3900	15	4040	37	3777	23	4163	4	3555	32	4536	19	4741	18
31	TX96D1073	3945	22	3850	19	3990	38	3977	16	3624	13	3685	20	4271	37	4440	28
32	TX00V1117	4211	7	4757	1	4335	19	3231	46	4280	3	3831	8	5017	1	4885	10
33	TX00V1131	4032	13	3871	18	4244	25	4242	6	2900	47	3618	28	4767	5	4308	38
34	TX01D3232	4218	5	4433	3	4935	1	4332	4	2908	46	3951	5	4565	16	4617	21
35	TX00D1390	4335	1	4484	2	4671	6	4603	1	3655	10	4067	1	4530	20	4833	11
36	TX01A5936	4088	9	4066	10	4429	12	4164	10	3311	34	3730	15	4656	11	5051	5
37	NE00403	4003	18	4249	6	4140	32	3623	30	3636	11	3532	34	4436	27	5144	3

Table 5. Summary of region-wide and state-wide mean grain yields (kg/ha) of entries in the 2004 SRPN.

entry	Line/selection	region		NM State		TX State		OK State		CO State		KS State		NE State		SD State	
		mean	rank	mean	rank	mean	rank	mean	rank	mean	rank	mean	rank	mean	rank	mean	rank
38	NE00435	3700	43	3315	47	4284	20	3244	45	3238	37	3626	27	4191	39	3987	46
39	NE01481	3893	27	3648	28	4075	36	3419	39	3362	30	3677	21	4481	22	5067	4
40	NE00564	3780	36	4189	7	3556	46	3432	38	3423	25	3396	43	4332	33	4940	9
41	W99-194	3992	19	3630	30	4190	27	3622	31	3578	19	3784	12	4743	6	5020	6
42	W96x1311-01	3886	29	3338	43	4630	7	4185	9	3073	43	3721	16	4269	38	3945	48
43	W98-159-7	3872	30	3739	23	4357	17	3533	35	3336	32	3494	38	4656	10	4611	22
44	W03-20	4013	17	3899	16	4250	23	3724	26	3584	18	3790	10	4582	15	4827	13
45	KS01HW152-6	4228	3	3749	22	4685	4	4298	5	3636	12	3997	3	4881	3	5011	7
46	KS01HW163-4	4029	14	3835	21	4620	8	3905	19	3550	20	3704	18	4483	21	4747	17
47	KS02HW34	4214	6	3697	26	4779	2	4213	8	3498	23	4001	2	4910	2	5216	2
48	SD97W604	3906	25	3342	42	4348	18	4038	13	3197	39	3557	31	4639	12	4265	39
49	CO991132	3702	42	3939	14	3787	44	3547	33	3602	15	3180	47	4469	23	3638	50
50	NW98S097	3764	38	3573	32	4246	24	3768	24	3164	40	3395	44	4596	14	4064	43
	mean	3887		3729		4168		3713		3458		3596		4401		4528	
	cv (%)	11		18		9		10		13		9		10		11	
	l.s.d. (0.05)	250		757		790		666		721		422		559		745	
	n	85		9		12		12		9		17		15		6	

Table 6. Mean grain yields (kg/ha) of entries in the 2004 SRPN for regional production zones (after Peterson, 1992, Crop Science 32: 907).
Irrigated trials = Bushland, TX, Clovis and Farmington, NM, Goodland, OK and Ft. Collins, CO.

entry	Line/selection	region		Southern Plains		Southern High Plains		Central Plains	
		mean	rank	mean	rank	mean	rank	mean	rank
1	Kharkof	2585	50	2135	50	1619	50	2374	50
2	Scout66	3247	49	3313	48	2158	44	3052	49
3	TAM107	3694	44	3928	39	2489	19	3518	48
4	Trego	3939	23	4411	16	2428	28	4231	17
5	G990191	4041	12	4330	18	2390	31	4410	9
6	G982238-2	3861	32	4065	31	2494	18	4239	15
7	G991324	4016	16	4317	19	2237	43	4155	24
8	G980143	4027	15	4285	21	2536	15	4025	34
9	AP01T1112	3726	40	3661	45	2347	35	4003	36
10	AP01T1114	3811	33	3925	40	2437	26	4200	20
11	AP01T3131	3624	47	3312	49	2334	36	4117	26
12	NW99L7068	3929	24	4001	33	2524	16	4029	33
13	T135	3689	45	3910	41	2355	34	3927	38
14	T136	3894	26	4244	22	2579	12	3890	40
15	T140	3708	41	3948	37	2283	41	3891	39
16	T141	3452	48	3560	47	1913	49	3624	45
17	OK00611W	3739	39	3976	34	2445	25	4187	21
18	OK00618W	3890	28	4478	13	2291	40	3880	41
19	OK00514	3974	21	4426	15	2459	21	4346	12
20	OK99212	3773	37	4472	14	2297	38	4036	31
21	OK00614	3634	46	3760	43	2261	42	4045	30
22	KS950811-5-1	4082	10	4548	9	2468	20	4437	5
23	KS00F5-14-7	4291	2	4928	2	2599	11	4411	8
24	KS00F5-20-3	4225	4	4837	4	2627	9	4552	4
25	KS00F5-57-8	3789	34	4174	25	2013	47	3961	37
26	CO970547-7	4077	11	4131	28	2966	1	4127	25
27	CO980607	4182	8	4584	8	2648	8	4016	35
28	CO00D007	3869	31	3936	38	2414	29	3717	43
29	CO00016	3785	35	3597	46	2713	3	3566	46
30	CO00698	3982	20	4124	29	2455	23	4063	28
31	TX96D1073	3945	22	4187	23	2446	24	4234	16
32	TX00V1117	4211	7	4046	32	2702	4	4427	7
33	TX00V1131	4032	13	4485	12	2370	32	4269	14
34	TX01D3232	4218	5	4897	3	2690	5	4683	1
35	TX00D1390	4335	1	4945	1	2811	2	4612	2
36	TX01A5936	4088	9	4535	11	2430	27	4354	11
37	NE00403	4003	18	4071	30	2612	10	4034	32
38	NE00435	3700	43	3976	35	2151	45	4178	22
39	NE01481	3893	27	3957	36	2458	22	4159	23
40	NE00564	3780	36	3713	44	2539	14	3699	44
41	W99-194	3992	19	4163	27	2333	37	4327	13
42	W96x1311-01	3886	29	4713	7	2133	46	4388	10
43	W98-159-7	3872	30	4182	24	2394	30	4046	29
44	W03-20	4013	17	4169	26	2651	7	4220	18
45	KS01HW152-6	4228	3	4748	5	2578	13	4436	6
46	KS01HW163-4	4029	14	4537	10	2296	39	4217	19
47	KS02HW34	4214	6	4738	6	2673	6	4567	3
48	SD97W604	3906	25	4393	17	2497	17	4084	27
49	CO991132	3702	42	3866	42	2359	33	3558	47
50	NW98S097	3764	38	4300	20	2007	48	3802	42
	mean	3887		4159		2418		4066	
	cv (%)	11		10		15		9	
	l.s.d. (0.05)	250		175		154		534	
	n	85		21		12		11	

Table 6. Mean grain yields (kg/ha) of entries in the 2004 SRPN for regional production zones (after Peterson, 1992, Crop Science 32: 907).
Irrigated trials = Bushland, TX, Clovis and Farmington, NM, Goodland, OK and Ft. Collins, CO.

entry	Line/selection	region		North-central Plains		Northern High Plains		Intermountain		Irrigated trials	
		mean	rank	mean	rank	mean	rank	mean	rank	mean	rank
1	Kharkof	2585	50	3741	50	2482	50	3797	50	3636	50
2	Scout66	3247	49	4032	49	3060	40	4283	45	4707	46
3	TAM107	3694	44	4394	47	3255	25	4716	27	5060	38
4	Trego	3939	23	4994	22	3174	34	4716	26	5486	20
5	G990191	4041	12	4961	26	3384	12	4851	22	5074	36
6	G982238-2	3861	32	4997	20	2900	46	4608	30	5206	32
7	G991324	4016	16	5210	8	3603	3	4943	18	5659	14
8	G980143	4027	15	4824	32	3574	4	5280	7	5644	15
9	AP01T1112	3726	40	5070	13	2770	48	5002	17	4891	41
10	AP01T1114	3811	33	4945	27	3039	42	4450	40	4788	45
11	AP01T3131	3624	47	4459	45	3184	33	4926	20	4207	49
12	NW99L7068	3929	24	4995	21	3206	30	5181	10	5384	22
13	T135	3689	45	4577	41	3032	43	4560	34	4839	43
14	T136	3894	26	4611	40	3353	17	4616	29	5304	29
15	T140	3708	41	4721	37	3304	22	4169	47	4883	42
16	T141	3452	48	4568	42	2828	47	4206	46	4522	48
17	OK00611W	3739	39	4731	35	2687	49	4531	37	4964	40
18	OK00618W	3890	28	4919	28	3194	32	4567	33	5387	21
19	OK00514	3974	21	4902	29	3196	31	4591	32	5372	23
20	OK99212	3773	37	4490	44	2951	45	4295	44	5020	39
21	OK00614	3634	46	4437	46	2967	44	4434	41	4549	47
22	KS950811-5-1	4082	10	5046	15	3055	41	5008	16	5551	16
23	KS00F5-14-7	4291	2	5420	2	3163	35	5209	9	6161	4
24	KS00F5-20-3	4225	4	5105	11	3369	14	4678	28	5803	9
25	KS00F5-57-8	3789	34	4887	30	3249	26	4382	43	5148	34
26	CO970547-7	4077	11	5036	17	3423	11	5041	15	5301	31
27	CO980607	4182	8	4824	33	3784	1	5662	2	6205	3
28	CO00D007	3869	31	4872	31	3375	13	5569	3	5974	5
29	CO00016	3785	35	4635	38	3444	10	5545	4	5904	6
30	CO00698	3982	20	4989	23	3362	16	5368	5	5702	11
31	TX96D1073	3945	22	4744	34	3352	18	4941	19	5550	17
32	TX00V1117	4211	7	5275	6	3713	2	5988	1	6274	1
33	TX00V1131	4032	13	5231	7	3161	36	4520	38	5060	37
34	TX01D3232	4218	5	5038	16	3214	28	4826	24	5861	7
35	TX00D1390	4335	1	5376	3	3334	20	5097	14	6250	2
36	TX01A5936	4088	9	5154	9	3211	29	5113	11	5844	8
37	NE00403	4003	18	4980	24	3535	6	5101	12	5671	13
38	NE00435	3700	43	4564	43	3071	39	4554	35	4813	44
39	NE01481	3893	27	5335	4	3239	27	4413	42	5144	35
40	NE00564	3780	36	4973	25	3263	24	4913	21	5302	30
41	W99-194	3992	19	5311	5	3450	9	4779	25	5333	26
42	W96x1311-01	3886	29	4613	39	3092	38	4167	48	5202	33
43	W98-159-7	3872	30	5077	12	3279	23	4545	36	5325	27
44	W03-20	4013	17	5052	14	3490	8	4850	23	5320	28
45	KS01HW152-6	4228	3	5109	10	3514	7	5358	6	5729	10
46	KS01HW163-4	4029	14	5015	19	3364	15	5099	13	5681	12
47	KS02HW34	4214	6	5463	1	3568	5	4494	39	5506	18
48	SD97W604	3906	25	5022	18	3316	21	4026	49	5339	25
49	CO991132	3702	42	4310	48	3148	37	5267	8	5487	19
50	NW98S097	3764	38	4721	36	3349	19	4602	31	5346	24
	mean	3887		4875		3241		4797		5327	
	cv (%)	11		9		12.6		15		12.9	
	l.s.d. (0.05)	250		598		417		892		842	
	n	85		14		15		9		15	

Table 7. Summary of mean volume weights (kg/hl) of 50 entries in the 2004 SRPN.

entry	Line/selection	region	Clovis, NM,	Farmington,	Bushland, TX,	Bushland,	Chillicothe,
			irr.	NM, irr.	dry.	TX, irr.	TX
1	Kharkof	72.2	78.2	75.8	73.5	75.3	64.4
2	Scout66	74.9	80.5	77.4	72.0	79.2	76.8
3	TAM107	74.1	78.6	77.7	69.7	77.5	78.8
4	Trego	76.6	80.7	78.8	72.0	81.5	81.0
5	G990191	73.1	77.5	77.4	67.3	73.8	79.6
6	G982238-2	75.2	78.3	76.2	72.9	77.3	78.8
7	G991324	74.4	78.6	78.2	67.3	77.5	76.4
8	G980143	75.2	79.1	78.6	69.1	80.0	80.1
9	AP01T1112	75.6	79.2	74.6	69.8	79.1	80.6
10	AP01T1114	76.9	80.3	78.2	72.9	79.2	80.1
11	AP01T3131	76.5	80.4	78.2	75.1	80.2	80.9
12	NW99L7068	73.2	77.1	75.4	66.0	77.9	79.5
13	T135	73.6	77.6	75.9	68.5	78.3	79.2
14	T136	74.9	78.7	77.7	69.1	78.7	79.2
15	T140	73.7	77.6	73.6	71.2	76.2	77.7
16	T141	72.9	76.9	74.8	66.7	73.9	72.1
17	OK00611W	74.2	78.6	76.8	68.6	79.2	79.5
18	OK00618W	75.9	80.9	78.9	70.4	81.3	82.6
19	OK00514	76.7	80.4	78.6	69.4	80.6	79.6
20	OK99212	76.2	80.1	77.7	72.9	81.0	80.5
21	OK00614	75.6	78.4	77.0	70.6	78.4	79.1
22	KS950811-5-1	76.3	79.2	77.3	71.5	80.2	80.5
23	KS00F5-14-7	75.4	79.4	77.0	67.9	80.2	80.6
24	KS00F5-20-3	75.2	78.6	75.8	69.7	79.2	79.5
25	KS00F5-57-8	74.0	77.2	76.5	67.0	74.6	78.7
26	CO970547-7	75.7	79.9	77.3	70.8	79.6	80.2
27	CO980607	74.7	79.7	78.0	68.4	80.4	81.0
28	CO00D007	72.4	77.0	76.4	66.7	77.0	78.2
29	CO00016	72.2	77.6	77.3	64.1	75.5	75.9
30	CO00698	73.0	77.3	77.1	66.8	79.3	80.2
31	TX96D1073	74.5	78.3	73.3	67.2	80.0	78.7
32	TX00V1117	74.4	78.4	77.7	66.0	78.2	73.9
33	TX00V1131	72.6	76.8	50.9	69.3	77.8	80.2
34	TX01D3232	72.2	77.9	74.7	67.1	78.9	79.1
35	TX00D1390	75.8	79.3	78.8	68.0	79.3	80.5
36	TX01A5936	75.5	80.2	75.5	71.5	82.0	81.9
37	NE00403	74.7	77.5	75.6	68.1	78.4	80.1
38	NE00435	74.2	78.3	76.9	68.1	77.8	78.2
39	NE01481	72.9	76.7	76.4	65.9	75.1	75.6
40	NE00564	74.2	79.8	76.5	69.3	79.3	76.0
41	W99-194	73.8	77.7	76.8	67.5	76.9	76.8
42	W96x1311-01	75.9	80.4	78.3	69.8	80.6	79.9
43	W98-159-7	73.7	77.5	77.8	69.3	78.0	77.7
44	W03-20	76.2	78.7	77.6	70.0	80.0	79.2
45	KS01HW152-6	75.1	80.4	77.9	71.7	81.3	82.6
46	KS01HW163-4	76.6	81.1	79.7	74.0	81.9	82.6
47	KS02HW34	77.2	82.0	79.4	73.3	81.3	81.3
48	SD97W604	75.4	79.3	76.2	71.7	80.0	78.2
49	CO991132	70.6	76.5	77.2	63.5	76.8	77.7
50	NW98S097	74.3	79.4	78.9	71.6	79.7	80.2
	mean	74.6	78.8	76.5	69.4	78.7	78.8

Table 7. Summary of mean volume weights (kg/hl) of 50 entries in the 2004 SRPN.

entry	Line/selection	region	Prosper, TX	Lahoma, OK	Goodwell, OK, irr.	Hutchinson, KS
1	Kharkof	72.2	76.0	76.3	69.0	
2	Scout66	74.9	76.2	75.1	71.9	73.1
3	TAM107	74.1	70.7	74.6	72.6	68.9
4	Trego	76.6	79.1	76.9	75.2	74.7
5	G990191	73.1	73.8	73.1	69.4	69.1
6	G982238-2	75.2	77.0	74.4	72.7	68.3
7	G991324	74.4	77.4	73.5	72.0	73.3
8	G980143	75.2	78.4	75.3	73.0	72.5
9	AP01T1112	75.6	79.2	77.6	72.5	75.6
10	AP01T1114	76.9	79.1	78.2	72.8	76.2
11	AP01T3131	76.5	78.4	76.1	73.7	76.3
12	NW99L7068	73.2	74.8	72.3	70.8	69.1
13	T135	73.6	75.9	73.3	72.2	70.5
14	T136	74.9	75.9	75.6	73.0	70.4
15	T140	73.7	73.7	72.9	71.0	69.7
16	T141	72.9	72.9	73.0	72.1	69.7
17	OK00611W	74.2	77.3	75.7	72.8	72.6
18	OK00618W	75.9	79.6	76.7	74.0	74.4
19	OK00514	76.7	77.8	77.9	75.3	76.9
20	OK99212	76.2	77.7	77.1	74.8	74.5
21	OK00614	75.6	77.3	75.3	73.4	75.3
22	KS950811-5-1	76.3	78.6	76.1	73.8	75.0
23	KS00F5-14-7	75.4	78.2	75.9	73.5	76.4
24	KS00F5-20-3	75.2	74.9	75.5	73.5	74.6
25	KS00F5-57-8	74.0	77.1	74.8	71.7	71.8
26	CO970547-7	75.7	74.8	74.6	73.6	73.5
27	CO980607	74.7	75.7	74.8	73.3	71.6
28	CO00D007	72.4	73.8	72.2	70.9	64.7
29	CO00016	72.2	68.9	70.1	69.9	64.8
30	CO00698	73.0	75.3	73.2	69.8	72.2
31	TX96D1073	74.5	77.1	76.4	72.3	73.5
32	TX00V1117	74.4	77.1	73.9	70.3	74.8
33	TX00V1131	72.6	77.8	76.5	70.7	74.4
34	TX01D3232	72.2	76.6	72.9	72.6	71.7
35	TX00D1390	75.8	78.2	75.9	74.9	73.1
36	TX01A5936	75.5	79.9	76.2	75.1	74.0
37	NE00403	74.7	74.7	74.7	72.2	74.0
38	NE00435	74.2	74.6	72.1	70.4	74.4
39	NE01481	72.9	74.0	72.4	70.9	68.1
40	NE00564	74.2	73.9	74.2	73.5	71.6
41	W99-194	73.8	73.9	75.1	71.7	71.6
42	W96x1311-01	75.9	77.5	76.9	74.8	75.2
43	W98-159-7	73.7	77.3	74.9	71.9	73.0
44	W03-20	76.2	78.2	76.1	73.9	75.6
45	KS01HW152-6	75.1	79.9	76.6	75.9	64.4
46	KS01HW163-4	76.6	80.6	78.5	75.9	75.2
47	KS02HW34	77.2	81.5	78.4	76.3	76.3
48	SD97W604	75.4	77.4	75.8	73.3	73.6
49	CO991132	70.6	70.7	73.9	72.7	46.5
50	NW98S097	74.3	79.2	75.4	74.4	73.7
	mean	74.6	76.5	75.1	72.8	72.0

Table 7. Summary of mean volume weights (kg/hl) of 50 entries in the 2004 SRPN.

entry	Line/selection	region	Hays, KS	Colby, KS	Garden City, KS	Salina, KS	Fort Collins, CO	Akron, CO
1	Kharkof	72.2	67.2	72.2	72.7	72.9	78.6	74.6
2	Scout66	74.9	80.2	71.0	72.1	77.5	79.1	75.6
3	TAM107	74.1	80.1	70.8	71.0	75.7	79.4	75.9
4	Trego	76.6	82.4	72.4	73.1	80.4	80.5	78.2
5	G990191	73.1	80.2	67.9	68.7	78.4	77.9	73.8
6	G982238-2	75.2	80.0	72.3	72.0	79.8	78.2	75.7
7	G991324	74.4	80.1	69.4	71.4	80.3	79.5	76.5
8	G980143	75.2	81.0	73.6	72.8	79.2	80.2	77.5
9	AP01T1112	75.6	79.4	70.1	71.0	79.5	79.7	75.2
10	AP01T1114	76.9	80.9	73.3	72.7	80.5	80.0	77.0
11	AP01T3131	76.5	82.2	72.2	73.1	81.4	80.6	76.9
12	NW99L7068	73.2	81.1	65.7	69.7	77.5	78.8	73.1
13	T135	73.6	79.8	68.9	70.5	78.6	78.0	74.5
14	T136	74.9	81.3	71.6	72.4	77.9	79.1	75.5
15	T140	73.7	79.3	69.1	71.1	75.9	79.3	74.2
16	T141	72.9	75.0	68.0	69.2	77.9	78.1	75.1
17	OK00611W	74.2	80.3	68.2	69.6	80.1	78.6	75.0
18	OK00618W	75.9	82.7	68.6	71.5	81.2	81.6	76.2
19	OK00514	76.7	81.1	71.4	72.6	82.6	80.0	77.1
20	OK99212	76.2	81.1	72.8	74.0	79.2	79.4	75.2
21	OK00614	75.6	79.8	71.1	72.2	77.9	78.9	75.9
22	KS950811-5-1	76.3	81.8	71.0	72.3	80.0	79.8	77.0
23	KS00F5-14-7	75.4	81.4	69.7	71.3	79.1	79.5	75.9
24	KS00F5-20-3	75.2	80.8	72.0	71.4	78.6	78.4	75.6
25	KS00F5-57-8	74.0	78.6	67.6	67.3	78.4	78.7	75.6
26	CO970547-7	75.7	81.5	71.2	72.5	78.9	80.4	76.5
27	CO980607	74.7	82.2	71.9	70.6	76.6	80.2	76.5
28	CO00D007	72.4	80.0	69.7	68.5	75.7	79.8	75.5
29	CO00016	72.2	77.8	68.4	68.0	73.1	79.1	74.9
30	CO00698	73.0	80.3	67.4	68.8	78.7	78.6	72.5
31	TX96D1073	74.5	79.0	71.4	71.0	79.4	78.4	75.9
32	TX00V1117	74.4	77.2	67.6	70.5	80.0	82.0	76.0
33	TX00V1131	72.6	78.5	66.2	67.7	80.1	78.0	73.7
34	TX01D3232	72.2	80.8	67.1	69.1	78.5	75.9	74.7
35	TX00D1390	75.8	82.2	69.6	71.2	80.6	80.4	76.8
36	TX01A5936	75.5	81.6	70.2	71.9	79.5	81.0	75.4
37	NE00403	74.7	77.9	67.0	71.0	79.7	79.5	76.0
38	NE00435	74.2	80.3	67.6	69.8	77.6	78.6	75.9
39	NE01481	72.9	77.9	65.4	68.8	76.5	78.7	74.4
40	NE00564	74.2	78.1	71.0	71.6	79.4	79.4	75.0
41	W99-194	73.8	77.4	70.5	70.5	77.9	78.6	74.9
42	W96x1311-01	75.9	81.8	70.6	72.3	80.8	79.7	77.1
43	W98-159-7	73.7	79.4	69.5	70.4	79.9	79.3	76.1
44	W03-20	76.2	81.2	70.9	72.1	79.2	79.2	77.6
45	KS01HW152-6	75.1	83.2	71.5	73.4	72.9	81.3	77.3
46	KS01HW163-4	76.6	82.3	72.8	74.0	80.5	81.7	78.5
47	KS02HW34	77.2	82.7	73.9	74.7	80.5	81.3	78.4
48	SD97W604	75.4	81.6	72.3	71.9	80.3	79.2	76.2
49	CO991132	70.6	78.5	66.3	66.9	77.4	78.4	74.9
50	NW98S097	74.3	81.2	68.8	71.3	80.8	80.6	77.2
	mean	74.6	80.1	70.0	71.1	78.7	79.4	75.8

Table 7. Summary of mean volume weights (kg/hl) of 50 entries in the 2004 SRPN.

entry	Line/selection	region	Julesburg, CO	Brookings, SD	Dakota Lakes, SD	Winner, SD	Crawfords- ville, IA
1	Kharkof	72.2	76.6	77.8	80.7	77.0	69.2
2	Scout66	74.9	76.6	76.9	79.2	76.6	69.1
3	TAM107	74.1	74.4	76.3	78.9	73.7	66.0
4	Trego	76.6	78.8	80.0	79.6	78.5	69.4
5	G990191	73.1	72.1	76.2	75.3	74.7	65.3
6	G982238-2	75.2	76.0	78.5	78.3	75.5	71.9
7	G991324	74.4	75.7	77.2	79.4	77.2	64.7
8	G980143	75.2	78.0	77.8	79.1	72.0	65.7
9	AP01T1112	75.6	74.9	78.3	79.1	75.1	75.3
10	AP01T1114	76.9	76.9	77.3	80.5	75.4	74.6
11	AP01T3131	76.5	75.5	77.1	80.3	77.9	70.0
12	NW99L7068	73.2	70.2	72.7	78.2	74.0	69.2
13	T135	73.6	73.3	75.1	75.4	73.5	69.7
14	T136	74.9	75.5	75.8	76.7	74.8	71.1
15	T140	73.7	73.8	77.1	77.8	76.2	67.9
16	T141	72.9	75.7	75.8	77.8	75.5	66.0
17	OK00611W	74.2	74.3	75.8	78.2	75.7	69.6
18	OK00618W	75.9	74.4	79.6	80.5	77.5	68.6
19	OK00514	76.7	76.9	78.7	82.1	76.2	71.9
20	OK99212	76.2	76.6	76.7	78.0	77.1	69.5
21	OK00614	75.6	75.2	78.5	79.4	75.4	72.4
22	KS950811-5-1	76.3	75.7	79.8	79.4	78.8	73.9
23	KS00F5-14-7	75.4	75.2	78.5	78.9	73.7	71.5
24	KS00F5-20-3	75.2	75.5	77.2	78.5	75.2	69.9
25	KS00F5-57-8	74.0	74.3	77.4	77.8	76.0	71.9
26	CO970547-7	75.7	76.6	78.2	78.1	74.5	72.4
27	CO980607	74.7	76.6	76.7	77.3	75.1	66.4
28	CO00D007	72.4	73.5	76.0	77.1	72.1	67.5
29	CO00016	72.2	72.6	72.4	75.6	67.1	64.9
30	CO00698	73.0	73.0	74.7	76.2	72.8	65.0
31	TX96D1073	74.5	75.7	76.3	75.4	70.1	71.7
32	TX00V1117	74.4	75.2	78.7	81.4	72.7	69.0
33	TX00V1131	72.6	74.3	76.5	78.0	71.2	72.0
34	TX01D3232	72.2	72.6	74.2	74.4	64.1	67.1
35	TX00D1390	75.8	76.6	78.9	79.8	78.9	72.2
36	TX01A5936	75.5	77.9	80.9	78.5	75.0	68.1
37	NE00403	74.7	75.2	76.2	80.5	75.4	70.1
38	NE00435	74.2	75.2	75.8	77.2	72.6	70.9
39	NE01481	72.9	74.3	76.7	77.6	76.6	69.5
40	NE00564	74.2	74.9	76.0	79.4	72.9	66.0
41	W99-194	73.8	77.9	74.9	77.4	75.4	70.4
42	W96x1311-01	75.9	77.1	77.6	77.5	74.9	71.3
43	W98-159-7	73.7	75.7	75.8	76.9	74.4	68.2
44	W03-20	76.2	76.6	76.9	81.6	77.4	71.8
45	KS01HW152-6	75.1	74.9	80.7	78.9	74.5	70.5
46	KS01HW163-4	76.6	77.4	77.1	82.3	79.7	68.6
47	KS02HW34	77.2	79.7	77.1	82.5	81.8	67.8
48	SD97W604	75.4	74.9	73.1	78.9	76.9	71.5
49	CO991132	70.6	73.8	71.6	75.3	70.5	63.5
50	NW98S097	74.3	74.9	70.8	77.8	72.9	64.9
	mean	74.6	75.4	76.7	78.5	74.8	69.3

Table 7. Summary of mean volume weights (kg/hl) of 50 entries in the 2004 SRPN.

entry	Line/selection	region	Columbia, MO
1	Kharkof	72.2	72.7
2	Scout66	74.9	70.1
3	TAM107	74.1	69.2
4	Trego	76.6	65.8
5	G990191	73.1	67.1
6	G982238-2	75.2	70.5
7	G991324	74.4	58.9
8	G980143	75.2	66.2
9	AP01T1112	75.6	71.4
10	AP01T1114	76.9	71.8
11	AP01T3131	76.5	71.0
12	NW99L7068	73.2	69.2
13	T135	73.6	68.4
14	T136	74.9	71.8
15	T140	73.7	66.7
16	T141	72.9	71.0
17	OK00611W	74.2	69.2
18	OK00618W	75.9	69.2
19	OK00514	76.7	70.1
20	OK99212	76.2	69.7
21	OK00614	75.6	71.4
22	KS950811-5-1	76.3	71.8
23	KS00F5-14-7	75.4	70.1
24	KS00F5-20-3	75.2	70.1
25	KS00F5-57-8	74.0	71.4
26	CO970547-7	75.7	71.4
27	CO980607	74.7	67.1
28	CO00D007	72.4	62.8
29	CO00016	72.2	67.1
30	CO00698	73.0	65.8
31	TX96D1073	74.5	69.7
32	TX00V1117	74.4	68.8
33	TX00V1131	72.6	73.5
34	TX01D3232	72.2	66.2
35	TX00D1390	75.8	67.1
36	TX01A5936	75.5	69.2
37	NE00403	74.7	70.1
38	NE00435	74.2	71.0
39	NE01481	72.9	68.8
40	NE00564	74.2	67.1
41	W99-194	73.8	63.6
42	W96x1311-01	75.9	69.2
43	W98-159-7	73.7	59.3
44	W03-20	76.2	69.7
45	KS01HW152-6	75.1	64.9
46	KS01HW163-4	76.6	62.8
47	KS02HW34	77.2	60.2
48	SD97W604	75.4	67.5
49	CO991132	70.6	66.2
50	NW98S097	74.3	62.8
	mean	74.6	68.1

Table 8. Summary of plant heights (cm) of entries grown in the 2004 SRPN.

entry	Line/selection	region	Clovis,						Stillwater, OK
			NM, dryland.	Clovis, NM, irr.	Farmington, NM, irr.	Bushland, TX, dryland.	Bushland, TX, irr.		
1	Kharkof	91	39	100	113	81	101	116	
2	Scout66	88	38	95	101	81	103	108	
3	TAM107	74	41	78	79	70	91	89	
4	Trego	71	35	77	76	65	90	82	
5	G990191	73	37	86	86	67	87	81	
6	G982238-2	72	33	83	80	69	89	83	
7	G991324	73	29	76	80	64	91	84	
8	G980143	78	35	85	91	72	97	90	
9	AP01T1112	75	32	88	90	76	94	92	
10	AP01T1114	73	37	85	85	70	89	83	
11	AP01T3131	72	36	83	77	66	94	82	
12	NW99L7068	73	40	82	82	67	93	82	
13	T135	77	35	86	85	77	93	91	
14	T136	73	37	83	80	71	92	85	
15	T140	76	37	84	87	69	96	90	
16	T141	78	38	87	91	69	100	89	
17	OK00611W	75	35	90	86	71	98	85	
18	OK00618W	71	34	72	77	64	94	81	
19	OK00514	78	35	86	88	74	96	90	
20	OK99212	74	33	84	89	70	97	87	
21	OK00614	74	39	83	80	72	94	86	
22	KS950811-5-1	74	36	81	78	70	90	89	
23	KS00F5-14-7	74	38	80	88	68	90	89	
24	KS00F5-20-3	75	36	80	80	71	93	90	
25	KS00F5-57-8	79	37	87	90	72	99	94	
26	CO970547-7	75	42	84	85	71	92	84	
27	CO980607	72	36	79	77	68	94	78	
28	CO00D007	78	38	90	84	75	98	86	
29	CO00016	73	37	82	83	67	94	81	
30	CO00698	78	37	88	86	74	97	92	
31	TX96D1073	74	38	81	80	69	91	86	
32	TX00V1117	79	45	84	87	69	95	93	
33	TX00V1131	71	33	78	77	66	91	83	
34	TX01D3232	70	37	79	83	66	90	84	
35	TX00D1390	74	38	81	85	70	93	90	
36	TX01A5936	79	40	91	91	76	95	87	
37	NE00403	70	32	76	77	65	93	77	
38	NE00435	76	39	84	84	68	97	87	
39	NE01481	79	40	83	86	77	101	93	
40	NE00564	74	34	86	83	68	95	82	
41	W99-194	79	35	81	89	75	99	95	
42	W96x1311-01	73	36	79	86	67	93	94	
43	W98-159-7	74	38	79	81	66	95	83	
44	W03-20	73	35	82	80	68	94	83	
45	KS01HW152-6	72	37	75	80	69	85	79	
46	KS01HW163-4	75	37	81	83	68	95	85	
47	KS02HW34	75	37	88	78	68	93	81	
48	SD97W604	70	38	76	74	65	88	84	

Table 8. Summary of plant heights (cm) of entries grown in the 2004 SRPN.

entry	Line/selection	region	Lahoma,			Hutchinson,	Wichita,	Julesburg,	
			OK	Hays, KS	Colby, KS	KS	KS	Akron, CO	CO
1	Kharkof	91	129	105	86	114	102	77	71
2	Scout66	88	117	92	82	115	97	62	69
3	TAM107	74	96	75	67	97	81	60	56
4	Trego	71	88	70	66	97	84	56	56
5	G990191	73	90	70	65	92	86	56	60
6	G982238-2	72	87	75	67	88	84	58	55
7	G991324	73	91	72	67	99	76	58	57
8	G980143	78	98	74	69	100	81	66	60
9	AP01T1112	75	96	75	69	95	89	61	60
10	AP01T1114	73	89	71	66	90	89	55	56
11	AP01T3131	72	91	72	68	93	81	58	60
12	NW99L7068	73	88	71	67	98	84	51	55
13	T135	77	95	76	71	98	89	60	58
14	T136	73	91	72	70	95	86	57	60
15	T140	76	91	72	72	96	91	52	58
16	T141	78	91	77	71	103	91	61	60
17	OK00611W	75	96	72	69	94	86	56	58
18	OK00618W	71	90	69	65	94	81	57	56
19	OK00514	78	105	80	70	97	97	57	62
20	OK99212	74	99	72	69	103	86	53	57
21	OK00614	74	101	70	68	97	84	56	55
22	KS950811-5-1	74	96	76	67	94	84	61	57
23	KS00F5-14-7	74	94	75	66	100	81	55	58
24	KS00F5-20-3	75	92	78	70	100	86	55	60
25	KS00F5-57-8	79	101	78	71	97	89	57	60
26	CO970547-7	75	94	75	67	98	86	57	55
27	CO980607	72	91	68	70	93	76	61	53
28	CO00D007	78	97	75	75	105	86	58	64
29	CO00016	73	92	69	67	95	81	55	57
30	CO00698	78	98	76	73	98	91	57	56
31	TX96D1073	74	93	75	67	93	79	61	57
32	TX00V1117	79	98	82	76	97	89	60	58
33	TX00V1131	71	94	71	64	87	86	56	53
34	TX01D3232	70	86	71	65	90	76	55	53
35	TX00D1390	74	92	73	67	94	89	60	56
36	TX01A5936	79	104	82	73	104	94	56	66
37	NE00403	70	85	70	65	95	76	56	55
38	NE00435	76	93	75	71	100	89	62	62
39	NE01481	79	102	80	72	106	91	60	58
40	NE00564	74	95	69	66	103	76	60	56
41	W99-194	79	102	78	73	98	97	55	65
42	W96x1311-01	73	102	70	67	99	86	62	56
43	W98-159-7	74	90	72	67	95	81	60	61
44	W03-20	73	95	73	67	96	86	53	60
45	KS01HW152-6	72	92	69	66	93	81	55	56
46	KS01HW163-4	75	97	75	70	95	84	64	61
47	KS02HW34	75	95	71	70	96	89	65	60
48	SD97W604	70	90	68	64	98	76	57	55

Table 8. Summary of plant heights (cm) of entries grown in the 2004 SRPN.

entry	Line/selection	region	Lincoln,	Clay Center,	North Platte,	Sidney, NE	Alliance,	Winner,
			NE	NE	NE		NE	SD
1	Kharkof	91	107	99	72	69	65	102
2	Scout66	88	105	102	74	76	66	86
3	TAM107	74	88	82	58	64	61	64
4	Trego	71	84	83	57	57	55	69
5	G990191	73	81	84	56	67	56	71
6	G982238-2	72	83	85	58	63	53	64
7	G991324	73	86	88	64	66	56	71
8	G980143	78	87	92	65	72	62	64
9	AP01T1112	75	86	80	56	67	62	64
10	AP01T1114	73	82	79	57	70	61	61
11	AP01T3131	72	85	75	57	62	62	64
12	NW99L7068	73	86	79	59	66	60	66
13	T135	77	91	90	63	67	64	69
14	T136	73	83	86	60	63	60	66
15	T140	76	89	91	65	68	56	69
16	T141	78	93	94	63	64	64	71
17	OK00611W	75	88	88	58	64	64	69
18	OK00618W	71	85	89	59	64	55	69
19	OK00514	78	91	94	62	65	66	66
20	OK99212	74	89	88	60	57	59	66
21	OK00614	74	88	86	61	60	60	71
22	KS950811-5-1	74	87	80	62	59	59	66
23	KS00F5-14-7	74	82	86	63	63	65	66
24	KS00F5-20-3	75	87	87	65	66	59	66
25	KS00F5-57-8	79	91	98	70	67	64	76
26	CO970547-7	75	80	86	61	69	63	66
27	CO980607	72	81	86	60	63	58	66
28	CO00D007	78	91	90	61	69	60	66
29	CO00016	73	82	89	60	61	61	69
30	CO00698	78	94	96	64	59	60	71
31	TX96D1073	74	85	87	63	67	62	61
32	TX00V1117	79	90	94	72	67	65	69
33	TX00V1131	71	81	83	62	64	56	66
34	TX01D3232	70	79	77	60	59	56	61
35	TX00D1390	74	86	85	56	64	57	64
36	TX01A5936	79	90	87	63	70	66	69
37	NE00403	70	78	80	57	62	55	69
38	NE00435	76	91	89	69	64	66	69
39	NE01481	79	96	99	66	63	60	76
40	NE00564	74	87	94	57	62	55	71
41	W99-194	79	90	95	69	69	64	71
42	W96x1311-01	73	80	73	58	58	58	66
43	W98-159-7	74	86	87	64	68	61	58
44	W03-20	73	80	82	63	69	64	61
45	KS01HW152-6	72	83	89	59	67	60	64
46	KS01HW163-4	75	85	86	58	68	59	66
47	KS02HW34	75	87	87	64	65	58	71
48	SD97W604	70	77	83	59	61	55	64

Table 8. Summary of plant heights (cm) of entries grown in the 2004 SRPN.

entry	Line/selection	region	Crawfords- ville, IA	Columbia, MO
1	Kharkof	91	98	105
2	Scout66	88	93	103
3	TAM107	74	79	91
4	Trego	71	72	95
5	G990191	73	72	95
6	G982238-2	72	73	93
7	G991324	73	78	93
8	G980143	78	80	98
9	AP01T1112	75	75	96
10	AP01T1114	73	73	98
11	AP01T3131	72	76	86
12	NW99L7068	73	77	91
13	T135	77	83	100
14	T136	73	72	91
15	T140	76	76	96
16	T141	78	81	106
17	OK00611W	75	75	96
18	OK00618W	71	70	92
19	OK00514	78	79	95
20	OK99212	74	75	92
21	OK00614	74	72	97
22	KS950811-5-1	74	73	96
23	KS00F5-14-7	74	71	94
24	KS00F5-20-3	75	80	98
25	KS00F5-57-8	79	80	97
26	CO970547-7	75	73	96
27	CO980607	72	71	91
28	CO00D007	78	80	100
29	CO00016	73	79	93
30	CO00698	78	83	104
31	TX96D1073	74	77	93
32	TX00V1117	79	80	97
33	TX00V1131	71	74	92
34	TX01D3232	70	70	87
35	TX00D1390	74	73	97
36	TX01A5936	79	81	98
37	NE00403	70	71	92
38	NE00435	76	77	91
39	NE01481	79	83	97
40	NE00564	74	75	96
41	W99-194	79	79	101
42	W96x1311-01	73	73	97
43	W98-159-7	74	72	94
44	W03-20	73	74	90
45	KS01HW152-6	72	74	93
46	KS01HW163-4	75	77	94
47	KS02HW34	75	78	97
48	SD97W604	70	69	95

Table 9. Summary of days (from 1/1) to heading for entries in the 2004 SRPN.

entry	Line/selection	region	Clovis, NM, dryland.	Clovis, NM, irr.	Farmington, NM, irr.	Bushland, TX, dryland.	Lahoma, OK	Stillwater, OK
1	Kharkof	137	140	132	134	130	123	122
2	Scout66	132	139	124	128	124	117	118
3	TAM107	126	133	119	120	116	107	107
4	Trego	130	137	125	124	121	111	110
5	G990191	128	135	123	121	119	110	109
6	G982238-2	130	140	126	123	122	113	110
7	G991324	133	139	127	129	126	117	118
8	G980143	129	137	126	123	121	111	110
9	AP01T1112	128	140	121	120	118	108	107
10	AP01T1114	127	140	122	121	119	108	106
11	AP01T3131	127	138	121	120	118	109	107
12	NW99L7068	128	140	123	121	120	111	110
13	T135	126	139	116	118	118	106	105
14	T136	126	136	119	120	117	108	106
15	T140	129	138	124	123	120	113	112
16	T141	131	139	124	126	122	114	116
17	OK00611W	128	140	123	121	119	109	110
18	OK00618W	131	139	126	126	122	113	113
19	OK00514	129	138	124	122	119	111	110
20	OK99212	129	140	124	121	119	110	108
21	OK00614	128	137	123	122	119	110	110
22	KS950811-5-1	127	135	120	121	118	109	108
23	KS00F5-14-7	127	131	121	121	118	108	107
24	KS00F5-20-3	127	132	121	122	119	108	107
25	KS00F5-57-8	131	136	124	127	123	115	116
26	CO970547-7	127	130	120	120	118	110	109
27	CO980607	129	138	124	124	119	109	108
28	CO00D007	130	135	124	122	122	112	113
29	CO00016	131	135	124	129	121	115	119
30	CO00698	129	136	125	122	120	110	109
31	TX96D1073	129	136	124	122	120	110	109
32	TX00V1117	133	137	125	128	125	118	117
33	TX00V1131	129	140	124	122	120	110	108
34	TX01D3232	127	139	122	120	118	109	107
35	TX00D1390	128	140	124	123	119	110	108
36	TX01A5936	128	135	120	121	118	110	108
37	NE00403	131	139	125	125	121	114	113
38	NE00435	128	130	120	125	119	113	114
39	NE01481	131	137	126	125	123	113	117
40	NE00564	129	140	125	122	120	111	110
41	W99-194	131	139	124	126	121	114	116
42	W96x1311-01	128	137	121	122	118	110	108
43	W98-159-7	131	138	125	127	125	115	115
44	W03-20	129	140	122	122	120	112	110
45	KS01HW152-6	128	137	123	123	118	109	107
46	KS01HW163-4	130	138	123	126	120	110	109
47	KS02HW34	130	137	125	124	121	112	110
48	SD97W604	128	133	124	123	120	110	109
49	CO991132	126	132	116	122	117	109	108
50	NW98S097	133	139	126	128	125	114	119
	mean	129	137	123	123	120	111	111

Table 9. Summary of days (from 1/1) to heading for entries in the 2004 SRPN.

entry	Line/selection	region	Goodwell,			Hutchinson,	Wichita,	Salina,
			OK	Hays, KS	Colby, KS	KS	KS	KS
1	Kharkof	137	128	135	139	132	135	130
2	Scout66	132	123	128	134	130	132	127
3	TAM107	126	116	123	128	123	117	120
4	Trego	130	123	127	132	127	120	127
5	G990191	128	121	125	130	125	120	124
6	G982238-2	130	123	127	132	128	121	126
7	G991324	133	125	130	134	130	124	128
8	G980143	129	123	127	131	126	121	125
9	AP01T1112	128	118	125	129	124	118	120
10	AP01T1114	127	118	124	129	123	118	120
11	AP01T3131	127	118	123	129	122	117	119
12	NW99L7068	128	122	126	130	126	120	125
13	T135	126	115	122	128	122	117	120
14	T136	126	116	124	130	125	116	124
15	T140	129	121	127	132	127	122	126
16	T141	131	123	129	133	129	122	126
17	OK00611W	128	118	125	130	124	117	125
18	OK00618W	131	124	128	133	129	122	127
19	OK00514	129	121	126	130	125	120	125
20	OK99212	129	122	126	130	125	119	125
21	OK00614	128	122	125	131	125	120	123
22	KS950811-5-1	127	118	124	130	124	117	123
23	KS00F5-14-7	127	122	125	130	124	118	124
24	KS00F5-20-3	127	118	124	129	123	117	124
25	KS00F5-57-8	131	122	128	132	129	123	126
26	CO970547-7	127	118	125	129	124	118	124
27	CO980607	129	118	127	132	124	120	125
28	CO00D007	130	122	127	131	125	121	125
29	CO00016	131	121	127	132	130	125	127
30	CO00698	129	123	126	131	125	119	126
31	TX96D1073	129	122	127	131	124	120	125
32	TX00V1117	133	124	130	134	130	123	128
33	TX00V1131	129	123	126	131	124	118	124
34	TX01D3232	127	118	123	129	123	117	124
35	TX00D1390	128	118	126	130	124	119	124
36	TX01A5936	128	117	126	130	125	119	121
37	NE00403	131	122	127	132	129	122	126
38	NE00435	128	118	127	131	127	121	125
39	NE01481	131	122	128	133	130	122	127
40	NE00564	129	121	127	131	126	120	125
41	W99-194	131	122	127	133	129	122	126
42	W96x1311-01	128	118	125	131	126	120	124
43	W98-159-7	131	123	127	133	128	122	127
44	W03-20	129	123	126	130	126	121	124
45	KS01HW152-6	128	116	125	131	125	118	124
46	KS01HW163-4	130	121	126	132	126	120	125
47	KS02HW34	130	123	127	133	126	122	126
48	SD97W604	128	121	126	131	124	118	124
49	CO991132	126	116	125	130	122	116	121
50	NW98S097	133	123	129	136	130	124	127
	mean	129	121	126	131	126	120	124

Table 9. Summary of days (from 1/1) to heading for entries in the 2004 SRPN.

entry	Line/selection	region	Ft. Collins,	Julesburg,	Lincoln,	Brookings,	Dakota	Winner,
			CO	CO	NE	SD	Lakes, SD	SD
1	Kharkof	137	145	146	140	152	151	153
2	Scout66	132	141	142	138	144	143	150
3	TAM107	126	137	137	131	145	140	146
4	Trego	130	143	142	132	145	146	148
5	G990191	128	140	137	131	143	142	146
6	G982238-2	130	143	143	132	147	145	149
7	G991324	133	143	141	136	148	148	150
8	G980143	129	141	141	133	148	144	147
9	AP01T1112	128	140	139	133	147	146	149
10	AP01T1114	127	140	138	131	144	144	147
11	AP01T3131	127	139	137	131	143	141	146
12	NW99L7068	128	138	137	131	143	142	147
13	T135	126	137	135	131	142	142	146
14	T136	126	138	136	130	142	141	147
15	T140	129	139	137	133	144	142	147
16	T141	131	140	140	134	143	144	149
17	OK00611W	128	139	137	131	143	142	148
18	OK00618W	131	143	141	133	145	144	148
19	OK00514	129	141	141	132	145	144	148
20	OK99212	129	140	140	131	144	141	147
21	OK00614	128	141	139	132	143	141	146
22	KS950811-5-1	127	140	136	131	143	141	146
23	KS00F5-14-7	127	141	137	131	144	143	148
24	KS00F5-20-3	127	139	136	132	143	142	146
25	KS00F5-57-8	131	141	141	132	145	146	147
26	CO970547-7	127	138	136	132	142	141	146
27	CO980607	129	142	141	133	144	144	147
28	CO00D007	130	141	141	134	145	143	148
29	CO00016	131	140	141	137	145	143	150
30	CO00698	129	143	141	132	147	144	148
31	TX96D1073	129	143	141	131	147	142	147
32	TX00V1117	133	143	143	137	149	146	152
33	TX00V1131	129	142	142	132	149	144	148
34	TX01D3232	127	138	140	132	147	142	146
35	TX00D1390	128	140	141	131	146	140	147
36	TX01A5936	128	140	138	133	147	140	148
37	NE00403	131	142	142	133	147	141	149
38	NE00435	128	137	136	132	143	140	147
39	NE01481	131	142	141	133	150	147	150
40	NE00564	129	139	138	131	145	143	149
41	W99-194	131	142	142	135	148	147	147
42	W96x1311-01	128	141	141	131	147	144	148
43	W98-159-7	131	141	137	137	148	144	148
44	W03-20	129	140	136	131	147	144	147
45	KS01HW152-6	128	140	137	132	145	142	149
46	KS01HW163-4	130	142	142	135	147	143	148
47	KS02HW34	130	143	142	136	147	145	149
48	SD97W604	128	140	141	131	144	140	147
49	CO991132	126	138	136	131	146	143	148
50	NW98S097	133	145	142	137	151	148	150
	mean	129	141	139	133	146	143	148

Table 9. Summary of days (from 1/1) to heading for entries in the 2004 SRPN.

entry	Line/selection	region	Columbia, MO
1	Kharkof	137	139
2	Scout66	132	134
3	TAM107	126	131
4	Trego	130	132
5	G990191	128	130
6	G982238-2	130	132
7	G991324	133	133
8	G980143	129	130
9	AP01T1112	128	130
10	AP01T1114	127	129
11	AP01T3131	127	129
12	NW99L7068	128	130
13	T135	126	132
14	T136	126	129
15	T140	129	132
16	T141	131	132
17	OK00611W	128	129
18	OK00618W	131	132
19	OK00514	129	129
20	OK99212	129	130
21	OK00614	128	130
22	KS950811-5-1	127	129
23	KS00F5-14-7	127	129
24	KS00F5-20-3	127	129
25	KS00F5-57-8	131	131
26	CO970547-7	127	130
27	CO980607	129	130
28	CO00D007	130	133
29	CO00016	131	134
30	CO00698	129	129
31	TX96D1073	129	129
32	TX00V1117	133	134
33	TX00V1131	129	130
34	TX01D3232	127	130
35	TX00D1390	128	130
36	TX01A5936	128	130
37	NE00403	131	132
38	NE00435	128	132
39	NE01481	131	135
40	NE00564	129	131
41	W99-194	131	132
42	W96x1311-01	128	130
43	W98-159-7	131	133
44	W03-20	129	131
45	KS01HW152-6	128	130
46	KS01HW163-4	130	130
47	KS02HW34	130	132
48	SD97W604	128	130
49	CO991132	126	129
50	NW98S097	133	136
	mean	129	131

Table 10. Stability analyses, grain yield and volume weight, of wheats grown in the 2004 SPRN.

Entry	Line or selection	grain yield			volume weight		
		regional average (kg/ha)	regression coef. (b)	r ²	regional average (kg/hl)	regression coef. (b)	r ²
1	Kharkof	2585	0.68	0.69	72.2	0.94	0.92
2	Scout66	3247	0.83	0.90	74.9	0.92	0.92
3	TAM107	3694	0.82	0.92	74.1	0.94	0.84
4	Trego	3939	1.01	0.92	76.6	1.17	0.93
5	G990191	4041	0.94	0.91	73.1	1.04	0.87
6	G982238-2	3861	1.07	0.91	75.2	0.79	0.83
7	G991324	4016	1.17	0.92	74.4	1.35	0.85
8	G980143	4027	1.00	0.94	75.2	1.09	0.88
9	AP01T1112	3726	0.98	0.82	75.6	0.90	0.79
10	AP01T1114	3811	0.94	0.98	76.9	0.75	0.88
11	AP01T3131	3624	0.79	0.68	76.5	0.86	0.88
12	NW99L7068	3929	1.02	0.94	73.2	1.03	0.85
13	T135	3689	0.93	0.93	73.6	1.22	0.76
14	T136	3894	0.92	0.94	74.9	0.84	0.92
15	T140	3708	0.96	0.95	73.7	0.93	0.89
16	T141	3452	0.87	0.88	72.9	0.94	0.73
17	OK00611W	3739	0.98	0.89	74.2	1.22	0.87
18	OK00618W	3890	1.06	0.94	75.9	1.23	0.96
19	OK00514	3974	1.01	0.96	76.7	0.96	0.91
20	OK99212	3773	0.90	0.87	76.2	0.85	0.91
21	OK00614	3634	0.83	0.80	75.6	0.82	0.91
22	KS950811-5-1	4082	1.02	0.94	76.3	0.87	0.91
23	KS00F5-14-7	4291	1.15	0.94	75.4	0.95	0.89
24	KS00F5-20-3	4225	1.04	0.91	75.2	0.84	0.94
25	KS00F5-57-8	3789	1.00	0.95	74.0	1.16	0.71
26	CO970547-7	4077	0.90	0.87	75.7	0.81	0.91
27	CO980607	4182	1.05	0.90	74.7	1.10	0.92
28	CO00D007	3869	1.07	0.87	72.4	1.21	0.91
29	CO00016	3785	0.95	0.80	72.2	0.89	0.60
30	CO00698	3982	1.02	0.94	73.0	1.16	0.91
31	TX96D1073	3945	0.97	0.93	74.5	0.87	0.81
32	TX00V1117	4211	1.17	0.91	74.4	1.00	0.77
33	TX00V1131	4032	1.05	0.88	72.6	0.90	0.72
34	TX01D3232	4218	1.11	0.89	72.2	1.21	0.78
35	TX00D1390	4335	1.11	0.93	75.8	1.11	0.94
36	TX01A5936	4088	1.12	0.93	75.5	1.09	0.91
37	NE00403	4003	1.05	0.92	74.7	0.91	0.85
38	NE00435	3700	0.93	0.91	74.2	0.85	0.83
39	NE01481	3893	1.07	0.95	72.9	1.02	0.87
40	NE00564	3780	1.02	0.92	74.2	1.10	0.90
41	W99-194	3992	1.08	0.96	73.8	0.89	0.83
42	W96x1311-01	3886	1.02	0.88	75.9	0.96	0.95
43	W98-159-7	3872	1.09	0.96	73.7	1.22	0.87
44	W03-20	4013	1.01	0.94	76.2	0.92	0.93
45	KS01HW152-6	4228	1.07	0.94	75.1	1.17	0.74
46	KS01HW163-4	4029	1.07	0.93	76.6	1.18	0.85
47	KS02HW34	4214	1.08	0.89	77.2	1.11	0.68
48	SD97W604	3906	1.00	0.88	75.4	0.85	0.87
49	CO991132	3702	1.02	0.89	70.6	1.44	0.59
50	NW98S097	3764	1.05	0.87	74.3	1.32	0.82
	mean	3887			74.6		

Table 11. Reactions of 50 wheats in the 2004 SRPN to wheat soilborne mosaic virus and to Hessian fly.

Entry	Line	Wheat soilborne mosaic virus (WSBMV)			Hessian fly ³
		¹ Stillwater, OK, 3/04/04	¹ Stillwater, OK, 3/10/04	² Urbana, IL	rating
1	Kharkof	4	4	7.0	S
2	Scout66	4	4	7.5	S
3	TAM107	3	4	6.5	S
4	Trego	2	1	3.5	S
5	G990191	1	1	1.5	S
6	G982238-2	1	1	3.0	S
7	G991324	1	1	2.5	S
8	G980143	2	seg	3.0	S
9	AP01T1112	1	1	4.5	S
10	AP01T1114	1	1	5.0	S
11	AP01T3131	2	3	6.5	S
12	NW99L7068	3	4	7.5	S
13	T135	1	1	4.5	S
14	T136	1	1	6.5	S
15	T140	2	2(ss)	6.5	S
16	T141	1	1	2.0	S
17	OK00611W	1/1/1/1	1/1/1/1	4.5	S
18	OK00618W	1/1/1/1	2/2/2/1	5.0	S
19	OK00514	2/1/1/1	2/2/2/2	6.5	S
20	OK99212	1/1/1/1	1/1/1/1	7.0	H
21	OK00614	1/2/1/2	1/1/1/2	2.0	S
22	KS950811-5-1	1	1	3.0	S
23	KS00F5-14-7	1	1	2.0	S
24	KS00F5-20-3	1	1	4.0	S
25	KS00F5-57-8	2	1	7.0	S
26	CO970547-7	1	3	7.0	S
27	CO980607	3	3	9.0	S
28	CO00D007	3	4	9.0	S
29	CO00016	3	2	8.0	S
30	CO00698	1	1	2.0	S
31	TX96D1073	1	1	2.0	S
32	TX00V1117	2	4	8.5	S
33	TX00V1131	1	1	7.0	S
34	TX01D3232	2	2(ss)	6.5	S
35	TX00D1390	1	1	5.0	S
36	TX01A5936	3	4	7.0	S
37	NE00403	2	3	4.0	S
38	NE00435	2	3	6.5	H-
39	NE01481	1	1	4.0	S
40	NE00564	2	3	2.5	S
41	W99-194	1	1	6.0	H-
42	W96x1311-01	1	2	8.0	S
43	W98-159-7	1	1	3.0	S
44	W03-20	1	1	2.0	S
45	KS01HW152-6	1	1	2.5	S
46	KS01HW163-4	4	4	8.5	S
47	KS02HW34	4	4	7.5	S
48	SD97W604	3	4	7.5	S
49	CO991132	2	seg	3.5	S
50	NW98S097	1	2	9.0	S

¹Visual assessment: 1=no mosaic and/or no stunting, 2=slight mosaic and/or slight stunting, 3=moderate mosaic and/or moderate stunting, 4=severe mosaic and/or severe stunting. From Bob Hunger Oklahoma State

²Rated on a scale of 0-9, with 0=resistant, 9=susceptible; from Fred Kolb, University of Illinois.

³From Elburn Parker, USDA-ARS, Manhattan, KS: S=susceptible, R=resistant, H=heterogeneous.

Table 12. Seedling reactions of entries in the 2004 SRPN to selected isolates of stem rust (from Yue Jin, USDA-ARS, St. Paul, MN), and presence of 1RS wheat-rye chromosomal translocations.

Entry	Line/selection	stem rust isolates					1RS
		TPMK 74-MN-1409	QTHJ 69-MN-399	TTTT 02 MN 84 A-1	RCRS 97 ND 82A	QFCS 03 ND 76C	
1	Kharkof	4	4,2	4,;/	;1-	4	Non.1RS
2	Scout66	4,;/1	2/3	;123/3-	;1-/4	;1-/4	Non.1RS
3	TAM107	0;/2-	;/2	;1,2/3-	0;	;	1AL.1RS
4	Trego	0	2-	2	;	0;	Non.1RS
5	G990191	0;	0	0;	0;	0;	1AL.1RS
6	G982238-2	0;	4	3+	0;	0;	Non.1RS
7	G991324	0;/3,1	0;	3,;	;1/3	0;	Non.1RS
8	G980143	2/4	;/1,4	3-,;	;1/3,;1	0,;3 1pu	Non.1RS
9	AP01T1112	0;	0;	0	0	0;	1AL.1RS
10	AP01T1114	0;	0	0	0	0	Non.1RS
11	AP01T3131	0	0	0	0	0	Non.1RS
12	NW99L7068	0/3-	0/3	;23	3- low if	0;/3 low if	Non.1RS
13	T135	0	0/4	4	0;1	0;	Non.1RS
14	T136	0/3	0;	4,1 low if	0;	0;	Non.1RS
15	T140	;1/3	0	0;/2	0;	0;/3	1AL.1RS
16	T141	1	;1	1	0;1	;1	1AL.1RS
17	OK00611W	4	4/0	0	0;	0	Non.1RS
18	OK00618W	3-	0	1	1	1	Non.1RS
19	OK00514	4,;/1	0	0/0,3 low if	0/3 low if	0/3 low if	Non.1RS
20	OK99212	3,1	3	3 low if	3	3/1	Non.1RS
21	OK00614	3+	;1/3	2	3-	3-	Non.1RS
22	KS950811-5-1	;	0	0;	0;	0	Non.1RS
23	KS00F5-14-7	0;	0	0;	0	0	Non.1RS
24	KS00F5-20-3	0	0	0;	0	0	Non.1RS
25	KS00F5-57-8	0;	0	0	0	0;/3	Non.1RS
26	CO970547-7	0	0;	2/4	0;	0,;3 1pu	Non.1RS
27	CO980607	0;	0;/2	0;/1/3	0;	;	Non.1RS
28	CO00D007	3+	;	2,4	0;/1	;	Non.1RS
29	CO00016	3+	0	3	0/1	;/2	Non.1RS
30	CO00698	4	0;	3-	0;1	0;	Non.1RS
31	TX96D1073	4	0;/3	4,1	3	3+	Non.1RS
32	TX00V1117	4/1	0;/3	4,;	3	0;/3	Non.1RS
33	TX00V1131	0;	0;/2	1	0;	0;	1AL.1RS
34	TX01D3232	2	3,2	3	3	1	Non.1RS
35	TX00D1390	4	3;/1	3	3	3	Non.1RS
36	TX01A5936	;1	;	;1	;	;	Non.1RS
37	NE00403	2	1+	12-	1	1	Non.1RS
38	NE00435	0;/3	2	3 low if	0;/1	0	Non.1RS
39	NE01481	0	3-	3- low if	0	;	Non.1RS
40	NE00564	0;	2	3-	0;	;	Non.1RS
41	W99-194	0;	0;	0	0	0	Non.1RS
42	W96x1311-01	0;	0	0	0;	0	Non.1RS
43	W98-159-7	2/3	0	;/2 low if	0/1	0;	Non.1RS
44	W03-20	3+,;	;1/3	0/2- low	0	0	Non.1RS
45	KS01HW152-6	0	0	0	0	0	Non.1RS
46	KS01HW163-4	0	0	0	0	0	Non.1RS
47	KS02HW34	0	0	0	0	0	Non.1RS
48	SD97W604	2	1	1	1	2-	1BL.1RS
49	CO991132	0/0,2	0;	3,;1 low if	;1	0;	Non.1RS
50	NW98S097	2	2	2	1	1	Non.1RS

Table 14. Field and greenhouse reactions to leaf rust, 2004 SPRN.

Entry No.	Line/selection	Bushland, TX, irrigated	Stillwater, OK: seedling	Manhattan, KS, greenhouse, seedling (0-9) ¹	Salina, KS	Brookings, SD, IT	Brookings, SD, Severity
1	Kharkof	100S	S	9	40s	S	30
2	Scout66	dead	S	9	70s	S	60
3	TAM107	20S	S	9	90s	S	60
4	Trego	10MS/MR	R (seg)	3H	trs	R	0
5	G990191	20MS	S	7	10s	S	30
6	G982238-2	10MS/MR	S	9	10mr	R	15
7	G991324	10MR	S	9	20mr	MS	T
8	G980143	20MS	S	9	90s	S	70
9	AP01T1112	0	R (seg)	2	20mr	MS	10
10	AP01T1114	0	R	1	trmr	R	0
11	AP01T3131	tMS	R (seg)	1	trmr	MR	20
12	NW99L7068	40S	S	8	90s	S	50
13	T135	40S	S	9	90s	MS	40
14	T136	30S	S	9	90s	MS	30
15	T140	40S	S	9	90s	MS	40
16	T141	20S	S	9	40s	S	20
17	OK00611W	40S	MR	2	10s	S	5
18	OK00618W	10MS	R	4	10mr	R	0
19	OK00514	20S	R (seg)	2	40s	S	20
20	OK99212	0	S	6	50s	MS	40
21	OK00614	10MS	MR	1	trmr	R	0
22	KS950811-5-1	10MR	R (seg)	2	10s	MS	20
23	KS00F5-14-7	tMS	R	2	r	R	0
24	KS00F5-20-3	10MR	S	7H	20mr	R	0
25	KS00F5-57-8	tR/MR	R	6	r	R	0
26	CO970547-7	30S	S	8	90s	MS	30
27	CO980607	40S	S	8	90s	S	6
28	CO00D007	40S	S	9	90s	S	50
29	CO00016	dead	S	9	90s	S	70
30	CO00698	40S	S	9	90s	MS	20
31	TX96D1073	0	R (seg)	6	5r	R	10
32	TX00V1117	0	S	9	5r	R	0
33	TX00V1131	tR	S	9	30r	MS	10
34	TX01D3232	0	S	9	30mr	R	T
35	TX00D1390	0	R	2	r	R	0
36	TX01A5936	20MS	MR	7	30s	S	30
37	NE00403	60S	MR	7	30s	S	40
38	NE00435	0	S	9	r/s	R	0
39	NE01481	20MS	S	9	40ms-s	MS	20
40	NE00564	20S	S	9	100s	S	60
41	W99-194	10MR/MS	S	9	20s	R	0
42	W96x1311-01	tR	MR	7	15s	S	10
43	W98-159-7	5MR	S	8	trs	R	0
44	W03-20	tR	R (seg)	3	r	R	0
45	KS01HW152-6	tMR	MR	3	15s	R	0
46	KS01HW163-4	0	R	3	10s	R	0
47	KS02HW34	0	R	4	5s	R	0
48	SD97W604	20MR	S	5	90s	S	40
49	CO991132	20S	S	9	90s	S	70
50	NW98S097	0	R	8	r	R	0

¹Leaf rust was inoculated on 10-29-2003 using a composite culture collected at Hutchison, Ks in 2003

Table 15. Field reactions to stripe rust and stem rust, 2004 SPRN.

		Stripe rust, Washington State ²									
Entry No.	Line/selection	Stripe rust, Bushland, TX, irrigated	Stripe rust, Fayetteville, AR ¹	Pullman, WA		Mt. Vernon, WA			Stem rust, Brookings, SD	Stem rust, Brookings, SD	
				6/30/04		4/25/04		6/4/04			
				ST 10.5-11		ST 7-9		ST 10.5		IT	Severity
				%	T	%	T	%	T		
1	Kharkof	0	7	10	2	10	2,8	5	2	S	95
2	Scout66	0	7	90	8	5	2	10	2	S	21
3	TAM107	80S	50	100	8	60	8	100	8	.	1
4	Trego	20R	7	90	8	60	8	100	8	R	1
5	G990191	0	0	5	8	60	8	100	8	R	1
6	G982238-2	tR	0	70	8	60	8	100	8	R	1
7	G991324	0	0	2	8	60	8	100	8	R	1
8	G980143	0	0	1	8	20	5	100	8	R	1
9	AP01T1112	20S/MS	0	2	2	5	2	10	2	R	1
10	AP01T1114	10R/MR	2	30	5	5	2	10	2	S	20
11	AP01T3131	0	0	30	8	40	5	100	8	R	1
12	NW99L7068	0	2	70	5	10	5	90	8	R	11
13	T135	0	7	40	8	10	3	50	5	S	21
14	T136	0	7	5	8	5	2	50	8	R	1
15	T140	0	0	20	8	10	2,8	10	2	S	55
16	T141	20S	0	50	8	5	2	60	5	MS	25
17	OK00611W	20S	2	70	8	5	2	20	5	R	6
18	OK00618W	20MS	7	100	8	5	2	90	8	.	
19	OK00514	30S	2	50	8	5	2	20	3	S	3
20	OK99212	20MS	30	90	8	15	3	20	3	S	75
21	OK00614	0	0	90	8	20	5	50	8	S	80
22	KS950811-5-1	0	0	10	8	60	8	100	8	R	1
23	KS00F5-14-7	0	0	1	8	20	5	30	5	S	16
24	KS00F5-20-3	0	0	2	8	40	5	80	8	.	
25	KS00F5-57-8	0	0	1	8	5	2	20	2	R	1
26	CO970547-7	20S	15	50	8	10	3	90	8	R	1
27	CO980607	20S	15	50	8	10	3	70	5	R	1
28	CO00D007	40MR/MS	30	90	8	10	2	100	8	R	1
29	CO00016	100S	70	100	8	80	8	100	8	MS	40
30	CO00698	20S	85	90	8	20	5	100	8	MR	11
31	TX96D1073	20MS/MR	2	70	8	20	3	100	8	S	80
32	TX00V1117	30S	7	80	8	5	2	30	5	.	
33	TX00V1131	0	2	10	8	5	2	20	2	R	1
34	TX01D3232	80S	50	100	8	10	2,8	60	8	R	1
35	TX00D1390	20MR	15	100	8	20	3	100	8	S	60
36	TX01A5936	10MS	0	2	8	30	5	100	8	R	1
37	NE00403	30S	15	100	8	40	3,8	30	2	R	1
38	NE00435	40S	30	100	8	20	3,8	20	2	R	1
39	NE01481	0	0	90	8	5	2	20	2	MS	8
40	NE00564	40S	0	80	8	10	2	30	2	R	3
41	W99-194	0	0	5	0,8	5	2	20	2	R	1
42	W96x1311-01	0	0	5	8	20	8	20	8	R	1
43	W98-159-7	0	0	90	8	20	8	20	2	R	1
44	W03-20	0	0	70	8	40	8	90	8	S	6
45	KS01HW152-6	0	0	70	8	80	8	100	8	R	1
46	KS01HW163-4	30S	0	50	8	40	5	100	8	R	1
47	KS02HW34	10R	0	50	8	15	3	100	8	R	1
48	SD97W604	20MR	0	10	8	2	2	20	2	MR	11
49	CO991132	0	0	2	8	10	3	100	8	.	
50	NW98S097	60MS/MR	30	90	8	20	8	70	8	MS	25

¹Data is percentage of foliage with sporulating pustules at soft dough based on one rep in an inoculated, irrigated nursery. Inoculated with a field collection from Stuttgart, AR, in 2000. Has virulence on Lemhi, Lee, Fielder, Express, Yr8, & Yr9; data from Gene Milus, Univ, AR.

²Stripe rust percent (%) and infection type (T) under natural infestation. IT: 0=no visible symptoms; 1=necrotic &/or chlorotic flecks; no sporulation; 3=necrotic &/or chlorotic blotches or stripes; no sporulation; 4=necrotic &/or chlorotic blotches or stripes, trace sporulation; 5=necrotic &/or chlorotic blotches or stripes, intermediate sporulation; 6=necrotic &/or chlorotic blotches or stripes; moderate sporulation; necrotic &/or chlorotic blotches or stripes; abundant sporulation; 8=chlorosis behind sporulating area; abundant sporulation; 9=no necrosis of chlorosis; abundant sporulation. From Xianming Chen, USDA-ARS.

Table 16. Field reactions of entries in the 2004 SRPN to Septoria tritici and Fusarium head blight.

Entry	Line/selection	Fusarium head blight							
		Septoria: Columbia, MO ¹	Columbia, MO (% tombstones)	Columbia, MO (% infected florets)	Brookings, SD ²				
					Incidence		Severity		Disease Index
Mean	SE	Mean	SE	Mean					
1	Kharkof	37	8	6	40	15	16	7	6
2	Scout66	44	17	13	37	12	13	6	5
3	TAM107	45	8	21	74	12	31	6	23
4	Trego	14	27	57	100	12	49	6	49
5	G990191	22	10	23	74	12	26	6	20
6	G982238-2	31	8	9	72	13	14	6	10
7	G991324	13	58	45	87	12	27	6	23
8	G980143	23	34	44	100	12	45	6	45
9	AP01T1112	35	23	8	95	12	30	6	28
10	AP01T1114	42	15	13	100	12	36	6	36
11	AP01T3131	36	25	22	81	12	23	6	19
12	NW99L7068	59	6	8	63	12	23	6	15
13	T135	46	25	25	74	12	25	6	18
14	T136	52	12	14	77	13	21	6	16
15	T140	42	25	17	77	13	26	6	20
16	T141	21	4	8	97	12	35	6	34
17	OK00611W	33	8	19	75	12	22	6	17
18	OK00618W	26	30	44	100	12	30	6	30
19	OK00514	24	25	33	92	12	32	6	29
20	OK99212	50	22	30	72	12	24	6	17
21	OK00614	37	14	12	76	12	25	6	19
22	KS950811-5-1	22	22	20	69	13	21	7	14
23	KS00F5-14-7	16	8	12	34	15	15	7	5
24	KS00F5-20-3	22	28	23	82	13	35	7	29
25	KS00F5-57-8	23	15	12	52	12	18	6	9
26	CO970547-7	58	12	17	48	12	17	6	8
27	CO980607	55	27	30	92	12	35	6	32
28	CO00D007	36	20	29	88	12	27	6	24
29	CO00016	30	17	11	87	12	24	6	21
30	CO00698	69	15	39	67	12	22	6	15
31	TX96D1073	55	13	7	72	12	25	6	18
32	TX00V1117	18	27	16	72	12	23	6	16
33	TX00V1131	21	8	17	96	15	41	7	39
34	TX01D3232	55	33	35	100	12	34	6	34
35	TX00D1390	29	22	35	100	15	38	7	38
36	TX01A5936	32	17	32	88	12	28	6	24
37	NE00403	40	22	19	56	12	16	6	9
38	NE00435	40	13	15	81	12	29	6	23
39	NE01481	21	15	12	18	12	10	6	2
40	NE00564	30	25	25	82	12	25	6	21
41	W99-194	14	33	53	97	12	35	6	34
42	W96x1311-01	22	13	23	55	12	19	6	10
43	W98-159-7	24	52	51	90	12	33	6	30
44	W03-20	23	28	27	56	12	21	6	12
45	KS01HW152-6	13	23	47	98	13	33	6	32
46	KS01HW163-4	25	32	51	84	12	36	6	30
47	KS02HW34	14	47	61	94	12	49	6	46
48	SD97W604	67	13	49	70	12	25	6	18
49	CO991132	21	17	24	97	12	32	6	31
50	NW98S097	20	30	23	100	12	40	6	40
	i.s.d.(0.05)	15.3	17	10.6	5.6		2.6		

¹Septoria tritici rating (% leaf browning); perhaps confounded with Xanthomonas infection.

²From Amir Ibrahim, South Dakota State, FHB ratings are based on a 0-9 scale. Incidence (Inc%) is the number of infected ears. Severity (Sev%) is the average of the scab ratings * 10. Disease Index (Dis%) is incidence * severity/100.

Table 17. Miscellaneous agronomic traits of entries in the 2004 SRPN.

Entry	Line or Selection	Acid soil tolerance, Stillwater, OK*		Lodging (%)			
		Mar. 2, 2004	May 28, 2004	Columbia, MO	Bushland, TX, irr.	Wichita, KS	Clovis, NM, irr.
1	Kharkof	4	4	7.0	8	40	11
2	Scout66	4	4	6.7	8	50	42
3	TAM107	4	4	1.7	3	30	12
4	Trego	4	3	0.3	7	40	10
5	G990191	4	3	0.4	6	30	6
6	G982238-2	3	2	5.0	5	20	5
7	G991324	5	5	0.0	7	20	7
8	G980143	5	4	0.0	5	20	5
9	AP01T1112	2	3	5.0	7	40	10
10	AP01T1114	2	2	3.3	7	40	17
11	AP01T3131	3	3	0.4	2	20	6
12	NW99L7068	2	3	2.3	7	30	8
13	T135	3	3	4.7	8	50	37
14	T136	2	3	0.7	6	40	11
15	T140	4	4	2.7	8	40	10
16	T141	5	3	2.0	3	20	4
17	OK00611W	2	2	0.1	5	20	9
18	OK00618W	4	4	0.4	5	40	3
19	OK00514	2	2	0.1	2	30	9
20	OK99212	5	3	0.7	3	30	6
21	OK00614	3	2	3.0	5	40	13
22	KS950811-5-1	3	4	1.7	7	30	10
23	KS00F5-14-7	3	3	2.0	7	40	12
24	KS00F5-20-3	2	2	1.7	7	20	6
25	KS00F5-57-8	3	2	1.3	5	20	7
26	CO970547-7	5	5	4.0	7	50	12
27	CO980607	4	2	3.0	8	30	10
28	CO00D007	4	2	0.7	7	50	6
29	CO00016	5	4	0.1	3	20	7
30	CO00698	4	2	2.7	7	40	37
31	TX96D1073	2	2	2.7	4	30	5
32	TX00V1117	5	4	0.4	7	20	6
33	TX00V1131	5	3	1.0	6	40	9
34	TX01D3232	3	4	0.7	2	20	10
35	TX00D1390	5	3	1.0	6	40	7
36	TX01A5936	3	3	0.1	7	40	15
37	NE00403	3	3	0.7	2	30	8
38	NE00435	4	4	3.3	8	40	9
39	NE01481	3	3	1.0	7	20	5
40	NE00564	5	4	1.4	3	20	7
41	W99-194	5	3	0.1	7	20	5
42	W96x1311-01	4	5	0.1	3	10	3
43	W98-159-7	3	3	0.1	3	20	5
44	W03-20	3	3	0.0	3	20	7
45	KS01HW152-6	5	4	0.1	8	30	33
46	KS01HW163-4	3	3	0.0	8	40	8
47	KS02HW34	4	2	0.4	8	30	6
48	SD97W604	4	2	0.1	3	30	5
49	CO991132	5	4	1.3	5	40	7
50	NW98S097	3	4	0.1	2	10	4

*The standard cultivar used to determine acid-soil tolerance was 2163, with an assigned rating of 2 on a scale of 1 (tolerant) to 5 (highly susceptible). Readings taken at Enid, OK (new location in 2004, pH = 4.6, 70 ppm Al, and Al saturation = 11%) on the dates indicated. The first set of readings may be confounded with winterhardness expression.