

2006

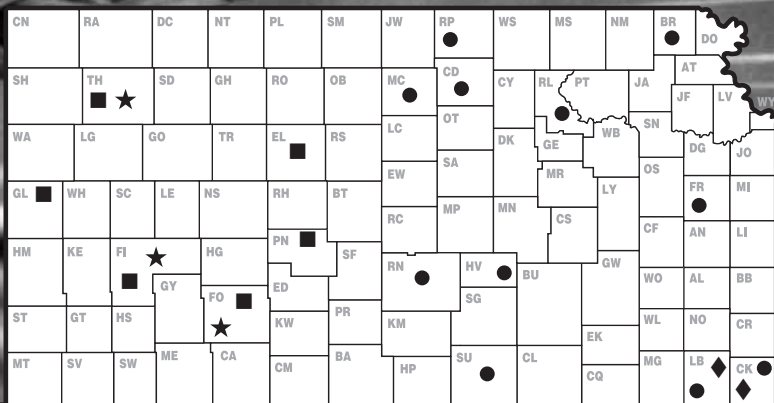
Kansas Performance Tests with Winter Wheat Varieties

Report of Progress 967



Kansas State University
Agricultural Experiment Station
and Cooperative Extension Service

K-STATE AGRONOMY



■ summer fallow ● continuously cropped ★ irrigated ◆ soft wheat



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Table 1. Private entrants in the 2006 Kansas Wheat Performance Tests.

AgriPro/AgriPro COKER AgriPro Wheat, Inc. 6515 Ascher Rd. Junction City, KS 66441 785-210-0218	MFA MFA Incorporated 201 Ray Young Dr. Columbia, MO 65201 573-876-5363	Polansky Polansky Seed PO Box 306, 2729 M St. Belleville, KS 66935 785-527-2271	Watley Watley Seed PO Box 51 Spearman, TX 79081 806-659-3838
AGSECO AGSECO, Inc. PO Box 7 Girard, KS 66743-0007 620-724-6223	M-Pride Midwest Premium Genetics 523 S. Main, PO Box 688 Concordia, MO 64020 800-662-1150	Rinck Rinck Seed Farm, Inc. PO Box 141, 720 Road 29 Niotaze, KS 67355 620-673-5343	WestBred WestBred LLC 14604 S. Haven Rd. Haven, KS 67543 877-921-0950
Drussel Drussel Seed and Supply 2197 W. Parallel Road Garden City, KS 67846 620-275-2359	Pioneer Brand Pioneer Hi-Bred Intl., Inc. 1616 S. Kentucky, Suite C350 Amarillo, TX 79102 800-258-5604	Seed-link Seed-link, Inc. PO Box 217, 208 St. David St. Lindsay, ON Canada K9V 5Z4 705-324-0544	

2006 WHEAT CROP REVIEW

Crop Development

Progress of the 2006 wheat crop followed an unusual pattern. Planting and emergence were close to the pace of recent years, but pulled ahead in the last two weeks of October. Jointing began at the average time in late March, but soon began to pull ahead of the average pace, much like last year. Most of the wheat crop was jointed by late April, significantly earlier than the 5-year average. Heading was particularly early, after a warm spell in April. Nearly three quarters of the wheat crop had headed by the first week in May, 40% more than in previous years. The early development of the crop continued through maturation and harvest. Harvest was essentially complete by the July 4 holiday.

The condition of the 2006 wheat crop reflected constantly changing soil moisture availability and temperatures. The first reports in late October indicated that roughly 70% of the crop was rated as either good or excellent. Steadily decreasing soil moisture over the winter months was reflected in a similar decline in crop condition until late March, when only about a quarter of the crop was rated as good or excellent. Late-March precipitation led to a short-term improvement in crop condition, but hot, dry weather followed by freezing temperatures in mid to late April caused further deterioration in crop condition. Crop condition continued to decline until early June, when only 16% of the wheat acres were rated as good or excellent, and 53% were rated as poor to very poor, leaving 31% in the fair category. Crop condition rebounded somewhat with June precipitation, but the effect of these late-season rains on final yield varied greatly. (*Crop-Weather* reports, Kansas Ag. Statistics)

Weather

The 2005-06 wheat season was characterized by uneven conditions, both in temperature and precipitation. While some locations saw a wet start to the season, with precipitation more than three inches above normal, other locations saw an extremely dry start to the winter. Overall, the winter was mild and dry, with many locations having the driest December-to-February period on record. March saw a brief respite for the hardest hit regions, with a timely snowfall in southwestern Kansas. The moisture did not continue, and the western third of the state averaged less than 40% of normal April rainfall. Injury from the moisture deficit was compounded by a freeze on April 26 and 27, when low temperatures dropped as low as 26 °F, and stayed below freezing for several hours.

The uneven rainfall pattern continued through May and June. Some locations received sufficient quantities, while locations only a few miles away were much below normal. This contributed to the uneven yields within counties and across the state. Major hail storms on March 12, March 30, April 15, April 23, and May 7 also contributed to yield reductions in a few locations.

The continued warmer-than-normal conditions and generally dry weather allowed harvest to progress much more rapidly than normal. More than 90% of the harvest was completed by the 1st of July. (Mary Knapp, K-State Weather Data Library).

Diseases

“Dry” would be the best way to sum up the 2006 Kansas wheat crop. How did the dryness affect the wheat disease situation? Two of our traditional disease problems, leaf rust and stripe rust, were well below long-term averages. Stripe rust barely showed up at all, and leaf rust developed only late in the season on susceptible varieties, much too late for significant yield loss. The lack of rust is attributable primarily to the extreme drought in southern Texas, which serves as the annual breeding ground for rust spores.

Incidence of most other common foliar diseases, including tan spot and speckled leaf blotch, was below normal as well, once again due to the dry weather early in the spring. One exception was powdery mildew, which reached moderate levels in some fields planted to susceptible varieties in the eastern half of the state. Some fields were sprayed with fungicides to control this disease.

By far the most significant disease problems were caused by viruses, including barley yellow dwarf virus, wheat streak mosaic virus, and high plains virus. The severity of these diseases is attributed to increased volunteer left growing last fall as farmers tried to reduce fuel costs, and an extended period of warm weather that lasted well into November in parts of the state. This warm weather allowed the vectors of the virus diseases, aphids for barley yellow dwarf and curl mites for wheat streak mosaic and high plains, to feed and transmit the virus well beyond the Hessian fly free date, which normally is used as a planting guide to limit damage from the virus diseases. (K-State Extension Plant Pathologist, Doug Jardine).

Insects

The 2006 wheat crop statewide had relatively few insect problems. In late fall and early winter, there was considerable concern relative to greenbugs and bird cherry oat aphids migrating into Kansas from Oklahoma. Some damage and spraying did occur, primarily in the southern third of the state, but aphid effects overall were relatively minor. There was, however, considerable barley yellow dwarf, which is vectored by greenbugs and bird cherry oat aphids, and some wheat streak mosaic, which is vectored by wheat curl mites, throughout the state. Scattered problems with Hessian flies were noted, especially in south-central Kansas. Timely destruction of volunteer wheat will help reduce the incidence of these diseases by reducing the over-summering habitat of the aphids, wheat curl mites, and Hessian flies.

Scattered reports of wheat head army worms also were received in south central Kansas. Worms were noticed only during harvest, and some damaged kernels were noted by grain inspectors. This insect is generally confined to border

rows and, thus, the worms and damage usually affect only the first loads, as fields are “opened up”. (K-State Extension Entomologist, Jeff Whitworth).

Harvest Statistics

The Kansas Agricultural Statistics’ July 12 estimate of the 2006 crop was 300.8 million bushels from 9.4 million acres, with a 32 bushels/acre yield average. These are significant decreases from last year’s crop and, except for harvested acres, are well below the averages for the past 10 years.

(July 12, 2006, *CROPS* report, Kansas Ag. Statistics, Topeka).

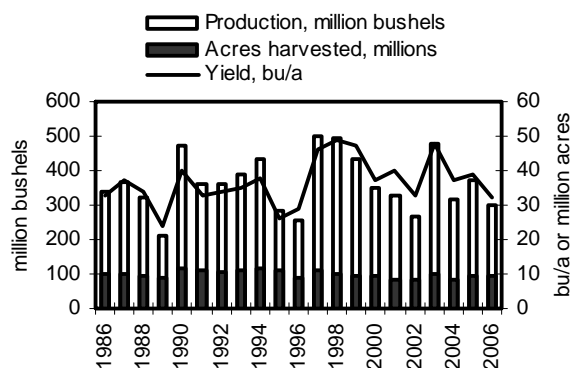


Figure 1. Historical Kansas wheat production

Acres Distribution

Jagalene replaced Jagger as the variety planted on the most acres in Kansas in 2006. Jagger fell to the second spot, and 2137 fell to fourth place, with only 3.1 of the statewide acreage. Overlay jumped from 8th place in 2005 to 3rd in 2006, with a 13.1% increase in acres. For the first time since 1998, more than two varieties were planted on greater than 10% of the Kansas wheat acres. Hard white varieties occupied 1.7% of the 2006 wheat acreage, down from 4.9% in 2004. The acreage of blends decreased in 2006 to 10% from a high of 15.2% in 2004.

(February 1, 2006, *Wheat Variety*, Kansas Ag. Statistics, Topeka).

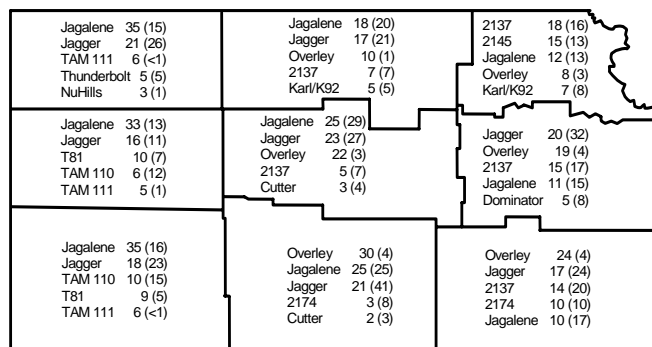


Figure 2. Leading wheat varieties in Kansas
Percentage of seeded acreage for 2006 and (2005) crops

2006 PERFORMANCE TESTS

The Kansas Agricultural Experiment Station annually compares both new and currently grown varieties in the state's major crop-producing areas. These performance tests generate unbiased performance information designed to help Kansas growers select wheat varieties suited for their area and conditions.

Varieties

Public varieties are selected for inclusion in the tests on the basis of several criteria. Most represent new or established varieties with potential for successful use in Kansas. Some are included as long-term checks. Others are entered at the request of the originating institution.

Originators or marketers enter privately developed varieties on a voluntary basis. Entrants choose both the entries and test sites and pay a fee to help defray test expenses. The 2006 private entrants are listed in Table 1. Eleven entrants provided a total of 37 varieties for testing.

Table 13 describes the characteristics of seed submitted for testing. Seed quality, including such factors as size, purity, and germination, can be important in determining the performance of a variety. Wheat seed used for entries in the Kansas Crop Performance Tests is prepared professionally and usually meets or exceeds Kansas Crop Improvement Certification standards. Performance of a given variety comparable to that obtained in these tests is best assured under similar environmental and cultural conditions and with the use of certified or professionally prepared seed.

Environmental Factors

Winter and spring drought, a late-April freeze, or hail influenced most of the performance tests to some extent. Five locations had to be abandoned in 2006. The continuous-wheat test at Caldwell had poor stands because of a combination of dry fall weather and low pH. The new irrigated test at Dodge City suffered from herbicide carry-over and rabbit feeding. Drought conditions caused extreme variation in the dryland test there, making it unusable. Both tests at Colby were hit by a hard freeze in late April and by a severe hail storm just before harvest. Freeze and hail damage influenced yields more than variety performance did in those tests.

The surviving tests suffered from some of the same conditions. Tests in central and northeast Kansas performed better than expected in light of the dry season. The tests in southeastern Kansas had severe barley yellow dwarf virus. Most plants in those tests lost primary tillers during the dry winter and spring, stimulating late secondary tillers that delayed harvest and introduced additional variability. Site descriptions and management practices for each site are summarized in Table 4. Be sure to keep extenuating environmental conditions in mind when examining test results.

Results and Variety Characterization

Results from Kansas tests are presented in Tables 4 through 12. Yields are reported as bushels per acre (60 pounds per bushel) adjusted to a moisture content of 13%, where moistures were reported at harvest. Yields also are converted to percentages of the test average to speed recognition of highest yielding entries. Multi-year averages are presented for those varieties entered more than one year. One-year or one-location results can be misleading because of the possibility of unusual weather or pest conditions.

Additional information, such as test weight, heading date, and plant height, is helpful for fine-tuning variety comparisons. For example, a relatively tall variety may yield well in the tests, but may not be appropriate for some situations. Conversely, some producers may want a tall variety for straw production. Planting varieties with a range of maturities helps minimize weather risks.

At the bottom of each table is the (0.05) LSD (least significant difference) for each column of replicated data. One can think of the LSD as a "margin of error" that shows how big the difference between two varieties must be for one to be 95% confident that the difference is real. The use of the LSD is intended to reduce the chance of overemphasizing small differences. Small variations in soil structure, fertility, water-holding characteristics, and other test-site characteristics can cause considerable yield variation among plots of one variety.

Performance Summaries

Figures 3 through 10 summarize the performance of each variety standardized to the average of two widely grown, check varieties: Jagger and 2137. The number at the base of each bar indicates the number of direct comparisons with the check varieties. In general, as the number of comparisons increases, the reliability of a value increases. Values that differ significantly from the average of the two check varieties are indicated by a + or – at the end of the bar.

Electronic Access

For those interested in accessing crop performance testing information electronically, visit our World Wide Web site. Most of the information contained in this publication is available for viewing or downloading at <http://kscroptests.agron.ksu.edu>.

Research and Duplication Policy

When companies submit entries, permission is given to Kansas State University to test varieties and/or hybrids designated on the entry forms in the manner indicated in the test announcements. Seed submitted for testing should be a true sample of the seed being offered for sale.

All results from Kansas Crop Performance Tests belong to the University and the public and shall be controlled by the

University so as to produce the greatest benefit to the public. Performance data may be used in the following ways: 1) Tables may be reproduced in their entirety provided the source is referenced and data are not manipulated or reinterpreted; 2) Advertising statements by an individual company about the performance of its entries may be made as long as they are accurate statements about the data as published, with no reference to other companies' names or cultivars. In both cases, the following must be included with the reprint or ad citing the appropriate publication number and title: "See the official Kansas State University Agricultural Experiment Station and Cooperative Extension Service Report of Progress 967 '2006 Kansas Performance Tests with Winter Wheat Varieties', or the Kansas Crop Performance Test website, <http://kscroptests.agron.ksu.edu>, for details. Endorsement or recommendation by Kansas State University is not implied."

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NOTE: Trade names are used to identify products. No endorsement is intended, nor is any criticism implied of similar products not named.

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Table 2. Comparisons of leading winter wheat varieties - agronomy and quality.

Variety ¹	% of Kansas seeded acreage 2006 ¹	Relative ²										Relative milling and baking quality ⁴	Resistance or tolerance to: ⁵																				
		Test weight	Straw strength	Maturity	Coleoptile		Shattering	Winter hardiness	AI Tolerance	Sprout Tolerance	Protein content ³		Soil-borne mosaic	Spindle streak mosaic	Wheat streak mosaic	Barley yellow dwarf	Leaf rust			Stem rust			Stripe rust			Speckled leaf blotch		Glume blotch		Powdery mildew		Hessian fly	Russ. wheat aphid
					Height ³	Length											Leaf	Stem	Stripe	Blotch	Blotch	Spot	Mildew	Scab									
Jagalene	27.2	3	3	2	4	6	4	5	4	2	4	EX	2	2	4	6	7	2	4	4	--	7	8	7	8	7	8	9					
Jagger	19.7	4	4	1	5	6	5	6	3	3	3	EX*	2	2	4	7	8	3	3	3	6	3	7	7	9	9	9						
Overley	15.3	3	3	1	6	5	7	6	5	2	3	EX	1	1	4	6	7	3	2	4	--	4	7	9	9	9	9						
2137	3.1	4	1	3	5	7	5	3	2	2	7	AC	1	5	4	5	7	7	8	5	7	4	4	8	5	9	9						
T81	2.6	4	--	2	4	7	3	--	--	--	8	AC	8	4	6	6	7	3	3	7	--	6	1	--	8	9	9						
TAM 110	2.2	3	2	1	5	5	2	--	8	3	7	AC	9	7	5	8	9	3	8	6	6	7	1	7	9	8	8						
TAM 111	2.2	3	2	4	6	--	2	--	--	--	--	AC	8	8	5	--	8	--	2	--	--	5	--	--	9	9	9						
Cutter	1.6	4	4	3	5	5	5	3	--	3	4	AC	3	--	4	7	6	2	3	5	--	6	7	8	8	9	9						
2174	1.2	3	1	3	4	5	3	4	5	1	3	AC	1	5	7	5	6	8	6	4	7	4	2	6	9	9	9						
Ike	1.1	3	4	4	6	7	2	3	8	2	3	AC	1	5	9	6	9	3	6	8	6	8	6	6	3	9	9						
Karl/Karl 92	1.1	3	4	1	3	7	3	3	9	3	3	EX*	1	3	9	8	9	6	5	5	3	3	3	6	9	9	9						
Thunderbolt	1.1	2	--	3	7	6	6	--	7	2	3	AC	8	7	5	7	7	8	5	6	--	7	7	7	9	9	9						
2145	0.8	4	2	3	3	6	6	3	8	3	3	AC	1	--	9	6	6	3	5	4	--	8	8	7	5	9	9						
Dominator	0.8	4	3	4	2	8	7	3	8	5	3	AC	1	1	7	6	8	3	6	5	4	4	4	7	4	9	9						
Stanton	0.8	4	3	3	5	6	2	2	--	2	4	AC	8	--	5	8	2	2	6	7	--	9	--	7	6	3	3						
NuHills ⁺	0.6	3	3	2	4	7	3	--	--	--	3	AC	2	2	5	6	8	--	3	--	--	7	8	--	9	9	9						
Coronado	0.4	3	1	2	3	8	4	5	3	--	3	AC	1	3	6	6	7	3	6	6	6	6	4	9	5	9	9						
NuFrontier ⁺	0.4	4	3	5	6	5	3	--	--	7	5	AC	--	--	7	6	9	--	--	7	--	7	--	4	7	--	--						
TAM 107	0.4	4	2	1	4	5	2	2	9	3	6	LD	8	7	5	8	9	3	8	5	6	6	1	7	9	7	7						
Trego ⁺	0.4	3	4	3	4	6	2	2	8	5	7	AC	2	4	5	7	3	2	8	7	5	7	8	9	7	9	9						
Onaga	0.3	3	3	3	2	6	--	--	--	--	3	--	1	5	5	6	5	8	6	5	--	8	4	5	5	8	8						
Vista	0.3	4	6	5	2	8	3	2	7	5	6	AC*	8	7	9	7	7	6	2	5	6	8	4	6	1	9	9						
Wesley	0.3	4	--	5	4	--	2	--	--	--	4	AC	--	--	8	7	--	--	--	--	--	--	--	--	9	--	--						
2163	0.2	6	1	3	3	7	6	4	2	--	7	LD	1	4	4	6	7	4	7	5	8	4	2	8	3	9	9						
Eagle	0.2	4	5	4	--	--	2	3	--	--	--	EX*	9	9	7	9	8	4	--	7	--	9	5	--	9	9	9						
Larned	0.2	4	5	4	9	3	3	3	8	3	4	AC	9	8	9	9	8	2	2	8	8	9	5	5	3	9	9						
Protection	0.2	4	3	2	7	--	--	--	--	--	--	--	--	--	7	--	--	--	--	--	--	--	--	--	9	--	--						
Santa Fe	0.2	3	3	2	6	--	--	--	--	--	5	AC	--	--	7	--	--	--	--	--	--	--	--	--	9	--	--						
Scout / S66	0.2	4	6	4	9	3	3	3	8	3	3	AC	9	7	7	9	8	3	1	7	9	9	5	--	9	9	9						
Blends	10.0																																
Other White	0.3																																
Other Red	4.5																																
Other Soft	0.1																																

¹Hard white variety Scale: 1=Best 1=Best 1=Early 1=Short 1=Long 1=Best 1=Best 1=Best 1=Best 1=Best 1=Best 9=Poor 9=Poor 9=Late 9=Tall 9=Short 9=Short 9=Short 9=Short 9=Short 9=Short 9=Short 9=Short Scale: 1=Most resistant/tolerant 9=Least resistant/tolerant

¹ Varieties and percentage seeded acreage from the Feb. 1, 2006, Wheat Variety survey, Kansas Agricultural Statistics, Topeka, KS.

² Most ratings are estimates based on information and observations from many sources over several years. Agronomic information by Joe Martin - Hays, and Allan Fritz, Jim Shroyer, and Kraig Roozeboom - K-State Agronomy.

³ Summary of crop performance test results from recent years.

⁴ Ratings from Jane Lingenfelter - K-State Grain Science and Industry, using inputs from the U.S. Grain Marketing and Production Research Center, and industry. See also "Milling & Bread-baking Qualities of Hard Winter Wheat Varieties."

EX = Exceptional; large kernels; high protein content; very good milling, mixing, and commercial bread-baking.

LD = Less Desirable; one or more serious quality defects.

-- = Inadequate information or conflicting data.

AC = Acceptable; milling and baking attributes acceptable, but not outstanding, for all properties; may have minor defects.

*Strong blending wheat; needed for blending with weaker wheats; may not be suitable alone for bread flour.

⁵ Ratings by Allan Fritz - Manhattan, Joe Martin - Hays; W.W. Bockus and Doug Jardine - K-State Plant Pathology. Final ratings and descriptions of disease and insect pests are available in "Wheat Variety Disease and Insect Ratings 2006."

Table 3. Wheat Performance Test site descriptions and management in 2006.

Region location	Soil crop	N	P ₂ O ₅	K ₂ O		Plant-harvest seed rate	Conditions
North East							
Bunck Seed Farms Everest (EV)	Grundy silty clay loam Wheat, 2005	75 --	-- --	-- --	Fall Spring	10/26/2005-6/30/2006 90 lb/a	Dry most of season, little disease.
Ashland Agronomy Farm Manhattan (MA)	Reading silt loam Oats, 2005	60 20	-- --	-- --	Fall Spring	10/24/2005-6/29/2006 75 lb/a	Dry most of season, some wheat streak in early spring.
South East							
EC KS Experiment Field Ottawa (OT)	Woodson silt loam Soybean, 2005	-- 100	-- --	-- --	Fall Spring	10/11/2005-6/15/2006 1200000 seeds/a	Dry growing season, little disease.
SE Agric Res Ctr Columbus (CL)	Parsons silt loam Soybean, 2005	60 30	30 --	120 --	Fall Spring	10/26/2005-6/15/2006 75 lb/a	Good establishment, dry winter and spring, late heads, severe BYD.
SE Agric Res Ctr Parsons (PA)	Parsons silt loam Corn, 2005	60 30	50 --	50 --	Fall Spring	10/19/2005-6/14/2006 75 lb/a	Good establishment, dry winter and spring, late heads, severe BYD.
Soft Wheat							
SE Agric Res Ctr Columbus (CL)	Parsons silt loam Soybean, 2005	60 30	30 --	120 --	Fall Spring	10/26/2005-6/15/2006 75 lb/a	Good establishment, dry winter and spring, late heads, severe BYD.
SE Agric Res Ctr Parsons (PA)	Parsons silt loam Corn, 2005	60 30	50 --	50 --	Fall Spring	10/19/2005-6/14/2006 75 lb/a	Good establishment, dry winter and spring, late heads, severe BYD.
North Central							
NC KS Experiment Field Belleville (BE)	Crete silt loam Sorghum, 2004	90 --	30 --	-- --	Fall Spring	9/28/2005-6/20/2006 90 lb/a	Dry most of season, little or no disease or insect damage, previous fallow helped yields.
Farmer's field Concordia (CN)	Silt loam Wheat, 2005	70 --	40 --	-- --	Fall Spring	10/14/2005-6/24/2006 90 lb/a	Dry most of season, June rains delayed harvest.
Farmer's Field Beloit (BL)	Silt loam Wheat, 2005	75 --	20 --	-- --	Fall Spring	9/26/2005-6/19/2006 65 lb/a	Dry growing season, little disease or insect damage.
South Central							
Harvey Co Expt Field Hesston (HE)	Ladysmith silty clay loam Soybean, 2005	90 --	32 --	-- --	Fall Spring	10/8/2005-6/9/2006 75 lb/a	Second-driest season in 30 years, little disease.
SC KS Experiment Field Hutchinson (HU)	Ost silt loam Wheat, 2004	75 50	40 --	-- --	Fall Spring	10/12/2005-6/14/2006 60 lb/a	Good establishment, dry until spring, wet in June, little disease.
SC KS Exp. Field Forage Test Hutchinson (HUF)	Ost silt loam Wheat, 2004	75 --	40 --	-- --	Fall Spring	10/5/2005-5/18/2006 60 lb/a	Dry until spring, harvested at late milk/early dough.
Max Kolarik Farm Caldwell (CA)	Sandy loam Wheat, 2005	50 --	-- --	-- --	Fall Spring	Abandoned 60 lb/a	Extremely low pH caused uneven stands and growth; too variable for good results.
North West Dryland							
Agric Res Ctr - Hays Hays (HA)	Harney clay loam Wheat, 2004	60 --	-- --	-- --	Fall Spring	9/29/2005-6/10/2006 50 lb/a	Dry most of season, little disease.
NW Res-Ext Ctr Colby (CO)	Keith silt loam Wheat, 2004	60 --	-- --	-- --	Fall Spring	Abandoned 60 lb/a	Dry until spring, freeze in late April, severe shattering from June 15 hail.
SW Res-Ext Ctr Tribune (TR)	Richfield silt loam Sorghum, 2004	5 80	25 --	-- --	Fall Spring	9/29/2005-6/20/2006 55 lb/a	Good establishment, dry winter and spring.
South West Dryland							
Farmer's Field Larned (LA)	Harney clay loam Sorghum, 2004	-- 30	-- --	-- --	Fall Spring	9/25/2005-6/15/2006 50 lb/a	Dry all season, planted no-till into sorghum stubble, severe damage from wheat streak mosaic virus.
Farmer's Field Dodge City (DC)	Harney clay loam Sorghum, 2004	50 --	-- --	-- --	Fall Spring	Abandoned 45 lb/a	Drought caused extreme variation.
SW Res-Ext Ctr Garden City (GC)	Keith silt loam Wheat, 2004	50 --	-- --	-- --	Fall Spring	10/25/2005-6/20/2006 65 lb/a	Good planting moisture, dry rest of season, hard freezes in late April.
Irrigated							
NW Res-Ext Ctr Colby (CO)	Keith silt loam Wheat, 2004	90 --	-- --	-- --	Fall Spring	Abandoned 90 lb/a	Freeze in late April, severe shattering from June 15 hail.
Farmer's Field Dodge City (DC)	Corn, 2004	120	--	--	Fall Spring	Abandoned 80 lb/a	Poor stands due to herbicide carry-over and rabbit feeding, abandoned in early spring.
SW Res-Ext Ctr Garden City (GC)	Keith silt loam Sorghum, 2004	50 --	-- --	-- --	Fall Spring	10/27/2006-6/27/2006 75 lb/a	Good planting moisture, dry rest of season, hard freezes in late April.

Table 4. 2006 NORTHEAST Kansas Winter Wheat Performance Tests.

Brand / Name	EV ¹ MA ² Av.			EV MA Av.			-EV- 2yr 3yr				-MA- 2yr 3yr				EV MA Av.			EV MA Av.			EV CA Av.		
	yield (bu/a)			% of test average			multi-year avg (bu/a)				tw (lb/bu)			head (+/- Jagger)			height (in)						
AgriPro																							
Jagalene	78	58	68	106	114	109	67	69	55	64	59	55	57	--	--	--	--	42	--				
Neosho	76	55	66	104	109	106	65	--	55	--	58	58	58	--	--	--	--	39	--				
Postrock	78	52	65	107	102	105	67	--	52	--	60	56	58	--	--	--	--	39	--				
AGSECO																							
Onaga	73	54	64	101	107	103	62	67	44	54	59	56	58	--	--	--	--	38	--				
Kansas																							
(W) Danby	65	44	54	89	86	88	59	--	49	--	60	59	60	--	--	--	--	39	--				
(W)KS03HW158	82	54	68	112	106	109	--	--	--	--	58	57	58	--	--	--	--	37	--				
(W)KS03HW6-6	63	45	54	87	89	88	--	--	--	--	57	57	57	--	--	--	--	40	--				
2137	79	52	65	108	102	105	71	68	50	57	59	55	57	--	--	--	--	41	--				
2145	67	61	64	92	119	103	62	66	60	65	59	57	58	--	--	--	--	40	--				
Jagger	76	49	63	105	97	102	67	70	49	56	58	53	56	--	--	--	--	39	--				
Karl 92	76	55	66	104	109	106	63	64	42	51	59	55	57	--	--	--	--	39	--				
KS00F5-14-7	83	56	69	114	110	112	--	--	--	--	58	56	57	--	--	--	--	41	--				
Overley	71	59	65	97	117	105	62	64	50	60	59	55	57	--	--	--	--	43	--				
Nebraska																							
Hallam	61	46	53	83	90	86	59	--	49	--	56	53	54	--	--	--	--	43	--				
Infinity CL	63	48	56	86	95	90	67	--	52	--	58	57	58	--	--	--	--	42	--				
Wahoo	67	41	54	91	80	87	67	67	46	51	57	53	55	--	--	--	--	39	--				
Wesley	80	57	68	109	111	110	74	73	53	60	58	52	55	--	--	--	--	39	--				
Oklahoma																							
2174	67	52	60	92	103	96	62	65	44	54	60	57	58	--	--	--	--	39	--				
Deliver	73	49	61	100	96	98	--	--	--	--	57	56	57	--	--	--	--	40	--				
Endurance	79	62	71	109	122	114	--	--	--	--	58	50	54	--	--	--	--	43	--				
OK Bullet	80	63	72	110	124	116	--	--	--	--	60	58	59	--	--	--	--	44	--				
Okfield	57	41	49	78	81	79	--	--	--	--	58	54	56	--	--	--	--	38	--				
Polansky																							
Dominator	84	51	68	116	101	110	--	--	--	--	60	57	59	--	--	--	--	40	--				
Seed-link																							
ACS52009	76	50	63	104	99	102	--	--	--	--	57	56	56	--	--	--	--	42	--				
ACS53032	46	26	36	63	51	58	--	--	--	--	56	53	54	--	--	--	--	33	--				
ACS54012	75	44	60	103	87	96	--	--	--	--	59	55	57	--	--	--	--	41	--				
ACS97001	67	33	50	92	65	81	--	--	--	--	58	55	57	--	--	--	--	49	--				
ACS97003	78	51	65	107	101	105	--	--	--	--	58	53	56	--	--	--	--	42	--				
WestBred																							
Santa Fe	78	60	69	107	117	111	68	--	57	--	57	55	56	--	--	--	--	41	--				
Smoky Hill	84	56	70	115	110	113	--	--	--	--	59	57	58	--	--	--	--	40	--				
Tarkio	79	51	65	109	101	106	76	--	51	--	56	52	54	--	--	--	--	39	--				
Averages	73	51	62	73	51	62	--	--	--	--	58	55	57	--	--	--	--	40	--				
CV (%)	10	10	10	10	10	10	--	--	--	--	2	4	3	--	--	--	--	6	--				
LSD (0.05)*	10	7	6	14	14	10	--	--	--	--	1	4	2	--	--	--	--	4	--				

¹ EV = Everest, KS, Bunck Seed Farm, Brown County.

² MA = Manhattan, KS, Ashland Bottoms Research Farm, Riley County.

(W) = Hard white wheat

* Least Significant Difference, similar to 'Margin of Error', indicates difference needed to overcome test error.

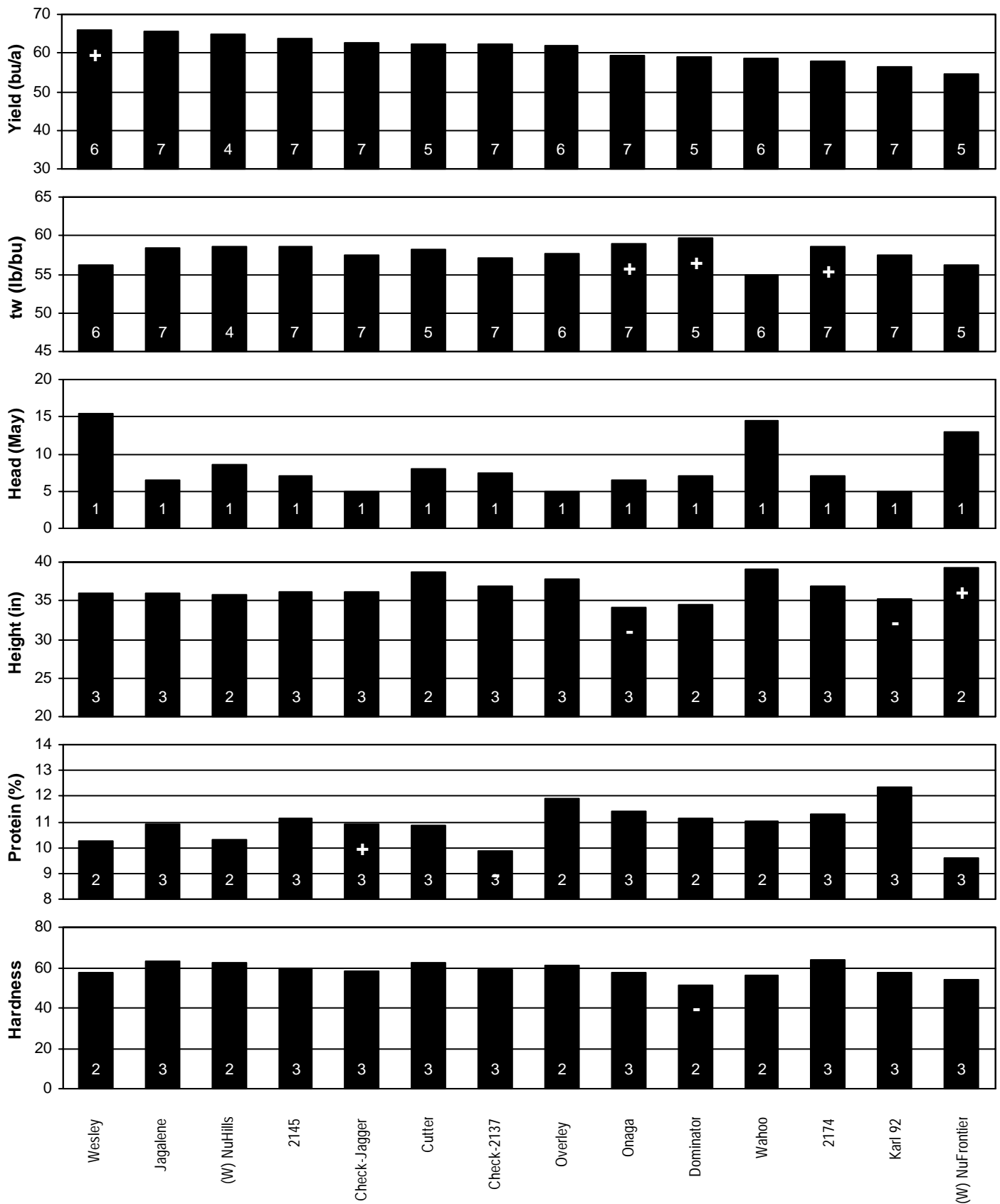


Figure 3. Performance summary of wheat varieties in NORTHEAST Kansas, 2002-2006.

Values inside bars indicate the number of comparisons with checks. Symbols (+,-) indicate if statistically greater or less than mean of checks.

Table 5. 2006 SOUTHEAST Kansas Winter Wheat Performance Tests.

Brand / Name	¹ OT ² CL ³ PA Av.				OT CL PA Av.				-OT- 2yr 3yr				-CL- 2yr 3yr				-PA- 2yr 3yr				OT CL PA Av.				OT CL PA Av.				OT CL PA Av.							
	yield (bu/a)				% of test average				multi-year avg (bu/a)				tw (lb/bu)				head (+/- Jagger)				height (in)															
AgriPro																																				
Jagalene	62	32	45	46	110	93	118	108	59	62	40	43	52	53	63	61	60	61	4	2	2	2	30	20	19	23										
Neosho	50	30	38	39	88	87	102	92	58	65	41	46	52	58	56	60	60	59	4	2	2	2	25	21	20	22										
Postrock	56	31	44	44	100	90	117	102	52	--	35	--	51	--	62	59	60	60	4	3	2	3	29	21	20	23										
AGSECO																																				
Onaga	57	32	34	41	101	93	90	96	54	57	38	41	44	48	63	59	57	60	3	2	2	2	27	22	20	23										
Kansas																																				
(W) Danby	49	36	42	42	88	105	112	99	52	58	40	43	49	52	58	59	60	59	4	3	3	3	30	20	19	23										
(W)KS03HW158	49	18	13	26	86	52	34	62	--	--	--	--	--	--	59	54	55	56	4	4	3	4	26	17	17	20										
(W)KS03HW6-6	53	38	45	45	95	110	120	106	--	--	--	--	--	--	58	61	61	60	2	1	2	1	29	22	21	24										
2137	64	38	36	46	114	112	96	108	57	59	40	44	47	49	63	58	56	59	4	3	2	3	30	22	19	24										
2145	63	34	35	44	112	100	94	104	61	63	40	42	47	52	63	60	60	61	3	2	2	2	27	21	19	22										
Jagger	55	33	41	43	98	98	109	101	52	54	40	42	47	49	62	59	59	60	0	0	0	0	28	22	22	24										
Karl 92	48	33	33	38	85	97	87	89	52	55	38	43	42	46	62	57	57	59	0	0	0	0	26	23	20	23										
KS00F5-14-7	57	33	43	44	101	97	114	104	--	--	--	--	--	--	62	59	59	60	1	2	1	1	29	23	22	25										
Overley	57	42	47	49	101	123	124	114	53	57	45	47	52	53	63	60	59	60	-1	-1	1	0	28	23	22	24										
Oklahoma																																				
2174	54	30	34	40	96	88	91	92	50	57	33	39	46	49	60	59	58	59	3	2	2	2	29	23	19	24										
Deliver	48	36	35	40	86	105	92	93	45	--	36	--	42	--	57	57	56	57	4	2	2	3	29	25	22	25										
Endurance	66	40	42	49	118	117	111	115	63	--	46	--	51	--	61	59	58	59	4	2	2	2	30	24	22	25										
OK Bullet	60	32	39	44	107	93	105	102	--	--	--	--	--	--	62	60	61	61	1	2	2	1	29	22	21	24										
Ok102	56	33	31	40	99	96	83	94	55	62	37	42	41	49	57	57	54	56	3	3	2	3	25	21	17	21										
Okfield	63	32	32	42	111	93	86	99	--	--	--	--	--	--	61	58	58	59	4	2	2	3	33	24	22	26										
Polansky																																				
Dominator	50	36	41	42	88	106	108	99	--	--	--	--	--	--	64	60	60	61	3	2	1	2	26	22	20	23										
Rinck																																				
Sturdy-2K	63	43	40	49	111	126	106	114	59	--	47	--	51	--	62	58	58	59	5	3	3	3	30	23	20	25										
WestBred																																				
Santa Fe	59	38	37	45	105	111	98	105	60	--	45	--	50	--	61	58	58	59	2	1	1	1	27	21	20	22										
Shocker	57	37	39	44	101	108	103	103	--	--	--	--	--	--	60	59	59	60	1	-2	1	0	27	22	20	23										
Averages	56	34	38	43	56	34	38	43	--	--	--	--	--	--	61	59	58	59	3	2	2	2	28	22	20	23										
CV (%)	5	10	13	9	5	10	13	9	--	--	--	--	--	--	1	2	2	2	0	1	1	1	4	6	8	6										
LSD (0.05)*	4	5	7	3	8	14	18	7	--	--	--	--	--	--	1	2	2	1	1	1	1	1	1	2	2	1										

¹ OT = Ottawa, KS, East Central Experiment Field, Franklin County.

² CL = Columbus, KS, Cherokee County.

³ PA = Parsons, KS, Southeast Agricultural Research Center, Labette County.

* Least Significant Difference, similar to 'Margin of Error', indicates difference needed to overcome test error.

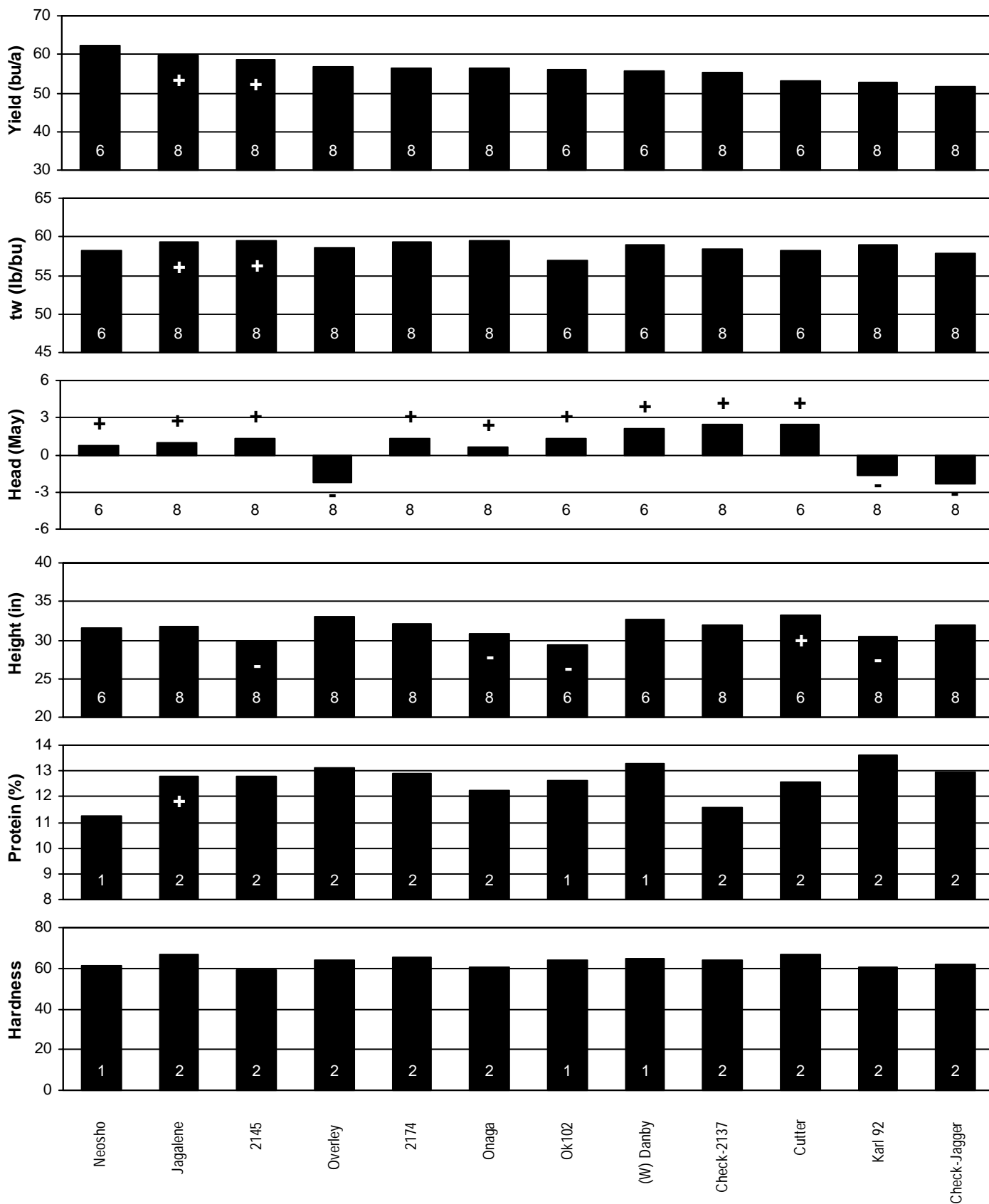


Figure 4. Performance summary of wheat varieties in SOUTHEAST Kansas, 2003-2006.

Values inside bars indicate the number of comparisons with checks. Symbols (+,-) indicate if statistically greater or less than mean of checks.

Table 6. 2006 SOUTHEAST Kansas SOFT Winter Wheat Performance Tests.

Brand / Name	CL ¹ PA ² Av.			CL PA Av.			-CL- 2yr 3yr		-PA- 2yr 3yr		CL PA Av.			CL PA Av.			CL PA Av.		
	yield (bu/a)			% of test average			multi-year avg (bu/a)				tw (lb/bu)			head (+/- Jagger)			height (in)		
AgriPro COKER																			
(S) Coker 9511	39	46	43	100	105	103	--	--	--	--	58	57	57	1	1	1	22	20	21
(S) Coker 9553	45	49	47	115	111	113	--	--	--	--	58	58	58	0	0	0	21	21	21
(S) Coker 9663	41	49	45	106	112	109	49	53	52	57	57	58	58	2	1	1	23	19	21
Arkansas																			
(S) Pat	30	37	34	77	85	81	33	41	43	50	55	55	55	6	6	6	21	19	20
(S) Sabbe	33	40	36	84	92	88	39	47	44	51	56	56	56	4	3	4	21	20	21
Georgia																			
(S)951395-3A31	44	41	42	113	92	102	--	--	--	--	59	59	59	2	1	1	20	17	18
(S)951395-3E25	41	47	44	107	106	107	--	--	--	--	58	58	58	2	1	2	20	18	19
(S)96229-3A41	33	40	37	86	92	89	--	--	--	--	57	58	57	3	1	2	20	19	20
Kansas																			
2137	33	40	37	84	92	88	35	42	45	48	57	57	57	5	3	4	22	19	21
Jagger	39	36	37	101	82	90	46	48	47	49	59	58	58	0	0	0	22	21	22
MFA																			
(S) 2020	42	43	43	109	99	104	49	53	55	60	58	58	58	3	1	2	24	22	23
(S) 2320	42	48	45	109	111	110	--	--	--	--	58	58	58	3	2	2	25	24	24
Missouri																			
(S) Bess	36	45	40	92	103	98	--	--	--	--	58	58	58	4	1	3	23	21	22
(S) Truman	33	34	33	85	78	81	38	42	43	52	55	57	56	7	4	6	23	20	22
M-Pride																			
(S)MPV14S-4SRW	37	51	44	94	116	106	44	52	57	61	56	58	57	4	2	3	24	20	22
(S)MPV16S-2SRW	41	43	42	104	99	101	--	--	--	--	58	58	58	1	1	1	21	19	20
Pioneer																			
(S) 25R47	43	50	47	112	114	113	52	60	57	63	58	57	57	4	1	2	22	21	22
(S) 25R63	47	49	48	122	111	116	--	--	--	--	57	58	57	2	1	1	23	20	21
Averages	39	44	41	39	44	41	--	--	--	--	57	57	57	3	2	2	22	20	21
CV (%)	7	11	10	7	11	10	--	--	--	--	1	1	1	1	1	1	8	9	8
LSD (0.05)*	4	7	4	11	16	10	--	--	--	--	1	1	1	1	1	1	2	2	2

¹ CL = Columbus, KS, Cherokee County.

² PA = Parsons, KS, Southeast Agricultural Research Center, Labette County.

(S) = Soft red wheat

* Least Significant Difference, similar to 'Margin of Error', indicates difference needed to overcome test error.

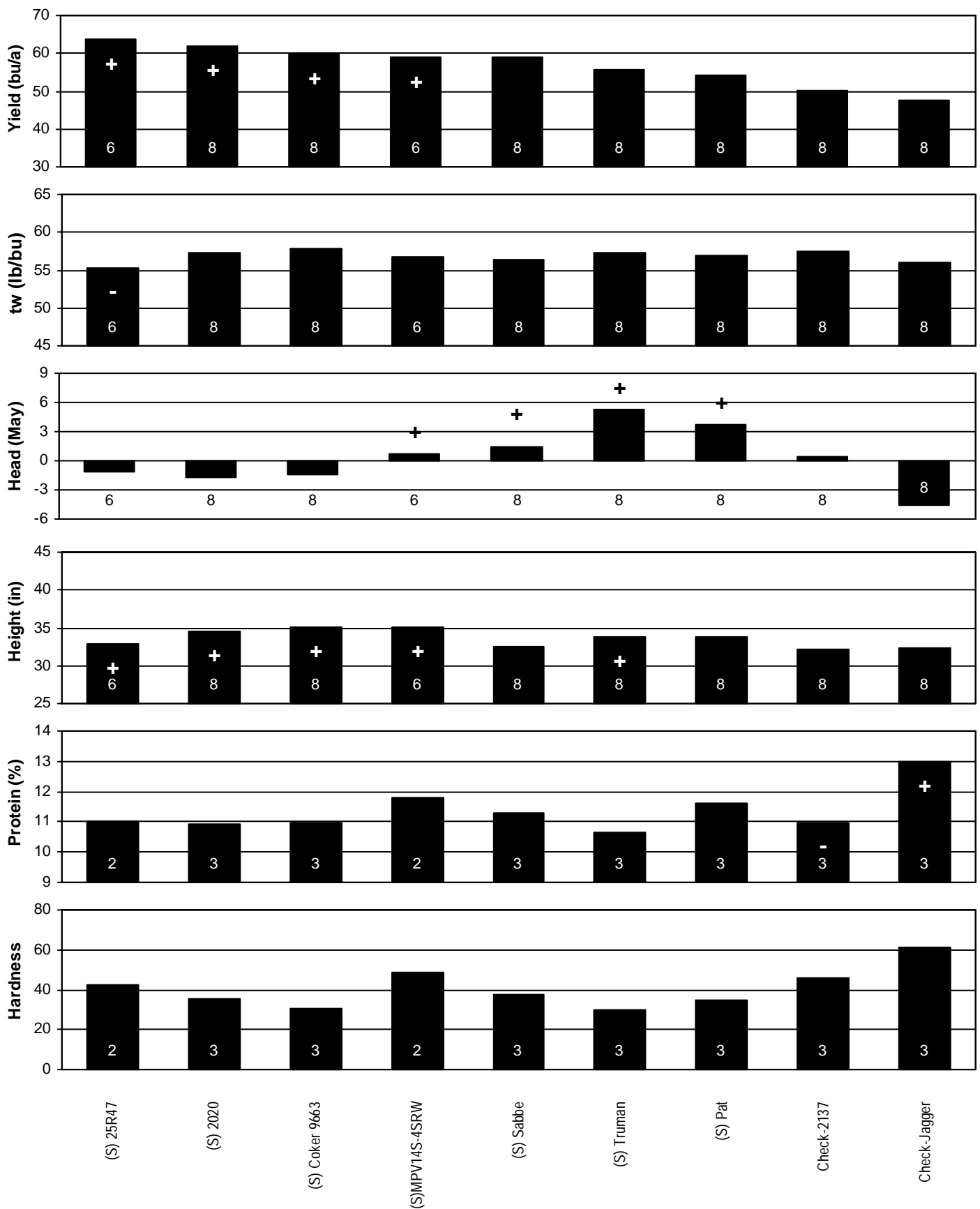


Figure 5. Performance summary of SOFT wheat varieties in SOUTHEAST Kansas, 2003-2006.

Values inside bars indicate the number of comparisons with checks. Symbols (+,-) indicate if statistically greater or less than mean of checks.

Table 7. 2006 NORTH CENTRAL Kansas Winter Wheat Performance Tests.

Brand / Name	BE ¹ CN ² BL ³ Av.				BE CN BL Av.				-BE- 2yr 3yr			-CN- 2yr 3yr			-BL- 2yr 3yr			BE CN BL Av.				BE CN BL Av.												
	yield (bu/a)				% of test average				multi-year avg (bu/a)						tw (lb/bu)				head (+/- Jagger)				height (in)											
AgriPro																																		
(W) NuHills	100	43	66	70	100	92	93	96	79	79	55	--	--	--	62	53	56	57	--	--	--	--	39	33	38	37								
Cutter	101	48	69	72	100	103	97	99	94	90	60	--	--	--	61	55	56	57	--	--	--	--	42	35	39	39								
Jagalene	114	53	77	81	113	115	109	112	106	99	59	--	--	--	62	56	58	59	--	--	--	--	41	32	38	37								
Neosho	101	40	77	73	100	85	108	100	87	84	51	--	--	--	61	55	58	58	--	--	--	--	41	36	37	38								
Postrock	107	44	69	73	106	95	97	101	102	--	56	--	--	--	62	55	58	58	--	--	--	--	40	34	39	38								
AGSECO																																		
Protection CL	100	43	63	69	99	93	89	94	90	--	55	--	--	--	59	51	56	55	--	--	--	--	42	38	39	39								
Kansas																																		
(W) Danby	114	52	77	81	114	111	108	111	104	98	60	--	--	--	62	55	58	58	--	--	--	--	41	36	37	38								
(W) Trego	101	50	81	78	101	108	115	107	89	85	56	--	--	--	61	56	58	58	--	--	--	--	40	33	35	36								
(W)KS03HW158	86	42	78	68	85	89	110	94	--	--	--	--	--	--	61	53	54	56	--	--	--	--	39	31	39	36								
(W)KS03HW6-6	86	46	80	70	85	98	112	97	--	--	--	--	--	--	61	52	55	56	--	--	--	--	36	33	34	35								
2137	111	55	79	82	111	119	111	113	91	89	56	--	--	--	61	54	56	57	--	--	--	--	39	34	39	37								
2145	96	45	75	72	95	98	105	99	90	88	59	--	--	--	61	54	56	57	--	--	--	--	37	33	38	36								
Ike	90	48	69	69	89	103	97	95	80	74	55	--	--	--	60	53	56	56	--	--	--	--	38	35	36	37								
Jagger	106	51	70	75	105	109	99	104	97	92	57	--	--	--	60	55	57	57	--	--	--	--	38	34	35	36								
Karl 92	95	53	68	72	94	114	96	99	83	78	58	--	--	--	60	55	56	57	--	--	--	--	38	32	35	35								
KS00F5-14-7	114	46	75	78	113	98	106	108	--	--	--	--	--	--	61	52	57	57	--	--	--	--	40	34	35	36								
Overley	114	53	75	80	113	114	105	111	104	97	62	--	--	--	59	54	58	57	--	--	--	--	43	36	39	39								
Stanton	93	44	64	67	92	95	90	92	82	76	53	--	--	--	61	54	56	57	--	--	--	--	41	36	34	37								
Nebraska																																		
Hallam	99	46	78	74	99	99	110	102	91	--	53	--	--	--	59	51	56	55	--	--	--	--	40	37	39	39								
Infinity CL	97	43	63	68	97	92	89	93	98	--	54	--	--	--	60	54	57	57	--	--	--	--	39	35	36	37								
Wahoo	96	46	64	68	95	100	89	94	90	83	53	--	--	--	59	51	55	55	--	--	--	--	39	34	38	37								
Wesley	99	41	69	70	98	88	97	96	95	90	57	--	--	--	58	51	56	55	--	--	--	--	39	33	35	35								
Oklahoma																																		
(W) Guymon	97	38	78	71	96	83	110	98	--	--	--	--	--	--	62	54	55	57	--	--	--	--	39	31	35	35								
2174	96	46	70	70	95	98	98	97	90	86	53	--	--	--	61	53	57	57	--	--	--	--	39	36	36	37								
Deliver	112	55	78	82	111	119	110	113	--	--	--	--	--	--	62	55	56	58	--	--	--	--	41	35	39	38								
Endurance	100	48	69	72	99	103	97	100	--	--	--	--	--	--	60	53	55	56	--	--	--	--	41	33	35	37								
OK Bullet	101	47	75	74	100	101	105	102	--	--	--	--	--	--	62	54	55	57	--	--	--	--	44	36	40	40								
Okfield	99	43	66	69	99	93	92	95	--	--	--	--	--	--	60	51	56	56	--	--	--	--	43	39	42	41								
Polansky																																		
Dominator	99	49	76	75	98	105	107	102	85	83	55	--	--	--	61	55	58	58	--	--	--	--	38	31	33	34								
Rinck																																		
Sturdy-2K	90	46	54	63	89	100	76	87	86	--	55	--	--	--	60	54	54	56	--	--	--	--	42	34	39	38								
WestBred																																		
Santa Fe	101	44	73	73	100	96	102	100	95	--	56	--	--	--	60	51	57	56	--	--	--	--	39	34	34	35								
Smoky Hill	106	40	66	71	105	87	93	97	--	--	--	--	--	--	61	53	55	57	--	--	--	--	38	32	36	36								
Tarkio	103	46	54	67	102	98	76	93	98	--	57	--	--	--	60	51	54	55	--	--	--	--	39	35	35	36								
Averages	101	46	71	73	101	46	71	73	--	--	--	--	--	--	61	53	56	57	--	--	--	--	40	34	37	37								
CV (%)	4	6	7	6	4	6	7	6	--	--	--	--	--	--	1	1	2	1	--	--	--	--	4	5	7	5								
LSD (0.05)*	7	5	8	4	7	10	11	5	--	--	--	--	--	--	1	0	2	1	--	--	--	--	2	3	4	2								

¹ BE = Belleville, KS, North Central Experiment Field, Republic County.

² CN = Concordia, KS, Cloud County.

³ BL = Beloit, KS, Mitchell County.

(W) = Hard white wheat

* Least Significant Difference, similar to 'Margin of Error', indicates difference needed to overcome test error.

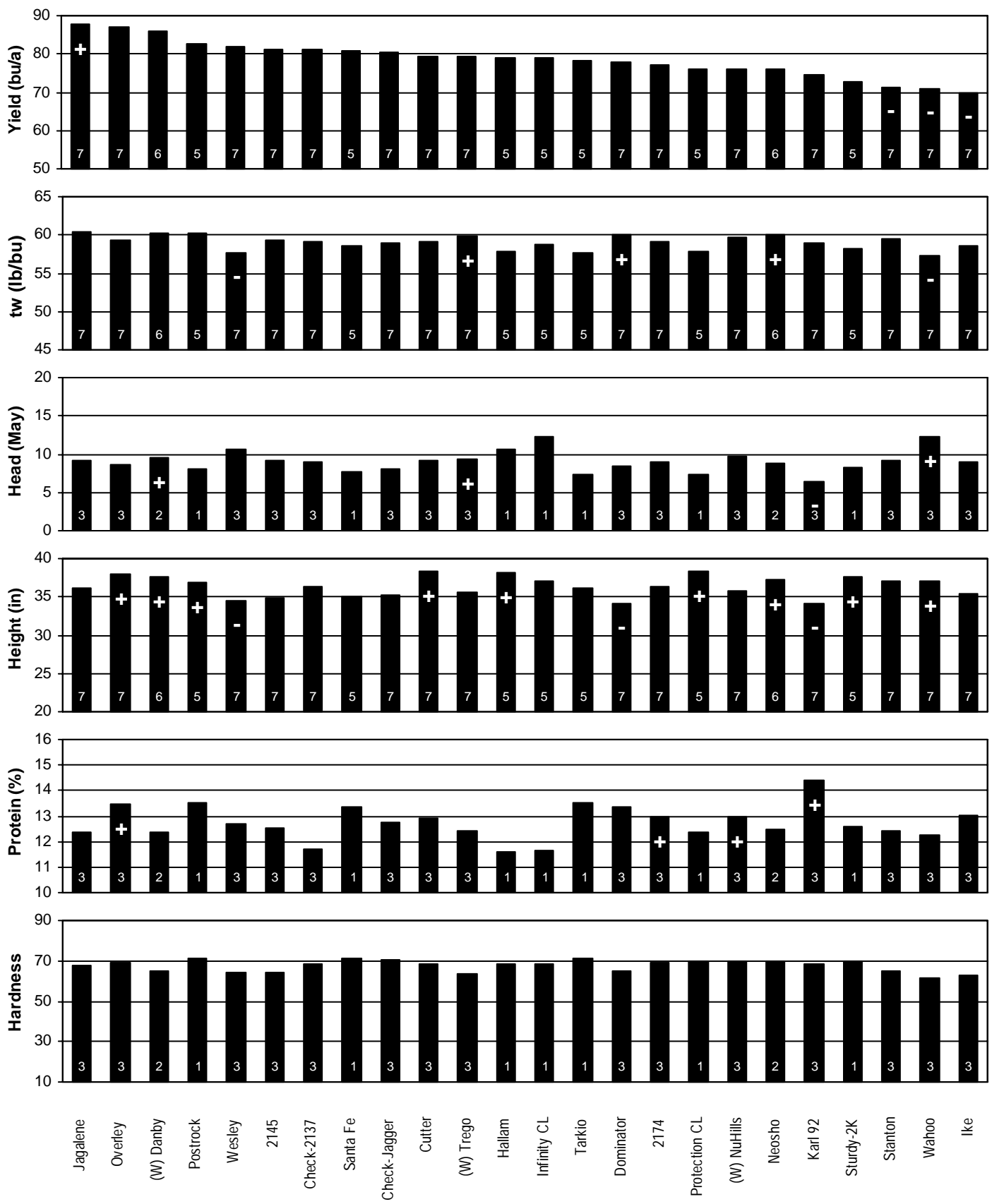


Figure 6. Performance summary of wheat varieties in NORTH CENTRAL Kansas, 2003-2006.

Values inside bars indicate the number of comparisons with checks. Symbols (+,-) indicate if statistically greater or less than mean of checks.

Table 8. 2006 SOUTH CENTRAL Kansas Winter Wheat Performance Tests.

Brand / Name	HE ¹ HU ² Av.			HUF ³	HE HU Av.			-HE- 2yr 3yr		-HU- 2yr 3yr		HE HU Av.			HE HU Av.			HE HU Av.		
	yield (bu/a)				% of average			multi-year avg (bu/a)		tw (lb/bu)		head (+/- Jagger)			height (in)					
AgriPro																				
Cutter	51	62	57	13,253	98	116	107	46	49	55	53	62	58	60	4	5	4	29	35	32
Jagalene	52	52	52	13,825	100	97	98	47	49	51	50	63	59	61	2	4	3	27	31	29
Neosho	53	46	49	11,673	101	86	93	50	52	51	52	62	58	60	2	6	4	24	29	26
Postrock	51	49	50	13,681	99	90	94	--	--	--	--	62	59	60	3	4	4	28	32	30
AGSECO																				
Protection CL	56	62	59	12,051	107	115	111	48	--	56	--	60	57	58	0	0	0	29	32	30
Kansas																				
(W) Danby	54	55	55	13,673	104	103	103	36	43	55	54	64	60	62	4	4	4	28	32	30
(W)KS03HW158	50	46	48	11,808	95	85	90	--	--	--	--	63	59	61	4	6	5	25	29	27
(W)KS03HW6-6	60	58	59	12,129	115	107	111	--	--	--	--	63	60	62	3	4	3	28	32	30
2137	52	58	55	12,829	99	107	103	50	52	54	55	62	58	60	4	4	4	29	33	31
2145	50	52	51	12,473	97	96	96	50	51	53	53	62	58	60	4	5	4	27	29	28
Jagger	54	58	56	12,619	104	107	106	49	50	53	49	61	58	60	0	0	0	28	31	29
Karl 92	42	47	44	11,465	80	86	83	46	50	49	50	60	56	58	0	-3	-2	24	28	26
KS00F5-14-7	58	54	56	13,316	111	100	105	--	--	--	--	62	59	60	1	3	2	27	32	29
Overlay	52	56	54	13,899	99	104	102	54	54	58	56	62	59	61	1	1	1	28	32	30
Oklahoma																				
(W) Guymon	53	54	54	12,088	102	100	101	--	--	--	--	64	59	61	5	7	6	29	34	31
2174	45	53	49	11,771	87	97	92	47	50	51	51	62	57	60	4	4	4	27	32	29
Deliver	46	47	47	12,103	88	88	88	45	--	47	--	62	58	60	3	5	4	25	30	28
Endurance	57	56	56	12,558	109	104	106	50	--	53	--	62	59	60	3	4	3	29	32	31
OK Bullet	57	59	58	13,064	109	109	109	--	--	--	--	62	60	61	2	4	3	30	35	32
Ok102	46	48	47	10,913	89	89	89	49	52	49	49	62	58	60	3	3	3	24	27	25
Okfield	59	69	64	13,296	114	128	121	--	--	--	--	62	58	60	4	5	4	31	36	34
Polansky																				
Dominator	48	49	48	12,065	91	91	91	51	51	50	50	62	59	60	3	5	4	25	27	26
Rinck																				
Sturdy-2K	51	54	53	12,488	99	100	99	53	--	51	--	61	58	59	3	6	5	29	34	32
WestBred																				
Santa Fe	52	53	52	12,284	100	97	99	52	--	53	--	61	57	59	2	4	3	26	30	28
Shocker	53	54	53	12,674	101	99	100	--	--	--	--	61	57	59	1	2	1	27	29	28
Averages	52	54	53	12,560	52	54	53	--	--	--	--	62	58	60	2	4	3	27	31	29
CV (%)	5	9	7	8	5	9	7	--	--	--	--	0	1	1	0	1	1	4	4	4
LSD (0.05)*	4	7	4	1,416	7	13	7	--	--	--	--	0	1	0	1	2	1	1	2	1

¹ HE = Hesston, KS, Harvey County Experiment Field, Harvey County.

² HU = Hutchinson, KS, South Central Experiment Field, Reno County.

³ HUF = Hutchinson, KS, separate forage test yields in pounds of dry matter per acre, harvested at soft dough.

(W) = Hard white wheat

* Least Significant Difference, similar to 'Margin of Error', indicates difference needed to overcome test error.

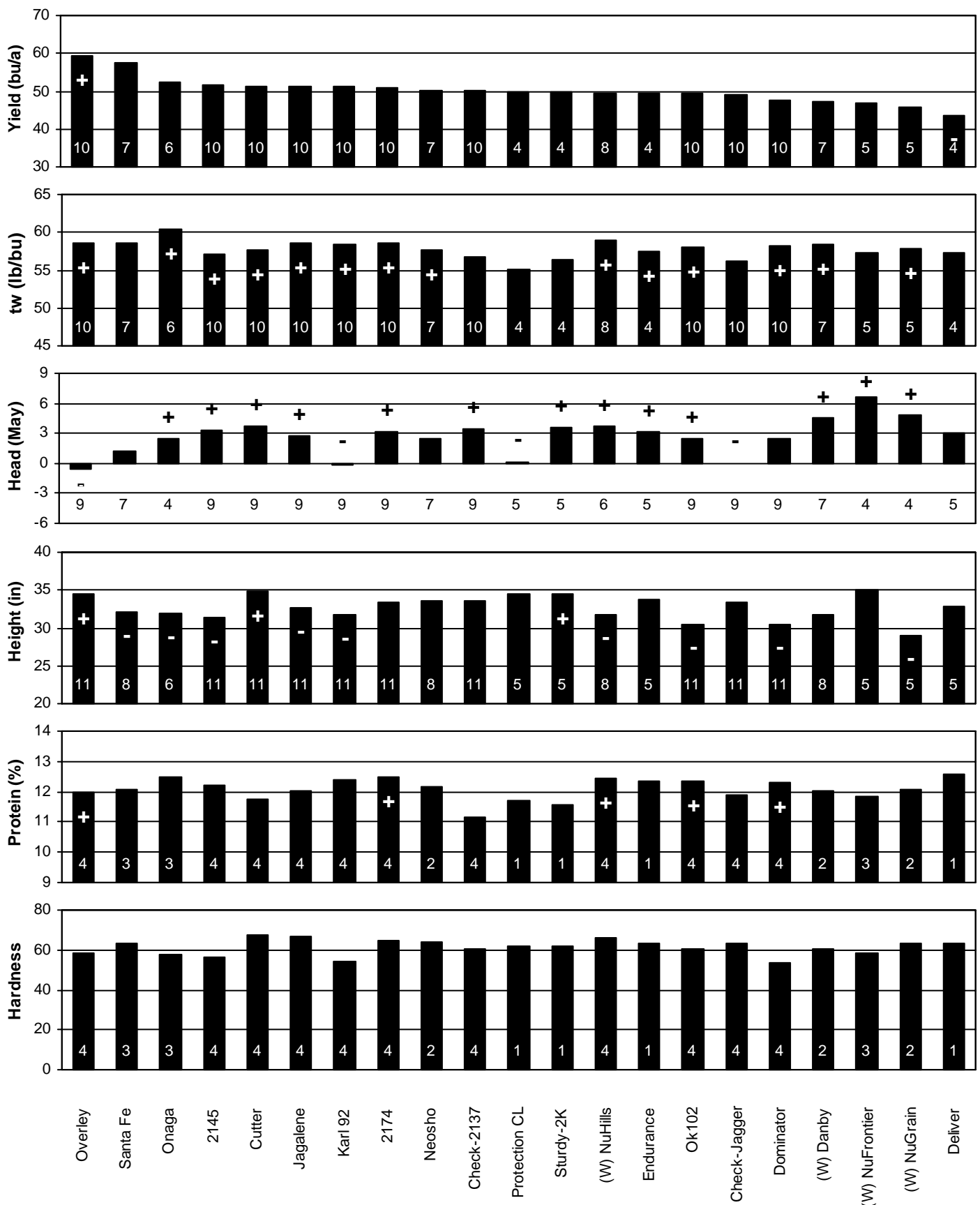


Figure 7. Performance summary of wheat varieties in SOUTH CENTRAL Kansas, 2003-2006.

Values inside bars indicate the number of comparisons with checks. Symbols (+,-) indicate if statistically greater or less than mean of checks.

Table 9. 2006 NORTHWEST DRYLAND Kansas Winter Wheat Performance Tests.

Brand / Name	1				2				-HA-				-CO-				-TR-									
	HA	CO	TR	Av.	HA	CO	TR	Av.	2yr	3yr	2yr	3yr	2yr	3yr	HA	CO	TR	Av.	HA	CO	TR	Av.				
	yield (bu/a)				% of test average				multi-year avg (bu/a)				tw (lb/bu)				head (+/- Jagger)				height (in)					
AgriPro																										
(W) NuDakota	49	--	41	45	113	--	108	111	--	--	--	--	--	--	56	--	53	55	8	--	7	7	30	--	24	27
(W) NuFrontier	39	--	29	34	90	--	77	84	49	51	--	--	48	41	58	--	57	58	8	--	9	8	30	--	24	27
(W) NuGrain	44	--	40	42	101	--	104	103	55	--	--	--	51	--	60	--	58	59	8	--	9	8	29	--	23	26
(W) NuHills	52	--	39	45	121	--	101	112	61	60	--	--	53	41	61	--	55	58	5	--	5	5	30	--	24	27
AP502CL	46	--	30	38	108	--	78	94	60	57	--	--	41	33	59	--	56	57	-1	--	0	0	30	--	24	27
Cutter	44	--	39	41	102	--	101	101	58	58	--	--	58	46	59	--	56	57	3	--	8	6	32	--	27	29
Jagalene	43	--	41	42	99	--	107	103	57	57	--	--	58	45	60	--	57	59	4	--	7	5	30	--	25	28
Postrock	44	--	40	42	102	--	106	104	--	--	--	--	--	--	59	--	55	57	3	--	5	4	30	--	25	27
TAM 111	41	--	39	40	94	--	103	98	59	57	--	--	57	--	59	--	58	58	5	--	8	6	31	--	25	28
Thunderbolt	39	--	40	40	90	--	105	97	51	53	--	--	54	44	60	--	59	60	6	--	9	7	33	--	26	29
AGSECO																										
Protection CL	48	--	42	45	112	--	109	111	--	--	--	--	--	--	57	--	56	57	0	--	0	0	31	--	28	29
TAM 110	47	--	24	35	110	--	62	87	62	60	--	--	35	28	59	--	56	58	-1	--	1	0	31	--	24	28
Colorado																										
(W) Avalanche	43	--	37	40	99	--	97	98	55	56	--	--	46	38	61	--	57	59	5	--	7	6	31	--	24	27
Above	50	--	31	41	117	--	82	101	63	62	--	--	44	34	60	--	57	58	-1	--	3	1	29	--	26	27
Bond CL	45	--	45	45	104	--	119	111	60	--	--	--	59	--	59	--	51	55	5	--	5	5	33	--	27	30
Hatcher	44	--	41	42	102	--	107	104	60	--	--	--	54	--	60	--	57	58	3	--	8	5	30	--	25	27
Drussel																										
T81	45	--	40	43	105	--	105	105	61	59	--	--	57	--	59	--	58	58	1	--	4	2	30	--	26	28
Kansas																										
(W) Danby	50	--	45	48	117	--	118	118	61	61	--	--	57	--	62	--	58	60	5	--	8	6	31	--	26	29
(W) Trego	44	--	42	43	101	--	111	105	52	53	--	--	53	40	61	--	59	60	5	--	8	6	29	--	24	27
(W)KS03HW158	49	--	41	45	114	--	107	111	--	--	--	--	--	--	62	--	59	60	5	--	7	6	29	--	23	26
(W)KS03HW6-6	44	--	41	43	102	--	109	105	--	--	--	--	--	--	60	--	56	58	4	--	6	5	30	--	25	28
2137	42	--	42	42	98	--	110	104	52	52	--	--	46	39	58	--	56	57	5	--	8	6	31	--	25	28
2145	37	--	33	35	86	--	87	86	50	52	--	--	47	38	59	--	56	58	5	--	8	6	29	--	25	27
Ike	42	--	46	44	98	--	120	108	57	56	--	--	53	41	59	--	56	58	3	--	2	2	32	--	27	30
Jagger	44	--	42	43	102	--	109	106	58	57	--	--	56	44	59	--	57	58	0	--	0	0	30	--	26	28
Karl 92	38	--	28	33	87	--	73	81	44	43	--	--	44	33	59	--	56	58	-2	--	5	2	28	--	23	26
KS00F5-14-7	43	--	41	42	101	--	107	103	--	--	--	--	--	--	59	--	57	58	1	--	7	4	30	--	26	28
Overlay	45	--	35	40	105	--	91	98	53	53	--	--	53	42	60	--	57	58	0	--	4	2	30	--	27	29
Stanton	36	--	28	32	84	--	73	79	46	46	--	--	45	35	59	--	58	58	4	--	7	6	30	--	26	28
Nebraska																										
Hallam	42	--	40	41	98	--	105	101	55	--	--	--	48	--	57	--	54	56	5	--	6	5	33	--	26	29
Infinity CL	39	--	43	41	91	--	114	102	56	--	--	--	56	--	59	--	57	58	8	--	7	8	33	--	27	30
Wahoo	41	--	39	40	94	--	102	98	53	56	--	--	53	43	57	--	56	56	7	--	8	7	33	--	25	29
Wesley	41	--	30	35	94	--	78	87	52	52	--	--	44	36	57	--	55	56	7	--	7	7	29	--	24	26
Oklahoma																										
(W) Guymon	38	--	33	36	89	--	86	88	--	--	--	--	--	--	61	--	57	59	7	--	10	8	30	--	23	27
2174	35	--	37	36	80	--	96	88	44	47	--	--	42	34	59	--	57	58	4	--	8	6	29	--	26	28
Deliver	40	--	29	35	93	--	77	86	--	--	--	--	--	--	60	--	55	58	4	--	9	6	30	--	27	29
Endurance	43	--	43	43	101	--	112	106	--	--	--	--	--	--	59	--	58	58	3	--	5	4	30	--	27	29
OK Bullet	45	--	40	42	103	--	105	104	--	--	--	--	--	--	60	--	58	59	2	--	5	4	32	--	27	29
Okfield	41	--	38	39	95	--	100	97	--	--	--	--	--	--	58	--	57	57	5	--	7	6	33	--	27	30
Rinck																										
Sturdy-2K	37	--	33	35	85	--	86	86	--	--	--	--	--	--	58	--	57	57	5	--	10	7	31	--	27	29
Watley																										
TAM 112	56	--	47	52	129	--	124	127	--	--	--	--	--	--	61	--	59	60	-1	--	0	0	30	--	25	27
WestBred																										
Keota	41	--	38	40	96	--	100	98	57	--	--	--	52	--	60	--	57	58	4	--	7	6	32	--	27	29
Smoky Hill	38	--	49	43	89	--	128	107	--	--	--	--	--	--	58	--	59	58	8	--	10	9	30	--	26	28
Averages	43	--	38	41	43	--	38	41	--	--	--	--	--	--	59	--	57	58	4	--	6	5	31	--	25	28
CV (%)	7	--	11	9	7	--	11	9	--	--	--	--	--	--	1	--	3	2	1	--	1	1	4	--	5	4
LSD (0.05)*	4	--	6	4	9	--	15	9	--	--	--	--	--	--	1	--	2	1	1	--	2	1	2	--	2	1

¹ HA = Hays, KS, K-State Research and Extension Center - Hays, Ellis County.

² CO = Colby, KS, Northwest Research-Extension Center, Thomas County.

³ TR = Tribune, KS, Southwest Research-Extension Center, Greeley County.

(W) = Hard white wheat

* Least Significant Difference, similar to 'Margin of Error', difference needed to overcome test error.

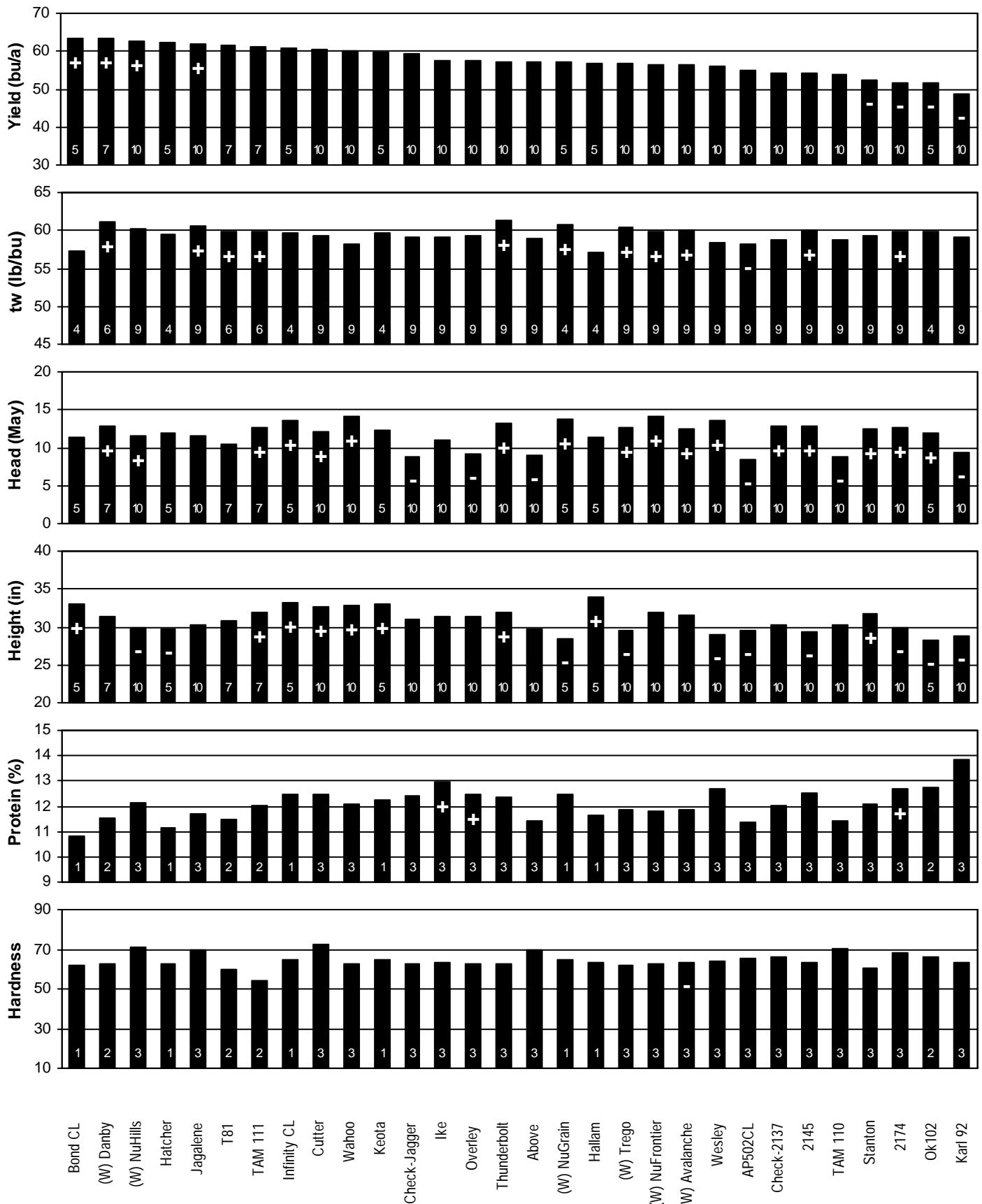


Figure 8. Performance summary of wheat varieties in NORTHWEST Kansas, DRYLAND, 2003-2006.

Values inside bars indicate the number of comparisons with checks. Symbols (+,-) indicate if statistically greater or less than mean of checks.

Table 10. 2006 SOUTHWEST DRYLAND Kansas Winter Wheat Performance Tests.

Brand / Name	¹ LA ² DC ³ GC Av.				LA DC GC Av.				-LA- -DC- -GC- 2yr 3yr 2yr 3yr 2yr 3yr				LA DC GC Av.				LA DC GC Av.									
	yield (bu/a)				% of test average				multi-year avg (bu/a)				tw (lb/bu)				head (+/- Jagger)				height (in)					
AgriPro																										
(W) NuDakota	7	--	20	14	63	--	88	80	--	--	--	--	50	--	55	52	--	--	9	--	--	--	25	--		
(W) NuFrontier	11	--	22	16	93	--	95	94	--	--	--	36	35	51	--	57	54	--	--	6	--	--	--	28	--	
(W) NuGrain	14	--	24	19	122	--	101	108	--	--	--	--	32	--	51	--	58	55	--	--	7	--	--	--	24	--
(W) NuHills	16	--	22	19	132	--	93	106	--	--	--	--	31	31	55	--	59	57	--	--	5	--	--	--	26	--
AP502CL	11	--	26	18	93	--	111	105	--	--	--	--	29	30	53	--	57	55	--	--	-2	--	--	--	25	--
Cutter	15	--	23	19	129	--	100	110	--	--	--	--	34	32	50	--	57	54	--	--	5	--	--	--	28	--
Jagalene	19	--	23	21	162	--	97	119	--	--	--	--	33	33	56	--	59	57	--	--	4	--	--	--	26	--
Postrock	9	--	25	17	73	--	109	97	--	--	--	--	--	--	51	--	58	54	--	--	3	--	--	--	27	--
TAM 111	11	--	28	19	91	--	119	110	--	--	--	--	42	39	51	--	59	55	--	--	3	--	--	--	27	--
Thunderbolt	12	--	21	16	101	--	89	93	--	--	--	--	34	35	52	--	58	55	--	--	6	--	--	--	27	--
AGSECO																										
Protection CL	13	--	26	19	106	--	110	109	--	--	--	--	34	--	51	--	56	54	--	--	0	--	--	--	27	--
TAM 110	17	--	25	21	149	--	107	121	--	--	--	--	29	31	55	--	57	56	--	--	-2	--	--	--	26	--
Colorado																										
(W) Avalanche	12	--	19	15	101	--	80	87	--	--	--	--	27	30	53	--	58	55	--	--	6	--	--	--	26	--
Above	17	--	25	21	142	--	109	120	--	--	--	--	28	30	56	--	57	57	--	--	0	--	--	--	26	--
Bond CL	12	--	25	19	102	--	109	107	--	--	--	--	32	--	50	--	57	54	--	--	4	--	--	--	27	--
Hatcher	15	--	29	22	128	--	124	125	--	--	--	--	39	--	51	--	58	55	--	--	2	--	--	--	27	--
Drussel																										
T81	11	--	23	17	94	--	100	98	--	--	--	--	36	36	50	--	58	54	--	--	4	--	--	--	27	--
Kansas																										
(W) Danby	16	--	25	21	140	--	109	119	--	--	--	--	35	35	58	--	60	59	--	--	5	--	--	--	26	--
(W) Trego	8	--	24	16	68	--	104	92	--	--	--	--	29	31	53	--	60	56	--	--	4	--	--	--	26	--
(W)KS03HW158	22	--	27	24	183	--	118	140	--	--	--	--	--	--	57	--	60	59	--	--	4	--	--	--	25	--
(W)KS03HW6-6	11	--	21	16	90	--	92	91	--	--	--	--	--	--	54	--	59	57	--	--	3	--	--	--	26	--
2137	13	--	24	19	111	--	104	107	--	--	--	--	27	28	49	--	57	53	--	--	2	--	--	--	26	--
2145	6	--	21	13	48	--	89	76	--	--	--	--	32	31	50	--	57	54	--	--	3	--	--	--	24	--
Ike	3	--	22	12	21	--	96	71	--	--	--	--	29	32	50	--	56	53	--	--	4	--	--	--	28	--
Jagger	9	--	22	16	78	--	97	91	--	--	--	--	33	31	48	--	57	53	--	--	0	--	--	--	27	--
Karl 92	3	--	16	10	28	--	68	55	--	--	--	--	24	22	49	--	57	53	--	--	-2	--	--	--	24	--
KS00F5-14-7	15	--	23	19	127	--	98	108	--	--	--	--	--	--	51	--	57	54	--	--	3	--	--	--	27	--
Overley	12	--	19	16	103	--	82	89	--	--	--	--	29	29	51	--	57	54	--	--	0	--	--	--	26	--
Stanton	6	--	17	12	52	--	74	67	--	--	--	--	30	31	46	--	58	52	--	--	5	--	--	--	27	--
Nebraska																										
Infinity CL	14	--	23	19	123	--	99	107	--	--	--	--	36	--	51	--	57	54	--	--	9	--	--	--	28	--
Wesley	3	--	23	13	27	--	101	76	--	--	--	--	35	35	47	--	57	52	--	--	6	--	--	--	25	--
Oklahoma																										
(W) Guymon	12	--	27	19	99	--	116	110	--	--	--	--	--	--	53	--	59	56	--	--	4	--	--	--	25	--
2174	4	--	21	13	37	--	90	72	--	--	--	--	27	28	48	--	58	53	--	--	2	--	--	--	25	--
Deliver	15	--	20	18	131	--	88	102	--	--	--	--	33	--	53	--	57	55	--	--	4	--	--	--	26	--
Endurance	12	--	24	18	102	--	103	102	--	--	--	--	33	--	50	--	58	54	--	--	1	--	--	--	26	--
OK Bullet	12	--	23	18	106	--	99	101	--	--	--	--	--	--	52	--	58	55	--	--	2	--	--	--	26	--
Okfield	9	--	26	17	78	--	111	100	--	--	--	--	--	--	50	--	57	53	--	--	4	--	--	--	28	--
Watley																										
TAM 112	23	--	32	27	194	--	136	156	--	--	--	--	--	--	57	--	59	58	--	--	1	--	--	--	27	--
WestBred																										
Keota	11	--	22	17	93	--	96	95	--	--	--	--	31	--	52	--	58	55	--	--	3	--	--	--	26	--
Shocker	9	--	21	15	80	--	89	86	--	--	--	--	--	--	50	--	56	53	--	--	1	--	--	--	26	--
Averages	12	--	23	17	12	--	23	17	--	--	--	--	--	--	52	--	58	55	--	--	3	--	--	--	26	--
CV (%)	22	--	7	12	22	--	7	12	--	--	--	--	--	--	2	--	1	2	--	--	1	--	--	--	2	--
LSD (0.05)*	4	--	2	2	31	--	9	12	--	--	--	--	--	--	2	--	0	1	--	--	1	--	--	--	1	--

¹ LA = Larned, KS, Pawnee County.

² DC = Dodge City, KS, Ford County.

³ GC = Garden City, KS, Southwest Research-Extension Center, Finney County.

(W) = Hard white wheat

* Least Significant Difference, similar to 'Margin of Error', indicates difference needed to overcome test error.

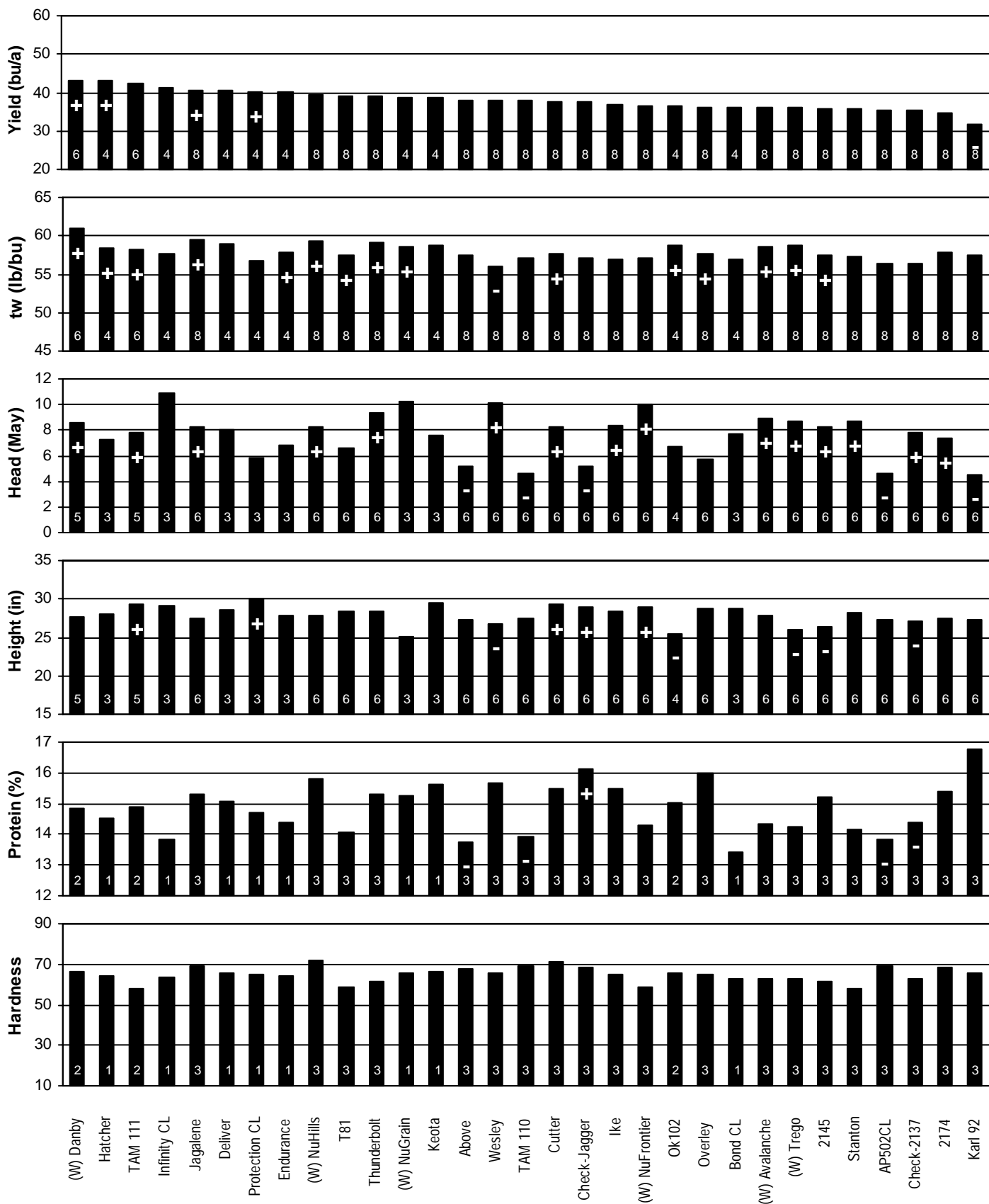


Figure 9. Performance summary of wheat varieties in SOUTHWEST Kansas, DRYLAND, 2003-2006.

Values inside bars indicate the number of comparisons with checks. Symbols (+,-) indicate if statistically greater or less than mean of checks.

Table 11. 2006 IRRIGATED Kansas Winter Wheat Performance Tests.

Brand / Name	¹ ² ³				-CO-				-DC-				-GC-													
	CO	DC	GC	Av.	CO	DC	GC	Av.	2yr	3yr	2yr	3yr	2yr	3yr	CO	DC	GC	Av.								
	yield (bu/a)				% of test average				multi-year avg (bu/a)				tw (lb/bu)				head (+/- Jagger)				height (in)					
AgriPro																										
(W) NuDakota	--	--	49	--	--	--	87	--	--	--	--	--	--	--	53	--	--	--	7	--	--	--	36	--		
(W) NuFrontier	--	--	52	--	--	--	93	--	--	--	--	61 69	--	--	56	--	--	--	4	--	--	--	40	--		
(W) NuGrain	--	--	65	--	--	--	115	--	--	--	--	64 --	--	--	58	--	--	--	4	--	--	--	34	--		
(W) NuHills	--	--	63	--	--	--	112	--	--	--	--	61 73	--	--	57	--	--	--	2	--	--	--	36	--		
Jagalene	--	--	59	--	--	--	105	--	--	--	--	65 77	--	--	57	--	--	--	1	--	--	--	38	--		
Postrock	--	--	55	--	--	--	98	--	--	--	--	-- --	--	--	56	--	--	--	2	--	--	--	37	--		
TAM 111	--	--	65	--	--	--	115	--	--	--	--	69 79	--	--	58	--	--	--	0	--	--	--	39	--		
Thunderbolt	--	--	39	--	--	--	70	--	--	--	--	-- --	--	--	57	--	--	--	4	--	--	--	39	--		
AGSECO																										
TAM 110	--	--	67	--	--	--	118	--	--	--	--	67 77	--	--	57	--	--	--	-3	--	--	--	36	--		
Colorado																										
(W) Avalanche	--	--	43	--	--	--	76	--	--	--	--	51 --	--	--	56	--	--	--	3	--	--	--	37	--		
Above	--	--	73	--	--	--	129	--	--	--	--	-- --	--	--	56	--	--	--	-2	--	--	--	36	--		
Bond CL	--	--	66	--	--	--	117	--	--	--	--	66 --	--	--	56	--	--	--	2	--	--	--	40	--		
Hatcher	--	--	58	--	--	--	102	--	--	--	--	60 --	--	--	57	--	--	--	0	--	--	--	39	--		
Drussel																										
T81	--	--	58	--	--	--	103	--	--	--	--	64 78	--	--	57	--	--	--	-1	--	--	--	39	--		
Kansas																										
(W) Danby	--	--	65	--	--	--	116	--	--	--	--	66 74	--	--	59	--	--	--	1	--	--	--	40	--		
(W) Trego	--	--	66	--	--	--	117	--	--	--	--	61 69	--	--	59	--	--	--	2	--	--	--	39	--		
(W)KS03HW158	--	--	69	--	--	--	123	--	--	--	--	-- --	--	--	59	--	--	--	1	--	--	--	36	--		
(W)KS03HW6-6	--	--	67	--	--	--	120	--	--	--	--	-- --	--	--	58	--	--	--	0	--	--	--	37	--		
2137	--	--	55	--	--	--	97	--	--	--	--	56 69	--	--	56	--	--	--	0	--	--	--	36	--		
2145	--	--	47	--	--	--	84	--	--	--	--	58 65	--	--	56	--	--	--	0	--	--	--	35	--		
Jagger	--	--	44	--	--	--	78	--	--	--	--	56 65	--	--	55	--	--	--	0	--	--	--	37	--		
Karl 92	--	--	54	--	--	--	96	--	--	--	--	50 64	--	--	55	--	--	--	-3	--	--	--	35	--		
KS00F5-14-7	--	--	51	--	--	--	91	--	--	--	--	-- --	--	--	55	--	--	--	1	--	--	--	36	--		
Overley	--	--	42	--	--	--	74	--	--	--	--	53 65	--	--	56	--	--	--	-1	--	--	--	38	--		
Stanton	--	--	46	--	--	--	82	--	--	--	--	51 67	--	--	57	--	--	--	2	--	--	--	38	--		
Nebraska																										
Wesley	--	--	59	--	--	--	104	--	--	--	--	63 --	--	--	55	--	--	--	4	--	--	--	36	--		
Oklahoma																										
(W) Guymon	--	--	69	--	--	--	123	--	--	--	--	-- --	--	--	58	--	--	--	2	--	--	--	37	--		
2174	--	--	47	--	--	--	83	--	--	--	--	51 67	--	--	56	--	--	--	-1	--	--	--	36	--		
Deliver	--	--	50	--	--	--	89	--	--	--	--	-- --	--	--	56	--	--	--	0	--	--	--	37	--		
Endurance	--	--	52	--	--	--	92	--	--	--	--	-- --	--	--	56	--	--	--	-2	--	--	--	36	--		
OK Bullet	--	--	56	--	--	--	99	--	--	--	--	-- --	--	--	56	--	--	--	0	--	--	--	39	--		
Okfield	--	--	52	--	--	--	93	--	--	--	--	-- --	--	--	56	--	--	--	0	--	--	--	40	--		
Watley																										
TAM 112	--	--	67	--	--	--	119	--	--	--	--	-- --	--	--	58	--	--	--	-1	--	--	--	39	--		
WestBred																										
Keota	--	--	59	--	--	--	104	--	--	--	--	60 --	--	--	57	--	--	--	1	--	--	--	40	--		
Santa Fe	--	--	53	--	--	--	93	--	--	--	--	55 --	--	--	54	--	--	--	-1	--	--	--	37	--		
Shocker	--	--	50	--	--	--	90	--	--	--	--	-- --	--	--	54	--	--	--	0	--	--	--	36	--		
Smoky Hill	--	--	51	--	--	--	91	--	--	--	--	-- --	--	--	57	--	--	--	7	--	--	--	37	--		
Averages	--	--	56	--	--	--	56	--	--	--	--	-- --	--	--	56	--	--	--	1	--	--	--	37	--		
CV (%)	--	--	8	--	--	--	8	--	--	--	--	-- --	--	--	1	--	--	--	1	--	--	--	3	--		
LSD (0.05)*	--	--	7	--	--	--	12	--	--	--	--	-- --	--	--	1	--	--	--	1	--	--	--	2	--		

¹ CO = Colby, KS, Northwest Research-Extension Center, Thomas County.

² DC = Dodge City, KS, Ford County.

³ GC = Garden City, KS, Southwest Research-Extension Center, Finney County.

(W) = Hard white wheat

* Least Significant Difference, similar to 'Margin of Error', difference needed to overcome test error.

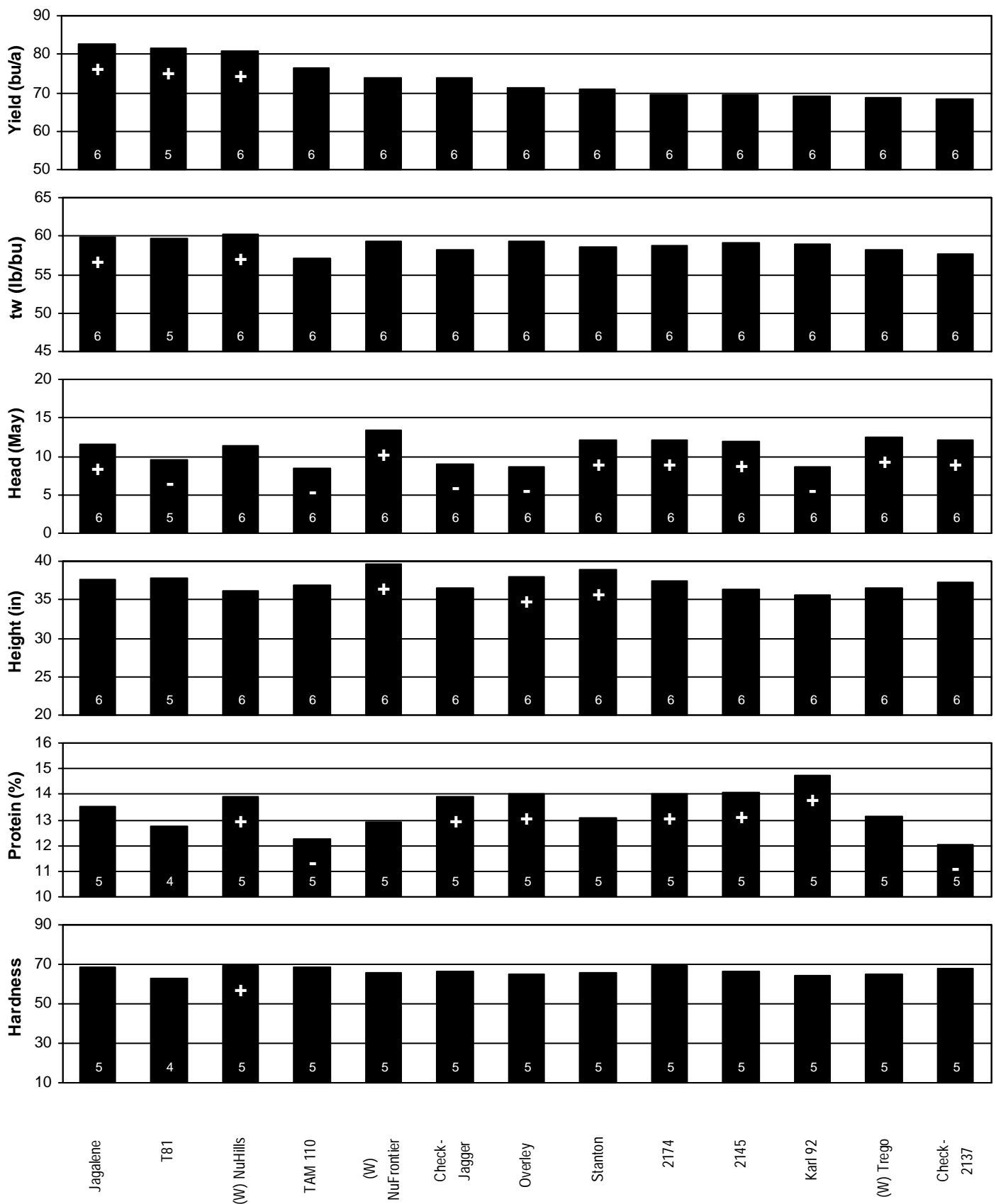


Figure 10. Performance summary of wheat varieties at IRRIGATED sites in Kansas, 2003-2006.

Values inside bars indicate the number of comparisons with checks. Symbols (+,-) indicate if statistically greater or less than mean of checks.

Table 12. Shattering, lodging, and disease notes from 2006 Kansas Winter Wheat Performance Tests.

Brand / Name	Shatt. ¹		Lodg. ²		Green Heads ³				WSM ⁴	Brand / Name	Shatt. ¹		Lodg. ²		Green Heads ³				WSM ⁴
	CN	BL	BE	HE	CL	PA	CS	PS			LA	CN	BL	BE	HE	CL	PA	CS	
	(%)		(%)		(score)					(%)		(%)		(score)					
AgriPro									Overley	1	1	0	0	2	2	--	--	5	
(W) NuDakota	--	--	--	--	--	--	--	--	8	Stanton	0	0	0	--	--	--	--	6	
(W) NuFrontier	--	--	--	--	--	--	--	--	8	MFA									
(W) NuGrain	--	--	--	--	--	--	--	--	6	(S) 2020	--	--	--	--	--	3	3	--	
(W) NuHills	0	0	0	--	--	--	--	--	6	(S) 2320	--	--	--	--	--	3	3	--	
AP502CL	--	--	--	--	--	--	--	--	6	Missouri									
Cutter	0	0	0	1	--	--	--	--	6	(S) Bess	--	--	--	--	--	3	3	--	
Jagalene	0	0	0	0	3	2	--	--	5	(S) Truman	--	--	--	--	--	7	5	--	
Neosho	0	0	0	0	2	2	--	--	--	M-Pride									
Postrock	0	0	0	0	4	2	--	--	7	(S)MPV14S-4SRW	--	--	--	--	--	4	3	--	
TAM 111	--	--	--	--	--	--	--	--	6	(S)MPV16S-2SRW	--	--	--	--	--	2	2	--	
Thunderbolt	--	--	--	--	--	--	--	--	6	Nebraska									
AgriPro COKER									Hallam	0	0	0	--	--	--	--	--	--	
(S) Coker 9511	--	--	--	--	--	--	1	1	--	Infinity CL	0	0	0	--	--	--	--	6	
(S) Coker 9553	--	--	--	--	--	--	2	2	--	Wahoo	0	0	3	--	--	--	--	--	
(S) Coker 9663	--	--	--	--	--	--	2	2	--	Wesley	0	0	0	--	--	--	--	8	
AGSECO									Oklahoma										
Onaga	--	--	--	--	3	3	--	--	--	(W) Guymon	0	0	0	1	--	--	--	7	
Protection CL	0	0	0	0	--	--	--	--	5	2174	0	0	0	0	2	4	--	8	
TAM 110	--	--	--	--	--	--	--	--	4	Deliver	0	0	0	0	3	3	--	7	
Arkansas									Endurance	0	0	0	0	3	4	--	--	8	
(S) Pat	--	--	--	--	--	--	6	5	--	OK Bullet	0	0	0	0	1	2	--	5	
(S) Sabbe	--	--	--	--	--	--	3	3	--	Ok102	--	--	--	0	5	5	--	--	
Colorado									Okfield	0	0	0	0	3	4	--	--	7	
(W) Avalanche	--	--	--	--	--	--	--	--	6	Pioneer									
Above	--	--	--	--	--	--	--	--	5	(S) 25R47	--	--	--	--	--	3	2	--	
Bond CL	--	--	--	--	--	--	--	--	7	(S) 25R63	--	--	--	--	--	3	2	--	
Hatcher	--	--	--	--	--	--	--	--	8	Polansky									
Drussel									Dominator	0	0	0	0	3	2	--	--	--	
T81	--	--	--	--	--	--	--	--	8	Rinck									
Georgia									Sturdy-2K	1	1	0	0	2	2	--	--	--	
(S)951395-3A31	--	--	--	--	--	--	2	4	--	Watley									
(S)951395-3E25	--	--	--	--	--	--	3	3	--	TAM 112	--	--	--	--	--	--	--	5	
(S)96229-3A41	--	--	--	--	--	--	4	3	--	WestBred									
Kansas									Keota	--	--	--	--	--	--	--	--	6	
(W) Danby	0	0	0	0	4	5	--	--	5	Santa Fe	2	0	0	0	2	2	--	--	
(W) Trego	0	0	0	--	--	--	--	--	7	Shocker	--	--	--	0	2	1	--	6	
(W)KS03HW158	0	0	0	0	9	7	--	--	2	Smoky Hill	0	0	0	--	--	--	--	--	
(W)KS03HW6-6	0	0	0	0	4	2	--	--	8	Tarkio	1	0	0	--	--	--	--	--	
2137	0	0	0	0	4	4	3	3	6	Averages	0	0	0	0	3	3	3	3	6
2145	1	0	0	0	3	2	--	--	9	CV (%)	277	158	155	304	25	31	37	39	8
Ike	0	0	0	--	--	--	--	--	8	LSD (0.05)*	1	0	0	0	1	1	2	1	1
Jagger	0	1	0	0	1	1	2	1	5										
Karl 92	0	0	0	0	2	2	--	--	9										
KS00F5-14-7	0	0	0	0	2	1	--	--	5										

¹ Shattering percentage: CN=Concordia, BL=Beloit.

(W) = Hard white wheat

² Lodging percentage: BE=Belleville, HE=Hesston.

(S) = Soft red wheat

³ Green score; 1=very few, 9=all green: CL=Columbus Hard, PA=Parsons Hard, CS=Columbus Soft, PS=Parsons Soft.

⁴ Wheat streak mosaic score; 1=best, 9=worst: LA=Larned.

* Least Significant Difference, similar to 'Margin of Error', indicates difference needed to overcome test error.

Table 13. 2006 Planted seed characteristics and Hessian fly ratings.

Brand / Name	1000	Test weight	Seeds per lb.	Hess. fly ¹	Brand / Name	1000	Test weight	Seeds per lb.	Hess. fly ¹
	Seed weight					Seed weight			
	(grams)	(lb/bu)	(1000)	(rating)		(grams)	(lb/bu)	(1000)	(rating)
AgriPro					MFA				
(W) NuDakota	33.6	59.2	13.5	S	(S) 2020	32.9	60.7	13.8	H
(W) NuFrontier	33.5	66.3	13.5	S	(S) 2320	35.3	61.3	12.8	H-
(W) NuGrain	26.6	57.9	17.1	S	Missouri				
(W) NuHills	37.2	65.4	12.2	S	(S) Bess	18.4	63.9	24.6	S
AP502CL	34.9	57.1	13.0	S	(S) Truman	28.6	60.1	15.9	S
Cutter	32.9	62.1	13.8	S	M-Pride				
Jagalene	36.2	60.7	12.5	S	(S)MPV14S-4SRW	35.1	60.2	12.9	S
Neosho	27.4	57.3	16.6	S	(S)MPV16S-2SRW	34.6	61.1	13.1	H+
Postrock	37.9	59.5	12.0	S	Nebraska				
TAM 111	32.9	63.1	13.8	S	Hallam	31.0	57.2	14.7	S
Thunderbolt	28.6	61.8	15.9	S	Infinity CL	30.7	61.0	14.8	S
AgriPro COKER					Wahoo	28.9	60.0	15.7	S
(S) Coker 9511	34.9	58.9	13.0	S	Wesley	33.2	61.6	13.6	S
(S) Coker 9553	48.0	59.7	9.5	S	Oklahoma				
(S) Coker 9663	41.1	59.6	11.0	S	(W) Guymon	32.4	65.2	14.0	S
AGSECO					2174	35.2	60.2	12.9	S
Onaga	29.5	62.4	15.4	S	Deliver	38.2	64.3	11.9	S
Protection CL	33.0	60.6	13.8	S	Endurance	37.1	62.1	12.2	S
TAM 110	29.0	61.3	15.7	S	OK Bullet	35.2	63.3	12.9	S
Arkansas					Ok102	28.7	59.3	15.8	S
(S) Pat	29.9	57.7	15.2	S	Okfield	36.4	59.7	12.5	S
(S) Sabbe	36.2	58.5	12.5	S	Pioneer				
Colorado					(S) 25R47	34.3	53.7	13.2	S
(W) Avalanche	44.1	61.4	10.3	S	(S) 25R63	40.4	54.5	11.2	S
Above	43.9	60.6	10.3	S	Polansky				
Bond CL	35.2	60.0	12.9	S	Dominator	31.1	65.1	14.6	S
Hatcher	39.5	61.1	11.5	S	Rinck				
Drussel					Sturdy-2K	36.5	59.3	12.4	S
T81	33.0	57.6	13.7	S	Seed-link				
Georgia					ACS52009	49.8	62.0	9.1	S
(S)951395-3A31	36.5	56.5	12.4	S	ACS53032	46.7	61.9	9.7	S
(S)951395-3E25	33.1	56.0	13.7	S	ACS54012	44.8	64.3	10.1	S
(S)96229-3A41	30.6	56.5	14.8	S	ACS97001	50.9	62.5	8.9	S
Kansas					ACS97003	44.8	60.1	10.1	S
(W) Danby	32.3	63.4	14.0	S	Watley				
(W) Trego	32.0	62.0	14.2	S	TAM 112	17.8	61.8	25.5	S
(W)KS03HW158	27.5	60.4	16.5	S	WestBred				
(W)KS03HW6-6	38.2	63.0	11.9	S	Keota	49.1	64.2	9.2	S
2137	33.1	62.2	13.7	H-	Santa Fe	31.2	63.1	14.5	S
2145	28.4	61.6	16.0	S	Shocker	40.4	63.2	11.2	S
Ike	28.5	60.9	15.9	S	Smoky Hill	35.3	64.4	12.8	S
Jagger	36.0	61.5	12.6	S	Tarkio	29.6	63.2	15.3	S
Karl 92	35.0	61.8	13.0	S	Maximum	50.9	66.3	25.5	
KS00F5-14-7	34.3	58.7	13.2	S	Minimum	17.8	53.7	8.9	
Overlay	39.9	62.7	11.4	S	Average	34.8	60.9	13.5	
Stanton	30.2	59.4	15.0	S					

¹ Hessian fly ratings by C.E. Parker, USDA; S = majority of plants susceptible, H = mixture of susceptible and resistant plants (heterogenous), R = majority of plants resistant. Tested with recent collection of Great Plains Hessian fly.

(W) = Hard white wheat (S) = Soft red wheat

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