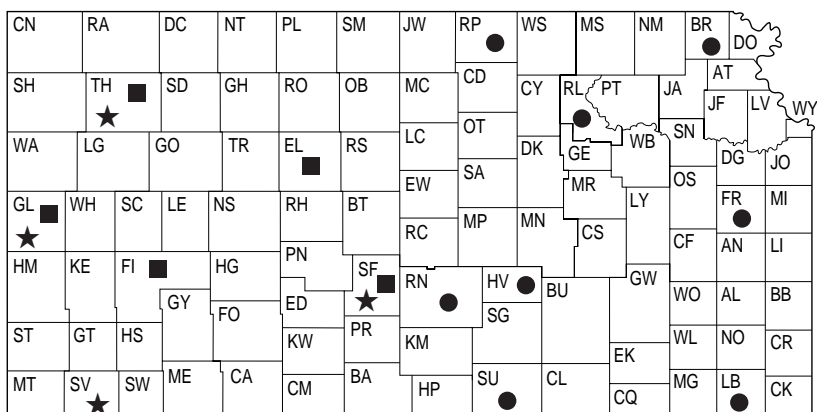




1997

KANSAS PERFORMANCE TESTS WITH
WINTER WHEAT
VARIETIES



● continuously cropped land ■ summer fallow ★ irrigated

CONTENTS

| | |
|---|-------------------|
| INTRODUCTION | 1 |
| 1997 CROP CONDITIONS | |
| Weather Conditions | 1 |
| Crop Development | 2 |
| Diseases | 3 |
| Insects | 3 |
| Harvest Statistics | 3 |
| WHEAT VARIETIES GROWN IN KANSAS | |
| Acreage Distribution | 4 |
| Agronomic Characteristics | 5 |
| New Variety Descriptions | 5 |
| Comparisons of Leading Winter Wheat Varieties, Table 1 | 6 |
| 1997 PERFORMANCE TESTS | |
| Objectives | 7 |
| Varieties Included in Tests | 7 |
| Environmental Factors Affecting Individual Tests | 7 |
| Parentage and Origin of Public Varieties, Table 2 | 8 |
| Private Entrants and Their Entries, Table 3 | 9 |
| Site Descriptions and Management in 1997, Table 4 | 10 |
| Test Results and Variety Characterization | 12 |
| Protein Content | 12 |
| Yield (bushels per acre), East, Table 5a | 13 |
| Central, Table 5b | 14 |
| West, Table 5c | 15 |
| Irrigated, Table 5d | 16 |
| Yield (% of test average), East, Table 6a | 17 |
| Central, Table 6b | 18 |
| West, Table 6c | 19 |
| Irrigated, Table 6d | 20 |
| Multi-year yield averages, East, Table 7a | 21 |
| Central, Table 7b | 22 |
| West, Table 7c | 23 |
| Irrigated, Table 7d | 24 |
| Test weight (lbs per bushel), East, Table 8a | 25 |
| Central, Table 8b | 26 |
| West, Table 8c | 27 |
| Irrigated, Table 8d | 28 |
| Heading (days +/- Scout 66 or Newton), East, Table 9a | 29 |
| Central, Table 9b | 30 |
| West, Table 9c | 31 |
| Irrigated, Table 9d | 32 |
| Plant height (inches), East, Table 10a | 33 |
| Central, Table 10b | 34 |
| West, Table 10c | 35 |
| Irrigated, Table 10d | 36 |
| Lodging and disease notes, Table 11 | 37 |
| Planted seed characteristics, coleoptile lengths, and Hessian fly ratings, Table 12 | 38 |
| Protein values from 1996 Tests, Table 13 | 39 |
| APPENDIX | |
| Electronic access, university research policy, and duplication policy | inside back cover |
| Contributors | back cover |

1997 KANSAS PERFORMANCE TESTS WITH WINTER WHEAT VARIETIES

INTRODUCTION

This publication presents results from the 1996-97 Kansas Winter Wheat Performance Tests and other information related to winter wheat variety performance. The information included in the report is intended to assist wheat producers in the variety selection process. The first section includes a summary of statewide growing conditions and harvest information for the entire 1997 Kansas wheat crop. The second section includes the statewide acreage distribution of leading Kansas varieties and a summary of important agronomic and quality traits for these varieties. The third section presents procedures and results for the 1997 Kansas Winter Wheat Performance Tests.

1997 CROP CONDITIONS

Weather Conditions

The critical weather factors for wheat are precipitation and temperature. The precipitation for the 1996-97 wheat season was much more favorable than last season. However, during the critical October to April period, all divisions reported below-normal precipitation (Figure 1).

Temperatures also were favorable for the most part. The major exception was during mid-April. Most of the state experienced low temperatures below 20° F. The most severely affected area of the state was in the extreme southwest, where temperatures remained below 18° F for extended periods (Figure 2).

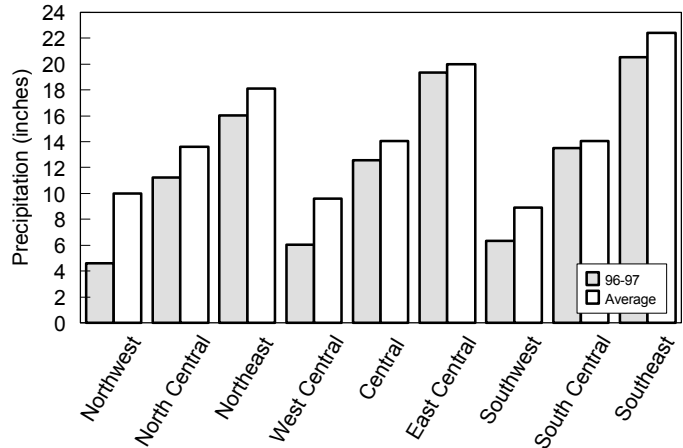


Figure 1. Critical precipitation (October-May) by crop reporting district.

Cool temperatures persisted through mid-June. June also brought more rain, particularly to the southwest and south central portions of the state. Preliminary rainfall totals show Cowley county with 7.97 inches, Reno county with 6.17 inches, Kingman County with 5.31 inches, and Ellis county with 4.35 inches. This contributed to harvest delays in some locations.

(From Mary Knapp, KSU State Climatologist).

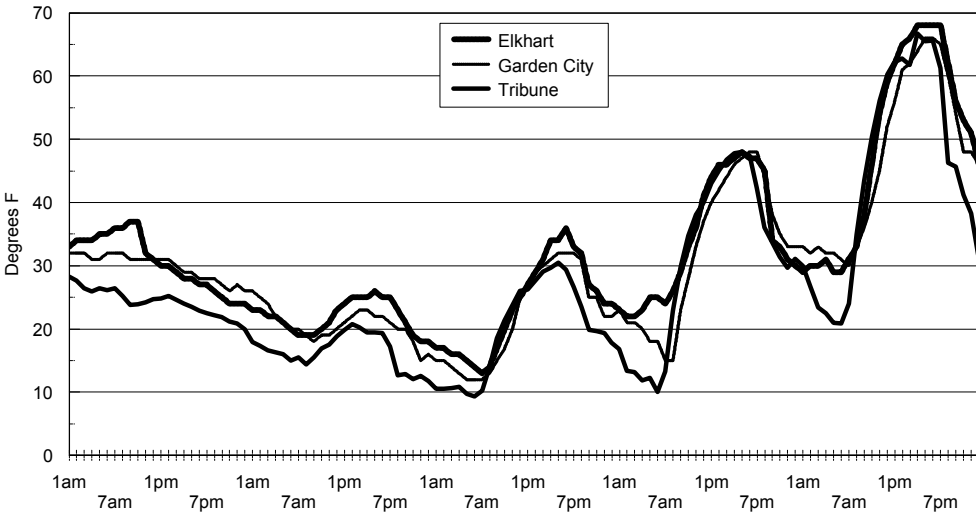


Figure 2. Hourly temperatures, April 10-14, 1997.

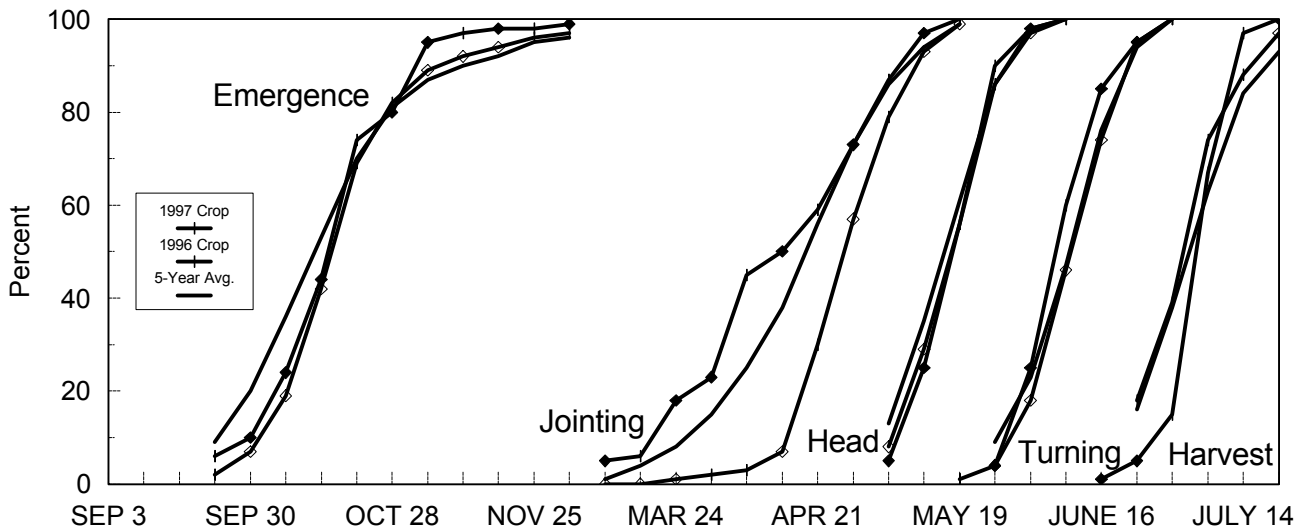


Figure 3. Statewide development of winter wheat crop.

Crop Development

Adequate soil moisture and warm temperatures enabled most of the wheat to emerge by early November even though much of it was planted later than normal (Figure 3). Continued rains slowed planting for a time over much of the state and prevented planting entirely on some acres in southeast and east central Kansas. The wheat started jointing slightly ahead of normal and several days ahead of last year. Cool temperatures in April slowed progress to the point where heading was behind normal. Harvest started out slowly but made rapid progress in late June and finished slightly ahead of normal.

A large portion of the wheat acreage was in good-excellent condition for most of the season (Figure 4). Nearly 80%-90% was rated as good

or excellent from emergence until the mid-April freeze. Some drying during the winter in western Kansas raised concerns about potential wind damage, but later snows and other precipitation enabled most of the acreage to escape severe wind damage. The April 13 freeze initially appeared to severely damage much of the wheat in southern Kansas. As the season progressed, the crop condition continued to rebound until over 60% was rated good-excellent at harvest.

Soil moisture was generally adequate for most of the season (Figure 5). Some fields, primarily in western Kansas, dried out somewhat over the winter, in late March, and again in May, but timely rains replenished surface moisture and prevented serious drought stress during grain filling. (From *Crop-Weather* reports, Kansas Agricultural Statistics, Topeka).

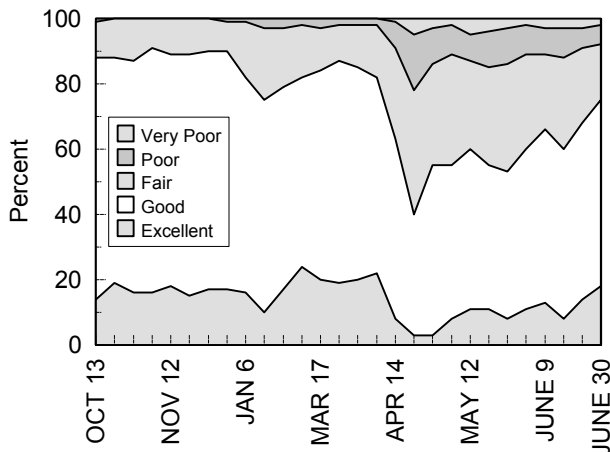


Figure 4. Condition of Kansas winter wheat crop 1996-1997.

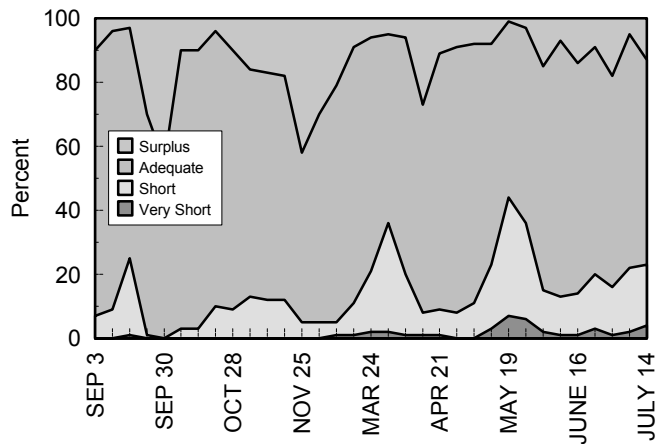


Figure 5. Statewide status of topsoil moisture, 1996-1997.

Diseases

Abundant summer rainfall promoted development of volunteer wheat following wheat harvest in 1996. By early fall, the volunteer wheat was heavily infected with leaf rust. Wheat streak mosaic also was present on some of the volunteer wheat. Leaf rust moved from the volunteer onto early planted wheat causing significant yellowing on susceptible varieties in the fall.

In early March, numerous reports of soilborne mosaic and spindle streak mosaic were received. Southwest Kansas reported some soilborne mosaic in fields that had never shown symptoms before. Cool weather caused symptoms of these cold-loving viruses to last longer than usual.

By late March, it was clear that leaf rust had overwintered well in Texas, Oklahoma, and the southern tier of counties in Kansas. Reports of varietal resistance breakdowns in Texas and Oklahoma were attributed to the appearance of several new leaf rust races. Expectations of a major leaf rust epidemic in Kansas prompted interest in foliar fungicide treatments. However, the late spring freeze on April 12-13 caused great concern about the yield potential of the crop. Therefore, very little wheat was subsequently treated with fungicides.

Cool, dry weather in late April and May resulted in slow foliar disease progress over most of the state. Major transport of rust from southern states did not occur until very late in the season. Except for the southern tier, most wheat made it to the soft dough stage before significant leaf rust was noted.

Wheat streak mosaic caused serious damage in isolated fields in the southwestern and northwestern districts. The variety Ike was particularly hard hit. Patches of stunted plants with barley yellow dwarf were noted in some fields, but losses were low. Isolated reports of moderate speckled leaf blotch and tan spot were received. Traces of powdery mildew, loose smut, and scab were noted in a few fields. Take-all root rot was a serious problem in a few continuous wheat fields in south central and northeastern Kansas.

(From Robert Bowden, State Extension Plant Pathologist).

Insects

Russian wheat aphids showed renewed activity during May in western Kansas. They were in all fields surveyed in Kearny, Stanton, Hamilton, Wallace, and Sherman counties. Infestations in some fields in Kearny, Hamilton, and Greeley counties ranged as high as 28% to 30% of the tillers. Where wheat was approaching heading stage, 30% to 40% of the primary tillers exhibited symptoms. At that time, yield prospects in many of those fields appeared questionable.

Greenbug establishment was poor throughout the season compared to heavy infestations last year in central and north central Oklahoma and southern Kansas. Similarly, oat-bird cherry aphids, while present, were relatively scarce. Isolated growers in the southern half of the state reported some concerns in April and early May.

Fewer mite problems were reported in 1997. Brown wheat mite, favored by dry fall weather, was much less of a concern in the western areas than it had been last year. The winter grain mite, occasionally a concern in central areas of Kansas, also was less noticeable this year. Some grasshopper activity was noticed in 1997, but it was not especially high. However, grasshopper populations appear to be on the increase in Kansas, signaling potential problems ahead.

Historically, Hessian fly is one of the worst insects that wheat growers face because of its potential to cause destruction and because of the lack of rescue treatments. For the past two years, Hessian fly has been less of a problem in Kansas than in the past. We think this is due to progress in wheat breeding and to good production practices.

(From Leroy Brooks, State Extension Entomologist).

Harvest Statistics

The Kansas Agricultural Statistics' July 11 estimate of the 1997 crop was 449.4 million bushels harvested from 10.7 million acres (Figure 6). This estimate was up 76% from the 1996 harvest and up 24% from the June 1 forecast. The statewide yield average of 42 bushels per acre was up 13 bushels from last year and set a new record. Estimates of total production were higher than last year in all but

the East Central district, which had several thousand acres that couldn't get planted last fall because of weather conditions. (From July 11, 1997 CROPS report, Kansas Agricultural Statistics, Topeka).

WHEAT VARIETIES GROWN IN KANSAS

Acreege Distribution

The leading wheat varieties planted in Kansas are reported in Figures 7 and 8 and in Table 1. The top 10 varieties occupied 85% of the state's seeded acreage in 1997.

The top 10 varieties for each crop reporting district are presented in Figure 7. In the western districts, TAM 107 acreage held its own, Ike acreage increased from last year, and Larned acreage dropped slightly. Vista doubled its share of the acreage from 5% to 10% in the Northwest district. Half or more of the central Kansas acreage was dedicated to Karl/Karl 92 and 2163. Karl/Karl 92 acreage increased slightly in the Central and North Central districts but dropped slightly in the South Central district

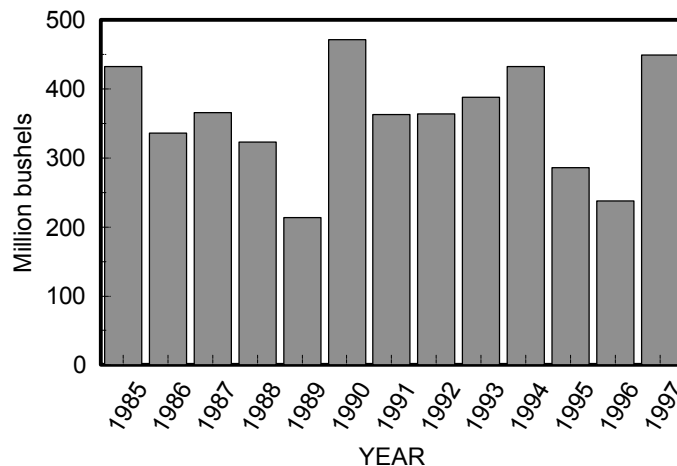


Figure 6. Historical Kansas winter wheat production

compared to 1996. The acreage of 2163 dropped in all 3 central districts. Ike and Jagger occupied 15% of the central Kansas acreage, up from 6% in 1996. Tomahawk and 7853 were planted on 10% of the central-Kansas acreage, down from 15% in 1996. Karl/Karl 92 was the most prevalent variety by far in eastern Kansas, with 63% of the acreage. 2163 and Jagger were the only other varieties planted on more than 5% of the wheat acres in eastern Kansas.

| | | | | | | | | | | | |
|--|---|---|--------------------------------------|---|---|--|---------------------------------------|---|---|--|--|
| TAM 107 Ike Vista Karl/Karl 92 Arapahoe | 30(30) 16(14) 10(5) 8(6) 7(7) | Jagger Larned 7853 Tomahawk Thunderbird | 6(1) 5(6) 2(4) 2(2) 2(2) | Karl/Karl 92 2163 Ike Jagger Tomahawk | 28(25) 22(28) 9(7) 6(1) 7(13) | 7853 Victory Champ Hickok Pecos | 3(5) 3(4) 3(-) 3(<1) 2(2) | Karl/K92 2163 Jagger 7853 Pecos | 66(58) 12(26) 11(3) 1(1) 1(1) | Ike TAM107 2137 T-hawk Hickok | 1(1) 1(<1) 1(-) 1(3) 1(<1) |
| TAM 107 Ike Larned Karl/Karl 92 Ogallala | 49(48) 19(16) 7(10) 5(2) 4(3) | Jagger Arapahoe Scout(s) 2163 Tomahawk | 3(1) 2(1) 2(2) 2(3) 1(2) | 2163 Karl/Karl 92 Ike Jagger TAM 107 | 29(32) 24(22) 9(5) 7(1) 6(7) | 7853 Tomahawk Pecos Hickok Larned | 5(7) 5(7) 3(3) 2(1) 2(2) | Karl/Karl 92 2163 Jagger Pecos Tomahawk | 61(56) 16(26) 6(1) 3(4) 2(2) | Newton Victory 7853 TAM 107 2137 | 2(-) 1(1) 1(3) 1(1) 1(-) |
| TAM 107 Ike Larned Jagger 7853 | 40(40) 20(11) 10(12) 4(<1) 4(3) | Scout(s) Ogallala Karl/Karl 92 Tomahawk TAM 200 | 3(5) 2(2) 2(2) 2(3) 2(4) | 2163 Karl/Karl 92 Jagger 7853 Ike | 28(36) 26(28) 10(1) 7(7) 4(2) | Tomahawk Pecos TAM 107 2180 Hickok | 4(5) 3(3) 3(3) 2(3) 2(1) | Karl/Karl 92 2163 Jagger 2137 7853 | 63(69) 13(16) 7(2) 2(-) 2(2) | Tomahawk Ike Pecos Hickok Longhorn | 1(1) 1(1) 1(1) <1(-) <1(-) |

Figure 7. Leading wheat varieties in Kansas in 1997, presented as percent of seeded acreage by crop reporting districts for 1997 and 1996 in parentheses). From Wheat Variety report, Kansas Agricultural Statistics, February 8, 1997.

Figure 8 illustrates the state-wide distribution of several leading varieties from 1977 through 1997. These varieties occupied 86.1% of the planted wheat acres in 1997. Scout/Scout 66, Eagle, and Sage combined for nearly 60% of the state-wide acreage in the late 1970s. In the early 1980s, Newton and Larned dominated, with over 50% of the acreage devoted to these two varieties. Larned consistently maintained nearly 10% of the planted acreage during the 1980s but has begun to drop off in recent years. Newton acreage has dropped from a high of over 40% in 1982 to 0.6% in 1997. TAM 107 predominated in the early 1990s. In 1993, Karl/Karl 92 displaced TAM 107 as the leading variety. Four varieties, Karl/Karl 92, TAM 107, 2163, and Ike, made up 65% of the total wheat acreage in 1997.

From February 7, 1997, *Wheat Variety* report, Kansas Agricultural Statistics, Topeka).

Agronomic Characteristics

Comparative ratings for important agronomic traits, pest resistance, and milling and baking quality are listed in Table 1. Varieties are included in this table if they appear in the annual *Wheat Variety* survey report from Kansas Agricultural Statistics. Ratings for a given trait in this table are experts' best estimates of the relative performance of the varieties based on information and observations over several seasons and from numerous sources. The ratings are updated annually to account for changes in performance that occur over time and to adjust for the changes in ranking that arise with the continued additions of new varieties.

New Variety Descriptions

General descriptions of new public entries in the Kansas Wheat Performance Tests are included below. These descriptions are abstracted from

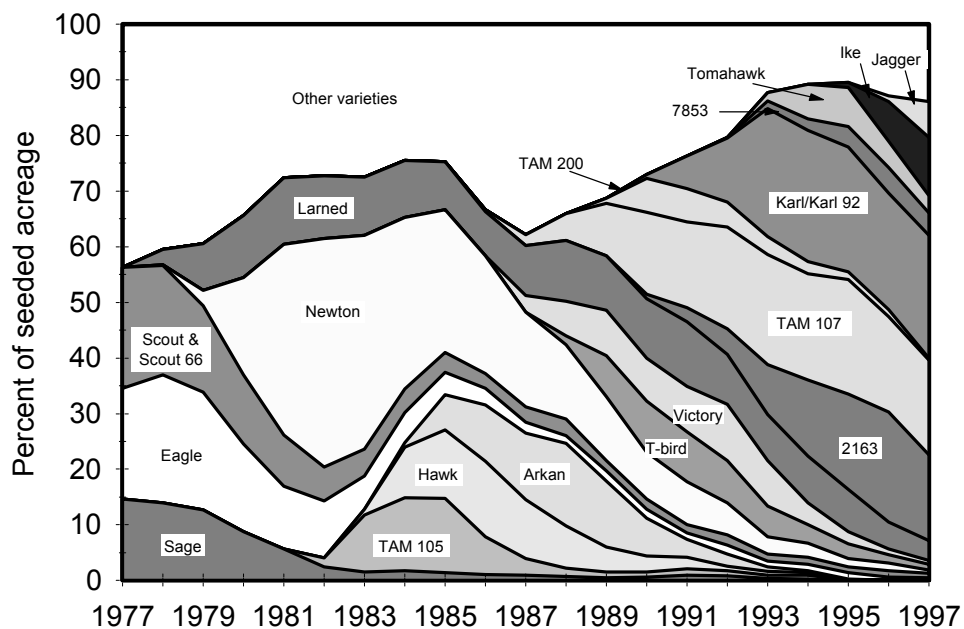


Figure 8. Historical distribution of leading varieties, percent of statewide acreage. From Kansas Agricultural Statistics, Topeka.

release notices or other material provided by the releasing agencies.

2174 hard red winter wheat was released by the Oklahoma Agricultural Experiment Station in 1997. 2174 flowers about the same time as 2163 but yielded an average of 1.6 bu/a more than 2163 in 15 Oklahoma tests. 2174 is resistant to soilborne mosaic virus, leaf rust, powdery mildew, and tan spot. It has some tolerance to low pH soils but not as much as 2163 or 2137. This variety appears to be best adapted to central and north central Oklahoma and possibly south central Kansas. Foundation seed should be available for fall planting. Registered seed should be available in 1998 and certified seed in 1999. (From Gene Krenzer, Oklahoma State University Extension Small Grains Specialist).

Windstar hard red winter wheat was developed cooperatively by the Nebraska Experiment Station; the South Dakota Experiment Station; and the Northern Plains Area, Agricultural Research Service, U.S. Department of Agriculture. Windstar is similar in appearance to Rawhide and Siouxland. It is a taller semidwarf of medium to late maturity. Windstar has shown moderate resistance to stem rust and moderate susceptibility to leaf rust and wheat streak mosaic virus. It is susceptible to Russian wheat aphid, Hessian fly, and soilborne mosaic virus.

Table 1. Comparisons of leading winter wheat varieties grown in Kansas¹

| Brand | Variety | Percent Kansas seeded acreage 1997 ² | Relative ³ | | | | Resistance or tolerance to: ⁴ | | | | | | | Relative milling and baking quality ⁵ |
|----------------------|--------------|---|-----------------------|-------------|------------|------------------|--|--------------------|-----------|-----------|-------------|---------------------|-------------------|--|
| | | | Maturity | Test Weight | Straw Str. | Winter hardiness | Tan spot | Speck. leaf blotch | Leaf rust | Stem rust | Hessian fly | Wheat streak mosaic | Soil-borne mosaic | |
| ---- | Karl/Karl 92 | 22.1 | 1 | 3 | 4 | 3 | 3 | 5 | 9 | 7 | 9 | 9 | 1 | EX* |
| ---- | TAM 107 | 17.0 | 1 | 4 | 2 | 2 | 7 | 6 | 9 | 4 | 9 | 6 | 8 | LD |
| ---- | 2163 | 15.4 | 3 | 6 | 1 | 4 | 5 | 4 | 7 | 4 | 1 | 5 | 1 | LD |
| ---- | Ike | 10.5 | 4 | 3 | 4 | 3 | 7 | 8 | 8 | 2 | 1 | 9 | 1 | AC |
| ---- | Jagger | 6.4 | 1 | 4 | 3 | 6 | 3 | 3 | 5 | 3 | 9 | 4 | 1 | EX |
| AGSECO | 7853 | 4.0 | 3 | 4 | 4 | 5 | 6 | 9 | 8 | 4 | 9 | 5 | 1 | EX |
| ---- | Larned | 3.6 | 4 | 4 | 5 | 3 | 9 | 7 | 8 | 3 | 3 | 7 | 8 | AC |
| AgriPro | Tomahawk | 3.1 | 3 | 4 | 3 | 2 | 4 | 8 | 3 | 3 | 9 | 8 | 1 | AC |
| AgriPro | Pecos | 1.6 | 1 | 4 | 1 | 5 | 6 | 5 | 7 | 4 | 1 | 7 | 1 | AC |
| AgriPro | Ogallala | 1.3 | 3 | 2 | 2 | 4 | 6 | 5 | 4 | 3 | 9 | 6 | 9 | EX |
| ---- | Vista | 1.2 | 5 | 4 | 6 | 2 | 8 | 5 | 5 | 5 | 1 | 8 | 8 | AC* |
| ---- | Arapahoe | 1.1 | 6 | 4 | 6 | 3 | 8 | 4 | 5 | 2 | 3 | 7 | 8 | AC |
| ---- | 2137 | 1.0 | 3 | 4 | 1 | 3 | 4 | 3 | 6 | 6 | 2 | 5 | 1 | AC |
| AgriPro | Thunderbird | 1.0 | 2 | 3 | 3 | 2 | 9 | 6 | 7 | 3 | 9 | 5 | 1 | AC |
| AgriPro | Hickok | 1.0 | 2 | 2 | 3 | 6 | 7 | 8 | 3 | 3 | 9 | 5 | 1 | AC |
| ---- | Scout(s) | 0.8 | 4 | 4 | 6 | 3 | 9 | 7 | 8 | 3 | 9 | 7 | 9 | AC |
| AgriPro | Victory | 0.7 | 3 | 4 | 4 | 3 | 5 | 9 | 5 | 6 | 9 | 8 | 1 | AC |
| ---- | Newton | 0.6 | 3 | 4 | 4 | 5 | 9 | 9 | 9 | 3 | 9 | 6 | 1 | AC |
| AgriPro | Laredo | 0.6 | 4 | 4 | 3 | 3 | 6 | 8 | 6 | 4 | 9 | 7 | 7 | LD |
| ---- | 2180 | 0.5 | 1 | 4 | 1 | 7 | 7 | 5 | 6 | 5 | 2 | 9 | 1 | LD |
| ---- | Eagle | 0.5 | 4 | 4 | 6 | 3 | 9 | 7 | 8 | 4 | 7 | 8 | 9 | EX* |
| ---- | TAM 200 | 0.4 | 4 | 2 | 4 | 6 | 6 | 3 | 7 | 4 | 9 | 7 | 9 | LD |
| AgriPro | Abilene | 0.4 | 4 | 3 | 2 | 2 | 6 | 7 | 8 | 2 | 9 | 5 | 1 | AC |
| Star | Champ | 0.4 | 4 | 5 | 5 | 3 | 6 | 6 | 6 | 6 | 9 | 5 | 1 | -- |
| AgriPro | Longhorn | 0.3 | 5 | 3 | 2 | 3 | 6 | 7 | 6 | 1 | 8 | 5 | 8 | LD |
| AgriPro | Ponderosa | 0.3 | 3 | 3 | 3 | 3 | 5 | 8 | 3 | 3 | 9 | 8 | 1 | EX* |
| ---- | Triumph(s) | 0.2 | 1 | 3 | 7 | 6 | 5 | 9 | 9 | 8 | 9 | 4 | 8 | LD |
| AgriPro | Sierra | 0.2 | 5 | 4 | 1 | 5 | 4 | 2 | 4 | 3 | 9 | 8 | 1 | LD |
| AGSECO | 7805 | 0.2 | 4 | 4 | 4 | 5 | 7 | 8 | 8 | 1 | 8 | 8 | 9 | -- |
| Other Hard Varieties | | 3.3 | | | | | | | | | | | | |
| Other Soft Varieties | | 0.3 | | | | | | | | | | | | |

¹ Varieties listed in the Feb. 7, 1997, Wheat Variety survey, Kansas Ag. Statistics. Ratings are expert's best estimates, based on information and observations from several sources. Rated on a scale of 1 to 9; except for maturity (where 1 is earliest), 1 best and 9 poorest, -- = not tested.

² From February 7, 1997 Wheat Variety survey, Kansas Ag. Statistics Office, Topeka, KS.

³ Agronomic information and some disease ratings provided by Rollin Sears, Dept. of Agron., K.S.U. and some by John Moffatt, AgriPro Seeds.

⁴ Disease ratings provided by R.L. Bowden and W.W. Bockus, Dept. of Plant Path.; Hessian fly ratings by J.H. Hatchett, Dept. of Entomology.

⁵ Ratings compiled by P.J. McCluskey are based on data from the K.S.U. Department of Grain Science and Industry, the U.S. Grain Marketing and Production Research Center, and inputs from the milling and baking industries.

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

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

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

-- = Inadequate information or conflicting data.

*Strong blending wheat. Needed for blending with weaker wheats. May not be suitable alone for bread flour.

Windstar is best adapted to dryland production in the Nebraska Panhandle and western South Dakota. It has demonstrated consistent dryland yields in those areas. (From March 11, 1997, release notice, University of Nebraska Department of Agronomy).

TAM 110 hard red winter wheat was released by the Texas Agricultural Experiment Station in 1996. This variety is similar to TAM 107 in type and area of adaptation but possesses resistance to greenbug biotypes C, E, I, and K. TAM 110 likely is best adapted to dryland or limited-irrigation systems on the High Plains where leaf rust is typically not a major problem. TAM 110 has shown improvement over TAM 107 in some quality factors (water absorption, mixing tolerance, and loaf grain characteristics) but is similar to TAM 107 for others. (From TAM 110 Hard Red Winter Wheat pamphlet published by the Texas Agricultural Experiment Station, Texas A&M University, 1997).

TAM 301 hard red winter wheat was released by the Texas Agricultural Experiment Station in 1995. TAM 301 carries several leaf rust resistance genes and demonstrates field resistance to *Septoria tritici* (speckled leaf blotch), stem rust, and powdery mildew. It is susceptible to *Septoria nodorum* (glume blotch), barley yellow dwarf virus, soilborne mosaic virus, and common root rot. Head emergence of TAM 301 is about 3 days later than TAM 107. (From PVP application submitted by Texas Agricultural Experiment Station).

1997 PERFORMANCE TESTS

Objectives

To help Kansas growers select wheat cultivars suited for their area and conditions, the Kansas Agricultural Experiment Station annually compares both new and currently grown varieties and hybrids in the state's major crop-producing areas. The objective is to provide Kansas growers with unbiased performance information on all varieties and hybrids likely to become available in the state.

Varieties Included in Tests

Parentage and origin of public varieties included in the 1997 Kansas Agricultural Experiment Station tests are given in Table 2. Public varieties are selected for inclusion in the tests based on several criteria. Most represent new or established varieties with potential for successful utilization by Kansas wheat producers. Some are included as long-term checks for use in environment or maturity comparisons. Others are entered at the request of the originating institution.

Privately developed varieties are entered into the Kansas Wheat Performance Tests by their originators or marketers. Entry is voluntary. Entrants choose both the entries and test sites and pay a fee for each entry-location to help defray test expenses. The program is similar to those for corn, sorghum, soybeans, and alfalfa.

The 1997 private entrants and entries are listed in Table 3. Eleven entrants provided a total of 43 varieties and hybrids for testing at locations of their choice. Public and private entries were grown together at random in the same tests. Growers interested in more detailed descriptions of private entries should contact the entrants directly (see addresses and telephone numbers in Table 3 or consult the Kansas Crop Improvement Certified Seed Directory).

Seed quality, including such factors as size, purity, and germination, can be important in determining the performance of a variety. Wheat seed used for public and private entries in the Kansas Crop Performance Tests is prepared professionally and usually meets or exceeds Kansas Crop Improvement Certification standards (see Table 12). Relative performance of a given variety or hybrid comparable to that obtained in these tests is best assured under similar environmental conditions and cultural practices and with the use of certified or professionally prepared seed.

Environmental Factors Affecting Individual Tests

Locations of test sites are shown on the map on the front cover. Only 1 of the 17 tests had to be discarded in 1997. Descriptions of environmental conditions are included below.

Environmental factors should be considered when examining the results for a particular location. Site descriptions and management practices for each site are summarized in Table 4.

Performance test summary:

The performance tests were subjected to much the same regimen as described under the statewide growing conditions. A number of the tests yielded much better than expected after the dry winter and late freezes. Either the freezes didn't cause as much damage as thought or the wheat was able to overcome the damage better than anticipated. Diseases and insects caused noticeable yield decreases in only a few tests. The location codes listed in parentheses after each location name are used as column headers in the data tables.

EAST

Brown County (BR): This test was planted into good moisture last fall resulting in good stands. Little winter injury occurred, and damage from the late spring freezes appeared to be minimal. Spring and summer growing conditions were favorable, with adequate moisture for good growth and high-yield potential. Leaf rust appeared early enough and became severe enough to reduce yields of susceptible varieties.

Riley County (RL): The trial was planted October 3; good stands were obtained, and no winterkilling occurred. A severe freeze on April 11-12 caused ice formation below the growing points in approximately 15% of the primary stems of the earliest varieties; however, no visible damage or lodging resulted. Timely rains and cool temperatures during the growing season allowed for excellent crop development and yield potential. Leaf rust reduced yields of

Table 2. Parentage of public wheat varieties in 1997 tests.

| Type and variety | Parentage | State and year of release | |
|------------------------|---|---------------------------|------|
| HARD RED WINTER | | | |
| Akron | TAM 107/Hail | Colorado | 1994 |
| Alliance | Arkan/Colt//Chisholm | Nebraska | 1994 |
| Arapahoe | Brule/3/Pkr*4/Agent/Beloterkovskaia 198/Lancer | Nebraska | 1988 |
| Custer | F29-76/TAM 105// Chisholm | Oklahoma | 1994 |
| Halt | Sumner/CO820026,F ₁ //PI372129,F ₁ /3/TAM 107 | Colorado | 1994 |
| Ike | Dular/Eagle//2*Larned/Cheney/3/Colt | Kansas | 1993 |
| Jagger | KS82W418/Stephans | Kansas | 1994 |
| Karl 92 | F ₁₁ head row selection from 'Karl' seed increase | Kansas | 1992 |
| Karl 92-G | Same as Karl 92, but treated with Gaucho seed treatment | | |
| Larned | Scout*5/Ottawa | Kansas | 1976 |
| Nekota | Bennett/TAM 107 | Nebraska | 1994 |
| Newton | Pitic62/Chris sib//2*Sonora64/Klein Rendidor/4/Scout, Kansas | Kansas | 1977 |
| Niobrara | TAM 105*4/Amigo//Brule | Nebraska | 1994 |
| Scout 66 | A composite of 85 selections from Scout | Nebraska | 1967 |
| TAM 107 | TAM 105*4/Amigo | Texas | 1984 |
| TAM 110 | TAM 105*4/Amigo*5//Largo | Texas | 1996 |
| TAM 200 | TX71A1039-V1*3/Amigo | Texas | 1987 |
| TAM 301 | Mit/Kavkaz | Texas | 1995 |
| Tonkawa | F29-76/TAM 105//Chisholm | Oklahoma | 1994 |
| Vista | NE68513/NE68457//Centurk/3/Brule | Nebraska | 1992 |
| Windstar | TX79A2729//Caldwell/Brule field sel #6/3/Siouxland, Nebraska | Nebraska | 1997 |
| Yuma | NS14/NS25//2*Vona | Colorado | 1991 |
| 2137 | W2440/W9488//2163 | Kansas | 1995 |
| 2163 | Pioneer line W558/5/Etoile de Choisy//Thorne/Clarkan/3/CI15342/4/Purdue 4946A4-18-2 | Kansas (Pioneer) | 1989 |
| 2174 | IL 71-5662/PL 145//2165 | Oklahoma | 1997 |
| 2180 | TAM W-101/5/Etoile de Choisy//Thorne/Clarkan/3/CI15342/4/Purdue 4946A4-18-2/6/W558 | Kansas (Pioneer) | 1988 |
| SOFT RED WINTER | | | |
| Caldwell | Benhur sib *2/Siette Cerros | Indiana | 1981 |
| Cardinal | Logan 2*3//Va63-52-12/Logan/Blueboy | Ohio | 1986 |
| Ernie | Pike/3/(MO9965,Stoddard/Blueboy//Stoddard/D1707), Missouri | Missouri | 1994 |
| Jackson | Saluda/Coker 762 | Virginia | 1993 |

susceptible varieties but arrived late enough to minimize the damage. The leaf spotting complex (*Septoria(s)* and tan spot), which are normally severe at this location, remained on the lower leaves and didn't cause yield reductions. A rain after the wheat was ripe and before harvest reduced test weights slightly.

Franklin County (FR): Cool, wet conditions following planting limited fall growth and tillering. Some varieties appear to have suffered more than others from the poor fall growing conditions. The winter was relatively cold, and snowfall was above average. Diseases and insects appeared to cause little damage to varieties in this test.

Labette County (LB): Excellent fall weather favored stand establishment and early growth. Minimal damage resulted from the hard freezes in March and April. Later spring and summer

Table 3. Private entrants and entries in 1997 Kansas Wheat Performance Tests.

| Entrant | Brand | Variety/Hybrid | Entrant | Brand | Variety/Hybrid |
|---|-------------------------------------|---|---|-----------------|--|
| AgriPro Seeds, Inc. 806 N. Second St., PO Box 30 Berthoud, CO 80513 (970) 532-3721 | AgriPro | Big Dawg Coronado Hickok Laredo Ogallala Pecos Rowdy Tomahawk Elkhart (S) | HybriTech Seed Intl., Inc. 5912 N. Meridian Wichita, KS 67204 (800) 346-2256 | Quantum | 566 579 7406 7504 AP 7501 AP 7510 AP 7601 H1870 Exp |
| AGSECO, Inc. P.O. Box 7 Girard, KS 66743 (316) 724-6223 | AGSECO | 7853 7853-D* 7853-VRTU** 9001 Colby 94 Mankato 12019 Exp | Novartis 1060 Wheatland Dr. Buhler, KS 67522 (316) 543-2707 | NK | Coker 9474 (S) Coker 9543 (S) Coker 9663 (S) |
| | | *Seed treated with Dividend **Seed treated with Vitavax RTU | Pioneer Hi-Bred Intl., Inc. 1616 S Kentucky St. Suite C-150 Amarillo, TX 79102 (806) 356-0160 | Pioneer | 2548 (S) |
| American White Wheat Producers Association P.O. Box 326 Atchinson, KS 66002 (785) 367-4422 | Public, KS AgriPro | Arlin (W) Oro Blanco (W) | Polansky Seed P.O. Box 306 2729 M St. Belleville, KS 66935 (785) 527-2271 | Polansky | Dominator |
| Drussel Seed and Supply 2197 W. Parallel Road Garden City, KS 67846 (316) 275-2359 | Drussel | DSS-285 | Star Seed, Inc. Box 504 Beloit, KS 67420 (800) 782-7611 | Star | 505 560 Champ |
| Goertzen Seed Research 14604 S. Haven Rd. Haven, KS 67543 (316) 465-2675 | | G12017 Exp G1594 Exp G1720 Exp G1878 | Terra International, Inc. Terra Centre, 600 Fourth St. Sioux City, IA 51102 (712) 233-3609 | Terra | HR 153 SR 204 (S) SR 205 (S) Exp 211 (S) |

conditions were perfect for wheat development and high yield potential. Leaf rust appeared too late to cause significant yield reductions.

CENTRAL

Republic County (RP): Favorable moisture conditions resulted in good stands for most varieties. November rains helped the plants to establish well going into the winter. Cold, dry winter conditions and several spring freezes did not seem to significantly harm the plants. A heavy infestation of leaf rust developed too late to cause much yield reduction.

Harvey County (HV): Excellent stands, minimal winter and freeze injury, and favorable spring and summer growing conditions set the stage for

very good yields at this location. Temperatures in the low 20s on April 11-13 raised concerns of possible freeze damage that did not materialize. Soilborne mosaic virus was evident in some small areas in early spring but didn't appear to have a large affect on yields. Leaf rust arrived too late to impact yields.

Reno County (RN): The test established and overwintered well. The late freezes in March and April caused less damage than initially thought. Leaf diseases were present but appeared too late to cause significant yield reductions.

Stafford County, dryland (SD): Blowing sand destroyed one replication and caused enough variation in the remaining replications to make

Table 4. Wheat Performance Test site descriptions and management in 1997.

| County and Cooperator | Site, nearest town, and location code | Dates of planting & harvest | Soil type and previous crop | Fertilizers applied, lbs/acre | | | | Seeding rate ^{2/} and row spacing | |
|-------------------------------|---------------------------------------|-----------------------------|-----------------------------|-----------------------------------|-----|----|-----|--|----------------------------------|
| | | | | ^{1/} | N | P | K | | |
| EAST | | | | | | | | | |
| BROWN | Cornbelt Expt Field | 10/14 | Grundy silty clay loam | F | 75 | -- | 35 | 90 lb/a | |
| Brian Marsh | Powhattan (BR) | 7/10 | pH 5.8, Oats, 1996 | S | -- | -- | -- | 8" row spacing | |
| RILEY | Ashland Agron Farm | 10/3 | Reading silt loam | F | 75 | 25 | -- | 75 lb/a | |
| Rollin Sears | Manhattan (RL) | 7/5 | Oats, 1996 | S | 50 | -- | -- | 9" row spacing | |
| FRANKLIN | EC KS Expt Field | 10/14 | Woodson silt loam | F | 6 | 26 | 13 | 1,200,000 seeds/a | |
| Keith Janssen | Ottawa (FR) | 7/3 | Soybeans, 1996 | S | 80 | -- | -- | 7" row spacing | |
| LABETTE | SE Agric Res Ctr | 10/10 | Parsons silt loam | F | 41 | 46 | 120 | 75 lb/a | |
| Jim Long | Parsons (LB) | 6/23 | Corn, 1996 | S | 31 | -- | -- | 7" row spacing | |
| CENTRAL | | | | | | | | | |
| REPUBLIC | NC KS Expt Field | 9/25 | Crete silt loam | F | 80 | 30 | -- | 60 lb/a | |
| Barney Gordon | Belleville (RP) | 7/2 | pH 6.4, Wheat, 1996 | S | -- | -- | -- | 7.5" row spacing | |
| HARVEY | Harvey Co Expt Field | 10/16 | Ladysmith silty clay | F | 90 | 35 | -- | 60 lb/a | |
| Mark Claassen | Hesston (HV) | 7/4 | loam, Oats, 1996 | S | -- | -- | -- | 8" row spacing | |
| RENO | SC KS Expt Field | 10/11 | Ost silt loam | F | 75 | 40 | -- | 60 lb/a | |
| Bill Heer | Hutchinson (RN) | 7/3 | Oats, 1996 | S | 50 | -- | -- | 8" row spacing | |
| STAFFORD Dry | Sandyland Expt Field | 10/11 | Pratt loamy fine sand | Abandoned - Wind damage and other | | | | | variability made results suspect |
| Victor Martin | St. John (SD) | 7/7 | Grain sorghum, 1995 | | | | | | |
| SUMNER | Max Kolarik Farm | 10/14 | Sandy loam | F | 18 | 48 | -- | 60 lb/a | |
| Rollin Sears | Caldwell (SU) | 7/1 | Wheat, 1996 | S | 50 | -- | -- | 9" row spacing | |
| WEST | | | | | | | | | |
| ELLIS | Agric Res Ctr - Hays | 10/5 | Harney clay loam | F | 50 | -- | -- | 60 lb/a | |
| T. Joe Martin | Hays (EL) | 6/28 | Wheat, 1995 | S | -- | -- | -- | 12" row spacing | |
| THOMAS Dry | NW Res-Ext Ctr | 9/24 | Keith silt loam, pH 7.7 | F | 48 | -- | -- | 50 lb/a | |
| Pat Evans | Colby (TD) | 7/2 | Wheat, 1995 | S | -- | -- | -- | 12" row spacing | |
| GREELEY Dry | SW Res-Ext Ctr | 9/28 | Richfield silt loam | F | 11 | 52 | -- | 45 lb/a | |
| Alan Schlegel | Tribune (GD) | 7/4 | Wheat, 1995 | S | 60 | -- | -- | 10" row spacing | |
| FINNEY Dry | SW Res-Ext Ctr | 9/30 | Keith silt loam | F | 60 | -- | -- | 42 lb/a | |
| Merle Witt | Garden City (FD) | 7/2 | Wheat, 1995 | S | -- | -- | -- | 10" row spacing | |
| IRRIGATED^{3/} | | | | | | | | | |
| STAFFORD Irr | Sandyland Expt Field | 10/4 | Pratt loamy fine sand | F | 53 | 46 | -- | 90 lb/a | |
| Victor Martin | St. John (SI) | 7/3 | Corn, 1995 | S | -- | -- | -- | 7" row spacing | |
| THOMAS Irr | NW Res-Ext Ctr | 9/27 | Keith silt loam, pH 7.6 | F | 93 | -- | -- | 90 lb/a | |
| Pat Evans | Colby (TI) | 7/4 | Wheat, 1996 | S | -- | -- | -- | 12" row spacing | |
| GREELEY Irr | SW Res-Ext Ctr | 10/4 | Ulysses silt loam | F | -- | -- | -- | 90 lb/a | |
| Alan Schlegel | Tribune (GI) | 7/10 | pH 7.4, Corn 1995 | S | 105 | -- | -- | 10" row spacing | |
| STEVENS Irr | Jim Kramer Farm | 10/9 | Richfield sandy loam | F | 130 | 30 | -- | 90 lb/a | |
| Rollin Sears | Hugoton (ST) | 7/10 | Corn, 1996 | S | -- | -- | -- | 9" row spacing | |

^{1/} F = fall application; S = spring

^{2/} Seed weight of 1997 entries varied from 24.0 to 43.8 grams/1000 kernels, averaging 30.6 grams/1000 kernels (see Table 12).

^{3/} Irrigated tests received irrigations necessary to maintain vigorous plant growth.

the variety yield averages suspect. The test was abandoned and no results are reported.

Sumner County (SU): This trial was planted under good conditions on October 14, and uniform stands were obtained. A mild winter enabled leaf rust to overwinter on most varieties.

A severe freeze on April 11-12 resulted in death of approximately 20%-30% of the primary tillers in early varieties. More significant, however, was the ice formation below the growing point in 50%-60% of the stems of early varieties and 20%-30% of the later varieties. Almost ideal weather conditions following the freeze allowed the crop to develop and fill grain almost normally. Lack of moisture stress and high-temperature stress allowed the tillers to fill grain despite 2"-4" of freeze damaged stem tissue at the soil level.

Leaf rust developed late for this location but was still severe on Karl by the soft dough stage. Yields could have been reduced by as much as 10%-15% on susceptible varieties.

A severe storm lodged virtually the entire test at the hard-dough stage. The lodging was caused by the weakened stems from the early freeze and does not indicate genetic differences in straw strength. The lodging note reported (Table 11) was recorded before the storm. Lodging at this stage reduced yield potential slightly and is the primary cause of the high CV for this trial.

WEST

Ellis County (EL): Favorable soil moisture led to excellent stands. The winter months were mild, but had very little precipitation. The spring freezes caused very little damage because of the ice and snow cover present at the time. Leaf rust appeared late in the growing season but appeared to have little affect on performance. Rains just before harvest appeared to decrease the test weights of the early-maturing varieties. Another result of the rain was that kernels began to shatter as the grain dried.

Thomas County, dryland (TD): Above-average precipitation in 1996 provided excellent planting conditions. The favorable conditions continued into the fall, resulting in good stands with adequate growth going into the winter. The winter months were very dry but no colder than normal and very little stand was lost. Timely

showers and cool temperatures from mid-May through June provided favorable grain-filling conditions. Leaf rust developed too late in the season to have a significant affect on yields. Wheat streak mosaic was not serious.

Greeley County, dryland (GD): Most of the growing season was dry, but favorable grain filling conditions resulted in yields that were better than expected. Russian wheat aphids decreased yields of susceptible varieties and increased yield variability somewhat.

Finney County, dryland (FD): This test developed well in the fall and winter months, entering spring in an advanced stage of maturity with high-yield potential. A freeze on April 12 (9 °F) killed many early tillers and caused nearly a week's delay in maturity. Cool and nearly ideal grain-filling conditions allowed better-than-expected yields. Small areas of the test were infested with Russian wheat aphids. Leaf rust appeared late in the season but decreased yields very little.

IRRIGATED

Stafford County, irrigated (SI): The test was in good condition coming out of the winter, but soilborne mosaic virus and the late freezes caused concern about its yielding ability. Fortunately, the freeze didn't appear to cause as much damage as originally thought and favorable conditions the rest of the season enabled the wheat to overcome earlier setbacks.

Thomas County, irrigated (TI): See description for dryland test.

Greeley County, irrigated (GI): Similar to dryland test, but Russian wheat aphids were not present in this test. A July 5 hail storm caused some shattering, decreasing yields of susceptible varieties.

Stevens County, irrigated (ST): This test was planted October 9, and good stands were obtained. Winter conditions were not severe and no winter damage was observed. Two extremely cold freezes on April 8 and April 12-13 caused considerable damage. Temperatures on the evening of April 12 were as low as 12 °F for over 12 hours. Primary tiller death ranged from 40%-60% on early varieties and 10%-30% for

later varieties. Ideal conditions following the freeze allowed secondary tillers to replace dead primary tillers, resulting in surprisingly good yields. These results are more a reflection of recovery from severe freeze rather than a good indication of genetic potential under irrigated conditions.

Little disease pressure was observed, and virtually no lodging occurred. The wheat was significantly shorter than normal because of the loss of many of the primary tillers and replacement by secondary or tertiary tillers. High temperatures at the end of grain filling hastened maturity and probably contributed to lighter test weights. Two rains after maturity and before harvesting also contributed to light test weights.

Test Results and Variety Characterization

Results from Kansas tests are presented in Tables 5 through 13. The information in these tables is derived from replicated varietal comparisons at several sites representing various wheat-producing areas of the state.

Characteristics of specific 1997 entries can best be determined by examining Table 1 and data in Tables 5 through 12 for the relative performance of new varieties or hybrids of interest compared to those the grower is currently planting. Yields are reported in Table 5 as bushels per acre (60 pounds per bushel) adjusted to a moisture content of 12.5%, where moistures were reported at harvest. In Table 6, bushel yields are converted to yields as percentages of the test averages to speed recognition of highest yielding entries (more than 100%, the test average). The excellent performances of several of the entries are highlighted in these tables.

Growers should examine Table 7 to check the performance of entries over several years at locations closest to their farms. These tables present yields averaged over 2, 3, and 4 years. One-year or one-location results can be misleading because of the possibility of unusual weather conditions.

Measurements of characteristics often contributing to yield performance are shown in Table 8 (test weights); Table 9 (relative heading dates); Table 10 (heights); Tables 11 (lodging and disease ratings); and Table 12 (planted seed

characteristics, coleoptile lengths, and Hessian fly ratings).

At the bottom of each table is the LSD (least significant difference) for each column of replicated data. The use of the LSD is intended to reduce the chance of overemphasizing small differences in yield or other characteristics. Small variations in soil structure, fertility, water-holding characteristics, and other test-site characteristics can cause considerable yield variation among plots of the same variety grown only a short distance apart.

Another statistical parameter is the coefficient of variation (CV) shown at the bottom of most columns. This figure, if properly interpreted, can be used to estimate the degree of confidence one may have in the data presented. In this testing program, CV's below 10% generally indicate reliable, uniform data, whereas CV's from 11% to 15% usually indicate less desirable but generally useful data for the rough performance comparisons desired from these tests.

Protein Content

Samples of grain from each variety harvested from Kansas Wheat Performance Tests are submitted annually for protein content, kernel hardness, kernel weight analysis, and other tests. Screening for protein and other analyses are conducted by the staff at the U.S. Grain Marketing and Production Research Center in Manhattan, Kansas. Because of the time requirement for obtaining analyses, protein results included in this report are for the previous year's tests. Results for the 1996 harvest are presented in Table 13.

**Table 5a. Yield (bushels per acre)
1997 EASTERN Kansas Winter Wheat Performance Tests.**

| Brand / Name | BR ¹ | RL ² | FR ³ | LB ⁴ | Avg. | Brand / Name | BR ¹ | RL ² | FR ³ | LB ⁴ | Avg. |
|----------------------|-----------------|-----------------|-----------------|-----------------|------|---------------------|-----------------|-----------------|-----------------|-----------------|------|
| AgriPro | | | | | | Public | | | | | |
| Big Dawg | 56 | 67 | 66 | 83 | 68 | 2137 | 61 | 77 | 83 | 75 | 74 |
| Coronado | 57 | 68 | 71 | 81 | 69 | 2163 | 53 | 76 | 76 | 85 | 73 |
| Pecos | -- | -- | 71 | 77 | -- | Arapahoe | 66 | 59 | -- | -- | -- |
| Tomahawk | 62 | 64 | 69 | 74 | 67 | Custer | 62 | 68 | 55 | 74 | 65 |
| (S) Elkhart | -- | -- | 70 | 83 | -- | Jagger | 67 | 77 | 42 | 85 | 68 |
| AGSECO | | | | | | Karl 92 | | | | | |
| 12019 EXP | 59 | -- | 62 | -- | -- | Karl 92-G | 50 | 66 | 67 | 77 | 65 |
| 7853 | 59 | 69 | 73 | 64 | 66 | KS84063-HW Exp | 60 | 63 | 80 | 73 | 69 |
| 7853-D | -- | -- | -- | 73 | -- | KS940935 Exp | 63 | 68 | 74 | 67 | 68 |
| 7853-VRTU | -- | -- | -- | 65 | -- | KS941064 Exp | 68 | 83 | 69 | 79 | 75 |
| Mankato | 58 | 68 | -- | -- | -- | KS94H147Exp | 62 | 76 | 66 | 80 | 71 |
| Northrup King | | | | | | Niobrara | | | | | |
| (S) Coker 9474 | -- | -- | 64 | 71 | -- | Scout 66 | 56 | 51 | 44 | 58 | 52 |
| (S) Coker 9543 | -- | -- | -- | 91 | -- | TAM 107 | 49 | 57 | 51 | 67 | 56 |
| (S) Coker 9663 | -- | -- | -- | 76 | -- | TAM 301 | 46 | -- | 49 | 66 | -- |
| Pioneer | | | | | | Tonkawa | | | | | |
| (S) 2548 | -- | -- | -- | 65 | -- | Vista | 58 | 63 | -- | -- | -- |
| Polansky | | | | | | (S) Caldwell | | | | | |
| Dominator | 57 | 73 | -- | -- | -- | (S) Cardinal | 58 | 70 | 48 | 81 | 64 |
| Quantum | | | | | | (S) Ernie | | | | | |
| AP 7510 | -- | 72 | -- | -- | -- | (S) Jackson | 47 | 86 | 70 | 79 | 71 |
| 7504 | -- | 82 | -- | -- | -- | Test Average | | | | | |
| Star | | | | | | CV (%) | | | | | |
| 505 | -- | 54 | -- | -- | -- | LSD (0.05)** | 3 | 6 | 8 | 8 | -- |
| 560 | -- | 62 | -- | -- | -- | Terra | | | | | |
| Champ | 60 | 67 | 67 | -- | -- | (S) SR 204 | 58 | -- | 63 | 78 | -- |
| Terra | | | | | | (S) SR 205 | | | | | |
| (S) SR 204 | 58 | -- | 63 | 78 | -- | (S) SR 211 | 62 | -- | 77 | 93 | -- |
| (S) SR 205 | 60 | -- | 71 | 90 | -- | HR 153 | 57 | -- | 62 | 70 | -- |
| (S) SR 211 | 62 | -- | 77 | 93 | -- | | | | | | |
| HR 153 | 57 | -- | 62 | 70 | -- | | | | | | |

¹BR = Brown County test at Cornbelt Experiment Field near Powhattan, KS.

²RL = Riley County test at Ashland Experiment Farm, Manhattan, KS.

³FR = Franklin County test at East Central Experiment Field near Ottawa, KS.

⁴LB = Labette County test at KSU Southeast Agricultural Research Center, Parsons, KS.

(S) = Soft red winter wheat.

(W) = Hard white winter wheat.

** Unless two varieties differ by more than the LSD, little confidence can be placed in one being superior to the other.

**Table 5b. Yield (bushels per acre)
1997 CENTRAL Kansas Winter Wheat Performance Tests.**

| Brand / Name | RP ¹ | HV ² | RN ³ | SU ⁴ | Avg. | Brand / Name | RP ¹ | HV ² | RN ³ | SU ⁴ | Avg. |
|-----------------|-----------------|-----------------|-----------------|-----------------|------|----------------|-----------------|-----------------|-----------------|-----------------|------|
| AgriPro | | | | | | Public | | | | | |
| Big Dawg | 55 | 72 | 45 | 38 | 52 | 2137 | 87 | 71 | 52 | 47 | 64 |
| Coronado | 73 | 65 | 52 | 35 | 56 | 2163 | 78 | 66 | 49 | 37 | 58 |
| Hickok | -- | 55 | 47 | 33 | -- | Alliance | 90 | -- | -- | -- | -- |
| Pecos | 61 | 54 | 46 | 31 | 48 | Arapahoe | 76 | -- | -- | -- | -- |
| Tomahawk | 72 | 65 | 47 | 42 | 57 | Custer | 73 | 73 | 53 | 62 | 65 |
| <hr/> | | | | | | <hr/> | | | | | |
| AGSECO | | | | | | 2174 | | | | | |
| 7853 | 62 | 66 | 53 | 38 | 55 | Ike | 72 | 61 | -- | 38 | -- |
| 7853-D | 66 | 65 | 52 | 41 | 56 | Jagger | 57 | 77 | 59 | 45 | 59 |
| 7853-VRTU | 60 | 67 | 56 | 42 | 56 | Karl 92 | 66 | 67 | 47 | 36 | 54 |
| Colby 94 | 69 | -- | -- | -- | -- | Karl 92-G | 68 | 66 | 53 | 37 | 56 |
| Mankato | 70 | 76 | 53 | -- | -- | KS84063-HW Exp | 63 | 77 | 55 | 39 | 59 |
| <hr/> | | | | | | KS940935 Exp | | | | | |
| AWWPA | | | | | | KS941064 Exp | | | | | |
| (W) Oro Blanco | 63 | 59 | 51 | 35 | 52 | KS94H147Exp | 72 | 62 | 49 | 38 | 55 |
| <hr/> | | | | | | Larned | | | | | |
| Goertzen | | | | | | Nekota | | | | | |
| G12017 Exp | -- | 71 | 54 | -- | -- | Niobrara | 79 | -- | -- | -- | -- |
| G1594 Exp | -- | 66 | 57 | -- | -- | Scout 66 | 66 | 52 | 37 | 28 | 46 |
| G1878 | -- | 67 | 44 | -- | -- | TAM 107 | 67 | 53 | 48 | 30 | 49 |
| <hr/> | | | | | | TAM 110 | | | | | |
| Polansky | | | | | | TAM 301 | | | | | |
| Dominator | 80 | 68 | 53 | 36 | 59 | Tonkawa | 60 | 68 | 48 | 61 | 59 |
| <hr/> | | | | | | Vista | | | | | |
| Quantum | | | | | | Windstar | | | | | |
| AP 7510 | 83 | -- | 54 | -- | -- | Yuma | 64 | -- | -- | -- | -- |
| 7504 | -- | 78 | 59 | -- | -- | <hr/> | | | | | |
| <hr/> | | | | | | Test Average | | | | | |
| Star | | | | | | CV (%) | | | | | |
| 505 | 71 | -- | -- | -- | -- | LSD (0.05)** | | | | | |
| 560 | 64 | -- | -- | -- | -- | 70 | 64 | 50 | 40 | -- | -- |
| Champ | 74 | 71 | 50 | -- | -- | 5 | 5 | 7 | 12 | -- | -- |
| <hr/> | | | | | | <hr/> | | | | | |
| Terra | | | | | | | | | | | |
| HR 153 | -- | 63 | 52 | -- | -- | | | | | | |
| <hr/> | | | | | | | | | | | |

¹RP = Republic County test at North Central Experiment Field near Belleville, KS.

²HV = Harvey County test at Harvey County Experiment Field near Hesston, KS.

³RN = Reno County test at South Central Experiment Field near Hutchinson, KS.

⁴SU = Sumner County test at Max Kolarik farm, Caldwell, KS.

(S) = Soft red winter wheat.

(W) = Hard white winter wheat.

** Unless two varieties differ by more than the LSD, little confidence can be placed in one being superior to the other.

**Table 5c. Yield (bushels per acre)
1997 WESTERN Kansas Winter Wheat Performance Tests.**

| Brand / Name | EL ¹ | TD ² | GD ³ | FD ⁴ | Avg. | Brand / Name | EL ¹ | TD ² | GD ³ | FD ⁴ | Avg. |
|-----------------|-----------------|-----------------|-----------------|-----------------|------|---------------------|-----------------|-----------------|-----------------|-----------------|------|
| AgriPro | | | | | | Public | | | | | |
| Big Dawg | 67 | 53 | 37 | -- | -- | 2137 | 69 | 65 | 53 | 57 | 61 |
| Coronado | 66 | 59 | -- | -- | -- | 2163 | 67 | 64 | 50 | 56 | 59 |
| Hickok | 67 | -- | -- | -- | -- | Akron | 74 | 65 | 55 | 56 | 62 |
| Laredo | 72 | 58 | 49 | -- | -- | Alliance | 68 | 60 | 45 | 53 | 57 |
| Ogallala | 66 | 59 | 55 | 48 | 57 | Arapahoe | 70 | 58 | 49 | 50 | 57 |
| Pecos | 61 | -- | -- | -- | -- | Custer | 65 | 56 | 47 | 43 | 53 |
| Rowdy | 69 | 59 | -- | -- | -- | Halt | 63 | 63 | 60 | 44 | 57 |
| Tomahawk | 67 | -- | -- | -- | -- | 2174 | 63 | -- | -- | -- | -- |
| AGSECO | | | | | | Ike | | | | | |
| 7853 | 62 | 57 | 48 | 48 | 54 | Jagger | 74 | 70 | 56 | 53 | 63 |
| 7853-D | 63 | 60 | 50 | 48 | 55 | Karl 92 | 59 | 53 | 42 | 43 | 49 |
| 7853-VRTU | 64 | 57 | 50 | 46 | 54 | Karl 92-G | 64 | 54 | 51 | 44 | 53 |
| 9001 | -- | 56 | 54 | 43 | -- | KS84063-HW Exp | 64 | 56 | 41 | 48 | 52 |
| Colby 94 | 72 | 65 | 55 | -- | -- | KS940935 Exp | 57 | 56 | 44 | 50 | 52 |
| Mankato | 67 | 64 | 51 | 45 | 57 | KS941064 Exp | 53 | 56 | 44 | 47 | 50 |
| AWWPA | | | | | | KS94H147Exp | | | | | |
| (W) Arlin | -- | -- | -- | 46 | -- | Larned | 68 | 57 | 48 | 51 | 56 |
| Goertzen | | | | | | Nekota | | | | | |
| G12017 Exp | -- | -- | 52 | 51 | -- | Niobrara | 66 | 61 | 49 | 52 | 57 |
| G1594 Exp | -- | -- | 44 | 55 | -- | Scout 66 | 64 | 57 | 49 | 44 | 53 |
| G1720 Exp | -- | -- | 43 | 45 | -- | TAM 107 | 65 | 60 | 53 | 48 | 56 |
| G1878 | -- | -- | 43 | 43 | -- | TAM 110 | 73 | 62 | 55 | 55 | 62 |
| Polansky | | | | | | Tonkawa | | | | | |
| Dominator | 69 | 61 | -- | -- | -- | Vista | 70 | 58 | 48 | 57 | 58 |
| Quantum | | | | | | Windstar | | | | | |
| 566 | -- | 67 | -- | -- | -- | Yuma | 75 | 66 | 52 | 51 | 61 |
| AP 7501 | -- | 63 | -- | -- | -- | Test Average | | | | | |
| AP 7510 | -- | 64 | -- | -- | -- | 66 | 60 | 49 | 49 | -- | |
| 7406 | -- | 73 | -- | -- | -- | CV (%) | 7 | 4 | 7 | 8 | -- |
| Star | | | | | | LSD (0.05)** | | | | | |
| 560 | 67 | -- | -- | -- | -- | 6 | 3 | 4 | 5 | -- | |
| Champ | 61 | 60 | -- | 47 | -- | | | | | | |

¹EL = Ellis County test at KSU Agricultural Research Center near Hays, KS.

²TD = Thomas County test at KSU Northwest Research Extension Center near Colby, KS.

³GD = Greeley County test at KSU Southwest Research Extension Center near Tribune, KS.

⁴FD = Finney County test at KSU Southwest Research Extension Center near Garden City, KS.

(S) = Soft red winter wheat.

(W) = Hard white winter wheat.

** Unless two varieties differ by more than the LSD, little confidence can be placed in one being superior to the other.

**Table 5d. Yield (bushels per acre)
1997 IRRIGATED Kansas Winter Wheat Performance Tests.**

| Brand / Name | SI ¹ | TI ² | GI ³ | ST ⁴ | Avg. | Brand / Name | SI ¹ | TI ² | GI ³ | ST ⁴ | Avg. |
|-----------------|-----------------|-----------------|-----------------|-----------------|------|----------------|-----------------|-----------------|-----------------|-----------------|------|
| AgriPro | | | | | | Star | | | | | |
| Big Dawg | -- | 71 | -- | -- | -- | Champ | 78 | -- | -- | -- | -- |
| Coronado | -- | 80 | 62 | 65 | -- | <hr/> | | | | | |
| Hickok | -- | 78 | 70 | 67 | -- | Public | | | | | |
| Laredo | -- | 83 | 63 | -- | -- | 2137 | 87 | 86 | 67 | 76 | 79 |
| Ogallala | -- | 80 | 63 | 65 | -- | 2163 | 71 | 85 | 53 | 72 | 70 |
| Rowdy | -- | 81 | 56 | 74 | -- | Akron | 23 | 86 | 74 | 74 | 64 |
| Tomahawk | 79 | -- | -- | -- | -- | Alliance | 42 | 86 | 69 | 72 | 67 |
| <hr/> | | | | | | Custer | 43 | 74 | 78 | 79 | 69 |
| AGSECO | | | | | | 2174 | 77 | -- | -- | -- | -- |
| 7853 | 79 | 81 | 56 | 67 | 71 | Ike | 82 | 82 | 65 | 68 | 74 |
| 7853-D | 68 | 80 | 58 | 67 | 68 | Jagger | 59 | 92 | 68 | 70 | 72 |
| 7853-VRTU | 68 | 79 | 55 | 73 | 69 | Karl 92 | 60 | 74 | 58 | 67 | 65 |
| 9001 | -- | 78 | 65 | 69 | -- | Karl 92-G | 70 | 78 | 69 | 70 | 72 |
| Mankato | -- | -- | 74 | 69 | -- | KS84063-HW Exp | 77 | 72 | 76 | 73 | 75 |
| <hr/> | | | | | | KS940935 Exp | 55 | 66 | 56 | 66 | 61 |
| AWWPA | | | | | | KS941064 Exp | 79 | 80 | 48 | 62 | 67 |
| (W) Arlin | 58 | -- | -- | 71 | -- | KS94H147Exp | 85 | 84 | 70 | 68 | 77 |
| (W) Oro Blanco | -- | -- | -- | 68 | -- | Newton | -- | -- | -- | -- | -- |
| <hr/> | | | | | | TAM 107 | 28 | 88 | 69 | 67 | 63 |
| Drussel | | | | | | TAM 110 | 31 | 87 | 72 | 71 | 65 |
| DSS-285 | 69 | 74 | 58 | 70 | 68 | TAM 200 | 47 | 82 | 81 | 70 | 70 |
| <hr/> | | | | | | TAM 301 | 72 | -- | -- | -- | -- |
| Goertzen | | | | | | Tonkawa | 66 | 63 | 66 | 72 | 67 |
| G12017 Exp | 78 | -- | 83 | -- | -- | Yuma | 41 | 90 | 71 | 71 | 68 |
| G1594 Exp | 84 | -- | 56 | -- | -- | <hr/> | | | | | |
| G1720 Exp | -- | -- | 67 | -- | -- | Test Average | 65 | 80 | 66 | 70 | -- |
| G1878 | 74 | -- | 67 | -- | -- | CV (%) | 9 | 3 | 9 | 4 | -- |
| <hr/> | | | | | | LSD (0.05)** | 7 | 3 | 7 | 4 | -- |
| Polansky | | | | | | <hr/> | | | | | |
| Dominator | 77 | 81 | -- | -- | -- | | | | | | |
| <hr/> | | | | | | | | | | | |
| Quantum | | | | | | | | | | | |
| 579 | -- | -- | -- | 71 | -- | | | | | | |
| AP 7501 | -- | 81 | 75 | -- | -- | | | | | | |
| AP 7510 | -- | 84 | 71 | 79 | -- | | | | | | |
| AP 7601 | -- | 82 | 71 | 76 | -- | | | | | | |
| H1870 Exp | -- | -- | 72 | -- | -- | | | | | | |
| 7406 | -- | 94 | 87 | -- | -- | | | | | | |

¹SI = Stafford County test at Sandyland Experiment Field near St. John, KS.

²TI = Thomas County test at KSU Northwest Research Extension Center near Colby, KS.

³GI = Greeley County test at KSU Southwest Research Extension Center near Tribune, KS.

⁴ST = Stevens County test at Jim Kramer farm near Hugoton, KS.

(S) = Soft red winter wheat.

(W) = Hard white winter wheat.

** Unless two varieties differ by more than the LSD, little confidence can be placed in one being superior to the other.

**Table 6a. Yield (% of test average)
1997 EASTERN Kansas Winter Wheat Performance Tests.**

| Brand / Name | BR ¹ | RL ² | FR ³ | LB ⁴ | Avg. | Brand / Name | BR ¹ | RL ² | FR ³ | LB ⁴ | Avg. |
|----------------------|-----------------|-----------------|-----------------|-----------------|------|--------------------|-----------------|-----------------|-----------------|-----------------|------|
| AgriPro | | | | | | Public | | | | | |
| Big Dawg | 99 | 99 | 102 | 110 | 102 | 2137 | 108 | 113 | 128 | 99 | 112 |
| Coronado | 100 | 100 | 109 | 107 | 104 | 2163 | 94 | 112 | 117 | 112 | 109 |
| Pecos | -- | -- | 110 | 102 | -- | Arapahoe | 116 | 87 | -- | -- | -- |
| Tomahawk | 109 | 94 | 106 | 97 | 102 | Custer | 109 | 99 | 85 | 98 | 98 |
| (S) Elkhart | -- | -- | 108 | 110 | -- | Jagger | 117 | 113 | 65 | 113 | 102 |
| AGSECO | | | | | | | | | | | |
| 12019 EXP | 103 | -- | 96 | -- | -- | Karl 92 | 81 | 97 | 104 | 99 | 95 |
| 7853 | 104 | 102 | 113 | 85 | 101 | Karl 92-G | 87 | 97 | 103 | 102 | 97 |
| 7853-D | -- | -- | -- | 96 | -- | KS84063-HW Exp | 105 | 93 | 123 | 97 | 104 |
| 7853-VRTU | -- | -- | -- | 86 | -- | KS940935 Exp | 111 | 100 | 114 | 89 | 103 |
| Mankato | 103 | 99 | -- | -- | -- | KS941064 Exp | 120 | 122 | 107 | 105 | 113 |
| Northrup King | | | | | | | | | | | |
| (S) Coker 9474 | -- | -- | 99 | 93 | -- | KS94H147Exp | 108 | 112 | 102 | 106 | 107 |
| (S) Coker 9543 | -- | -- | -- | 121 | -- | Niobrara | 103 | 88 | -- | -- | -- |
| (S) Coker 9663 | -- | -- | -- | 100 | -- | Scout 66 | 98 | 75 | 67 | 77 | 79 |
| Pioneer | | | | | | | | | | | |
| (S) 2548 | -- | -- | -- | 87 | -- | TAM 107 | 86 | 83 | 79 | 89 | 84 |
| Polansky | | | | | | | | | | | |
| Dominator | 100 | 107 | -- | -- | -- | TAM 301 | 81 | -- | 76 | 88 | -- |
| Quantum | | | | | | | | | | | |
| AP 7510 | -- | 106 | -- | -- | -- | Tonkawa | 96 | 77 | 106 | 92 | 93 |
| 7504 | -- | 120 | -- | -- | -- | Vista | 102 | 92 | -- | -- | -- |
| Star | | | | | | | | | | | |
| 505 | -- | 79 | -- | -- | -- | (S) Caldwell | 102 | 116 | 93 | 102 | 103 |
| 560 | -- | 92 | -- | -- | -- | (S) Cardinal | 101 | 103 | 74 | 107 | 97 |
| Champ | 105 | 99 | 103 | -- | -- | (S) Ernie | 81 | 114 | 80 | 106 | 95 |
| Terra | | | | | | | | | | | |
| (S) SR 204 | 103 | -- | 98 | 103 | -- | (S) Jackson | 83 | 127 | 108 | 104 | 106 |
| (S) SR 205 | 106 | -- | 110 | 119 | -- | | | | | | |
| (S) SR 211 | 109 | -- | 118 | 123 | -- | | | | | | |
| HR 153 | 100 | -- | 95 | 93 | -- | | | | | | |
| | | | | | | | | | | | |
| | | | | | | Test Average, bu/a | 57 | 68 | 65 | 76 | -- |
| | | | | | | CV (%) | 4 | 8 | 11 | 9 | -- |
| | | | | | | LSD (0.05)** | 5 | 9 | 13 | 11 | -- |

¹BR = Brown County test at Cornbelt Experiment Field near Powhattan, KS.

²RL = Riley County test at Ashland Experiment Farm, Manhattan, KS.

³FR = Franklin County test at East Central Experiment Field near Ottawa, KS.

⁴LB = Labette County test at KSU Southeast Agricultural Research Center, Parsons, KS.

(S) = Soft red winter wheat.

(W) = Hard white winter wheat.

** Unless two varieties differ by more than the LSD, little confidence can be placed in one being superior to the other.

**Table 6b. Yield (% of test average)
1997 CENTRAL Kansas Winter Wheat Performance Tests.**

| Brand / Name | RP ¹ | HV ² | RN ³ | SU ⁴ | Avg. | Brand / Name | RP ¹ | HV ² | RN ³ | SU ⁴ | Avg. |
|-----------------|-----------------|-----------------|-----------------|-----------------|------|--|-----------------|-----------------|-----------------|-----------------|------|
| AgriPro | | | | | | Public | | | | | |
| Big Dawg | 78 | 111 | 90 | 96 | 94 | 2137 | 124 | 110 | 105 | 119 | 114 |
| Coronado | 104 | 101 | 105 | 87 | 99 | 2163 | 112 | 103 | 98 | 94 | 101 |
| Hickok | -- | 86 | 95 | 82 | -- | Alliance | 129 | -- | -- | -- | -- |
| Pecos | 87 | 84 | 93 | 77 | 85 | Arapahoe | 109 | -- | -- | -- | -- |
| Tomahawk | 103 | 101 | 95 | 105 | 101 | Custer | 105 | 113 | 107 | 156 | 120 |
| AGSECO | | | | | | 2174 | | | | | |
| 7853 | 88 | 103 | 106 | 97 | 98 | Ike | 103 | 95 | -- | 94 | -- |
| 7853-D | 94 | 102 | 104 | 103 | 101 | Jagger | 81 | 119 | 119 | 113 | 108 |
| 7853-VRTU | 85 | 104 | 113 | 106 | 102 | Karl 92 | 94 | 103 | 94 | 91 | 96 |
| Colby 94 | 98 | -- | -- | -- | -- | Karl 92-G | 97 | 102 | 106 | 94 | 100 |
| Mankato | 99 | 118 | 106 | -- | -- | KS84063-HW Exp | 91 | 120 | 110 | 99 | 105 |
| AWWPA | | | | | | KS940935 Exp | | | | | |
| (W) Oro Blanco | 90 | 92 | 103 | 89 | 93 | KS941064 Exp | 106 | 115 | 102 | 133 | 114 |
| Goertzen | | | | | | KS94H147Exp | | | | | |
| G12017 Exp | -- | 110 | 109 | -- | -- | Larned | 98 | 89 | 73 | 75 | 84 |
| G1594 Exp | -- | 103 | 115 | -- | -- | Nekota | 112 | -- | -- | -- | -- |
| G1878 | -- | 104 | 88 | -- | -- | Niobrara | 113 | -- | -- | -- | -- |
| Polansky | | | | | | Scout 66 | | | | | |
| Dominator | 114 | 105 | 106 | 91 | 104 | TAM 107 | 96 | 82 | 97 | 75 | 87 |
| Quantum | | | | | | TAM 110 | | | | | |
| AP 7510 | 119 | -- | 109 | -- | -- | TAM 301 | 94 | 85 | 99 | 90 | 92 |
| 7504 | -- | 121 | 118 | -- | -- | Tonkawa | 85 | 106 | 96 | 153 | 110 |
| Star | | | | | | Vista | | | | | |
| 505 | 101 | -- | -- | -- | -- | Windstar | 118 | -- | -- | -- | -- |
| 560 | 91 | -- | -- | -- | -- | Yuma | 91 | -- | -- | -- | -- |
| Champ | 105 | 111 | 100 | -- | -- | Test Average, bu/a 70 64 50 40 -- | | | | | |
| Terra | | | | | | CV (%) 5 5 7 12 -- | | | | | |
| HR 153 | -- | 98 | 105 | -- | -- | LSD (0.05)** 6 6 8 14 -- | | | | | |

¹RP = Republic County test at North Central Experiment Field near Belleville, KS.

²HV = Harvey County test at Harvey County Experiment Field near Hesston, KS.

³RN = Reno County test at South Central Experiment Field near Hutchinson, KS.

⁴SU = Sumner County test at Max Kolarik farm, Caldwell, KS.

(S) = Soft red winter wheat.

(W) = Hard white winter wheat.

** Unless two varieties differ by more than the LSD, little confidence can be placed in one being superior to the other.

**Table 6c. Yield (% of test average)
1997 WESTERN Kansas Winter Wheat Performance Tests.**

| Brand / Name | EL ¹ | TD ² | GD ³ | FD ⁴ | Avg. | Brand / Name | EL ¹ | TD ² | GD ³ | FD ⁴ | Avg. |
|-----------------|-----------------|-----------------|-----------------|-----------------|------|--------------------|-----------------|-----------------|-----------------|-----------------|------|
| AgriPro | | | | | | Public | | | | | |
| Big Dawg | 103 | 89 | 77 | -- | -- | 2137 | 105 | 109 | 110 | 116 | 110 |
| Coronado | 101 | 99 | -- | -- | -- | 2163 | 102 | 107 | 102 | 113 | 106 |
| Hickok | 103 | -- | -- | -- | -- | Akron | 113 | 109 | 114 | 113 | 112 |
| Laredo | 109 | 97 | 101 | -- | -- | Alliance | 103 | 101 | 94 | 109 | 102 |
| Ogallala | 101 | 99 | 112 | 97 | 102 | Arapahoe | 107 | 97 | 101 | 101 | 102 |
| Pecos | 94 | -- | -- | -- | -- | Custer | 100 | 94 | 96 | 88 | 94 |
| Rowdy | 106 | 99 | -- | -- | -- | Halt | 96 | 105 | 123 | 89 | 103 |
| Tomahawk | 102 | -- | -- | -- | -- | 2174 | 96 | -- | -- | -- | -- |
| AGSECO | | | | | | Ike | | | | | |
| 7853 | 94 | 95 | 99 | 98 | 97 | Jagger | 113 | 117 | 115 | 108 | 113 |
| 7853-D | 95 | 100 | 103 | 97 | 99 | Karl 92 | 89 | 89 | 86 | 88 | 88 |
| 7853-VRTU | 98 | 95 | 103 | 93 | 97 | Karl 92-G | 98 | 91 | 104 | 89 | 95 |
| 9001 | -- | 94 | 112 | 87 | -- | KS84063-HW Exp | 98 | 94 | 84 | 97 | 93 |
| Colby 94 | 110 | 108 | 113 | -- | -- | KS940935 Exp | 87 | 93 | 91 | 102 | 93 |
| Mankato | 102 | 107 | 105 | 92 | 101 | KS941064 Exp | 81 | 94 | 91 | 95 | 90 |
| AWWPA | | | | | | KS94H147Exp | | | | | |
| (W) Arlin | -- | -- | -- | 93 | -- | Larned | 104 | 96 | 99 | 104 | 101 |
| Goertzen | | | | | | Nekota | | | | | |
| G12017 Exp | -- | -- | 106 | 104 | -- | Niobrara | 101 | 103 | 102 | 106 | 103 |
| G1594 Exp | -- | -- | 90 | 111 | -- | Scout 66 | 97 | 96 | 100 | 88 | 95 |
| G1720 Exp | -- | -- | 88 | 91 | -- | TAM 107 | 99 | 100 | 110 | 98 | 101 |
| G1878 | -- | -- | 88 | 88 | -- | TAM 110 | 111 | 105 | 114 | 112 | 111 |
| Polansky | | | | | | Tonkawa | | | | | |
| Dominator | 105 | 101 | -- | -- | -- | Vista | 106 | 97 | 98 | 116 | 104 |
| Quantum | | | | | | Windstar | | | | | |
| 566 | -- | 113 | -- | -- | -- | Yuma | 114 | 110 | 107 | 104 | 109 |
| AP 7501 | -- | 106 | -- | -- | -- | Test Average, bu/a | | | | | |
| AP 7510 | -- | 106 | -- | -- | -- | 66 60 49 49 -- | | | | | |
| 7406 | -- | 123 | -- | -- | -- | CV (%) | | | | | |
| Star | | | | | | 7 4 7 8 -- | | | | | |
| 560 | 102 | -- | -- | -- | -- | LSD (0.05)** | | | | | |
| Champ | 93 | 100 | -- | 96 | -- | 9 5 9 9 -- | | | | | |

¹EL = Ellis County test at KSU Agricultural Research Center near Hays, KS.

²TD = Thomas County test at KSU Northwest Research Extension Center near Colby, KS.

³GD = Greeley County test at KSU Southwest Research Extension Center near Tribune, KS.

⁴FD = Finney County test at KSU Southwest Research Extension Center near Garden City, KS.

(S) = Soft red winter wheat.

(W) = Hard white winter wheat.

** Unless two varieties differ by more than the LSD, little confidence can be placed in one being superior to the other.

**Table 6d. Yield (% of test average)
1997 IRRIGATED Kansas Winter Wheat Performance Tests.**

| Brand / Name | SI ¹ | TI ² | GI ³ | ST ⁴ | Avg. | Brand / Name | SI ¹ | TI ² | GI ³ | ST ⁴ | Avg. |
|-----------------|-----------------|-----------------|-----------------|-----------------|------|--------------------|-----------------|-----------------|-----------------|-----------------|------|
| AgriPro | | | | | | Star | | | | | |
| Big Dawg | -- | 88 | -- | -- | -- | Champ | 121 | -- | -- | -- | -- |
| Coronado | -- | 100 | 94 | 92 | -- | <hr/> | | | | | |
| Hickok | -- | 97 | 106 | 96 | -- | Public | | | | | |
| Laredo | -- | 103 | 95 | -- | -- | 2137 | 134 | 107 | 101 | 108 | 113 |
| Ogallala | -- | 100 | 95 | 93 | -- | 2163 | 109 | 106 | 80 | 103 | 100 |
| Rowdy | -- | 100 | 85 | 106 | -- | Akron | 35 | 107 | 111 | 106 | 90 |
| Tomahawk | 122 | -- | -- | -- | -- | Alliance | 64 | 107 | 103 | 102 | 94 |
| <hr/> | | | | | | Custer | 66 | 92 | 118 | 113 | 97 |
| AGSECO | | | | | | 2174 | 119 | -- | -- | -- | -- |
| 7853 | 122 | 101 | 84 | 96 | 101 | Ike | 127 | 102 | 98 | 97 | 106 |
| 7853-D | 106 | 99 | 88 | 96 | 97 | Jagger | 92 | 114 | 102 | 100 | 102 |
| 7853-VRTU | 105 | 98 | 82 | 104 | 97 | Karl 92 | 94 | 92 | 88 | 96 | 92 |
| 9001 | -- | 97 | 98 | 99 | -- | Karl 92-G | 108 | 97 | 104 | 100 | 102 |
| Mankato | -- | -- | 112 | 99 | -- | KS84063-HW Exp | 120 | 90 | 115 | 105 | 107 |
| <hr/> | | | | | | KS940935 Exp | 86 | 82 | 84 | 94 | 87 |
| AWWPA | | | | | | KS941064 Exp | 122 | 100 | 72 | 89 | 96 |
| (W) Arlin | 90 | -- | -- | 102 | -- | KS94H147Exp | 132 | 104 | 105 | 97 | 110 |
| (W) Oro Blanco | -- | -- | -- | 98 | -- | Newton | -- | -- | -- | -- | -- |
| <hr/> | | | | | | TAM 107 | 43 | 109 | 104 | 95 | 88 |
| Drussel | | | | | | TAM 110 | 48 | 109 | 109 | 101 | 92 |
| DSS-285 | 107 | 92 | 87 | 100 | 97 | TAM 200 | 73 | 102 | 122 | 100 | 99 |
| <hr/> | | | | | | TAM 301 | 111 | -- | -- | -- | -- |
| Goertzen | | | | | | Tonkawa | 103 | 79 | 99 | 103 | 96 |
| G12017 Exp | 120 | -- | 125 | -- | -- | Yuma | 64 | 112 | 107 | 102 | 96 |
| G1594 Exp | 131 | -- | 84 | -- | -- | <hr/> | | | | | |
| G1720 Exp | -- | -- | 100 | -- | -- | Test Average, bu/a | 65 | 80 | 66 | 70 | -- |
| G1878 | 114 | -- | 101 | -- | -- | CV (%) | 9 | 3 | 9 | 4 | -- |
| <hr/> | | | | | | LSD (0.05)** | 11 | 3 | 10 | 6 | -- |
| Polansky | | | | | | <hr/> | | | | | |
| Dominator | 120 | 101 | -- | -- | -- | | | | | | |
| <hr/> | | | | | | | | | | | |
| Quantum | | | | | | | | | | | |
| 579 | -- | -- | -- | 101 | -- | | | | | | |
| AP 7501 | -- | 101 | 113 | -- | -- | | | | | | |
| AP 7510 | -- | 105 | 108 | 114 | -- | | | | | | |
| AP 7601 | -- | 102 | 106 | 108 | -- | | | | | | |
| H1870 Exp | -- | -- | 109 | -- | -- | | | | | | |
| 7406 | -- | 116 | 132 | -- | -- | | | | | | |

¹SI = Stafford County test at Sandyland Experiment Field near St. John, KS.

²TI = Thomas County test at KSU Northwest Research Extension Center near Colby, KS.

³GI = Greeley County test at KSU Southwest Research Extension Center near Tribune, KS.

⁴ST = Stevens County test at Jim Kramer farm near Hugoton, KS.

(S) = Soft red winter wheat.

(W) = Hard white winter wheat.

** Unless two varieties differ by more than the LSD, little confidence can be placed in one being superior to the other.

Table 7a. Multi-year yield averages (bu./acre) Kansas Wheat Performance Tests - EAST.

| Brand / Name | BROWN | | | RILEY | | | FRANKLIN | | | LABETTE | | |
|----------------------|-------|-----|-----|-------|-----|-----|----------|-----|-----|---------|-----|-----|
| | 2YR | 3YR | 4YR | 2YR | 3YR | 4YR | 2YR | 3YR | 4YR | 2YR | 3YR | 4YR |
| AgriPro | | | | | | | | | | | | |
| Big Dawg | -- | -- | -- | 72 | -- | -- | 50 | -- | -- | 66 | -- | -- |
| Coronado | 43 | -- | -- | 69 | 51 | -- | 56 | 51 | -- | 63 | 54 | -- |
| Pecos | -- | -- | -- | -- | -- | -- | 55 | 51 | 51 | 61 | 51 | 46 |
| Tomahawk | -- | -- | -- | 73 | -- | -- | 58 | -- | -- | -- | -- | -- |
| (S) Elkhart | -- | -- | -- | -- | -- | -- | 58 | -- | -- | -- | -- | -- |
| AGSECO | | | | | | | | | | | | |
| 7853 | 51 | 51 | 51 | 68 | 51 | 51 | 53 | 49 | 51 | 56 | 50 | 47 |
| Mankato | 52 | 53 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Northrup King | | | | | | | | | | | | |
| (S) Coker 9474 | -- | -- | -- | -- | -- | -- | 54 | -- | -- | 59 | 53 | 52 |
| (S) Coker 9543 | -- | -- | -- | -- | -- | -- | -- | -- | -- | 71 | 60 | -- |
| Pioneer | | | | | | | | | | | | |
| (S) 2548 | -- | -- | -- | -- | -- | -- | -- | -- | -- | 64 | -- | -- |
| Polansky | | | | | | | | | | | | |
| Dominator | -- | -- | -- | 72 | -- | -- | -- | -- | -- | -- | -- | -- |
| Quantum | | | | | | | | | | | | |
| AP 7510 | -- | -- | -- | 77 | 59 | -- | -- | -- | -- | -- | -- | -- |
| 7504 | -- | -- | -- | 84 | -- | -- | -- | -- | -- | -- | -- | -- |
| Star | | | | | | | | | | | | |
| Champ | 50 | 52 | -- | 74 | 54 | 51 | 59 | -- | -- | -- | -- | -- |
| Terra | | | | | | | | | | | | |
| (S) SR 204 | 56 | -- | -- | -- | -- | -- | 53 | 50 | -- | 71 | 60 | 56 |
| (S) SR 205 | 63 | -- | -- | -- | -- | -- | 52 | 55 | -- | 69 | 59 | 55 |
| (S) SR 211 | -- | -- | -- | -- | -- | -- | 58 | -- | -- | 72 | -- | -- |
| HR 153 | 48 | -- | -- | -- | -- | -- | 52 | 48 | -- | 61 | 53 | -- |
| Public | | | | | | | | | | | | |
| 2137 | 46 | 51 | -- | 84 | 64 | 60 | 65 | 56 | -- | 70 | 59 | 57 |
| 2163 | 48 | 46 | 46 | 79 | 59 | 55 | 60 | 54 | 51 | 66 | 58 | 52 |
| Arapahoe | 56 | 49 | 51 | 64 | 46 | 43 | -- | -- | -- | -- | -- | -- |
| Custer | 51 | -- | -- | 73 | 55 | -- | 44 | 46 | -- | 59 | 48 | -- |
| Jagger | 58 | 53 | -- | 77 | 60 | 57 | 34 | 37 | -- | 68 | 61 | 57 |
| Karl 92 | 44 | 46 | -- | 72 | 54 | 50 | 58 | 50 | 51 | 60 | 52 | 48 |
| Newton | 29 | 35 | 37 | 56 | 40 | 38 | 40 | 36 | 37 | 60 | 47 | 45 |
| Niobrara | 48 | -- | -- | 71 | 51 | -- | -- | -- | -- | -- | -- | -- |
| Scout 66 | 41 | 40 | 41 | 53 | 37 | 32 | 38 | 30 | 32 | 55 | 42 | 41 |
| TAM 107 | 39 | 37 | 37 | 64 | 46 | 45 | 46 | 42 | 41 | 56 | 46 | 44 |
| Tonkawa | 46 | -- | -- | 61 | 44 | -- | 55 | 51 | -- | 52 | 45 | -- |
| Vista | 48 | 46 | -- | 65 | 46 | 45 | -- | -- | -- | -- | -- | -- |
| (S) Caldwell | 55 | 50 | 46 | 84 | 64 | 59 | 54 | 53 | 44 | 65 | 56 | 50 |
| (S) Cardinal | 53 | 47 | 43 | 74 | 59 | 55 | 37 | 42 | 43 | 69 | 61 | 56 |
| (S) Ernie | 50 | -- | -- | 77 | 60 | -- | 40 | 41 | -- | 61 | 52 | 53 |
| (S) Jackson | 52 | -- | -- | 71 | 55 | -- | 37 | 41 | -- | 55 | 50 | -- |
| Averages | 49 | 47 | 44 | 71 | 53 | 49 | 51 | 46 | 44 | 63 | 53 | 51 |

Table 7b. Multi-year yield averages (bu./acre) Kansas Wheat Performance Tests - CENTRAL.

| Brand / Name | REPUBLIC | | | HARVEY | | | RENO | | | SUMNER | | |
|-----------------|----------|-----|-----|--------|-----|-----|------|-----|-----|--------|-----|-----|
| | 2YR | 3YR | 4YR | 2YR | 3YR | 4YR | 2YR | 3YR | 4YR | 2YR | 3YR | 4YR |
| AgriPro | | | | | | | | | | | | |
| Big Dawg | 48 | -- | -- | 38 | -- | -- | 46 | -- | -- | -- | -- | -- |
| Coronado | 57 | 54 | -- | 40 | 38 | -- | 53 | 43 | -- | 21 | 18 | -- |
| Hickok | -- | -- | -- | 31 | 30 | 36 | 51 | 43 | 45 | -- | -- | -- |
| Pecos | -- | -- | -- | 35 | 32 | 36 | 48 | 41 | 45 | 22 | 20 | 23 |
| Tomahawk | 66 | 59 | 65 | 54 | 41 | 44 | 54 | 41 | 45 | 29 | -- | -- |
| AGSECO | | | | | | | | | | | | |
| 7853 | 54 | 54 | 63 | 47 | 40 | 44 | 58 | 46 | 48 | 26 | 24 | 27 |
| Colby 94 | 62 | 61 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Mankato | 65 | 63 | 68 | 69 | -- | -- | 59 | 46 | 49 | -- | -- | -- |
| AWWPA | | | | | | | | | | | | |
| (W) Oro Blanco | 49 | 51 | -- | 48 | 40 | -- | 53 | 41 | -- | 27 | 22 | -- |
| Polansky | | | | | | | | | | | | |
| Dominator | 70 | -- | -- | 52 | -- | -- | 57 | -- | -- | -- | -- | -- |
| Quantum | | | | | | | | | | | | |
| AP 7510 | 73 | 72 | -- | -- | -- | -- | 57 | -- | -- | -- | -- | -- |
| 7504 | -- | -- | -- | 46 | -- | -- | 57 | -- | -- | -- | -- | -- |
| Star | | | | | | | | | | | | |
| Champ | 67 | 66 | 69 | 66 | -- | -- | 57 | -- | -- | -- | -- | -- |
| Terra | | | | | | | | | | | | |
| HR 153 | -- | -- | -- | 46 | 40 | 44 | 57 | 45 | 48 | -- | -- | -- |
| Public | | | | | | | | | | | | |
| 2137 | 72 | 66 | 68 | 69 | 56 | 54 | 60 | 51 | 54 | 36 | 28 | 30 |
| 2163 | 70 | 70 | 70 | 51 | 45 | 45 | 52 | 42 | 45 | 26 | 26 | 27 |
| Alliance | 78 | 70 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Arapahoe | 69 | 66 | 69 | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Custer | 66 | 62 | -- | 45 | 41 | -- | 54 | 46 | -- | 37 | 31 | -- |
| Ike | 66 | 64 | 69 | 55 | 44 | 48 | -- | -- | -- | 25 | 19 | 21 |
| Jagger | 51 | 59 | 63 | 41 | 43 | 46 | 57 | 51 | 53 | 31 | 30 | 32 |
| Karl 92 | 61 | 60 | 67 | 62 | 53 | 52 | 55 | 44 | 48 | 30 | 24 | 25 |
| Larned | 59 | 54 | 60 | 44 | 33 | 36 | 50 | 36 | 39 | 19 | 15 | 16 |
| Nekota | 69 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Newton | 48 | 45 | 51 | 24 | 20 | 28 | 45 | 32 | 38 | 18 | 13 | 16 |
| Niobrara | 70 | 64 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Scout 66 | 58 | 51 | 54 | 39 | 30 | 33 | 47 | 33 | 38 | 19 | 15 | 17 |
| TAM 107 | 57 | 54 | 61 | 42 | 34 | 40 | 57 | 45 | 48 | 21 | 16 | 16 |
| TAM 110 | 56 | -- | -- | 38 | -- | -- | 54 | -- | -- | 24 | -- | -- |
| Tonkawa | 51 | 48 | -- | 49 | 40 | -- | 52 | 43 | -- | 35 | 30 | -- |
| Vista | 70 | 64 | 66 | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Yuma | 53 | 55 | 60 | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Averages | 62 | 60 | 64 | 47 | 39 | 42 | 54 | 43 | 46 | 26 | 22 | 23 |

Table 7c. Multi-year yield averages (bu./acre) Kansas Wheat Performance Tests - WEST.

| Brand / Name | ELLIS | | | THOMAS | | | GREELEY | | | FINNEY | | |
|----------------|-------|-----|-----|--------|-----|-----|---------|-----|-----|--------|-----|-----|
| | 2YR | 3YR | 4YR | 2YR | 3YR | 4YR | 2YR | 3YR | 4YR | 2YR | 3YR | 4YR |
| AgriPro | | | | | | | | | | | | |
| Big Dawg | -- | -- | -- | 48 | -- | -- | -- | -- | -- | -- | -- | -- |
| Coronado | 52 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Hickok | 56 | 51 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Laredo | 56 | 52 | 56 | 51 | 46 | 47 | 44 | 42 | -- | -- | -- | -- |
| Ogallala | 57 | 51 | 51 | 50 | 52 | 51 | 53 | 48 | 50 | 39 | 43 | 46 |
| Rowdy | 58 | -- | -- | 46 | -- | -- | -- | -- | -- | -- | -- | -- |
| Tomahawk | 54 | 51 | 53 | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| AGSECO | | | | | | | | | | | | |
| 7853 | 51 | 46 | 49 | 49 | 43 | 44 | 42 | 40 | 43 | 37 | 42 | 44 |
| 9001 | -- | -- | -- | 52 | 54 | 53 | 55 | -- | -- | 36 | -- | -- |
| Colby 94 | 59 | -- | -- | 60 | 58 | -- | 50 | -- | -- | -- | -- | -- |
| Mankato | 56 | 51 | -- | 58 | 57 | -- | 49 | -- | -- | -- | -- | -- |
| AWWPA | | | | | | | | | | | | |
| (W) Arlin | -- | -- | -- | -- | -- | -- | -- | -- | -- | 31 | 38 | 41 |
| Quantum | | | | | | | | | | | | |
| 566 | -- | -- | -- | 62 | -- | -- | -- | -- | -- | -- | -- | -- |
| AP 7501 | -- | -- | -- | 55 | 57 | -- | -- | -- | -- | -- | -- | -- |
| AP 7510 | -- | -- | -- | 56 | 60 | -- | -- | -- | -- | -- | -- | -- |
| 7406 | -- | -- | -- | 62 | 59 | -- | -- | -- | -- | -- | -- | -- |
| Star | | | | | | | | | | | | |
| Champ | 53 | 49 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Public | | | | | | | | | | | | |
| 2137 | 56 | 50 | -- | 59 | 58 | 58 | 52 | 49 | -- | 44 | 48 | -- |
| 2163 | 57 | 50 | 51 | 56 | 56 | 54 | 51 | 48 | 50 | 42 | 44 | 45 |
| Akron | 59 | -- | -- | 57 | 54 | -- | 54 | -- | -- | 40 | -- | -- |
| Alliance | 55 | -- | -- | 59 | 59 | -- | -- | -- | -- | -- | -- | -- |
| Arapahoe | 59 | 52 | 56 | 55 | 56 | 55 | 50 | 45 | 49 | 40 | 45 | 45 |
| Custer | 57 | -- | -- | 46 | 48 | -- | 50 | -- | -- | 31 | -- | -- |
| Halt | 49 | -- | -- | 55 | 50 | -- | 50 | -- | -- | 32 | -- | -- |
| Ike | 55 | 50 | 54 | 50 | 50 | 51 | 43 | 41 | 46 | 41 | 46 | 47 |
| Jagger | 63 | 54 | -- | 57 | 57 | 56 | 50 | 45 | -- | 38 | 45 | -- |
| Karl 92 | 51 | 46 | 50 | 49 | 49 | 50 | 43 | 41 | 46 | 32 | 38 | 41 |
| Larned | 49 | 46 | 49 | 51 | 49 | 49 | 40 | 39 | 42 | 33 | 40 | 40 |
| Nekota | -- | -- | -- | 53 | -- | -- | -- | -- | -- | -- | -- | -- |
| Newton | 40 | 40 | 43 | 42 | 43 | 45 | 39 | 39 | 43 | 33 | 40 | 41 |
| Niobrara | 56 | -- | -- | 58 | 57 | -- | 49 | -- | -- | 42 | -- | -- |
| Scout 66 | 45 | 44 | 46 | 52 | 48 | 47 | 41 | 39 | 41 | 30 | 36 | 38 |
| TAM 107 | 50 | 46 | 51 | 55 | 51 | 52 | 46 | 43 | 47 | 34 | 40 | 42 |
| TAM 110 | -- | -- | -- | 55 | -- | -- | -- | -- | -- | -- | -- | -- |
| Tonkawa | 48 | -- | -- | 43 | 45 | -- | 43 | -- | -- | 33 | -- | -- |
| Vista | 60 | 54 | 57 | 57 | 60 | 59 | 51 | 47 | 51 | 45 | 48 | 49 |
| Yuma | 60 | -- | -- | 57 | 54 | -- | 50 | 47 | 49 | 39 | 44 | 45 |
| Averages | 54 | 49 | 51 | 54 | 53 | 51 | 48 | 44 | 46 | 37 | 43 | 43 |

Table 7d. Multi-year yield averages (bu./acre) Kansas Wheat Performance Tests - IRRIGATED.

| NAME | STAFFORD | | | THOMAS | | | GREELEY | | | SOUTHWEST | | |
|-----------------|----------|-----|-----|--------|-----|-----|---------|-----|-----|-----------|-----|-----|
| | 2YR | 3YR | 4YR | 2YR | 3YR | 4YR | 2YR | 3YR | 4YR | 2YR | 3YR | 4YR |
| AgriPro | | | | | | | | | | | | |
| Coronado | -- | -- | -- | -- | -- | -- | -- | -- | -- | 40 | -- | -- |
| Hickok | -- | -- | -- | 73 | 65 | 60 | 61 | 50 | 55 | 44 | 52 | -- |
| Laredo | -- | -- | -- | 80 | 67 | 63 | 60 | 46 | 51 | -- | -- | -- |
| Ogallala | -- | -- | -- | 77 | 71 | 65 | 64 | 51 | 57 | 44 | 52 | 56 |
| Rowdy | -- | -- | -- | 78 | 70 | -- | 63 | 52 | -- | 49 | -- | -- |
| Tomahawk | 48 | 54 | 52 | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| AGSECO | | | | | | | | | | | | |
| 7853 | 48 | 48 | 49 | 73 | 59 | -- | -- | -- | -- | 44 | 56 | 59 |
| 9001 | -- | -- | -- | 78 | 71 | 64 | 65 | 57 | -- | 44 | 52 | -- |
| AWWPA | | | | | | | | | | | | |
| (W) Arlin | 34 | 36 | 37 | -- | -- | -- | -- | -- | -- | 42 | 52 | 55 |
| (W) Oro Blanco | -- | -- | -- | -- | -- | -- | -- | -- | -- | 43 | -- | -- |
| Polansky | | | | | | | | | | | | |
| Dominator | -- | -- | -- | 83 | -- | -- | -- | -- | -- | -- | -- | -- |
| Quantum | | | | | | | | | | | | |
| AP 7501 | -- | -- | -- | 79 | 73 | -- | 67 | 57 | -- | -- | -- | -- |
| AP 7510 | -- | -- | -- | 83 | 77 | -- | 69 | 60 | -- | 56 | -- | -- |
| AP 7601 | -- | -- | -- | 81 | 73 | -- | 67 | 56 | -- | 49 | -- | -- |
| 7406 | -- | -- | -- | 90 | -- | -- | 72 | -- | -- | -- | -- | -- |
| Public | | | | | | | | | | | | |
| 2137 | 56 | 54 | -- | 84 | 78 | 71 | 70 | 59 | 66 | 51 | 61 | -- |
| 2163 | 44 | 45 | 49 | 85 | 79 | 72 | 60 | 50 | 55 | 48 | 55 | 58 |
| Custer | 23 | -- | -- | 71 | 63 | -- | 63 | 53 | -- | 48 | -- | -- |
| Ike | 53 | 52 | 50 | 79 | 68 | 64 | 58 | 49 | 55 | 42 | 54 | 59 |
| Jagger | 38 | 45 | -- | 85 | 74 | 68 | 64 | 53 | 58 | 46 | 57 | -- |
| Karl 92 | 39 | 43 | 45 | 73 | 65 | 60 | 59 | 48 | 55 | 43 | 53 | 58 |
| Newton | 43 | 46 | 45 | 74 | 64 | 60 | 48 | 38 | 44 | 34 | 44 | 47 |
| TAM 107 | 18 | 21 | 23 | 87 | 71 | 65 | 65 | 51 | 57 | 41 | 49 | 51 |
| TAM 110 | -- | -- | -- | 84 | -- | -- | 65 | -- | -- | -- | -- | -- |
| TAM 200 | 28 | 36 | 36 | 80 | 72 | 66 | 72 | 57 | 62 | 44 | 50 | 52 |
| Tonkawa | 38 | -- | -- | 61 | 55 | -- | 60 | 52 | -- | 43 | -- | -- |
| Yuma | 22 | -- | -- | 87 | 75 | -- | 65 | 52 | 57 | 42 | 52 | 54 |
| Averages | 38 | 44 | 43 | 79 | 69 | 65 | 64 | 52 | 56 | 45 | 53 | 55 |

**Table 8a. Test weight (pounds per bushel)
1997 EASTERN Kansas Winter Wheat Performance Tests.**

| Brand / Name | BR ¹ | RL ² | FR ³ | LB ⁴ | Avg. | Brand / Name | BR ¹ | RL ² | FR ³ | LB ⁴ | Avg. |
|----------------------|-----------------|-----------------|-----------------|-----------------|------|----------------|-----------------|-----------------|-----------------|-----------------|------|
| AgriPro | | | | | | Public | | | | | |
| Big Dawg | 60 | 61 | 62 | 60 | 61 | 2137 | 61 | 61 | 63 | 59 | 61 |
| Coronado | 59 | 61 | 63 | 58 | 60 | 2163 | 57 | 60 | 62 | 57 | 59 |
| Pecos | -- | -- | 64 | 60 | -- | Arapahoe | 60 | 60 | -- | -- | -- |
| Tomahawk | 60 | 60 | 63 | 59 | 60 | Custer | 62 | 61 | 62 | 58 | 61 |
| (S) Elkhart | -- | -- | 63 | 59 | -- | Jagger | 61 | 62 | 61 | 59 | 60 |
| AGSECO | | | | | | Karl 92 | | | | | |
| 12019 EXP | 61 | -- | 65 | -- | -- | Karl 92-G | 60 | 61 | 64 | 59 | 61 |
| 7853 | 61 | 63 | 65 | 60 | 62 | KS84063-HW Exp | 60 | 61 | 64 | 60 | 61 |
| 7853-D | -- | -- | -- | 62 | -- | KS940935 Exp | 62 | 62 | 64 | 60 | 62 |
| 7853-VRTU | -- | -- | -- | 61 | -- | KS941064 Exp | 60 | 59 | 61 | 58 | 59 |
| Mankato | 59 | 60 | -- | -- | -- | KS94H147Exp | 60 | 63 | 63 | 59 | 61 |
| Northrup King | | | | | | Niobrara | | | | | |
| (S) Coker 9474 | -- | -- | 65 | 59 | -- | Scout 66 | 60 | 61 | 60 | 60 | 60 |
| (S) Coker 9543 | -- | -- | -- | 57 | -- | TAM 107 | 59 | 61 | 59 | 59 | 59 |
| (S) Coker 9663 | -- | -- | -- | 57 | -- | TAM 301 | 60 | -- | 60 | 59 | -- |
| Pioneer | | | | | | Tonkawa | | | | | |
| (S) 2548 | -- | -- | -- | 57 | -- | Vista | 59 | 61 | -- | -- | -- |
| Polansky | | | | | | (S) Caldwell | | | | | |
| Dominator | 60 | 63 | -- | -- | -- | (S) Cardinal | 57 | 59 | 58 | 56 | 57 |
| Quantum | | | | | | (S) Ernie | | | | | |
| AP 7510 | -- | 61 | -- | -- | -- | (S) Jackson | 56 | 59 | 60 | 56 | 58 |
| 7504 | -- | 62 | -- | -- | -- | Test Average | | | | | |
| Star | | | | | | CV (%) | | | | | |
| 505 | -- | 61 | -- | -- | -- | LSD (0.05)** | | | | | |
| 560 | -- | 62 | -- | -- | -- | 59 61 62 59 -- | | | | | |
| Champ | 58 | 60 | 62 | -- | -- | 2 1 1 2 -- | | | | | |
| Terra | | | | | | 2 0 1 1 -- | | | | | |
| (S) SR 204 | 61 | -- | 63 | 57 | -- | | | | | | |
| (S) SR 205 | 59 | -- | 61 | 58 | -- | | | | | | |
| (S) SR 211 | 58 | -- | 63 | 58 | -- | | | | | | |
| HR 153 | 60 | -- | 64 | 59 | -- | | | | | | |

¹BR = Brown County test at Cornbelt Experiment Field near Powhattan, KS.

²RL = Riley County test at Ashland Experiment Farm, Manhattan, KS.

³FR = Franklin County test at East Central Experiment Field near Ottawa, KS.

⁴LB = Labette County test at KSU Southeast Agricultural Research Center, Parsons, KS.

(S) = Soft red winter wheat.

(W) = Hard white winter wheat.

** Unless two varieties differ by more than the LSD, little confidence can be placed in one being superior to the other.

**Table 8b. Test weight (pounds per bushel)
1997 CENTRAL Kansas Winter Wheat Performance Tests.**

| Brand / Name | RP ¹ | HV ² | RN ³ | SU ⁴ | Avg. | Brand / Name | RP ¹ | HV ² | RN ³ | SU ⁴ | Avg. |
|-----------------|-----------------|-----------------|-----------------|-----------------|------|---------------------|-----------------|-----------------|-----------------|-----------------|------|
| AgriPro | | | | | | Public | | | | | |
| Big Dawg | 60 | 58 | 58 | 57 | 58 | 2137 | 62 | 58 | 57 | 54 | 58 |
| Coronado | 61 | 58 | 59 | 55 | 58 | 2163 | 61 | 56 | 54 | 51 | 55 |
| Hickok | -- | 60 | 59 | 57 | -- | Alliance | 60 | -- | -- | -- | -- |
| Pecos | 62 | 59 | 59 | 54 | 59 | Arapahoe | 61 | -- | -- | -- | -- |
| Tomahawk | 61 | 58 | 57 | 55 | 58 | Custer | 62 | 60 | 60 | 58 | 60 |
| AGSECO | | | | | | 2174 | | | | | |
| 7853 | 62 | 59 | 59 | 56 | 59 | Ike | 61 | 60 | -- | 57 | -- |
| 7853-D | 62 | 59 | 58 | 55 | 59 | Jagger | 62 | 59 | 60 | 53 | 58 |
| 7853-VRTU | 63 | 60 | 59 | 57 | 60 | Karl 92 | 62 | 59 | 60 | 56 | 59 |
| Colby 94 | 62 | -- | -- | -- | -- | Karl 92-G | 62 | 58 | 60 | 56 | 59 |
| Mankato | 61 | 58 | 56 | -- | -- | KS84063-HW Exp | 61 | 59 | 58 | 54 | 58 |
| AWWPA | | | | | | KS940935 Exp | | | | | |
| (W) Oro Blanco | 62 | 59 | 59 | 53 | 58 | KS941064 Exp | 62 | 57 | 56 | 53 | 57 |
| Goertzen | | | | | | KS94H147Exp | | | | | |
| G12017 Exp | -- | 58 | 57 | -- | -- | Larned | 62 | 59 | 59 | 58 | 59 |
| G1594 Exp | -- | 58 | 59 | -- | -- | Nekota | 62 | -- | -- | -- | -- |
| G1878 | -- | 60 | 60 | -- | -- | Niobrara | 60 | -- | -- | -- | -- |
| Polansky | | | | | | Scout 66 | | | | | |
| Dominator | 63 | 60 | 60 | 56 | 60 | TAM 107 | 61 | 56 | 58 | 54 | 57 |
| Quantum | | | | | | TAM 110 | | | | | |
| AP 7510 | 62 | -- | 58 | -- | -- | TAM 301 | 61 | 58 | 58 | 55 | 58 |
| 7504 | -- | 59 | 59 | -- | -- | Tonkawa | 62 | 60 | 60 | 59 | 60 |
| Star | | | | | | Vista | | | | | |
| 505 | 61 | -- | -- | -- | -- | Windstar | 61 | -- | -- | -- | -- |
| 560 | 62 | -- | -- | -- | -- | Yuma | 61 | -- | -- | -- | -- |
| Champ | 62 | 58 | 56 | -- | -- | Test Average | | | | | |
| Terra | | | | | | 62 59 58 55 -- | | | | | |
| HR 153 | -- | 60 | 59 | -- | -- | CV (%) | | | | | |
| | | | | | | 1 1 1 2 -- | | | | | |
| | | | | | | LSD (0.05)** | | | | | |
| | | | | | | 1 1 1 2 -- | | | | | |

¹RP = Republic County test at North Central Experiment Field near Belleville, KS.

²HV = Harvey County test at Harvey County Experiment Field near Hesston, KS.

³RN = Reno County test at South Central Experiment Field near Hutchinson, KS.

⁴SU = Sumner County test at Max Kolarik farm, Caldwell, KS.

(S) = Soft red winter wheat.

(W) = Hard white winter wheat.

** Unless two varieties differ by more than the LSD, little confidence can be placed in one being superior to the other.

**Table 8c. Test weight (pounds per bushel)
1997 WESTERN Kansas Winter Wheat Performance Tests.**

| Brand / Name | EL ¹ | TD ² | GD ³ | FD ⁴ | Avg. | Brand / Name | EL ¹ | TD ² | GD ³ | FD ⁴ | Avg. |
|-----------------|-----------------|-----------------|-----------------|-----------------|------|---------------------|-----------------|-----------------|-----------------|-----------------|------|
| AgriPro | | | | | | Public | | | | | |
| Big Dawg | 61 | 60 | 57 | -- | -- | 2137 | 61 | 61 | 60 | 60 | 61 |
| Coronado | 61 | 61 | -- | -- | -- | 2163 | 59 | 59 | 58 | 58 | 58 |
| Hickok | 63 | -- | -- | -- | -- | Akron | 60 | 61 | 60 | 60 | 60 |
| Laredo | 61 | 61 | 60 | -- | -- | Alliance | 59 | 60 | 59 | 60 | 60 |
| Ogallala | 62 | 63 | 61 | 61 | 62 | Arapahoe | 60 | 60 | 60 | 59 | 60 |
| Pecos | 62 | -- | -- | -- | -- | Custer | 61 | 60 | 59 | 61 | 60 |
| Rowdy | 62 | 62 | -- | -- | -- | Halt | 61 | 61 | 61 | 59 | 60 |
| Tomahawk | 61 | -- | -- | -- | -- | 2174 | 62 | -- | -- | -- | -- |
| AGSECO | | | | | | Ike | | | | | |
| 7853 | 62 | 62 | 62 | 61 | 62 | Jagger | 61 | 62 | 60 | 60 | 61 |
| 7853-D | 62 | 63 | 62 | 60 | 62 | Karl 92 | 60 | 60 | 60 | 59 | 60 |
| 7853-VRTU | 62 | 62 | 62 | 61 | 62 | Karl 92-G | 60 | 60 | 61 | 59 | 60 |
| 9001 | -- | 60 | 59 | 58 | -- | KS84063-HW Exp | 61 | 60 | 59 | 60 | 60 |
| Colby 94 | 62 | 63 | 61 | -- | -- | KS940935 Exp | 61 | 61 | 60 | 61 | 61 |
| Mankato | 61 | 61 | 60 | 60 | 61 | KS941064 Exp | 60 | 59 | 58 | 58 | 59 |
| AWWPA | | | | | | KS94H147Exp | | | | | |
| (W) Arlin | -- | -- | -- | 61 | -- | Larned | 62 | 62 | 61 | 61 | 61 |
| Goertzen | | | | | | Nekota | | | | | |
| G12017 Exp | -- | -- | 58 | 59 | -- | Niobrara | 60 | 60 | 59 | 59 | 59 |
| G1594 Exp | -- | -- | 60 | 60 | -- | Scout 66 | 61 | 62 | 60 | 60 | 61 |
| G1720 Exp | -- | -- | 59 | 59 | -- | TAM 107 | 61 | 61 | 59 | 59 | 60 |
| G1878 | -- | -- | 61 | 61 | -- | TAM 110 | 61 | 61 | 60 | 60 | 60 |
| Polansky | | | | | | Tonkawa | | | | | |
| Dominator | 62 | 62 | -- | -- | -- | Vista | 60 | 61 | 60 | 60 | 60 |
| Quantum | | | | | | Windstar | | | | | |
| 566 | -- | 60 | -- | -- | -- | Yuma | 61 | 61 | 59 | 60 | 60 |
| AP 7501 | -- | 62 | -- | -- | -- | Test Average | | | | | |
| AP 7510 | -- | 62 | -- | -- | -- | 61 | 61 | 60 | 60 | -- | |
| 7406 | -- | 62 | -- | -- | -- | CV (%) | 1 | 1 | 1 | 1 | -- |
| Star | | | | | | LSD (0.05)** | | | | | |
| 560 | 61 | -- | -- | -- | -- | 0 | 1 | 1 | 1 | -- | |
| Champ | 61 | 61 | -- | 60 | -- | | | | | | |

¹EL = Ellis County test at KSU Agricultural Research Center near Hays, KS.

²TD = Thomas County test at KSU Northwest Research Extension Center near Colby, KS.

³GD = Greeley County test at KSU Southwest Research Extension Center near Tribune, KS.

⁴FD = Finney County test at KSU Southwest Research Extension Center near Garden City, KS.

(S) = Soft red winter wheat.

(W) = Hard white winter wheat.

** Unless two varieties differ by more than the LSD, little confidence can be placed in one being superior to the other.

**Table 8d. Test weight (pounds per bushel)
1997 IRRIGATED Kansas Winter Wheat Performance Tests.**

| Brand / Name | SI ¹ | TI ² | GI ³ | ST ⁴ | Avg. | Brand / Name | SI ¹ | TI ² | GI ³ | ST ⁴ | Avg. |
|-----------------|-----------------|-----------------|-----------------|-----------------|------|----------------|-----------------|-----------------|-----------------|-----------------|------|
| AgriPro | | | | | | Star | | | | | |
| Big Dawg | -- | 61 | -- | -- | -- | Champ | 57 | -- | -- | -- | -- |
| Coronado | -- | 62 | 58 | 53 | -- | <hr/> | | | | | |
| Hickok | -- | 64 | 59 | 56 | -- | Public | | | | | |
| Laredo | -- | 62 | 59 | -- | -- | 2137 | 57 | 62 | 57 | 55 | 58 |
| Ogallala | -- | 63 | 61 | 55 | -- | 2163 | 56 | 60 | 58 | 52 | 57 |
| Rowdy | -- | 63 | 60 | 55 | -- | Akron | 57 | 62 | 58 | 54 | 57 |
| Tomahawk | 58 | -- | -- | -- | -- | Alliance | 57 | 61 | 56 | 55 | 57 |
| <hr/> | | | | | | Custer | 58 | 62 | 60 | 54 | 58 |
| AGSECO | | | | | | 2174 | 60 | -- | -- | -- | -- |
| 7853 | 60 | 63 | 60 | 55 | 59 | Ike | 58 | 62 | 59 | 55 | 58 |
| 7853-D | 59 | 63 | 61 | 55 | 60 | Jagger | 55 | 62 | 58 | 54 | 57 |
| 7853-VRTU | 59 | 63 | 60 | 55 | 59 | Karl 92 | 58 | 62 | 58 | 55 | 58 |
| 9001 | -- | 61 | 58 | 53 | -- | Karl 92-G | 58 | 62 | 57 | 54 | 58 |
| Mankato | -- | -- | 59 | 54 | -- | KS84063-HW Exp | 59 | 61 | 60 | 54 | 58 |
| <hr/> | | | | | | KS940935 Exp | 58 | 62 | 60 | 55 | 59 |
| AWWPA | | | | | | KS941064 Exp | 57 | 60 | 57 | 52 | 56 |
| (W) Arlin | 57 | -- | -- | 55 | -- | KS94H147Exp | 60 | 63 | 61 | 56 | 60 |
| (W) Oro Blanco | -- | -- | -- | 55 | -- | Newton | -- | -- | -- | -- | -- |
| <hr/> | | | | | | TAM 107 | 56 | 61 | 58 | 53 | 57 |
| Drussel | | | | | | TAM 110 | 55 | 61 | 58 | 52 | 57 |
| DSS-285 | 59 | 63 | 61 | 56 | 60 | TAM 200 | 59 | 64 | 57 | 54 | 58 |
| <hr/> | | | | | | TAM 301 | 55 | -- | -- | -- | -- |
| Goertzen | | | | | | Tonkawa | 59 | 62 | 59 | 56 | 59 |
| G12017 Exp | 58 | -- | 57 | -- | -- | Yuma | 55 | 62 | 57 | 53 | 57 |
| G1594 Exp | 59 | -- | 61 | -- | -- | <hr/> | | | | | |
| G1720 Exp | -- | -- | 57 | -- | -- | Test Average | 58 | 62 | 59 | 54 | -- |
| G1878 | 60 | -- | 60 | -- | -- | CV (%) | 1 | 1 | 2 | 2 | -- |
| <hr/> | | | | | | LSD (0.05)** | 1 | 1 | 2 | 2 | -- |
| Polansky | | | | | | <hr/> | | | | | |
| Dominator | 60 | 63 | -- | -- | -- | | | | | | |
| <hr/> | | | | | | | | | | | |
| Quantum | | | | | | | | | | | |
| 579 | -- | -- | -- | 53 | -- | | | | | | |
| AP 7501 | -- | 62 | 59 | -- | -- | | | | | | |
| AP 7510 | -- | 63 | 60 | 56 | -- | | | | | | |
| AP 7601 | -- | 62 | 60 | 56 | -- | | | | | | |
| H1870 Exp | -- | -- | 55 | -- | -- | | | | | | |
| 7406 | -- | 62 | 57 | -- | -- | | | | | | |

¹SI = Stafford County test at Sandyland Experiment Field near St. John, KS.

²TI = Thomas County test at KSU Northwest Research Extension Center near Colby, KS.

³GI = Greeley County test at KSU Southwest Research Extension Center near Tribune, KS.

⁴ST = Stevens County test at Jim Kramer farm near Hugoton, KS.

(S) = Soft red winter wheat.

(W) = Hard white winter wheat.

** Unless two varieties differ by more than the LSD, little confidence can be placed in one being superior to the other.

**Table 9a. Heading (days +/- Scout 66, Scout 66 heading listed as date in May)
1997 EASTERN Kansas Winter Wheat Performance Tests.**

| Brand / Name | BR ¹ | RL ² | FR ³ | LB ⁴ | Avg. | Brand / Name | BR ¹ | RL ² | FR ³ | LB ⁴ | Avg. |
|----------------------|-----------------|-----------------|-----------------|-----------------|------|---------------------|-----------------|-----------------|-----------------|-----------------|------|
| AgriPro | | | | | | Public | | | | | |
| Big Dawg | -0.3 | 2.0 | -3.8 | -2.0 | -1.0 | 2137 | -7.7 | -4.5 | -6.8 | -2.3 | -5.3 |
| Coronado | -3.3 | -4.5 | -9.0 | -8.8 | -6.4 | 2163 | -4.3 | -4.0 | -6.5 | -4.0 | -4.7 |
| Pecos | -- | -- | -9.8 | -9.8 | -- | Arapahoe | -3.7 | -0.5 | -- | -- | -- |
| Tomahawk | -0.3 | -4.0 | -5.0 | -1.8 | -2.8 | Custer | -2.7 | -4.5 | -3.8 | -7.3 | -4.5 |
| (S) Elkhart | -- | -- | -4.0 | -4.0 | -- | Jagger | -8.0 | -6.0 | -7.5 | -9.3 | -7.7 |
| AGSECO | | | | | | Karl 92 | -8.3 | -4.5 | -10. | -8.5 | -7.8 |
| 12019 EXP | -7.0 | -- | -7.8 | -- | -- | Karl 92-G | -7.7 | -5.5 | -9.3 | -8.0 | -7.6 |
| 7853 | -5.0 | -4.0 | -7.5 | -3.0 | -4.9 | KS84063-HW Exp | -5.0 | -0.5 | -4.3 | -1.8 | -2.9 |
| 7853-D | -- | -- | -- | -2.5 | -- | KS940935 Exp | -5.3 | -2.0 | -6.3 | -2.8 | -4.1 |
| 7853-VRTU | -- | -- | -- | -3.8 | -- | KS941064 Exp | -4.3 | -4.0 | -6.0 | -4.3 | -4.6 |
| Mankato | -7.3 | -3.5 | -- | -- | -- | KS94H147Exp | 1.0 | -0.5 | -1.8 | -0.3 | -0.4 |
| Northrup King | | | | | | Niobrara | -3.0 | -1.5 | -- | -- | -- |
| (S) Coker 9474 | -- | -- | -7.8 | -4.8 | -- | Scout 66 | 30.7 | 18.0 | 22.0 | 7.3 | 19.5 |
| (S) Coker 9543 | -- | -- | -- | -7.0 | -- | TAM 107 | -8.3 | -6.0 | -5.8 | -9.0 | -7.3 |
| (S) Coker 9663 | -- | -- | -- | -3.8 | -- | TAM 301 | -1.0 | -- | -2.3 | -3.0 | -- |
| Pioneer | | | | | | Tonkawa | 0.0 | -4.0 | -6.5 | -5.8 | -4.1 |
| (S) 2548 | -- | -- | -- | -2.8 | -- | Vista | 0.3 | 0.0 | -- | -- | -- |
| Polansky | | | | | | (S) Caldwell | -4.7 | -5.5 | -6.0 | -3.3 | -4.9 |
| Dominator | -3.7 | -3.5 | -- | -- | -- | (S) Cardinal | -1.7 | -1.5 | -1.3 | -1.0 | -1.4 |
| Quantum | | | | | | (S) Ernie | -2.3 | -4.0 | -3.3 | -7.3 | -4.2 |
| AP 7510 | -- | -3.0 | -- | -- | -- | (S) Jackson | 1.3 | -3.5 | -4.3 | -4.0 | -2.6 |
| 7504 | -- | -5.5 | -- | -- | -- | Test Average | | | | | |
| Star | | | | | | CV (%) | -3.5 | -3.3 | -5.7 | -4.4 | -- |
| 505 | -- | -2.0 | -- | -- | -- | LSD (0.05)** | 1.5 | 0.7 | 0.6 | 0.7 | -- |
| 560 | -- | -4.5 | -- | -- | -- | Terra | | | | | |
| Champ | -4.0 | -3.5 | -7.5 | -- | -- | (S) SR 204 | -1.3 | -- | -4.0 | -1.8 | -- |
| Terra | | | | | | (S) SR 205 | -4.7 | -- | -4.5 | -2.3 | -- |
| (S) SR 204 | -1.3 | -- | -4.0 | -1.8 | -- | (S) SR 211 | -2.3 | -- | -6.3 | -4.8 | -- |
| (S) SR 205 | -4.7 | -- | -4.5 | -2.3 | -- | HR 153 | -2.7 | -- | -6.8 | -3.3 | -- |
| (S) SR 211 | -2.3 | -- | -6.3 | -4.8 | -- | | | | | | |
| HR 153 | -2.7 | -- | -6.8 | -3.3 | -- | | | | | | |

¹BR = Brown County test at Cornbelt Experiment Field near Powhattan, KS.

²RL = Riley County test at Ashland Experiment Farm, Manhattan, KS.

³FR = Franklin County test at East Central Experiment Field near Ottawa, KS.

⁴LB = Labette County test at KSU Southeast Agricultural Research Center, Parsons, KS.

(S) = Soft red winter wheat.

(W) = Hard white winter wheat.

** Unless two varieties differ by more than the LSD, little confidence can be placed in one being superior to the other.

**Table 9b. Heading (days +/- Scout 66, Scout 66 heading listed as date in May)
1997 CENTRAL Kansas Winter Wheat Performance Tests.**

| Brand / Name | RP ¹ | HV ² | RN ³ | SU ⁴ | Avg. | Brand / Name | RP ¹ | HV ² | RN ³ | SU ⁴ | Avg. |
|-----------------|-----------------|-----------------|-----------------|-----------------|------|----------------|-----------------|-----------------|-----------------|-----------------|------|
| AgriPro | | | | | | Public | | | | | |
| Big Dawg | -0.5 | 0.3 | -2.0 | 0.0 | -0.6 | 2137 | -4.3 | -2.3 | -4.3 | -5.0 | -3.9 |
| Coronado | -3.5 | -4.5 | -5.5 | -8.0 | -5.4 | 2163 | -3.3 | -2.8 | -4.0 | -7.0 | -4.3 |
| Hickok | -- | -4.0 | -6.3 | -8.0 | -- | Alliance | -2.3 | -- | -- | -- | -- |
| Pecos | -5.0 | -4.5 | -7.3 | -10. | -6.7 | Arapahoe | -1.0 | -- | -- | -- | -- |
| Tomahawk | -3.0 | -1.0 | -4.0 | -3.0 | -2.8 | Custer | -3.0 | -3.7 | -5.3 | -10. | -5.5 |
| <hr/> | | | | | | <hr/> | | | | | |
| AGSECO | | | | | | 2174 | | | | | |
| 7853 | -4.0 | -3.5 | -5.5 | -3.0 | -4.0 | Ike | -2.8 | -0.5 | -- | -2.0 | -- |
| 7853-D | -4.0 | -3.8 | -5.0 | -4.0 | -4.2 | Jagger | -3.8 | -6.0 | -7.0 | -9.0 | -6.4 |
| 7853-VRTU | -4.0 | -3.8 | -5.8 | -4.0 | -4.4 | Karl 92 | -4.8 | -4.8 | -7.3 | -10. | -6.7 |
| Colby 94 | -3.5 | -- | -- | -- | -- | Karl 92-G | -5.3 | -5.0 | -7.3 | -11. | -7.1 |
| Mankato | -3.3 | -2.5 | -4.3 | -- | -- | KS84063-HW Exp | -3.5 | -0.3 | -2.0 | -3.0 | -2.2 |
| <hr/> | | | | | | KS940935 Exp | | | | | |
| AWWPA | | | | | | KS941064 Exp | | | | | |
| (W) Oro Blanco | -2.5 | -2.0 | -4.0 | -5.0 | -3.4 | KS94H147Exp | -3.3 | 1.0 | -2.0 | 1.0 | -0.8 |
| <hr/> | | | | | | Larned | | | | | |
| Goertzen | | | | | | Nekota | | | | | |
| G12017 Exp | -- | -4.0 | -2.3 | -- | -- | Niobrara | -1.8 | -- | -- | -- | -- |
| G1594 Exp | -- | -0.3 | -2.0 | -- | -- | Scout 66 | 22.0 | 17.0 | 18.0 | 15.0 | 18.0 |
| G1878 | -- | -2.0 | -4.0 | -- | -- | TAM 107 | -5.5 | -5.0 | -9.0 | -11. | -7.6 |
| <hr/> | | | | | | TAM 110 | | | | | |
| Polansky | | | | | | TAM 301 | | | | | |
| Dominator | -3.8 | -2.0 | -4.3 | -6.0 | -4.0 | Tonkawa | -4.3 | -3.5 | -4.8 | -7.0 | -4.9 |
| <hr/> | | | | | | Vista | | | | | |
| Quantum | | | | | | Windstar | | | | | |
| AP 7510 | -4.3 | -- | -4.3 | -- | -- | Yuma | -4.8 | -- | -- | -- | -- |
| 7504 | -- | -6.0 | -6.5 | -- | -- | <hr/> | | | | | |
| <hr/> | | | | | | Test Average | | | | | |
| Star | | | | | | CV (%) | | | | | |
| 505 | -3.8 | -- | -- | -- | -- | LSD (0.05)** | 0.6 | 0.5 | 1.1 | -- | -- |
| 560 | -4.3 | -- | -- | -- | -- | <hr/> | | | | | |
| Champ | -3.0 | -2.0 | -5.0 | -- | -- | <hr/> | | | | | |
| <hr/> | | | | | | <hr/> | | | | | |
| Terra | | | | | | <hr/> | | | | | |
| HR 153 | -- | -3.6 | -6.0 | -- | -- | <hr/> | | | | | |

¹RP = Republic County test at North Central Experiment Field near Belleville, KS.

²HV = Harvey County test at Harvey County Experiment Field near Hesston, KS.

³RN = Reno County test at South Central Experiment Field near Hutchinson, KS.

⁴SU = Sumner County test at Max Kolarik farm, Caldwell, KS.

(S) = Soft red winter wheat.

(W) = Hard white winter wheat.

** Unless two varieties differ by more than the LSD, little confidence can be placed in one being superior to the other.

**Table 9c. Heading (days +/- Scout 66, Scout 66 heading listed as date in May)
1997 WESTERN Kansas Winter Wheat Performance Tests.**

| Brand / Name | EL ¹ | TD ² | GD ³ | FD ⁴ | Avg. | Brand / Name | EL ¹ | TD ² | GD ³ | FD ⁴ | Avg. |
|-----------------|-----------------|-----------------|-----------------|-----------------|------|---------------------|-----------------|-----------------|-----------------|-----------------|------|
| AgriPro | | | | | | Public | | | | | |
| Big Dawg | 1.8 | 2.8 | 3.0 | -- | -- | 2137 | -1.5 | -0.8 | -0.5 | -1.3 | -1.0 |
| Coronado | -3.3 | -1.8 | -- | -- | -- | 2163 | -3.3 | -2.0 | -0.8 | -1.3 | -1.8 |
| Hickok | -4.8 | -- | -- | -- | -- | Akron | -1.3 | -1.0 | -0.5 | -0.5 | -0.8 |
| Laredo | -2.3 | -4.0 | -2.0 | -- | -- | Alliance | -0.5 | -0.5 | -0.3 | -0.5 | -0.4 |
| Ogallala | -1.5 | -1.8 | -1.8 | 0.0 | -1.3 | Arapahoe | 1.0 | 1.0 | 1.8 | 0.5 | 1.1 |
| Pecos | -3.8 | -- | -- | -- | -- | Custer | -3.0 | -2.5 | -1.3 | -1.8 | -2.1 |
| Rowdy | -3.8 | -3.3 | -- | -- | -- | Halt | -4.8 | -3.8 | -1.8 | -3.8 | -3.5 |
| Tomahawk | -2.5 | -- | -- | -- | -- | 2174 | -2.3 | -- | -- | -- | -- |
| AGSECO | | | | | | Ike | | | | | |
| 7853 | -3.8 | -3.8 | -1.8 | -1.8 | -2.8 | Jagger | -5.0 | -4.3 | -2.3 | -5.3 | -4.2 |
| 7853-D | -4.0 | -4.3 | -2.0 | -1.5 | -2.9 | Karl 92 | -4.8 | -3.0 | -1.8 | -5.0 | -3.6 |
| 7853-VRTU | -4.0 | -4.3 | -2.0 | -1.8 | -3.0 | Karl 92-G | -5.0 | -3.5 | -1.8 | -4.5 | -3.7 |
| 9001 | -- | -2.0 | -0.8 | -0.5 | -- | KS84063-HW Exp | 0.8 | 1.5 | 2.5 | 1.8 | 1.6 |
| Colby 94 | -0.3 | 1.3 | 2.0 | -- | -- | KS940935 Exp | -2.3 | -0.3 | -0.3 | -0.8 | -0.9 |
| Mankato | -3.5 | -3.3 | -2.0 | -2.5 | -2.8 | KS941064 Exp | -0.8 | 0.3 | 2.8 | 0.0 | 0.6 |
| AWWPA | | | | | | KS94H147Exp | | | | | |
| (W) Arlin | -- | -- | -- | -3.5 | -- | Larned | -1.8 | -1.8 | -1.5 | -0.3 | -1.3 |
| Goertzen | | | | | | Nekota | | | | | |
| G12017 Exp | -- | -- | -1.0 | -2.0 | -- | Niobrara | -1.0 | -0.5 | 0.0 | 0.0 | -0.4 |
| G1594 Exp | -- | -- | 1.3 | 1.0 | -- | Scout 66 | 19.0 | 21.3 | 20.3 | 19.8 | 20.1 |
| G1720 Exp | -- | -- | 2.3 | 0.8 | -- | TAM 107 | -5.8 | -4.0 | -2.3 | -4.8 | -4.2 |
| G1878 | -- | -- | -0.3 | -0.8 | -- | TAM 110 | -5.5 | -3.8 | -2.0 | -4.0 | -3.8 |
| Polansky | | | | | | Tonkawa | | | | | |
| Dominator | -0.8 | -1.0 | -- | -- | -- | Vista | 0.3 | -0.3 | 0.5 | 0.5 | 0.3 |
| Quantum | | | | | | Windstar | | | | | |
| 566 | -- | 1.8 | -- | -- | -- | Yuma | -2.8 | -1.8 | -0.5 | -1.5 | -1.6 |
| AP 7501 | -- | -0.5 | -- | -- | -- | Test Average | | | | | |
| AP 7510 | -- | -1.5 | -- | -- | -- | CV (%) | 0.5 | 0.4 | 0.6 | 0.5 | -- |
| 7406 | -- | -3.3 | -- | -- | -- | LSD (0.05)** | 0.8 | 0.7 | 1.0 | 0.8 | -- |
| Star | | | | | | | | | | | |
| 560 | -1.8 | -- | -- | -- | -- | | | | | | |
| Champ | -2.8 | -3.0 | -- | -3.0 | -- | | | | | | |

¹EL = Ellis County test at KSU Agricultural Research Center near Hays, KS.

²TD = Thomas County test at KSU Northwest Research Extension Center near Colby, KS.

³GD = Greeley County test at KSU Southwest Research Extension Center near Tribune, KS.

⁴FD = Finney County test at KSU Southwest Research Extension Center near Garden City, KS.

(S) = Soft red winter wheat.

(W) = Hard white winter wheat.

** Unless two varieties differ by more than the LSD, little confidence can be placed in one being superior to the other.

**Table 9d. Heading (days +/- Newton, Newton heading listed as date in May)
1997 IRRIGATED Kansas Winter Wheat Performance Tests.**

| Brand / Name | SI ¹ | TI ² | GI ³ | ST ⁴ | Avg. | Brand / Name | SI ¹ | TI ² | GI ³ | ST ⁴ | Avg. |
|-----------------|-----------------|-----------------|-----------------|-----------------|------|----------------|-----------------|-----------------|-----------------|-----------------|------|
| AgriPro | | | | | | Star | | | | | |
| Big Dawg | -- | 2.3 | -- | -- | -- | Champ | -2.5 | -- | -- | -- | -- |
| Coronado | -- | -1.0 | -0.8 | -3.0 | -- | <hr/> | | | | | |
| Hickok | -- | -2.5 | -2.3 | -2.0 | -- | Public | | | | | |
| Laredo | -- | -2.5 | -1.8 | -- | -- | 2137 | 0.0 | 0.0 | 0.3 | -2.0 | -0.4 |
| Ogallala | -- | -2.0 | -2.0 | -2.0 | -- | 2163 | -3.3 | -1.3 | -1.5 | -2.0 | -2.0 |
| Rowdy | -- | -2.3 | -1.8 | 0.0 | -- | Akron | 3.0 | 0.5 | -1.0 | 1.0 | 0.9 |
| Tomahawk | 0.3 | -- | -- | -- | -- | Alliance | -1.5 | -0.3 | -0.5 | 0.0 | -0.6 |
| <hr/> | | | | | | Custer | 0.5 | -2.0 | -1.3 | -2.0 | -1.2 |
| AGSECO | | | | | | 2174 | -0.8 | -- | -- | -- | -- |
| 7853 | -3.3 | -3.0 | -3.5 | -1.0 | -2.7 | Ike | 0.3 | -2.3 | -2.3 | 0.0 | -1.1 |
| 7853-D | -3.3 | -3.3 | -3.0 | -1.0 | -2.6 | Jagger | -4.5 | -3.3 | -2.0 | -4.0 | -3.4 |
| 7853-VRTU | -3.5 | -2.3 | -3.3 | -1.0 | -2.5 | Karl 92 | -5.0 | -2.0 | -2.8 | -4.0 | -3.4 |
| 9001 | -- | -1.5 | -0.8 | 0.0 | -- | Karl 92-G | -4.0 | -3.0 | -2.5 | -4.0 | -3.4 |
| Mankato | -- | -- | -1.8 | 0.0 | -- | KS84063-HW Exp | 0.5 | 2.3 | 0.8 | 0.0 | 0.9 |
| <hr/> | | | | | | KS940935 Exp | 0.3 | 0.0 | 0.0 | -2.0 | -0.4 |
| AWWPA | | | | | | KS941064 Exp | -1.3 | 0.0 | -0.3 | 0.0 | -0.4 |
| (W) Arlin | -4.8 | -- | -- | -5.0 | -- | KS94H147Exp | 0.8 | 1.5 | 0.5 | 0.0 | 0.7 |
| (W) Oro Blanco | -- | -- | -- | -1.0 | -- | Newton | 11.0 | 21.5 | 23.8 | 19.0 | 18.8 |
| <hr/> | | | | | | TAM 107 | -0.8 | -3.5 | -2.5 | -4.0 | -2.7 |
| Drussel | | | | | | TAM 110 | -1.0 | -3.0 | -3.3 | -4.0 | -2.8 |
| DSS-285 | -0.3 | -0.8 | 0.3 | -3.0 | -0.9 | TAM 200 | 0.8 | -0.5 | -0.5 | -1.0 | -0.3 |
| <hr/> | | | | | | TAM 301 | -2.0 | -- | -- | -- | -- |
| Goertzen | | | | | | Tonkawa | -1.8 | -1.3 | -0.8 | -2.0 | -1.4 |
| G12017 Exp | -2.0 | -- | -1.3 | -- | -- | Yuma | 0.8 | 0.0 | -1.0 | 1.0 | 0.2 |
| G1594 Exp | 1.0 | -- | 1.0 | -- | -- | <hr/> | | | | | |
| G1720 Exp | -- | -- | 1.3 | -- | -- | Test Average | -1.4 | -1.2 | -1.2 | -1.6 | -- |
| G1878 | -0.3 | -- | 0.3 | -- | -- | CV (%) | 1.2 | 0.5 | 0.6 | -- | -- |
| <hr/> | | | | | | LSD (0.05)** | 1.8 | 0.9 | 1.0 | -- | -- |
| Polansky | | | | | | <hr/> | | | | | |
| Dominator | -2.0 | 0.0 | -- | -- | -- | | | | | | |
| <hr/> | | | | | | | | | | | |
| Quantum | | | | | | | | | | | |
| 579 | -- | -- | -- | -4.0 | -- | | | | | | |
| AP 7501 | -- | -0.3 | -0.8 | -- | -- | | | | | | |
| AP 7510 | -- | -1.8 | -1.3 | -1.0 | -- | | | | | | |
| AP 7601 | -- | -1.3 | -0.8 | 0.0 | -- | | | | | | |
| H1870 Exp | -- | -- | -2.8 | -- | -- | | | | | | |
| 7406 | -- | -1.3 | -1.5 | -- | -- | | | | | | |

¹SI = Stafford County test at Sandyland Experiment Field near St. John, KS.

²TI = Thomas County test at KSU Northwest Research Extension Center near Colby, KS.

³GI = Greeley County test at KSU Southwest Research Extension Center near Tribune, KS.

⁴ST = Stevens County test at Jim Kramer farm near Hugoton, KS.

(S) = Soft red winter wheat.

(W) = Hard white winter wheat.

** Unless two varieties differ by more than the LSD, little confidence can be placed in one being superior to the other.

**Table 10a. Plant height (inches)
1997 EASTERN Kansas Winter Wheat Performance Tests.**

| Brand / Name | BR ¹ | RL ² | FR ³ | LB ⁴ | Avg. | Brand / Name | BR ¹ | RL ² | FR ³ | LB ⁴ | Avg. |
|----------------------|-----------------|-----------------|-----------------|-----------------|------|---------------------|-----------------|-----------------|-----------------|-----------------|------|
| AgriPro | | | | | | Public | | | | | |
| Big Dawg | 34 | 38 | 32 | 37 | 35 | 2137 | 35 | 37 | 34 | 37 | 36 |
| Coronado | 30 | 34 | 32 | 33 | 32 | 2163 | 32 | 35 | 31 | 36 | 33 |
| Pecos | -- | -- | 31 | 31 | -- | Arapahoe | 41 | 39 | -- | -- | -- |
| Tomahawk | 32 | 35 | 32 | 36 | 34 | Custer | 31 | 35 | 32 | 34 | 33 |
| (S) Elkhart | -- | -- | 33 | 39 | -- | Jagger | 34 | 35 | 29 | 36 | 34 |
| AGSECO | | | | | | Karl 92 | | | | | |
| 12019 EXP | 31 | -- | 31 | -- | -- | Karl 92-G | 32 | 35 | 35 | 36 | 34 |
| 7853 | 34 | 37 | 35 | 36 | 35 | KS84063-HW Exp | 34 | 39 | 36 | 39 | 37 |
| 7853-D | -- | -- | -- | 37 | -- | KS940935 Exp | 32 | 35 | 32 | 38 | 34 |
| 7853-VRTU | -- | -- | -- | 37 | -- | KS941064 Exp | 31 | 34 | 31 | 34 | 32 |
| Mankato | 33 | 39 | -- | -- | -- | KS94H147Exp | 34 | 37 | 34 | 35 | 35 |
| Northrup King | | | | | | Niobrara | | | | | |
| (S) Coker 9474 | -- | -- | 30 | 34 | -- | Scout 66 | 45 | 48 | 40 | 46 | 45 |
| (S) Coker 9543 | -- | -- | -- | 33 | -- | TAM 107 | 31 | 36 | 30 | 35 | 33 |
| (S) Coker 9663 | -- | -- | -- | 37 | -- | TAM 301 | 29 | -- | 27 | 33 | -- |
| Pioneer | | | | | | Tonkawa | | | | | |
| (S) 2548 | -- | -- | -- | 30 | -- | Vista | 35 | 36 | -- | -- | -- |
| Polansky | | | | | | (S) Caldwell | | | | | |
| Dominator | 30 | 34 | -- | -- | -- | (S) Cardinal | 37 | 39 | 33 | 39 | 37 |
| Quantum | | | | | | (S) Ernie | | | | | |
| AP 7510 | -- | 34 | -- | -- | -- | (S) Jackson | 30 | 38 | 32 | 34 | 34 |
| 7504 | -- | 36 | -- | -- | -- | Test Average | | | | | |
| Star | | | | | | 33 37 32 36 -- | | | | | |
| 505 | -- | 33 | -- | -- | -- | CV (%) | | | | | |
| 560 | -- | 35 | -- | -- | -- | 5 4 5 4 -- | | | | | |
| Champ | 35 | 40 | 33 | -- | -- | LSD (0.05)** | | | | | |
| Terra | | | | | | 2 2 2 2 -- | | | | | |
| (S) SR 204 | 33 | -- | 32 | 37 | -- | | | | | | |
| (S) SR 205 | 34 | -- | 32 | 37 | -- | | | | | | |
| (S) SR 211 | 31 | -- | 32 | 35 | -- | | | | | | |
| HR 153 | 33 | -- | 34 | 35 | -- | | | | | | |

¹BR = Brown County test at Cornbelt Experiment Field near Powhattan, KS.

²RL = Riley County test at Ashland Experiment Farm, Manhattan, KS.

³FR = Franklin County test at East Central Experiment Field near Ottawa, KS.

⁴LB = Labette County test at KSU Southeast Agricultural Research Center, Parsons, KS.

(S) = Soft red winter wheat.

(W) = Hard white winter wheat.

** Unless two varieties differ by more than the LSD, little confidence can be placed in one being superior to the other.

**Table 10b. Plant height (inches)
1997 CENTRAL Kansas Winter Wheat Performance Tests.**

| Brand / Name | RP ¹ | HV ² | RN ³ | SU ⁴ | Avg. | Brand / Name | RP ¹ | HV ² | RN ³ | SU ⁴ | Avg. |
|-----------------|-----------------|-----------------|-----------------|-----------------|------|---------------------|-----------------|-----------------|-----------------|-----------------|------|
| AgriPro | | | | | | Public | | | | | |
| Big Dawg | 33 | 34 | 29 | 41 | 34 | 2137 | 34 | 33 | 29 | 39 | 34 |
| Coronado | 31 | 30 | 27 | 35 | 31 | 2163 | 30 | 31 | 27 | 37 | 31 |
| Hickok | -- | 29 | 27 | 33 | -- | Alliance | 34 | -- | -- | -- | -- |
| Pecos | 28 | 28 | 27 | 34 | 29 | Arapahoe | 38 | -- | -- | -- | -- |
| Tomahawk | 33 | 32 | 28 | 37 | 33 | Custer | 33 | 31 | 29 | 37 | 32 |
| AGSECO | | | | | | 2174 | | | | | |
| 7853 | 31 | 33 | 30 | 40 | 33 | Ike | 34 | 37 | -- | 39 | -- |
| 7853-D | 31 | 32 | 28 | 39 | 33 | Jagger | 31 | 34 | 30 | 38 | 33 |
| 7853-VRTU | 32 | 32 | 29 | 40 | 33 | Karl 92 | 31 | 32 | 28 | 34 | 31 |
| Colby 94 | 38 | -- | -- | -- | -- | Karl 92-G | 32 | 32 | 27 | 35 | 31 |
| Mankato | 33 | 35 | 30 | -- | -- | KS84063-HW Exp | 35 | 36 | 31 | 41 | 36 |
| AWWPA | | | | | | KS940935 Exp | | | | | |
| (W) Oro Blanco | 29 | 29 | 28 | 35 | 30 | KS941064 Exp | 31 | 30 | 27 | 36 | 31 |
| Goertzen | | | | | | KS94H147Exp | | | | | |
| G12017 Exp | -- | 33 | 29 | -- | -- | Larned | 40 | 41 | 33 | 42 | 39 |
| G1594 Exp | -- | 35 | 31 | -- | -- | Nekota | 32 | -- | -- | -- | -- |
| G1878 | -- | 34 | 29 | -- | -- | Niobrara | 37 | -- | -- | -- | -- |
| Polansky | | | | | | Scout 66 | | | | | |
| Dominator | 29 | 30 | 26 | 35 | 30 | TAM 107 | 31 | 31 | 28 | 34 | 31 |
| Quantum | | | | | | TAM 110 | | | | | |
| AP 7510 | 31 | -- | 27 | -- | -- | TAM 301 | 32 | 29 | 26 | 35 | 31 |
| 7504 | -- | 33 | 30 | -- | -- | Tonkawa | 30 | 31 | 29 | 38 | 32 |
| Star | | | | | | Vista | | | | | |
| 505 | 32 | -- | -- | -- | -- | Windstar | 38 | -- | -- | -- | -- |
| 560 | 31 | -- | -- | -- | -- | Yuma | 31 | -- | -- | -- | -- |
| Champ | 35 | 35 | 31 | -- | -- | Test Average | | | | | |
| Terra | | | | | | 33 32 29 38 -- | | | | | |
| HR 153 | -- | 32 | 29 | -- | -- | CV (%) | | | | | |
| | | | | | | 5 2 7 3 -- | | | | | |
| | | | | | | LSD (0.05)** | | | | | |
| | | | | | | 2 1 2 2 -- | | | | | |

¹RP = Republic County test at North Central Experiment Field near Belleville, KS.

²HV = Harvey County test at Harvey County Experiment Field near Hesston, KS.

³RN = Reno County test at South Central Experiment Field near Hutchinson, KS.

⁴SU = Sumner County test at Max Kolarik farm, Caldwell, KS.

(S) = Soft red winter wheat.

(W) = Hard white winter wheat.

** Unless two varieties differ by more than the LSD, little confidence can be placed in one being superior to the other.

**Table 10c. Plant height (inches)
1997 WESTERN Kansas Winter Wheat Performance Tests.**

| Brand / Name | EL ¹ | TD ² | GD ³ | FD ⁴ | Avg. | Brand / Name | EL ¹ | TD ² | GD ³ | FD ⁴ | Avg. |
|-----------------|-----------------|-----------------|-----------------|-----------------|------|----------------|-----------------|-----------------|-----------------|-----------------|------|
| AgriPro | | | | | | Public | | | | | |
| Big Dawg | 30 | 30 | 30 | -- | -- | 2137 | 31 | 30 | 30 | 30 | 30 |
| Coronado | 29 | 27 | -- | -- | -- | 2163 | 29 | 28 | 27 | 28 | 28 |
| Hickok | 29 | -- | -- | -- | -- | Akron | 33 | 31 | 31 | 32 | 32 |
| Laredo | 30 | 28 | 28 | -- | -- | Alliance | 30 | 30 | 30 | 31 | 30 |
| Ogallala | 29 | 27 | 27 | 28 | 27 | Arapahoe | 33 | 34 | 32 | 34 | 33 |
| Pecos | 29 | -- | -- | -- | -- | Custer | 30 | 29 | 27 | 27 | 28 |
| Rowdy | 28 | 25 | -- | -- | -- | Halt | 28 | 27 | 27 | 26 | 27 |
| Tomahawk | 31 | -- | -- | -- | -- | 2174 | 31 | -- | -- | -- | -- |
| AGSECO | | | | | | Ike | | | | | |
| 7853 | 30 | 28 | 27 | 28 | 28 | Jagger | 31 | 30 | 28 | 29 | 30 |
| 7853-D | 30 | 27 | 27 | 29 | 28 | Karl 92 | 31 | 27 | 27 | 29 | 28 |
| 7853-VRTU | 30 | 28 | 27 | 28 | 28 | Karl 92-G | 31 | 29 | 27 | 29 | 29 |
| 9001 | -- | 30 | 29 | 28 | -- | KS84063-HW Exp | 32 | 33 | 33 | 31 | 32 |
| Colby 94 | 34 | 33 | 34 | -- | -- | KS940935 Exp | 29 | 28 | 27 | 28 | 28 |
| Mankato | 34 | 32 | 31 | 31 | 32 | KS941064 Exp | 29 | 27 | 26 | 27 | 27 |
| AWWPA | | | | | | KS94H147Exp | | | | | |
| (W) Arlin | -- | -- | -- | 30 | -- | Larned | 35 | 35 | 34 | 35 | 35 |
| Goertzen | | | | | | Nekota | | | | | |
| G12017 Exp | -- | -- | 31 | 31 | -- | Niobrara | 30 | 31 | 30 | 30 | 30 |
| G1594 Exp | -- | -- | 30 | 30 | -- | Scout 66 | 34 | 34 | 32 | 33 | 33 |
| G1720 Exp | -- | -- | 29 | 31 | -- | TAM 107 | 37 | 37 | 36 | 36 | 36 |
| G1878 | -- | -- | 30 | 28 | -- | TAM 110 | 30 | 29 | 29 | 29 | 29 |
| Polansky | | | | | | Tonkawa | | | | | |
| Dominator | 29 | 28 | -- | -- | -- | Vista | 30 | 28 | 26 | 29 | 28 |
| Quantum | | | | | | Windstar | | | | | |
| 566 | -- | 35 | -- | -- | -- | Yuma | 34 | 34 | 33 | 35 | 34 |
| AP 7501 | -- | 27 | -- | -- | -- | Test Average | 31 | 30 | 29 | 30 | -- |
| AP 7510 | -- | 28 | -- | -- | -- | CV (%) | 4 | 4 | 5 | 4 | -- |
| 7406 | -- | 31 | -- | -- | -- | LSD (0.05)** | 2 | 1 | 2 | 1 | -- |
| Star | | | | | | | | | | | |
| 560 | 29 | -- | -- | -- | -- | | | | | | |
| Champ | 32 | 32 | -- | 32 | -- | | | | | | |

¹EL = Ellis County test at KSU Agricultural Research Center near Hays, KS.

²TD = Thomas County test at KSU Northwest Research Extension Center near Colby, KS.

³GD = Greeley County test at KSU Southwest Research Extension Center near Tribune, KS.

⁴FD = Finney County test at KSU Southwest Research Extension Center near Garden City, KS.

(S) = Soft red winter wheat.

(W) = Hard white winter wheat.

** Unless two varieties differ by more than the LSD, little confidence can be placed in one being superior to the other.

**Table 10d. Plant height (inches)
1997 IRRIGATED Kansas Winter Wheat Performance Tests.**

| Brand / Name | SI ¹ | TI ² | GI ³ | ST ⁴ | Avg. | Brand / Name | SI ¹ | TI ² | GI ³ | ST ⁴ | Avg. |
|-----------------|-----------------|-----------------|-----------------|-----------------|------|----------------|-----------------|-----------------|-----------------|-----------------|------|
| AgriPro | | | | | | Star | | | | | |
| Big Dawg | -- | 29 | -- | -- | -- | Champ | 30 | -- | -- | -- | -- |
| Coronado | -- | 29 | 35 | 31 | -- | <hr/> | | | | | |
| Hickok | -- | 30 | 34 | 31 | -- | Public | | | | | |
| Laredo | -- | 28 | 35 | -- | -- | 2137 | 30 | 32 | 39 | 35 | 34 |
| Ogallala | -- | 29 | 35 | 32 | -- | 2163 | 27 | 30 | 35 | 32 | 31 |
| Rowdy | -- | 27 | 33 | 28 | -- | Akron | 22 | 33 | 39 | 33 | 32 |
| Tomahawk | 30 | -- | -- | -- | -- | Alliance | 25 | 32 | 39 | 34 | 33 |
| <hr/> | | | | | | Custer | 23 | 25 | 38 | 34 | 30 |
| AGSECO | | | | | | 2174 | 30 | -- | -- | -- | -- |
| 7853 | 29 | 29 | 38 | 33 | 32 | Ike | 32 | 34 | 38 | 36 | 35 |
| 7853-D | 29 | 30 | 37 | 33 | 32 | Jagger | 28 | 32 | 38 | 32 | 33 |
| 7853-VRTU | 28 | 29 | 37 | 34 | 32 | Karl 92 | 28 | 29 | 35 | 31 | 30 |
| 9001 | -- | 32 | 39 | 32 | -- | Karl 92-G | 29 | 29 | 35 | 32 | 31 |
| Mankato | -- | -- | 40 | 34 | -- | KS84063-HW Exp | 32 | 33 | 41 | 36 | 36 |
| <hr/> | | | | | | KS940935 Exp | 31 | 30 | 39 | 33 | 33 |
| AWWPA | | | | | | KS941064 Exp | 28 | 29 | 37 | 31 | 31 |
| (W) Arlin | 29 | -- | -- | 32 | -- | KS94H147Exp | 30 | 32 | 38 | 34 | 34 |
| (W) Oro Blanco | -- | -- | -- | 30 | -- | Newton | -- | -- | -- | -- | -- |
| <hr/> | | | | | | TAM 107 | 24 | 31 | 38 | 32 | 31 |
| Drussel | | | | | | TAM 110 | 24 | 29 | 38 | 33 | 31 |
| DSS-285 | 27 | 31 | 38 | 32 | 32 | TAM 200 | 25 | 28 | 34 | 31 | 29 |
| <hr/> | | | | | | TAM 301 | 29 | -- | -- | -- | -- |
| Goertzen | | | | | | Tonkawa | 29 | 31 | 39 | 32 | 33 |
| G12017 Exp | 30 | -- | 38 | -- | -- | Yuma | 25 | 31 | 40 | 33 | 32 |
| G1594 Exp | 32 | -- | 45 | -- | -- | <hr/> | | | | | |
| G1720 Exp | -- | -- | 39 | -- | -- | Test Average | 28 | 30 | 37 | 33 | -- |
| G1878 | 30 | -- | 39 | -- | -- | CV (%) | 5 | 9 | 4 | 6 | -- |
| <hr/> | | | | | | LSD (0.05)** | 2 | 3 | 2 | 4 | -- |
| Polansky | | | | | | <hr/> | | | | | |
| Dominator | 28 | 29 | -- | -- | -- | | | | | | |
| <hr/> | | | | | | | | | | | |
| Quantum | | | | | | | | | | | |
| 579 | -- | -- | -- | 32 | -- | | | | | | |
| AP 7501 | -- | 30 | 35 | -- | -- | | | | | | |
| AP 7510 | -- | 28 | 36 | 31 | -- | | | | | | |
| AP 7601 | -- | 30 | 38 | 32 | -- | | | | | | |
| H1870 Exp | -- | -- | 36 | -- | -- | | | | | | |
| 7406 | -- | 33 | 39 | -- | -- | | | | | | |

¹SI = Stafford County test at Sandyland Experiment Field near St. John, KS.

²TI = Thomas County test at KSU Northwest Research Extension Center near Colby, KS.

³GI = Greeley County test at KSU Southwest Research Extension Center near Tribune, KS.

⁴ST = Stevens County test at Jim Kramer farm near Hugoton, KS.

(S) = Soft red winter wheat.

(W) = Hard white winter wheat.

** Unless two varieties differ by more than the LSD, little confidence can be placed in one being superior to the other.

Table 11. Lodging and disease ratings from 1997 Kansas wheat Performance Tests.

| Brand/Name | FD ¹ | | Leaf rust rating 1 = best, 9 = worst | | | HV Soil- borne mosaic | Brand/Name | FD | | Leaf rust rating 1 = best, 9 = worst | | | HV Soil- borne mosaic |
|----------------------|-----------------------------|------------------|---|-----|-----|--------------------------------|---------------------|-----------------------------|------------------|---|-----|------|--------------------------------|
| | Freeze Damage 4/30/97 | SU Lodge % | RL | RN | SU | | | Freeze Damage 4/30/97 | SU Lodge % | RL | RN | SU | |
| AgriPro | | | | | | | Star | | | | | | |
| Big Dawg | -- | 25.0 | 2.0 | 3.5 | 2.3 | 1.0 | 505 | -- | -- | 8.3 | -- | -- | -- |
| Coronado | -- | 10.0 | 6.0 | 6.5 | 7.7 | 1.0 | 560 | -- | -- | 4.0 | -- | -- | -- |
| Hickok | -- | 47.5 | -- | 4.5 | 8.0 | 1.0 | Champ | 1.5 | -- | 6.0 | 6.5 | -- | 1.0 |
| Laredo | -- | -- | -- | -- | -- | -- | Terra | | | | | | |
| Ogallala | 2.0 | -- | -- | -- | -- | -- | (S) SR 204 | -- | -- | -- | -- | -- | -- |
| Pecos | -- | 40.0 | -- | 7.0 | 9.0 | 1.0 | (S) SR 205 | -- | -- | -- | -- | -- | -- |
| Rowdy | -- | -- | -- | -- | -- | -- | (S) SR 211 | -- | -- | -- | -- | -- | -- |
| Tomahawk | -- | 5.0 | 3.3 | 5.5 | 6.7 | 1.0 | HR 153 | -- | -- | -- | 8.0 | -- | 1.0 |
| (S) Elkhart | -- | -- | -- | -- | -- | -- | Public | | | | | | |
| AGSECO | | | | | | | 2137 | 2.0 | 2.5 | 3.3 | 7.0 | 8.0 | 1.0 |
| 12019 EXP | -- | -- | -- | -- | -- | -- | 2163 | 2.5 | 25.0 | 5.0 | 7.0 | 8.3 | 1.0 |
| 7853 | 3.0 | 52.5 | 7.0 | 8.0 | 8.0 | 1.0 | 2180 | -- | 0.0 | -- | 5.0 | 8.0 | 1.0 |
| 7853-D | 3.5 | 25.0 | -- | 8.5 | 8.0 | 1.0 | Akron | 2.0 | -- | -- | -- | -- | -- |
| 7853-VRTU | 3.0 | 15.0 | -- | 8.0 | 8.6 | 1.0 | Alliance | 2.0 | -- | -- | -- | -- | -- |
| 9001 | 2.5 | -- | -- | -- | -- | -- | Arapahoe | 2.0 | -- | 5.3 | -- | -- | -- |
| Colby 94 | -- | -- | -- | -- | -- | -- | Custer | 3.5 | 0.0 | 3.7 | 4.0 | 8.0 | 9.0 |
| Mankato | 1.5 | -- | 6.0 | 6.5 | -- | 1.0 | Halt | 3.0 | -- | -- | -- | -- | -- |
| AWWPA | | | | | | | 2174 | -- | 5.0 | -- | 7.0 | 7.7 | 1.0 |
| (W) Arlin | 4.0 | -- | -- | -- | -- | -- | Ike | 1.5 | 0.0 | -- | -- | 9.0 | 1.0 |
| (W) Oro Blanco | -- | 17.5 | -- | 6.5 | 9.0 | 3.3 | Jagger | 1.5 | 50.0 | 3.0 | 5.0 | 7.0 | 1.0 |
| Drussel | | | | | | | Karl 92 | 2.0 | 0.0 | 9.0 | 8.5 | 9.0 | 1.0 |
| DSS-285 | -- | -- | -- | -- | -- | -- | Karl 92-G | 2.0 | 0.0 | 9.0 | 8.0 | 9.0 | 1.0 |
| Goertzen | | | | | | | KS84063-HW Ex | 2.5 | 52.5 | 3.0 | 3.0 | 6.3 | 1.0 |
| G12017 Exp | 2.0 | -- | -- | 7.5 | -- | 1.0 | KS940935 Exp | 2.5 | 10.0 | 2.0 | 3.0 | 4.3 | 1.0 |
| G1594 Exp | 2.0 | -- | -- | 8.0 | -- | 1.0 | KS941064 Exp | 3.5 | 17.5 | 2.3 | 6.0 | 7.3 | 1.0 |
| G1720 Exp | 3.0 | -- | -- | -- | -- | -- | KS94H147Exp | 3.0 | 20.0 | 6.3 | 9.0 | 8.0 | 1.0 |
| G1878 | 3.0 | -- | -- | 7.5 | -- | 1.0 | Larned | 2.5 | 12.5 | -- | 8.5 | 9.0 | 9.0 |
| Northrup King | | | | | | | Nekota | 2.0 | -- | -- | -- | -- | -- |
| (S) Coker 9474 | -- | -- | -- | -- | -- | -- | Newton | 4.0 | 0.0 | 9.0 | 9.0 | 8.3 | 1.0 |
| (S) Coker 9543 | -- | -- | -- | -- | -- | -- | Niobrara | 2.0 | -- | 8.3 | -- | -- | -- |
| (S) Coker 9663 | -- | -- | -- | -- | -- | -- | Scout 66 | 3.0 | 32.5 | 8.0 | 8.0 | 9.0 | 8.5 |
| Pioneer | | | | | | | TAM 107 | 2.0 | 0.0 | 9.0 | 9.0 | 9.0 | 6.0 |
| (S) 2548 | -- | -- | -- | -- | -- | -- | TAM 110 | 2.0 | 0.0 | -- | 9.0 | 9.0 | 8.0 |
| Polansky | | | | | | | TAM 200 | -- | -- | -- | -- | -- | -- |
| Dominator | -- | 35.0 | 4.7 | 6.5 | 8.0 | 1.0 | TAM 301 | -- | 0.0 | -- | 3.0 | 7.0 | 9.0 |
| Quantum | | | | | | | Tonkawa | 3.0 | 0.0 | 3.3 | 3.5 | 5.7 | 1.5 |
| 566 | -- | -- | -- | -- | -- | -- | Vista | 1.5 | -- | 6.0 | -- | -- | -- |
| 579 | -- | -- | -- | -- | -- | -- | Windstar | 2.0 | -- | -- | -- | -- | -- |
| AP 7501 | -- | -- | -- | -- | -- | -- | Yuma | 3.5 | -- | -- | -- | -- | -- |
| AP 7510 | -- | -- | 3.0 | 3.0 | -- | -- | (S) Caldwell | -- | -- | 6.7 | -- | -- | -- |
| AP 7601 | -- | -- | -- | -- | -- | -- | (S) Cardinal | -- | -- | 4.7 | -- | -- | -- |
| H1870 Exp | -- | -- | -- | -- | -- | -- | (S) Ernie | -- | -- | 7.7 | -- | -- | -- |
| 7504 | -- | -- | 3.0 | 6.0 | -- | 2.0 | (S) Jackson | -- | -- | 4.7 | -- | -- | -- |
| 7406 | -- | -- | -- | -- | -- | -- | Test Average | | | | | | |
| Test Average | | | | | | | 2.5 | 16.1 | 5.4 | 6.5 | 7.8 | 2.2 | |
| CV (%) | | | | | | | 20.2 | 121.3 | 9.2 | 10.3 | 5.7 | 24.9 | |
| LSD (0.05)** | | | | | | | 0.8 | 22.9 | 0.8 | 1.4 | 0.7 | 0.8 | |

1 Freeze Damage rating taken 4/30/97 after 4/12/97 freeze. 1 = least damage, 10 = most damage. FD = Finney Dryland test, Garden City.

SU = Sumner test, Caldwell; RL = Riley test, Manhattan; RN = Reno test, Hutchinson; HV = Harvey test, Hesston.

-- indicates that variety was not entered at that location.

Table 12. Planted seed characteristics, coleoptile lengths, and Hessian fly ratings.

| Brand/Name | 1000 Seed weight (grams) | Test wt. (lb/bu) | Seeds per lb. (1000) | Col. length (in.) | Hess. fly* | Brand/Name | 1000 Seed weight (grams) | Test wt. (lb/bu) | Seeds per lb. (1000) | Col. length (in.) | Hess. fly* |
|----------------------|-----------------------------------|------------------------|----------------------------|-------------------------|---------------|-------------------|-----------------------------------|------------------------|----------------------------|-------------------------|---------------|
| AgriPro | | | | | | Star | | | | | |
| Big Dawg | 35.8 | 56.9 | 12.7 | 4.3 | 9 | 505 | 41.0 | 56.0 | 11.1 | 3.7 | 1 |
| Coronado | 41.3 | 58.9 | 11.0 | 2.9 | 7 | 560 | 33.5 | 54.9 | 13.5 | 3.4 | 9 |
| Hickok | 29.8 | 61.9 | 15.2 | 3.3 | 9 | Champ | 37.0 | 58.3 | 12.3 | 3.0 | 8 |
| Laredo | 29.0 | 53.9 | 15.6 | 3.3 | 9 | Terra | | | | | |
| Ogallala | 27.8 | 55.5 | 16.3 | 3.5 | 9 | (S) SR 204 | 32.0 | 59.0 | 14.2 | 3.0 | 4 |
| Pecos | 33.5 | 57.8 | 13.5 | 3.0 | 2 | (S) SR 205 | 25.8 | 53.2 | 17.6 | 3.3 | 4 |
| Rowdy | 29.0 | 58.5 | 15.6 | 3.1 | 9 | (S) SR 211 | 25.5 | 54.0 | 17.8 | 3.5 | 3 |
| Tomahawk | 37.0 | 56.0 | 12.3 | 3.5 | 7 | HR 153 | 32.0 | 57.8 | 14.2 | 2.9 | 9 |
| (S) Elkhart | 37.0 | 55.8 | 12.3 | 3.7 | 6 | Public | | | | | |
| AGSECO | | | | | | 2137 | 36.3 | 58.1 | 12.5 | 3.2 | 2 |
| 12019 EXP | 27.5 | 58.2 | 16.5 | 3.3 | 2 | 2163 | 34.8 | 59.4 | 13.1 | 3.3 | 1 |
| 7853 | 42.8 | 58.4 | 10.6 | 3.0 | 9 | 2180 | 32.0 | 55.3 | 14.2 | 3.1 | 2 |
| 7853-D | 40.8 | 58.7 | 11.1 | | 9 | Akron | 37.8 | 60.8 | 12.0 | 3.3 | 5 |
| 7853-VRTU | 41.8 | 56.2 | 10.9 | | 9 | Alliance | 30.3 | 53.7 | 15.0 | 2.8 | 2 |
| 9001 | 37.5 | 55.7 | 12.1 | 3.0 | 9 | Arapahoe | 31.8 | 56.0 | 14.3 | 3.3 | 1 |
| Colby 94 | 26.3 | 56.9 | 17.3 | 2.9 | 8 | Custer | 27.5 | 55.9 | 16.5 | 3.1 | 7 |
| Mankato | 35.8 | 57.6 | 12.7 | 2.8 | 4 | Halt | 34.3 | 59.2 | 13.2 | 3.2 | 9 |
| AWWPA | | | | | | 2174 | 24.0 | 54.7 | 18.9 | 3.1 | 9 |
| (W) Arlin | 33.0 | 59.7 | 13.7 | 3.2 | 9 | Ike | 29.5 | 58.3 | 15.4 | 3.2 | 1 |
| (W) Oro Blanco | 32.8 | 59.9 | 13.9 | 2.9 | 6 | Jagger | 37.5 | 61.0 | 12.1 | 3.7 | 9 |
| Drussel | | | | | | Karl 92 | 29.8 | 54.0 | 15.2 | 3.4 | 9 |
| DSS-285 | 38.8 | 61.7 | 11.7 | 3.2 | 8 | Karl 92-G | 29.5 | 54.3 | 15.4 | | 9 |
| Goertzen | | | | | | KS84063-HW Ex | 33.0 | 58.0 | 13.7 | 3.3 | 8 |
| G12017 Exp | 35.3 | 56.6 | 12.9 | 3.9 | 9 | KS940935 Exp | 35.5 | 59.5 | 12.8 | 3.2 | 4 |
| G1594 Exp | 34.0 | 59.9 | 13.3 | 4.6 | 2 | KS941064 Exp | 29.8 | 59.4 | 15.2 | 3.0 | 3 |
| G1720 Exp | 29.0 | 58.5 | 15.6 | 3.2 | 5 | KS94H147Exp | 35.5 | 59.4 | 12.8 | 3.4 | 9 |
| G1878 | 38.0 | 61.2 | 11.9 | 3.6 | 9 | Larned | 36.8 | 59.7 | 12.3 | 4.3 | 3 |
| Northrup King | | | | | | Nekota | 31.0 | 57.1 | 14.6 | 3.9 | 8 |
| (S) Coker 9474 | 33.3 | 57.0 | 13.6 | 4.1 | 4 | Newton | 32.5 | 56.3 | 14.0 | 3.5 | 9 |
| (S) Coker 9543 | 26.5 | 56.4 | 17.1 | 3.3 | 4 | Niobrara | 30.8 | 54.5 | 14.8 | 3.3 | 9 |
| (S) Coker 9663 | 34.3 | 53.9 | 13.2 | 4.6 | 7 | Scout 66 | 32.0 | 58.1 | 14.2 | 4.3 | 9 |
| Pioneer | | | | | | TAM 107 | 39.5 | 56.5 | 11.5 | 3.9 | 9 |
| (S) 2548 | 31.0 | 57.9 | 14.6 | 3.5 | 8 | TAM 110 | 34.8 | 56.9 | 13.1 | 4.2 | 9 |
| Polansky | | | | | | TAM 200 | 30.8 | 60.8 | 14.8 | 3.1 | 9 |
| Dominator | 29.8 | 60.6 | 15.2 | 3.2 | 3 | TAM 301 | 29.0 | 57.6 | 15.6 | 3.2 | 9 |
| Quantum | | | | | | Tonkawa | 26.3 | 59.0 | 17.3 | 3.5 | 8 |
| 566 | 29.0 | 54.7 | 15.6 | 3.6 | 8 | Vista | 33.5 | 56.4 | 13.5 | 2.9 | 1 |
| 579 | 31.5 | 56.3 | 14.4 | 3.2 | 2 | Windstar | 27.8 | 53.1 | 16.3 | 3.2 | 8 |
| AP 7501 | 29.8 | 58.2 | 15.2 | 3.1 | 1 | Yuma | 43.8 | 61.1 | 10.4 | 2.8 | 9 |
| AP 7510 | 30.0 | 57.1 | 15.1 | 3.3 | 4 | (S) Caldwell | 27.0 | 51.9 | 16.8 | 3.1 | 3 |
| AP 7601 | 30.8 | 53.5 | 14.8 | 3.1 | 3 | (S) Cardinal | 30.8 | 55.2 | 14.8 | 3.7 | 1 |
| H1870 Exp | 35.8 | 56.3 | 12.7 | 3.2 | 9 | (S) Ernie | 40.0 | 55.0 | 11.3 | 3.9 | 9 |
| 7504 | 27.3 | 53.3 | 16.6 | 3.7 | 9 | (S) Jackson | 36.5 | 54.0 | 12.4 | 3.0 | 9 |
| 7406 | 37.8 | 56.3 | 12.0 | 2.8 | 9 | Maximum | 43.8 | 61.9 | 18.9 | 4.6 | 9 |
| | | | | | | Minimum | 24.0 | 51.9 | 10.4 | 2.8 | 1 |
| | | | | | | Average | 30.6 | 53.0 | 13.0 | 3.4 | 6 |

* Coleoptile lengths provided by T. Joe Martin, Kansas State University Agricultural Research Center - Hays. Tested at 65 degrees F. Semi-dwarf wheat coleoptile lengths will be longer if germinated under cooler temperatures. Hessian fly ratings by J. Hatchett, USDA; 1 = highly resistant, 9 = highly susceptible. Tested with the Great Plains Hessian fly.

Table 13. Protein (% at 14% moisture) 1996 Kansas Winter Wheat Performance Tests.

| Brand / Name | East | | | | | Central | | | | | West | Irrigated | | |
|---------------------|------|------|------|------|------|---------|------|------|------|------|------|-----------|------|------|
| | BR | RL | FR | LB | Avg. | RP | HV | RN | SU | Avg. | TD | TI | GI | Avg. |
| AgriPro | | | | | | | | | | | | | | |
| Coronado | 14.8 | 12.8 | 14.5 | 16.1 | 14.6 | 12.8 | 16.2 | 14.9 | 16.5 | 15.1 | -- | -- | -- | -- |
| Hickok | 15.2 | 12.8 | -- | -- | -- | 12.6 | 15.9 | 14.2 | -- | -- | -- | 13.6 | 13.7 | 13.7 |
| Laredo | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 13.7 | 13.9 | 13.1 | 13.5 |
| Longhorn | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 13.5 | -- | -- | -- |
| Ogallala | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 14.7 | 14.8 | 14.5 | 14.7 |
| Pecos | -- | -- | 13.4 | 15.2 | -- | -- | 15.3 | 14.2 | 15.2 | -- | -- | 14.0 | 13.3 | 13.7 |
| Rowdy | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 13.5 | 14.2 | 13.6 | 13.9 |
| Tomahawk | 14.8 | 12.0 | 12.9 | -- | -- | 12.1 | 14.6 | 14.2 | 15.3 | 14.1 | -- | -- | -- | -- |
| Victory | -- | -- | -- | -- | -- | 11.9 | -- | -- | -- | -- | -- | -- | -- | -- |
| Big Dawg | 14.8 | 13.5 | 14.3 | 14.1 | 14.2 | 12.9 | 16.0 | 15.4 | -- | -- | 14.4 | -- | -- | -- |
| (S) Elkhart | 15.5 | -- | 14.6 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| (W) Platte | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| (W) Solomon | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| AGSECO | | | | | | | | | | | | | | |
| 7853 | 15.3 | 13.0 | 14.0 | 16.7 | 14.8 | 12.9 | 16.0 | 15.5 | 16.6 | 15.3 | 14.7 | 15.9 | -- | -- |
| 9001 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 14.8 | 14.6 | 14.2 | 14.4 |
| Colby 94 | -- | -- | -- | -- | -- | 11.3 | -- | -- | -- | -- | 13.4 | -- | -- | -- |
| Mankato | 13.6 | -- | -- | -- | -- | 11.4 | 13.2 | 14.5 | -- | -- | 14.1 | -- | -- | -- |
| AWWPA | | | | | | | | | | | | | | |
| (W) Arlin | -- | -- | -- | -- | -- | 13.0 | -- | 16.8 | 15.9 | -- | 14.4 | 15.4 | 14.3 | 14.9 |
| (W)KS84HW196Exp | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 13.7 | -- | -- | -- |
| (W) Oro Blanco | 14.4 | 12.3 | -- | 14.6 | -- | 11.4 | 14.6 | 14.6 | 16.1 | 14.2 | 13.5 | 13.3 | 13.5 | 13.4 |
| (W) Rio Blanco | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 14.0 | 14.4 | -- | -- |
| Century II | | | | | | | | | | | | | | |
| (S) G2500 | 15.5 | 13.4 | 13.8 | 15.4 | 14.5 | 12.7 | 14.2 | 15.0 | -- | -- | -- | -- | -- | -- |
| Discovery | 14.8 | 15.1 | 15.8 | 16.9 | 15.7 | 13.5 | 15.9 | 16.1 | 17.1 | 15.7 | -- | -- | -- | -- |
| Drussel | | | | | | | | | | | | | | |
| T81 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 13.1 | 12.8 | 12.8 | 12.8 |
| Northrup Kin | | | | | | | | | | | | | | |
| (S) Coker 9474 | -- | -- | 11.6 | 15.1 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| (S) Coker 9543 | -- | -- | 12.9 | 14.0 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| (S) Coker 9803 | -- | -- | 12.7 | 14.6 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Ohlde | | | | | | | | | | | | | | |
| (S) T441 | -- | -- | 11.8 | 13.7 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Pioneer | | | | | | | | | | | | | | |
| (S) 2548 | -- | -- | -- | 13.0 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| (S) 2552 | -- | -- | -- | 13.6 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Polansky | | | | | | | | | | | | | | |
| Dominator | 14.3 | 12.9 | 13.4 | -- | -- | 12.1 | 14.5 | 14.4 | -- | -- | -- | 13.6 | 13.4 | 13.5 |
| Quantum | | | | | | | | | | | | | | |
| AP 7501 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 14.0 | 14.2 | 13.8 | 14.0 |
| AP 7510 | -- | 13.2 | -- | -- | -- | 12.0 | -- | 14.9 | -- | -- | 14.0 | 13.7 | 14.0 | 13.9 |
| AP 7601 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 13.7 | 13.3 | 13.5 |
| WX92-3210 Exp | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 13.8 | -- |
| 7504 | -- | 12.4 | -- | -- | -- | -- | 17.0 | 15.5 | -- | -- | -- | -- | -- | -- |
| 566 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 13.6 | -- | -- | -- |
| 579 | -- | -- | -- | -- | -- | -- | 15.7 | 14.6 | 15.8 | -- | -- | -- | 14.0 | -- |
| 7406 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 12.8 | 12.4 | 12.6 | 12.5 |

Table 13. Protein (% at 14% moisture) 1996 Kansas Winter Wheat Performance Tests.

| Brand / Name | East | | | | | Central | | | | | West | Irrigated | | |
|-----------------|------|------|------|------|------|---------|------|------|------|------|------|-----------|------|------|
| | BR | RL | FR | LB | Avg. | RP | HV | RN | SU | Avg. | TD | TI | GI | Avg. |
| Star | | | | | | | | | | | | | | |
| Champ | 14.2 | 12.3 | 13.1 | -- | -- | 11.5 | 13.3 | 14.4 | -- | -- | -- | -- | -- | -- |
| Champ Extra | 13.8 | 11.8 | 12.0 | -- | -- | 11.6 | 13.1 | 14.1 | -- | -- | -- | -- | -- | -- |
| Terra | | | | | | | | | | | | | | |
| (S) SR 211 | 12.7 | -- | 12.1 | 13.6 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| (S) SR 204 | 12.6 | -- | 12.0 | 14.0 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| (S) SR 205 | 12.6 | -- | 11.6 | 13.0 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| HR 153 | 15.8 | -- | 13.9 | 16.2 | -- | -- | 16.2 | 15.8 | -- | -- | -- | -- | -- | -- |
| Public | | | | | | | | | | | | | | |
| 2137 | 12.4 | 11.5 | 12.9 | 14.0 | 12.7 | 11.6 | 12.3 | 13.8 | 14.7 | 13.1 | 13.8 | 14.0 | 12.8 | 13.4 |
| 2163 | 13.5 | 11.6 | 13.3 | 13.7 | 13.0 | 11.7 | 14.0 | 14.0 | 15.8 | 13.9 | 13.7 | 12.9 | 13.2 | 13.1 |
| 2180 | -- | -- | -- | -- | -- | -- | 16.0 | 14.8 | 16.7 | -- | -- | -- | -- | -- |
| Akron | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 13.3 | -- | -- | -- |
| Alliance | -- | -- | -- | -- | -- | 10.9 | -- | -- | -- | -- | 12.7 | -- | -- | -- |
| Arapahoe | 13.8 | 13.0 | -- | -- | -- | 11.8 | -- | -- | -- | -- | 14.3 | -- | -- | -- |
| Arkan | 16.0 | 12.8 | 16.1 | 15.3 | 15.1 | 13.4 | 16.6 | 15.0 | 16.2 | 15.3 | -- | -- | -- | -- |
| Custer | 15.1 | 12.4 | 14.7 | 14.4 | 14.2 | 12.6 | 15.4 | 14.1 | 15.5 | 14.4 | 13.4 | 13.4 | 13.2 | 13.3 |
| Halt | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 14.4 | -- | -- | -- |
| Ike | -- | -- | -- | -- | -- | 12.4 | 15.0 | 15.5 | 16.5 | 14.9 | 15.2 | 14.4 | 14.4 | 14.4 |
| Jagger | 15.7 | 12.5 | 15.2 | 16.1 | 14.9 | 12.6 | 16.5 | 15.8 | 17.5 | 15.6 | 15.2 | 15.2 | 14.5 | 14.9 |
| Jules | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 12.0 | -- | -- | -- |
| Karl 92 | 13.5 | 12.3 | 13.2 | 17.0 | 14.0 | 12.1 | 14.0 | 15.8 | 16.1 | 14.5 | 15.4 | 15.1 | 14.7 | 14.9 |
| Larned | -- | -- | -- | -- | -- | 11.7 | 14.7 | 14.3 | 15.3 | 14.0 | 13.0 | -- | -- | -- |
| Nekota | -- | -- | -- | -- | -- | 12.0 | -- | -- | -- | -- | 13.4 | -- | -- | -- |
| Newton | 15.4 | 12.0 | 14.1 | 13.9 | 13.9 | 12.5 | 15.9 | 14.0 | 15.2 | 14.4 | 13.4 | 13.0 | 13.1 | 13.1 |
| Niobrara | 13.8 | 12.0 | -- | -- | -- | 11.6 | -- | -- | -- | -- | 13.1 | -- | -- | -- |
| Scout 66 | 14.1 | 12.8 | 13.2 | 14.7 | 13.7 | 12.0 | 15.1 | 14.5 | 14.9 | 14.1 | 14.0 | -- | -- | -- |
| TAM 107 | 14.4 | 11.4 | 13.4 | 14.1 | 13.3 | 11.8 | 14.8 | 13.4 | 14.1 | 13.5 | 13.3 | 13.6 | 13.2 | 13.4 |
| TAM 200 | -- | -- | -- | -- | -- | 12.9 | 14.6 | 13.6 | 15.2 | 14.1 | 13.4 | 13.4 | 13.0 | 13.2 |
| TAM 110 | -- | -- | -- | -- | -- | 12.2 | 14.8 | 13.0 | 13.7 | 13.4 | 12.9 | 13.4 | 13.3 | 13.4 |
| Tonkawa | 15.5 | 13.3 | 14.3 | 16.2 | 14.8 | 13.0 | 15.3 | 14.4 | 16.4 | 14.8 | 14.2 | 14.9 | 13.5 | 14.2 |
| Vista | 13.4 | 11.8 | -- | -- | -- | 11.5 | -- | -- | -- | -- | 14.1 | -- | -- | -- |
| Yuma | -- | -- | -- | -- | -- | 11.4 | -- | -- | -- | -- | 12.3 | 12.1 | 11.8 | 11.9 |
| (S) Caldwell | 13.5 | 10.3 | 11.9 | 12.9 | 12.2 | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| (S) Cardinal | 12.9 | 10.3 | 12.4 | 13.5 | 12.3 | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| (S) Clark | 14.8 | 11.2 | 14.1 | 14.4 | 13.6 | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| (S) Ernie | 12.7 | 10.4 | 13.2 | 14.8 | 12.8 | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| (S) Excel | 13.9 | 11.0 | 12.8 | 14.0 | 12.9 | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| (S) Freedom | 16.2 | 11.0 | 15.0 | 13.2 | 13.9 | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| (S) Jackson | 14.5 | 10.2 | 14.0 | 14.6 | 13.3 | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| (S) MO12258 Exp | 15.3 | 10.4 | 14.3 | 14.3 | 13.6 | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Test Average | 14.3 | 12.1 | 13.5 | 14.6 | -- | 12.1 | 15.0 | 14.7 | 15.8 | -- | 13.8 | 13.9 | 13.5 | -- |

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