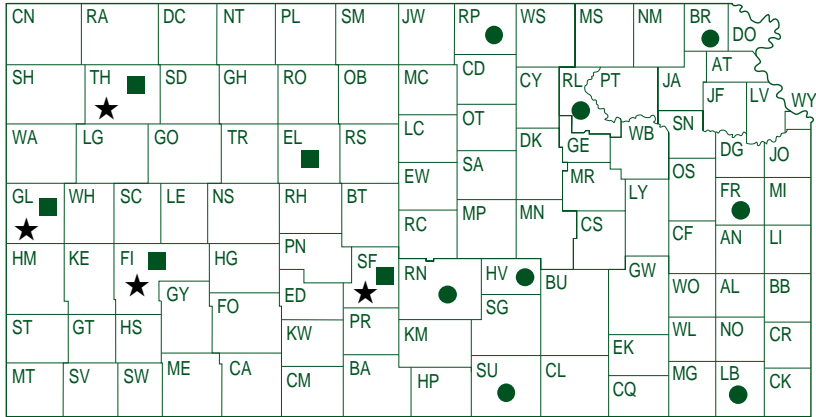


# 1995

KANSAS PERFORMANCE TESTS WITH

# WINTER WHEAT VARIETIES



Report of Progress 740

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# 1995 KANSAS PERFORMANCE TESTS WITH WINTER WHEAT VARIETIES

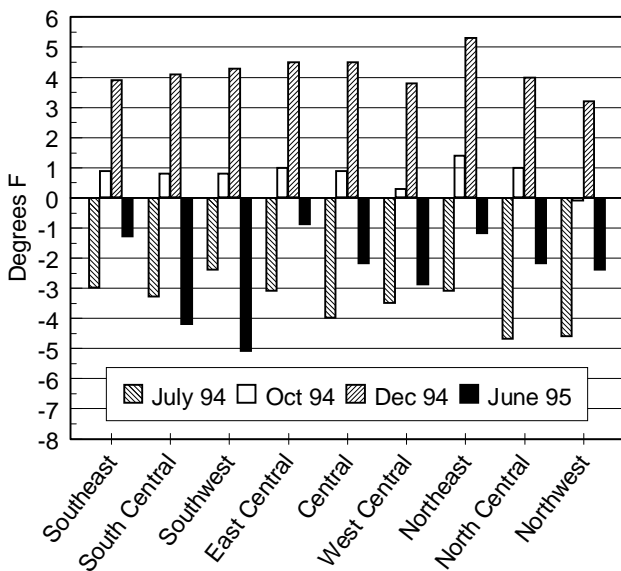
## INTRODUCTION

This publication presents results from the 1994-95 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 1995 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 1995 Kansas Winter Wheat Performance Tests.

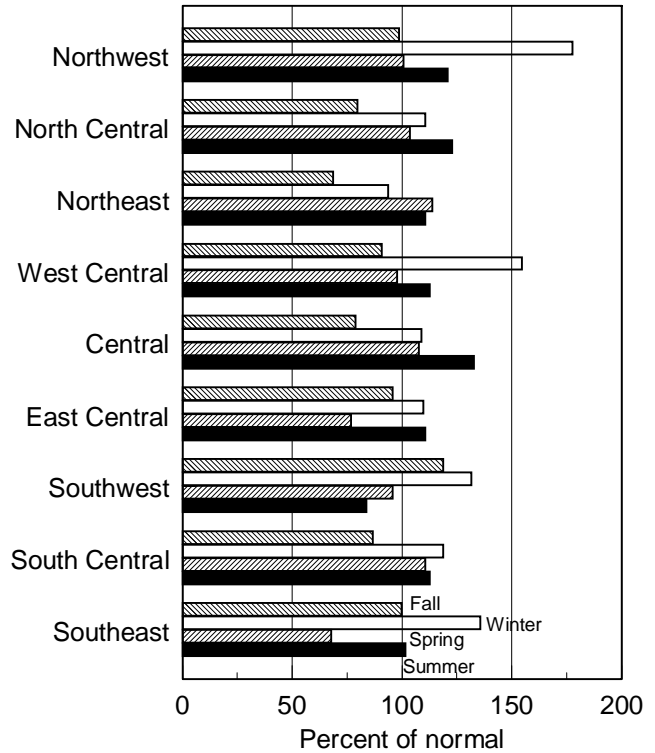
## 1995 CROP CONDITIONS

### Weather Conditions

The 1994-95 wheat season started out mild and slightly dry. Most of the state reported below normal to near normal precipitation during the period from July to September of 1994. Temperatures during the period also ranged from much below normal to slightly below normal (Figure 1).



**Figure 1. Monthly temperature departures from normal.**



**Figure 2. Seasonal distribution of precipitation by crop reporting district.**

This pattern changed during the winter, as wetter and relatively warmer conditions prevailed. All parts of the state reported greater than 100% of the normal precipitation during the October through December period (Figure 2). The western third of the state was the wettest, with the Northwest and the West Central districts receiving greater than 150% of normal precipitation. Mean temperatures ranged from 3 to 5 degrees above normal in December, 1994.

This pattern changed during the late spring of 1995. In April, much of the southwest, west central and central parts of the state experienced a severe freeze. On April 27, temperatures at Tribune fell to 25°F. Because of the relatively mild winter, much of the wheat in this area was ahead of normal and particularly vulnerable to freezing conditions. Cooler than normal temperatures continued throughout the spring and early summer. June temperatures ranged from 1 to 5 degrees below normal. The coolest

conditions were experienced in the south central and southeast portions of the state.

May was particularly difficult for field work in general and the wheat crop in particular. Precipitation ranged from 146% of normal in the Southwest to 296% of normal in the Central district. Statewide May precipitation averaged 227% of normal. Flooding and standing water were common in many parts of the state. This extremely wet May, coupled with below-normal temperatures, resulted in delayed crop progress. Although not as wet as May, June still had above to near normal precipitation in much of the state.

There were several special weather events that particularly impacted the wheat crop. The first was the late spring freeze in southwestern and central Kansas. The second included the flooding and standing water common in May. The third was the large number of severe storms experienced in the late spring and early summer. In preliminary storm reports during April, May, and June, almost every county in the state had hail damage. In May, 58 counties reported hail. Particularly active dates were May 12 and May 22, 1995, when much of southwest, south central and central Kansas experienced large hail and high winds.

(From Mary Knapp, KSU Extension Weather Data Library).

### Crop Development

Early indications pointed to rapid development of the wheat crop and an early harvest, but late-spring weather drastically delayed everything (Figure 3). Emergence was near or ahead of normal for most of the fall. The mild winter enabled jointing to occur well ahead of normal. By late April and May, the cooler temperatures were slowing the development of the crop. Heading began near normal, but ended slightly

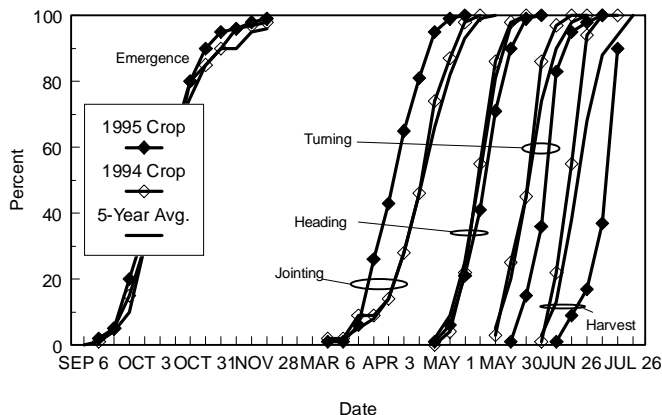


Figure 3. Statewide winter wheat crop development.

behind normal. The wheat turned color and ripened well behind the normal time period, which delayed harvest.

The condition of the wheat crop changed dramatically during the season (Figure 4). Soon after planting, none of the crop was in excellent condition, but over 80% was considered fair to good. The situation improved through the winter and early spring, when 80% of the crop was rated good to excellent. After the rains started in mid-April, the crop deteriorated rapidly and continued to do so until harvest, when less than 30% was considered good-excellent.

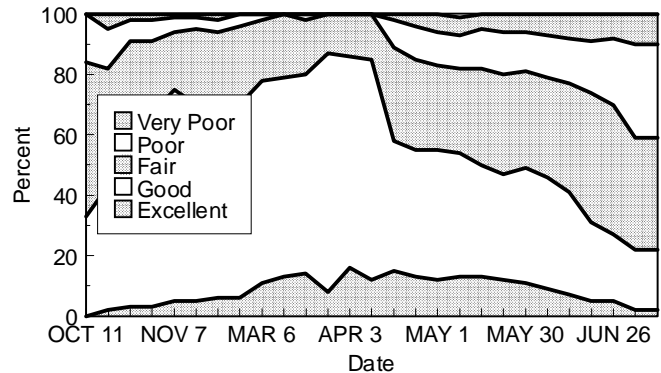


Figure 4. Kansas winter wheat crop condition, 1994-1995.

Topsoil moisture reflected precipitation patterns during the season (Figure 5). A fair portion of the acreage was short or very short of topsoil moisture last fall, but that had improved by early spring, when only 20% fell in those categories. From mid-May through mid-June, a large portion of the acreage experienced surplus topsoil moisture, which often damaged the wheat. The topsoil did not begin to dry out until late June or early July, when harvest finally got under way.

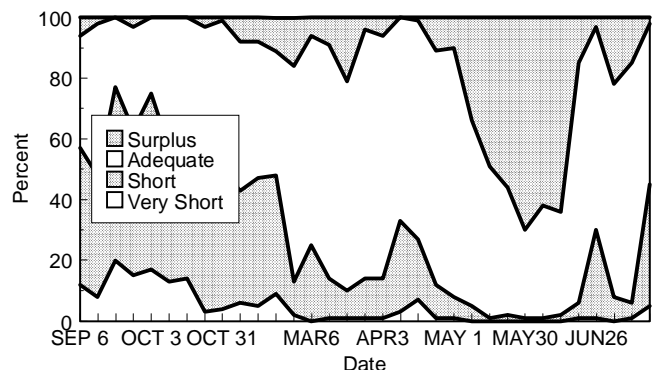


Figure 5. Statewide topsoil moisture status, 1994-1995.

(From *Crop-Weather* reports, Kansas Agricultural Statistics, Topeka).

## Diseases

Last fall's weather conditions favored development of important diseases. Dry weather in August encouraged wheat streak mosaic on volunteer wheat and alternate hosts such as green foxtail. Later in the fall, high winds dispersed wheat curl mites (vector for wheat streak mosaic) across most of central and western Kansas. September rains favored the buildup of leaf rust and speckled leaf blotch, which reached higher than normal fall levels in western Kansas.

Foliar diseases overwintered well. In early March, state plant pathologists predicted a moderate to high risk of epidemic for leaf rust and speckled leaf blotch. Soilborne mosaic virus and wheat spindle streak virus expressed symptoms in much of western Kansas, but wheat streak mosaic virus and tan spot predominated in March.

The disease picture became more complex as the spring progressed. Barley yellow dwarf and powdery mildew appeared in central and eastern areas by early April. Tan spot, leaf rust, and speckled leaf blotch began to move onto mid-canopy leaves. Most diseases slowed somewhat during the unseasonably cold periods in April.

Leaf rust took advantage of high rainfall and humidity and began to move onto flag leaves in southern areas by early May. Rust nearly defoliated many southeastern fields and appeared in most south-central and southwestern fields by mid-May. Barley yellow dwarf also became serious in several southern and eastern fields during this time. Speckled leaf blotch and tan spot activity also increased. Pathologists noted bacterial leaf blight, basal glume rot, and stripe rust as relatively minor diseases during May.

Disease development continued into the June grain filling period. Speckled leaf blotch became quite serious. Scab became evident in many fields. Tan spot moved onto the flag leaf in areas where rust had not already destroyed it. Barley yellow dwarf became widespread in the east. By the middle of June, most of these diseases had moved north. Pathologists also found leaf rust, tan spot, and barley yellow dwarf in many western Kansas fields.

By late June, scab became severe in some fields in eastern Kansas. Some stem rust appeared, but likely caused little additional damage. Speckled leaf blotch continued to develop on leaves that had not already succumbed to rust.

(From *Plant Disease Survey Reports*, Kansas State Board of Agriculture).

## Insects

Wheat insects generally caused little concern in the fall of 1994. Greenbugs occasionally reached high numbers in isolated spots. Entomologists found very few Russian wheat aphids. Winter grain mites caused some damage in the central corridor and reached detectable levels in some eastern fields. Oat birdcherry aphids were noted in January.

A similar insect picture emerged in early spring. Greenbugs caused some damage in the west early in the spring and began building to damaging levels in the southwest by late March and early April. By mid-April, oat birdcherry aphids had been found over most of the state and greenbugs were becoming serious in some parts of south-central Kansas. Russian wheat aphids seldom developed damaging populations throughout the season. Although conditions favored army cutworms at different points during the season, they seldom caused serious damage. Winter grain mites and brown wheat mites caused some problems in a few fields, but were generally not serious threats to the crop. Chinch bug numbers generally stayed relatively low because of the cool, wet conditions and the resulting thick, vigorous growth of the wheat.

(From *Cooperative Economic Insect Survey Reports*, Kansas State Board of Agriculture).

## Harvest Statistics

Although early estimates were much higher, the Kansas Agricultural Statistics office's July 12 estimate of the 1995 crop was 302.4 million bushels harvested from 10.8 million acres. This estimate was down 30% from the 1994 harvest. The statewide yield average of 28 bushels per acre was down 10 bushels from last year. Yield-per-acre estimates were lower than last year's in all but the Northwest crop reporting district. Estimates of total production were lower in all districts. Production was less than 50% of that for 1994 in the Southwest district and only 55% in the Southeast district.

(From July 12, 1995 *CROPS* report, Kansas Agricultural Statistics, Topeka).

## WHEAT VARIETIES GROWN IN KANSAS

### Acreage Distribution

The leading wheat varieties planted in Kansas are reported in Figures 6 and 7 and in Table 1. The top 10 varieties occupied 86.2% of the state's seeded acreage.

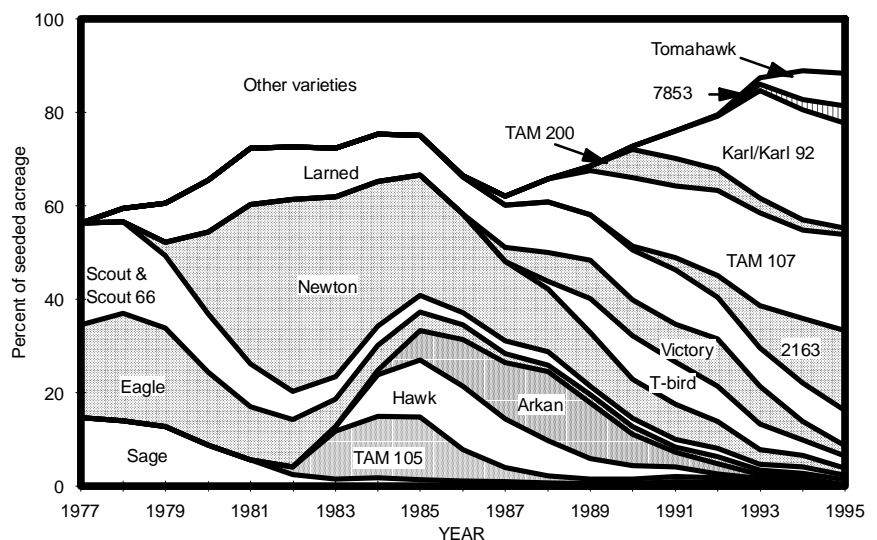
TAM 107 40(33) 7853 5(3)	Karl/Karl 92 24(20) TAM 107 5(4)	Karl/K92 51(51) 7853 2(1)
Larned 11(12) Tomahawk 5(3)	2163 21(21) Thunderbird 4(5)	2163 24(20) T-bird 2(4)
Newton 6(10) Thunderbird 4(5)	Tomahawk 18(15) Larned 2(2)	T-hawk 6(9) Pecos 2(2)
Karl/Karl 92 6(5) Laredo 2(-)	Victory 8(14) Pecos 2(1)	TAM 107 3(1) A-hoe 1(1)
Arapahoe 5(5) Vista 2(-)	7853 5(3) Sierra 1(4)	Victory 3(2) Larned 1(1)
TAM 107 58(51) Eagle 3(2)	2163 31(27)	Karl/Karl 92 60(57) Victory 2(3)
Larned 14(15) Newton 3(4)	Karl/Karl 92 22(23) Larned 5(4)	2163 18(17) Sierra 2(4)
Tomahawk 3(4) Ike 2(-)	Tomahawk 10(8) Victory 3(5)	Tomahawk 6(4) Thunderbird 1(2)
7853 3(2) TAM 200 2(3)	TAM 107 9(8) Thunderbird 3(5)	Pecos 3(1) Newton 1(1)
Thunderbird 3(2) Karl/Karl 92 1(3)	7853 6(4) 2180 2(2)	7853 3(2) Mesa 1(1)
	Pecos 1(1)	
TAM 107 41(41) Tomahawk 3(3)	2163 33(23) TAM 107 3(4)	Karl/Karl 92 75(79) 7853 1(1)
Larned 20(23) Eagle 3(2)	Karl/Karl 92 32(39) Thunderbird 3(3)	2163 10(7) TAM 107 1(2)
Scout(s) 4(4) Newton 3(2)	Tomahawk 8(6) Pecos 2(1)	Tomahawk 2(1) Victory 1(1)
TAM 200 4(4) Longhorn 3(2)	2180 4(5) Larned 2(4)	Triumph(s) 2(1) Thunderbird 1(1)
Karl/Karl 92 4(2) 7853 2(2)	7853 4(2) Victory 2(4)	Pecos 1(1) 2180 1(1)

**Figure 6. Leading wheat varieties in Kansas in 1995, presented as percent of seeded acreage by crop reporting districts for 1995 and 1994 (1994 in parentheses). From Wheat Variety report, Kansas Agricultural Statistics, February 8, 1995.**

The top 10 varieties for each crop reporting district are presented in Figure 6. TAM 107 and Larned predominated in western Kansas. Newton, Arapahoe, Karl/Karl 92, AGSECO 7853 AgriPro Tomahawk, AgriPro Thunderbird, Scout/Scout 66, and TAM 200 also occupied significant acreage in the west. Karl/Karl 92 and 2163 were the most popular varieties in the central and eastern districts. AgriPro Tomahawk was the third most popular variety in these districts. Other popular varieties in the central third of the state included AgriPro Victory, AGSECO 7853, TAM 107, and Larned. 2180 occupied a significant portion of the acreage in the South Central district and a smaller portion of the acreage in the Central district. Both 2163 and 2180 are attractive for the low pH soils found in these districts.

Figure 7 illustrates the statewide distribution of several leading varieties from 1977 through 1995. These varieties occupied 88.6% of the planted wheat acres in 1995. Scout/Scout 66, Eagle, and Sage combined for nearly 60% of the statewide acreage in the late 1970's. In the early 1980's, Newton and Larned dominated, with over 50% of the acreage devoted to these two

varieties. Larned consistently has maintained nearly 10% of the planted acreage since 1980. Newton has dropped from a high of over 40% in 1982 to 1.6% in 1995. TAM 107 predominated in the early 1990's. In 1993, Karl/Karl 92 displaced TAM 107 as the leading variety. Karl/Karl 92, TAM 107, and 2163 together made up 60.1% of the total wheat acreage in 1995. (From February 8, 1995, *Wheat Variety* report, Kansas Agricultural Statistics, Topeka).



**Figure 7. Historical distribution of leading varieties, percent of statewide acreage. From 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 release notices or other material provided by the releasing agencies.

**Akron** hard red winter wheat was released by the Colorado Agricultural Experiment Station in 1994. Akron is a semidwarf, awned, white chaff wheat variety. It is slightly later and taller than TAM 107 or Yuma. Grain yields for Akron in eastern Colorado dryland trials have been similar to those of TAM 107, Yuma, and TAM 200. When irrigated, Akron and TAM 200 have been the highest yielding cultivars. Akron's test weight has been similar to those of Yuma and TAM 107, and its maturity has been similar to that of Yuma. Akron has been superior to TAM 107 for leaf rust resistance and inferior in resistance to the wheat curl mite. Grain quality has been superior to that for TAM 107 and has been similar to that for Lamar. (From release notice for Akron hard red winter wheat, Colorado Agricultural Experiment Station, Fort Collins, Colorado).

**Alliance** hard red winter wheat was released by the Nebraska Agricultural Experiment Station, the South Dakota Agricultural Experiment Station, and the Northern Plains Area, Agricultural Research Service, U.S. Department of Agriculture in 1994. Alliance is a white chaff, awned, semidwarf wheat with medium maturity and moderate straw strength. It has exhibited moderate resistance to stem rust, but is susceptible to leaf rust and soilborne mosaic virus. Alliance has a heterogeneous reaction to the Great Plains biotype of Hessian fly. Test weight is similar to that of Arapahoe. Nebraska researchers recommend Alliance for dryland wheat production in the Nebraska Panhandle. (From release notice for Alliance hard red winter wheat, Nebraska Agricultural Experiment Station, Lincoln, Nebraska).

**Custer** is a hard red winter wheat released by Oklahoma State University in 1994. Custer is a medium early, awned, semidwarf variety. Grain yields for 1992-1993 over 18 station years averaged 24% higher than the averages of Karl, 2180, and Chisholm. Test weight has been fairly good; similar to that for Chisholm. Custer exhibits good resistance to leaf rust, tan spot, and powdery mildew. Milling and baking characteristics are satisfactory. Aluminum tolerance is similar to Karl's. Custer is susceptible to soilborne mosaic virus. (From Oklahoma Cooperative Extension Service "Production Technology; Crop" PT 94-13, vol. 6, No. 13, May 1994).

**Ernie** is a soft red winter wheat released by the Missouri Agricultural Experiment Station in 1994. It is a white chaff cultivar with midlong tapering spikes. Ernie is relatively short, is close to Clark in maturity, has straw strength equal to Caldwell's, and winter hardiness similar to those of Cardinal and Wakefield but less than that of Pioneer 2548. Yield evaluations across 22 location years in Missouri show that Ernie yielded more than Caldwell, similar to Cardinal and Wakefield, and less than Pioneer 2548. Ernie's test weight averaged over 22 location years was similar to that for Pioneer 2548 and greater than those for Caldwell, Cardinal, and Wakefield. Evaluations by the USDA-ARS Soft Wheat Quality Laboratory in Wooster, Ohio for 1989-1992 showed that Ernie has very good to excellent milling and baking quality. Ernie is moderately resistant to Septoria leaf blotch and powdery mildew. Ernie appears to have some tolerance to scab and field resistance to barley yellow dwarf virus. Ernie is susceptible to leaf rust and is moderately susceptible to stem rust under Missouri field conditions. Ernie is susceptible to Hessian fly. (From release notice for Ernie soft red winter wheat, Missouri Agricultural Experiment Station, Columbia, Missouri).

**Halt** is a hard red winter wheat released by the Colorado Agricultural Experiment Station in 1994. Halt is a white chaff, semidwarf wheat that has yielded well under dryland conditions. Halt has excellent resistance to the Russian wheat aphid and is the first such cultivar developed in the United States. Halt has averaged about 5% lower in grain yield than Yuma and TAM 107 in Colorado trials. Its test weight, height, and straw strength have been equal to those for Yuma and TAM 107. It has been similar to TAM 107 in maturity. Leaf rust resistance has been lower than those for many cultivars but higher than that for TAM 107. Milling and baking quality has been similar to Lamar's. (From release notice for Halt hard red winter wheat, Colorado Agricultural Experiment Station, Fort Collins, Colorado).

**Table 1. Comparisons of leading winter wheat varieties grown in Kansas.<sup>1</sup>**

Brand	Variety	Percent Kansas seeded acreage 1995 <sup>2</sup>	Relative <sup>3</sup>				Resistance or tolerance to: <sup>4</sup>							Relative milling and baking quality <sup>5</sup>
			Matur-ity	Test Weight	Straw Str.	Winter hardi-ness	Tan spot	Speck. leaf blotch	Leaf rust	Stem rust	Hes- sian fly	Wheat streak mosaic	Soil- borne mosaic	
----	Karl/Karl 92	22.4	1	3	3	3	3	4	8	7	8	9	1	EX*
----	TAM 107	20.6	1	4	2	2	6	7	9	4	9	3	8	LD
----	2163	17.1	3	6	1	4	4	4	7	4	1	5	1	LD
----	Larned	7.6	4	4	5	3	9	7	8	3	3	7	8	AC
AgriPro	Tomahawk	7.0	3	4	3	2	5	8	3	3	9	8	1	AC
AGSECO	7853	3.7	3	4	4	5	6	9	8	4	9	5	1	EX
AgriPro	Thunderbird	2.6	2	3	3	2	8	6	7	3	9	5	1	AC
AgriPro	Victory	2.2	3	4	4	3	5	9	5	6	9	8	1	AC
----	Newton	1.6	3	4	4	5	9	9	9	3	9	6	1	AC
----	TAM 200	1.4	4	2	4	6	5	3	7	4	9	4	9	LD
----	2180	1.3	1	4	1	6	8	5	6	5	2	9	1	LD
AgriPro	Pecos	1.1	1	4	1	5	6	5	7	4	1	7	1	AC
----	Eagle	1.1	4	4	6	3	9	7	8	4	7	9	9	EX*
----	Scout(s)	1.0	4	4	6	3	9	7	8	3	9	7	9	AC
----	Ike	0.9	4	3	4	3	7	8	6	2	2	9	1	AC
AgriPro	Laredo	0.8	4	4	3	3	6	7	6	4	9	7	7	LD
----	Arapahoe	0.8	6	4	6	3	7	3	5	2	5	7	8	AC
AgriPro	Longhorn	0.7	5	3	2	3	6	6	6	1	8	5	8	LD
AgriPro	Sierra	0.7	5	4	1	5	4	1	4	3	9	8	1	LD
AgriPro	Abilene	0.6	4	3	2	2	6	7	8	2	9	5	1	AC
AgriPro	Mesa	0.4	1	2	2	6	6	6	9	4	9	5	1	AC
----	Triumph(s)	0.3	1	3	7	6	5	9	9	8	9	4	8	LD
----	Vista	0.3	5	4	6	2	8	5	4	5	2	8	8	AC*
AGSECO	7805	0.2	4	4	4	5	7	8	8	1	8	8	9	--
AgriPro	Hawk	0.2	3	4	4	5	9	9	9	2	8	7	1	AC*
AgriPro	Ogallala	0.2	3	2	2	4	6	5	4	3	9	6	9	EX
----	TAM 202	0.2	4	3	2	7	7	5	7	4	9	4	9	LD
----	Arkan	0.1	2	4	4	5	7	9	7	1	2	9	1	AC
----	TAM 105	0.0	3	5	3	3	9	7	9	9	8	7	8	AC
Other Hard Varieties		2.8												
Other Soft Varieties		0.1												

<sup>1</sup> Varieties listed in the February 8, 1995, Wheat Variety survey, Kansas Agricultural Statistics are included. 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 is best and 9 poorest; -- = not tested.

<sup>2</sup> From February 8, 1995 Wheat Variety survey, Kansas Ag. Statistics Office, Topeka, KS.

<sup>3</sup> Agronomic information and some disease ratings provided by Rollin Sears, Department of Agronomy, Kansas State University.

<sup>4</sup> Disease ratings provided by Robert L. Bowden and W.W. Bockus, Department of Plant Pathology; Hessian fly ratings provided by J.H. Hatchett, Department of Entomology, Kansas State University.

<sup>5</sup> Ratings compiled by R.K. Bequette are based on data from the K.S.U. Department of Grain Science and Industry, the U.S. Grain Marketing Research Laboratory, 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 are acceptable, but not outstanding for all properties and 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.



**Jackson** soft red winter wheat was released by the Virginia Polytechnic Institute and State University and the Virginia Agricultural Experiment Station in 1993. Jackson is an awnleted, medium-maturity variety with moderate straw strength. Jackson is moderately resistant to powdery mildew, is moderately susceptible to mid-Atlantic leaf rust races, has some resistance to stem rust, and is moderately susceptible to wheat spindle streak virus. Jackson is susceptible to Hessian fly. It has satisfactory milling and baking properties. Jackson has yielded well in Arkansas, Georgia, Kentucky, North Carolina, South Carolina, Maryland, Indiana, Pennsylvania, and Texas and appears to be adapted to a wide geographic area. (From release notice for Jackson soft red winter wheat, Virginia Polytechnic Institute and State University and the Virginia Agricultural Experiment Station, Blacksburg, Virginia).

**Niobrara** hard red winter wheat was released by the Nebraska Agricultural Research Station and the Northern Plains Area, Agricultural Research Service, U.S. Department of Agriculture in 1994. Niobrara is a white chaff, awned, winter hardy, moderately early semidwarf wheat. It is susceptible to Hessian fly and soilborne mosaic virus, is moderately susceptible to

leaf rust, and is moderately resistant to stem rust. Test weight of Niobrara is lower than those of Arapahoe and Siouxland. Yields of Niobrara have been superior to yields of Vista, Redland, Siouxland, Arapahoe, and TAM 107 in Nebraska tests. (From "Improving wheat varieties for Nebraska, 1994 state breeding and quality evaluation report; report to the Nebraska Wheat Development, Utilization, and Marketing Board", February 1995).

**Tonkawa** hard red winter wheat was released by Oklahoma State University in 1994. Tonkawa is a medium early, awned, semidwarf variety. Grain yields over 18 station years from 1992 and 1993 have averaged 15% higher than the average yields of Karl, 2180, and Chisholm. Test weight for Tonkawa has been higher than those for Karl, 2180, or Chisholm. Tonkawa has exhibited good resistance to leaf rust, soilborne mosaic virus, and powdery mildew. Aluminum tolerance of Tonkawa is similar to Chisholm's. It also has satisfactory milling and baking characteristics. Tonkawa is expected to perform best in north central Oklahoma and also may be suitable for south central Kansas. (From Oklahoma Cooperative Extension Service "Production Technology; Crop" PT 94-14, vol. 6, No. 14, May 1994).

## 1995 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 1995 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.

**Table 2. Parentage and origin of public winter wheat varieties grown in 1995 tests.**

Type and Variety	Parentage	State and Year of Release	
<b>HARD RED WINTER</b>			
Akron	TAM 107/Hail	Colorado	1994
Alliance	Arkan/Colt//Chisholm	Nebraska	1994
Arapahoe	Brule/3/Pkr*4/Agent/Beloterkovskaia 198/Lancer	Nebraska	1988
Arkan	Sage/Arthur	Kansas	1982
Cimarron	Payne*2/CO725052	Oklahoma	1990
Custer	F29-76/TAM 105// Chisholm	Oklahoma	1994
Halt	Sumner/CO820026,F <sub>1</sub> //PI372129,F <sub>1</sub> /3/TAM 107	Colorado	1994
Ike	Dular/Eagle//2*Larned/Cheney/3/Colt	Kansas	1993
Jagger	KS82W418/Stephans	Kansas	1994
Jules	NE76667/Hawk	Colorado	1993
Karl	Plainsman V/3/Kaw/Atlas 50//Parker*5/Agent	Kansas	1988
Karl 92	F <sub>11</sub> head row selection from 'Karl' breeder's seed increase	Kansas	1992
Larned	Scout*5/Ottawa	Kansas	1976
Niobrara	TAM 105*4/Amigo//Brule	Nebraska	1994
Newton	Pitic 62/Chris sib//2*Sonora 64/Klein Rendidor/4/Scout	Kansas	1977
Scout 66	A composite of 85 selections from Scout	Nebraska	1967
TAM 107	TAM 105*4/Amigo	Texas	1984
TAM 200	TX71A1039-V1*3/Amigo	Texas	1987
Tonkawa	F29-76/TAM 105//Chisholm	Oklahoma	1994
Triumph 64	Purification of Danne's "Rust Resistant" Triumph	Oklahoma	1967
Vista	NE68513/NE68457//Centurk/3/Brule	Nebraska	1992
Yuma	NS14/NS25//2*Vona	Colorado	1991
2163	Pioneer line W558/5/Etoile de Choisy//Thorne/Clarkan/3/CI15342/4/Purdue 4946A4-18-2	Kansas (Pioneer)	1989
2172	Pioneer line W558/TAM W-100	Kansas (Pioneer)	1985
2180	TAM W-101/5/Etoile de Choisy//Thorne/Clarkan/3/CI15342/4/Purdue 4946A4-18-2/6/W558	Kansas (Pioneer)	1988
<b>SOFT RED WINTER</b>			
Caldwell	Benhur sib *2/Siette Cerros	Indiana	1981
Cardinal	Logan 2*3/Va63-52-12/Logan/Blueboy	Ohio	1986
Clark	Complex pedigree including Beau, Sullivan, and Logan	Indiana	1987
Ernie	Pike/3/(MO9965,Stoddard/Blueboy//Stoddard/D1707)	Missouri	1994
Excel	Purdue 5672A7-1-1-1-2/Arthur//Logan/Timwin-F <sub>2</sub>	Ohio	1990
Freedom	GR876/OH217 (OH217=Logan*3/3/Va 63-52-12/Logan//Blueboy-F <sub>2</sub> )	Ohio	1991
Jackson	Saluda/Coker 762	Virginia	1993
<b>HARD WHITE WINTER</b>			
Arlin	F <sub>4</sub> selection of white-seeded segregates from bulk population of hard red winter and hard red spring wheats intercrossed in 1981	Kansas	1992

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 1995 private entrants and entries are listed in Table 3. Ten entrants provided a total of 36 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 seed 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 32). 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. None of the 17 tests had to be discarded in 1995, although yields were extremely low and variability was high in some tests. 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. Disease notes from the 1995 performance tests are listed in Table 31. The location codes listed in parentheses after each location name are used as column headers in the data tables.

**Table 3. Private entrants and entries in 1995 Kansas Wheat Performance Tests.**

Entrant	<i>Brand</i>	Variety/Hybrid	Entrant	<i>Brand</i>	Variety/Hybrid
AgriPro Seeds, Inc. 806 N. Second St., PO Box 30 Berthoud, CO 80513 (303) 532-3721	<b>AgriPro</b>	AP 7301 AP 7501 AP 7601 Coronado Hickok Laredo Longhorn Ogallala Pecos Ponderosa Rowdy Tomahawk WX92-0408 Exp WX92-3210 Exp Boone (S)	Greenbush Seed&Supply 315 S. Adams, P.O. Box 661 Hutchinson, KS 67504 (316) 662-6659	<b>Century II</b>	Discovery Voyager 2500 (S)
Bunk Seed Farms, Inc. R.R. 1, Box 98 Everest, KS 66424 (913) 548-7443			Northrup King Co. 1060 Wheatland Dr. Buhler, KS 67522 (316) 543-2707	<b>Northrup King</b>	Coker 9474 (S) Coker 9543 (S)
AGSECO, Inc. P.O. Box 7 Girard, KS 66743 (316) 724-6223	<b>AGSECO</b>	7805 7853 9001 Colby 94 Mankato	Ohlde Seed Farms R.R. Box 63 Palmer, KS 66962 (913) 692-4555	<b>Ohlde</b>	T441 (S)
American White Wheat Producers Association P.O. Box 326 Atchinson, KS 66002 (913) 367-4422	<b>AgriPro</b>  <b>Public, KS</b>	Rio Blanco (W) Oro Blanco (W) 84HW196(W) (Experimental)	HybriTech Seed Intl., Inc. 5912 N. Meridian Wichita, KS 67204 (800) 346-2256	<b>Quantum</b>	XH1520 Exp XH1706 Exp
			Star Seed, Inc. Box 504 Beloit, KS 67420 (800) 782-7611	<b>Star</b>	Champ Salute
			Terra International, Inc. Terra Centre, 600 Fourth St. Sioux City, IA 51102 (712) 233-3609	<b>Terra</b>	HR 153 SR 204 (S) SR 205 (S)

**Table 4. Wheat Performance Test site descriptions and management in 1995.**

County and cooperator	Site, nearest town, and location code	Dates of planting & harvest	Soil type and previous crop	Fertilizers applied, lbs/a			Seeding rate 2/ and row spacing
				1/	N	P K	
<b>EAST</b>							
BROWN	Cornbelt Expt Field	10/14	Grundy silty clay loam	F 75	---	35	91 lb/a
Brian Marsh	Powhattan (BR)	7/14	Oats, 1994	S ---	---	---	8" row spacing
RILEY	Ashland Agron Farm	10/14	Reading silt loam	F 100	25	---	75 lb/a
Rollin Sears	Manhattan (RL)	7/3	Oats, 1994	S ---	---	---	9" row spacing
FRANKLIN	EC KS Expt Field	10/21	Woodson silt loam	F 6	26	13	1,100,000 seeds/a
Keith Janssen	Ottawa (FR)	7/3	Soybeans, 1994	S 70	---	---	7" row spacing
LABETTE	SE Agric Res Ctr	10/13	Parsons silt loam	F 60	60	60	85 lb/a
Jim Long	Parsons (LB)	6/16	Corn, 1994	S 40	---	---	7" row spacing
<b>CENTRAL</b>							
REPUBLIC	NC KS Expt Field	10/3	Crete silt loam	F 30	30	---	60 lb/a
Barney Gordon	Belleville (RP)	7/11	Soybeans, 1994	S 60	---	---	7.5" row spacing
HARVEY	Harvey Co Expt Fld	10/14	Ladysmith silty clay loam	F 86	24	---	60 lb/a
Mark Claassen	Hesston (HV)	6/28	Oats, 1994	S ---	---	---	7" row spacing
RENO	SC KS Expt Field	10/6	Ost silt loam	F 100	40	---	60 lb/a
William Heer	Hutchinson (RN)	6/28	Wheat, 1994	S 40	---	---	8" row spacing
STAFFORD Dry	Sandyland Expt Field	10/11	Pratt loamy fine sand	F 58	46	---	60 lb/a
Victor Martin	St. John (SD)	7/6	Grain sorghum, 1993	S 50	---	---	7" row spacing
SUMNER	Max Kolarik Farm	10/27	Sandy loam	F 60	20	---	60 lb/a
Rollin Sears	Caldwell (SU)	6/26	Wheat, 1994	S ---	---	---	9" row spacing
<b>WEST</b>							
ELLIS	Agric Res Ctr - Hays	10/10	Harney clay loam	F 50	---	---	60 lb/a
T. Joe Martin	Hays (EL)	7/8	Sorghum, 1993	S ---	---	---	12" row spacing
THOMAS Dry	NW Res-Ext Ctr	9/21	Keith silt loam	F 60	---	---	50 lb/a
Pat Evans	Colby (TD)	7/13	Wheat, 1993	S ---	---	---	12" row spacing
GREELEY Dry	SW Res-Ext Ctr	9/15	Richfield silt loam	F ---	---	---	45 lb/a
Alan Schlegel	Tribune Unit (GD)	7/13	Wheat, 1993	S 45	---	---	10" row spacing
FINNEY Dry	SW Res-Ext Ctr	9/21	Keith silt loam	F 50	---	---	45 lb/a
Merle Witt	Garden City Unit (FD)	7/6	Wheat, 1992	S ---	---	---	10" row spacing
<b>IRRIGATED</b>							
STAFFORD Irr 3/	Sandyland Expt Field	10/10	Pratt loamy fine sand	F 58	46	---	90 seeds/a
Victor Martin	St. John (SI)	7/10	Corn, 1993	S 50	---	---	7" row spacing
THOMAS Irr 3/	NW Res-Ext Ctr	9/22	Keith silt loam	F 80	20	---	90 lb/a
Pat Evans	Colby (TI)	7/12	Wheat, 1994	S ---	---	---	12" row spacing
GREELEY Irr 3/	SW Res-Ext Ctr	9/19	Colby silt loam	F ---	---	---	90 lb/a
Alan Schlegel	Tribune Unit (GI)	7/14	Wheat, 1993	S 120	---	---	10" row spacing
FINNEY Irr 3/	SW Res-Ext Ctr	9/27	Keith silt loam	F 80	---	---	75 lb/a
Merle Witt	Garden City Unit (FI)	7/7	Corn, 1994	S 80	---	---	10" row spacing

1/ F = fall application; S = spring.

2/ Seed weight of 1995 entries varied from 22.5 to 45.8 grams/1000 kernels, averaging 33.8 grams/1000 kernels.

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

## EAST

**Brown County (BR):** Favorable fall moisture and mild winter weather provided the potential for high yields. Very wet conditions in April and May provided a favorable environment for leaf diseases, which reduced test weights. Some scab was also present.

**Riley County (RL):** Stand establishment was very good. A warm winter allowed the wheat to grow continuously. Plant development was excellent through Feekes 10.5, and disease pressure was relatively light. After anthesis, continuous wet weather and extremely heavy disease pressure followed by high temperatures at Feekes 11.1-11.2 all interacted to completely destroy yield potential. Those varieties that produced yields above 20 bushels per acre had acceptable tolerance to speckled glume blotch.

**Franklin County (FR):** Fall weather conditions favored stand establishment and early development. The mild winter caused little direct damage to the wheat. Relatively dry conditions in the early spring changed to very wet conditions from mid-April through mid-June. Leaf rust caused the most damage to varieties in the test. Rust developed early and affected the flag leaf by pollination time. Barley yellow dwarf also affected susceptible varieties.

**Labette County (LB):** Good fall growing conditions enabled the wheat to fill in and cover the soil before winter. The fairly warm winter allowed the barley yellow dwarf virus to infest susceptible varieties. Very wet spring weather damaged surrounding fields, but good drainage spared the performance test. Barley yellow dwarf symptoms were severe even in this relatively late-planted wheat and were highly correlated with yields. Very severe leaf rust started early and appeared on some flag leaves shortly after flowering.

## CENTRAL

**Republic County (RP):** Fall and winter conditions favored stand establishment and early development. Very cool and wet weather in April and May slowed spring growth. Some susceptible varieties exhibited low levels of Hessian fly damage. Scab, glume blotch, and tan spot were present at moderate to high levels. Leaf rust moved in late in the growing season.

**Harvey County (HV):** Late summer drought preceded wheat planting. Wheat was seeded into dry soil, but timely mid-October rains resulted in rapid emergence. Fall growth was good, as precipitation remained slightly above normal and relatively mild temperatures continued. Coldest winter temperatures in the single digits were recorded during the first weeks of January and March. However, February and March had periods of unusually warm days. Below-normal

temperatures and above-normal precipitation followed in April and May. Spindle streak mosaic symptoms were noted in early May, with stunting apparent in some susceptible varieties. Leaf rust also became evident in early May and progressed in severity until senescence in late May to early June. May rainfall was more than 6 inches above normal. Excess moisture during the spring months contributed to yield reduction and low test weights.

**Reno County (RN):** Relatively dry conditions prevailed during the fall and winter. Warm soil temperatures throughout the winter enabled the wheat to continue growing. In early spring, the wheat was about 2 weeks ahead of normal, but late freezes set it back. Wet spring and early summer conditions encouraged foliar diseases. Leaf rust, tan spot, and powdery mildew all contributed to lower, more variable yields.

**Stafford County, dryland (SD):** Preplant rains in early October resulted in good stands. Relatively dry, mild conditions characterized the winter months. Several late freezes combined with cool nighttime temperatures caused some freeze damage to the head and male sterility, although overall plant appearance was good. Continued cool temperatures in April and May delayed flowering and grain development. Hot weather from mid-June until harvest hastened drydown and severely hampered grain fill. Tan spot, spindle streak, barley yellow dwarf, speckled leaf blotch, and leaf rust reached severe levels. The flag leaf was essentially gone 3 to 4 weeks before harvest. Powdery mildew and glume blotch also were noted. Greenbugs reached heavy infestations in late winter and early spring.

**Sumner County (SU):** Stand establishment was excellent, and the wheat grew all winter with no cold temperature stress. Aluminum toxicity was severe, and varieties with tolerance generally were the most productive. Tan spot and leaf rust were the most important diseases.

## WEST

**Ellis County (EL):** The test was seeded in a dry seedbed and did not emerge until late October. Mild winter weather enabled the test to develop at a rapid pace until cool weather and late freezes in late April. Leaf rust defoliated most susceptible varieties. However, cool weather allowed most varieties to fill the grain. Barley yellow dwarf virus caused most of the test variability.

**Thomas County, dryland (TD):** Timely rains in September and October enabled the establishment of good stands. Mild winter weather with snow cover during the coldest periods resulted in no winter kill.

Very cold temperatures from April 9 to 13 (18° F for 2-5 hours and less than 24° F for 12 hours) caused minimal damage. Only AGSECO 7853 and KS84HW196 seemed to sustain significant damage. Above-normal precipitation and below-normal temperatures from April through the first week in July delayed maturity until very hot, windy conditions in the second week in July caused all varieties to dry down very rapidly.

**Greeley County, dryland (GD):** Dry soil conditions at planting resulted in uneven emergence. The mild winter favored continued growth. Freeze injury on April 11 caused lodging in some varieties and loss of tillers and some kernels. Leaf rust, barley yellow dwarf, and wheat streak mosaic virus were all present.

**Finney County, dryland (FD):** All varieties emerged well. Heavy growth and abundant tillering occurred during the warm winter. A hard freeze on April 10-11 caused stem damage and tiller loss. Grain filling took place very late under cool conditions, resulting in very low test weights. Leaf rust reached severe levels.

### IRRIGATED

**Stafford County, irrigated (SI):** See description for dryland test at this location. Soilborne mosaic virus and wheat streak mosaic virus were present in addition to those diseases listed for the dryland test. Tan spot was much less severe in this test.

**Thomas County, irrigated (TI):** See description for dryland test at this location.

**Greeley County, irrigated (GI):** See description for dryland test at this location.

**Finney County, irrigated (FI):** See description for dryland test at this location. The freeze seemed to cause more damage to the irrigated test.

### Test Results and Variety Characterization

Results from Kansas tests are presented in Tables 5 through 30. 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 1995 entries can best be determined by examining Table 1 and data in Tables 5 through 30 for the relative performance of new varieties or hybrids of interest compared to those the grower is currently planting. Yields are reported in Tables 5-8 as bushels per acre (60 pounds per bushel) adjusted to a moisture content of 12.5%, where moistures were reported at harvest. In Tables 9-12, 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 Tables 13-16 to check the performance of entries over several years at locations closest to their farms. These tables present multi-year yields as percent of the test average for the 4 past years and an average over the 4 years calculated from the standardized yield data. One-year or one-location results can be misleading because of the possibility of unusual weather conditions, such as those experienced this year.

Measurements of characteristics often contributing to yield performance are shown in Tables 17-20 (test weights); Tables 21-24 (maturity differences); Tables 25-28 (heights); Tables 29-30 (lodging), Table 31 (disease notes); and Table 32 (planted seed characteristics, coleoptile lengths, disease and insect ratings, etc.).

At the bottom of each table is the L.S.D. (least significant difference) for each column of replicated data. The use of the L.S.D. 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 (C.V.) 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, C.V.'s below 10% generally indicate reliable, uniform data, whereas C.V.'s from 11 to 15% usually indicate less desirable but generally useful data for the rough performance comparisons desired from these tests. This year, a few tests had C.V.'s of over 20%. These were generally very low yielding tests, which can contribute to a higher calculated C.V., but can still provide useful yield comparisons provided the unusual yield levels are considered.

### 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 Research Laboratory 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 1994 harvest are presented in Tables 33, 34, 35, and 36.

**Table 5. Yield (bushels per acre) 1995 Kansas Winter Wheat Performance Tests - East.**

Private		Test Location					Public	Test Location				
Brand	Cultivar	BR	RL	FR	LB	Avg.	Cultivar	BR	RL	FR	LB	Avg.
AgriPro	AP 7501	--	18	--	--	--	2163	42	20	43	40	36
AgriPro	WX92-0408 Exp	--	23	--	--	--	Arapahoe	46	11	--	--	--
AgriPro	Coronado	29	13	42	34	30	Arkan	26	7	30	25	22
AgriPro	Rowdy	36	10	45	33	31	Cimarron	52	19	30	34	34
AgriPro	Hickok	33	13	--	--	--	Custer	40	17	49	27	33
AgriPro	Pecos	--	--	41	29	--	Ike	39	8	41	36	31
AgriPro	(S) Boone	36	19	45	35	34	Jagger	50	27	41	46	41
AGSECO	Mankato	46	--	--	--	--	Karl	38	18	30	31	29
AGSECO	7853	42	17	42	39	35	Karl 92	42	17	36	35	32
AWWPA	(W) Rio Blanco	--	--	--	26	--	KS91H153-2	32	13	37	37	30
AWWPA	(W) Oro Blanco	35	19	36	33	31	KS92PO263-137	31	22	39	37	32
Century II	Discovery	43	20	33	42	35	Larned	28	4	21	24	19
Century II	(S) 2500	45	30	45	38	40	Niobrara	36	10	--	--	--
NK	(S) Coker 9474	--	--	--	42	--	Newton	20	6	28	21	19
NK	(S) Coker 9543	--	--	--	38	--	Scout 66	26	4	14	17	15
Ohlde	(S) T441	64	28	54	47	48	TAM 107	29	11	33	26	24
Star	Champ	40	15	--	--	--	Tonkawa	37	12	42	29	30
Star	Salute	22	8	--	--	--	Vista	38	9	--	--	--
Terra	HR 153	39	--	39	39	--	(S) Caldwell	52	25	50	38	42
Terra	(S) SR 204	53	--	44	38	--	(S) Cardinal	49	30	51	46	44
Terra	(S) SR 205	65	--	60	40	--	(S) Clark	40	32	37	38	37
							(S) Ernie	55	25	43	35	39
							(S) Excel	31	14	39	41	31
							(S) Freedom	37	13	39	32	30
							(S) Jackson	56	23	48	40	42
							(S) MO12258 Exp	54	30	45	37	42
							(W) Arlin	36	14	38	32	30
							Test Average	40	17	40	35	33
							C.V. (%)	9	25	10	9	--
							L.S.D.(0.05)**	4	5	5	4	--

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

**Table 6. Yield (bushels per acre) 1995 Kansas Winter Wheat Performance Tests - Central.**

Private Brand	Cultivar	Test Location					Avg.	Public Cultivar	Test Location					Avg.
		RP	HV	RN	SD	SU			RP	HV	RN	SD	SU	
AgriPro	AP 7501	57	--	--	--	--	--	2163	72	32	22	18	26	34
AgriPro	AP 7601	60	--	--	--	--	--	2172	--	24	27	5	15	--
AgriPro	WX92-0408 Exp	70	--	--	--	--	--	2180	--	36	26	11	18	--
AgriPro	WX92-3210 Exp	65	--	--	--	--	--	Alliance	55	--	--	--	--	--
AgriPro	Coronado	48	34	23	15	12	26	Arapahoe	61	--	--	15	--	--
AgriPro	Rowdy	56	25	18	7	16	24	Arkan	41	18	15	5	6	17
AgriPro	Hickok	53	28	26	--	--	--	Cimarron	54	20	24	16	15	26
AgriPro	Pecos	--	26	29	--	14	--	Custer	53	34	29	7	20	28
AgriPro	Ponderosa	51	18	18	10	--	--	Ike	60	23	15	17	8	25
AgriPro	Tomahawk	45	15	15	16	--	--	Jagger	74	46	39	17	30	41
AGSECO	Mankato	58	--	19	--	--	--	Karl	57	32	23	13	7	26
AGSECO	7853	55	28	20	16	18	27	Karl 92	58	34	24	13	11	28
AGSECO	Colby 94	60	--	21	--	--	--	KS91H153-2	55	21	24	15	7	24
AWWPA	(W) Rio Blanco	--	--	--	--	9	--	KS92PO263-137	53	29	32	15	12	28
AWWPA	(W) Oro Blanco	54	25	17	10	12	24	Larned	46	11	8	7	7	16
Century II	Discovery	49	31	23	14	22	28	Niobrara	53	--	--	17	--	--
Century II	Voyager	--	--	--	11	5	--	Newton	40	13	8	11	3	15
Century II	(S) 2500	56	44	31	--	--	--	Scout 66	37	10	6	7	7	14
Star	Champ	64	--	--	17	--	--	TAM 107	47	19	21	8	6	20
Star	Salute	40	--	--	19	--	--	TAM 200	51	25	19	16	8	24
Terra	HR 153	--	26	21	--	--	--	Tonkawa	41	22	26	6	19	23
								Triumph 64	--	16	17	9	12	--
								Vista	51	--	--	18	--	--
								Yuma	58	--	--	--	--	--
								(W) Arlin	53	38	24	9	14	28
								Test Average	55	27	22	13	14	26
								C.V. (%)	10	11	14	14	27	--
								L.S.D.(0.05)**	7	3	4	2	4	--

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



**Table 7. Yield (bushels per acre) 1995 Kansas Winter Wheat Performance Tests - West.**

Private Brand	Cultivar	Test Location					Public Cultivar	Test Location				
		EL	TD	GD	FD	Avg.		EL	TD	GD	FD	Avg.
AgriPro	AP 7501	54	61	--	--	--	2163	48	56	52	29	46
AgriPro	AP 7601	--	55	--	--	--	Akron	43	50	52	25	43
AgriPro	WX92-0408 Exp	61	67	--	--	--	Alliance	43	60	--	--	--
AgriPro	WX92-3210 Exp	--	61	--	--	--	Arapahoe	48	60	50	31	47
AgriPro	Coronado	38	48	44	21	38	Cimarron	45	53	51	32	45
AgriPro	Rowdy	47	--	--	--	--	Custer	49	52	53	19	43
AgriPro	Laredo	41	38	40	24	36	Halt	35	38	41	20	34
AgriPro	Longhorn	38	47	41	23	37	Ike	44	50	41	31	42
AgriPro	Hickok	44	--	--	--	--	Jagger	52	58	45	22	44
AgriPro	Ogallala	49	56	52	29	47	Jules	41	57	57	33	47
AgriPro	Ponderosa	41	--	--	--	--	Karl	39	49	39	24	38
AgriPro	Tomahawk	41	--	--	--	--	Karl 92	44	47	44	22	39
AGSECO	Mankato	45	56	48	--	--	KS91H153-2	47	47	44	23	40
AGSECO	7805	--	--	42	22	--	KS92PO263-137	43	57	51	31	45
AGSECO	7853	41	30	36	25	33	Larned	30	43	32	15	30
AGSECO	9001	40	57	56	30	46	Niobrara	46	56	49	31	45
AGSECO	Colby 94	45	54	46	28	43	Newton	31	46	36	20	33
AWWPA	(W)KS84HW196Exp	--	28	--	--	--	Scout 66	27	40	33	16	29
AWWPA	(W) Rio Blanco	38	44	--	25	--	TAM 107	36	42	38	20	34
AWWPA	(W) Oro Blanco	46	59	54	30	47	TAM 200	43	57	46	28	44
Century II	Discovery	36	--	--	--	--	Tonkawa	41	50	46	23	40
Century II	Voyager	30	38	43	16	32	Triumph 64	26	--	--	--	--
Century II	(S) 2500	58	--	--	--	--	Vista	50	64	54	33	50
Quantum	XH1520 Exp	48	54	51	--	--	Yuma	46	48	48	28	42
Quantum	XH1706 Exp	46	54	52	--	--	(W) Arlin	39	45	41	17	36
Star	Champ	45	--	--	--	--						
Star	Salute	42	--	--	--	--	Test Average	43	51	46	25	41
							C.V. (%)	11	9	6	11	--
							L.S.D.(0.05)**	5	6	3	3	--

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

**Table 8. Yield (bushels per acre) 1995 Kansas Winter Wheat Performance Tests - Irrigated.**

Private		Test Location					Public		Test Location				
Brand	Cultivar	SI	TI	GI	FI	Avg.	Cultivar	SI	TI	GI	FI	Avg.	
AgriPro	AP 7301	6	41	24	16	22	2163	18	65	29	23	34	
AgriPro	AP 7501	19	59	39	24	35	2180	13	--	--	19	--	
AgriPro	AP 7601	23	57	34	23	34	Cimarron	9	46	33	15	26	
AgriPro	WX92-0408 Exp	32	65	42	33	43	Custer	4	48	33	16	25	
AgriPro	WX92-3210 Exp	24	59	36	26	36	Ike	23	45	32	17	30	
AgriPro	Coronado	16	47	24	15	25	Jagger	16	53	31	22	31	
AgriPro	Rowdy	12	55	29	23	30	Karl	20	44	30	19	28	
AgriPro	Laredo	--	40	19	19	--	Karl 92	18	49	25	18	27	
AgriPro	Hickok	22	47	27	21	29	KS91H153-2	9	43	21	19	23	
AgriPro	Ogallala	--	59	27	23	--	KS92PO263-137	26	65	38	26	39	
AgriPro	Pecos	11	47	30	16	26	Newton	13	43	19	9	21	
AgriPro	Ponderosa	18	--	--	--	--	TAM 107	8	39	22	15	21	
AgriPro	Tomahawk	17	--	--	--	--	TAM 200	9	54	27	17	27	
AGSECO	Mankato	--	57	31	--	--	Tonkawa	10	41	35	14	25	
AGSECO	7853	17	32	23	22	24	Yuma	2	51	25	12	23	
AGSECO	9001	--	57	42	20	--	(W) Arlin	10	52	21	12	24	
AWWPA	(W)KS84HW196Exp	--	24	--	--	--							
AWWPA	(W) Rio Blanco	13	45	--	13	--	Test Average	15	50	29	18	28	
AWWPA	(W) Oro Blanco	15	63	35	18	32	C.V. (%)	23	8	10	13	--	
Century II	Discovery	11	--	--	--	--	L.S.D.(0.05)**	4	4	3	3	--	
Century II	Voyager	7	41	21	4	18							

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

**Table 9. Yield (% of test average) 1995 Kansas Winter Wheat Performance Tests - East.**

Private Brand	Cultivar	Test Location					Public Cultivar	Test Location				
		BR	RL	FR	LB	Avg.		BR	RL	FR	LB	Avg.
AgriPro	AP 7501	--	104	--	--	--	2163	104	114	109	115	111
AgriPro	WX92-0408 Exp	--	132	--	--	--	Arapahoe	114	64	--	--	--
AgriPro	Coronado	71	78	106	98	88	Arkan	65	43	77	72	64
AgriPro	Rowdy	89	57	112	94	88	Cimarron	129	113	77	96	104
AgriPro	Hickok	82	75	--	--	--	Custer	100	98	122	77	99
AgriPro	Pecos	--	--	103	84	--	Ike	97	48	103	104	88
AgriPro	(S) Boone	89	109	113	101	103	Jagger	124	155	102	133	128
AGSECO	Mankato	113	--	--	--	--	Karl	93	105	76	88	90
AGSECO	7853	104	101	105	111	105	Karl 92	103	99	89	99	98
AWWPA	(W) Rio Blanco	--	--	--	74	--	KS91H153-2	80	77	92	105	89
AWWPA	(W) Oro Blanco	86	110	90	95	95	KS92PO263-137	77	127	97	107	102
Century II	Discovery	106	117	84	119	107	Larned	70	21	52	70	53
Century II	(S) 2500	112	174	114	109	127	Niobrara	90	60	--	--	--
NK	(S) Coker 9474	--	--	--	121	--	Newton	49	36	71	59	54
NK	(S) Coker 9543	--	--	--	108	--	Scout 66	65	22	36	49	43
Ohlde	(S) T441	159	163	136	135	148	TAM 107	72	63	82	73	72
Star	Champ	100	88	--	--	--	Tonkawa	91	68	106	84	87
Star	Salute	54	48	--	--	--	Vista	94	51	--	--	--
Terra	HR 153	97	--	97	110	--	(S) Caldwell	129	147	127	110	128
Terra	(S) SR 204	132	--	112	109	--	(S) Cardinal	122	177	129	131	140
Terra	(S) SR 205	161	--	152	114	--	(S) Clark	100	186	93	108	122
							(S) Ernie	136	147	108	101	123
							(S) Excel	78	83	98	116	94
							(S) Freedom	92	75	99	93	90
							(S) Jackson	138	135	121	113	127
							(S) MO12258 Exp	134	177	114	107	133
							(W) Arlin	88	83	96	92	90
							Test Average (bu/acre)	40	17	40	35	33
							C.V. (%)	9	25	10	9	--
							L.S.D.(0.05)**	10	30	12	10	--

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

**Table 10. Yield (% of test average) 1995 Kansas Winter Wheat Performance Tests - Central.**

Private Brand	Cultivar	Test Location					Avg.	Public Cultivar	Test Location					Avg.
		RP	HV	RN	SD	SU			RP	HV	RN	SD	SU	
AgriPro	AP 7501	105	--	--	--	--	--	2163	131	116	98	138	185	134
AgriPro	AP 7601	110	--	--	--	--	--	2172	--	87	120	43	109	--
AgriPro	WX92-0408 Exp	128	--	--	--	--	--	2180	--	131	116	90	130	--
AgriPro	WX92-3210 Exp	118	--	--	--	--	--	Alliance	100	--	--	--	--	--
AgriPro	Coronado	87	124	105	117	86	104	Arapahoe	111	--	--	117	--	--
AgriPro	Rowdy	102	92	82	58	112	89	Arkan	74	66	68	39	42	58
AgriPro	Hickok	97	102	117	--	--	--	Cimarron	99	72	107	124	108	102
AgriPro	Pecos	--	95	128	--	101	--	Custer	97	125	128	52	143	109
AgriPro	Ponderosa	93	65	82	82	--	--	Ike	109	85	66	137	61	92
AgriPro	Tomahawk	82	56	68	125	--	--	Jagger	135	169	175	134	219	166
AGSECO	Mankato	106	--	85	--	--	--	Karl	104	116	104	100	49	94
AGSECO	7853	101	103	89	124	129	109	Karl 92	106	125	108	104	83	105
AGSECO	Colby 94	109	--	92	--	--	--	KS91H153-2	101	76	108	119	49	91
AWWPA	(W) Rio Blanco	--	--	--	--	65	--	KS92PO263-137	96	107	145	120	87	111
AWWPA	(W) Oro Blanco	98	91	77	83	89	87	Larned	83	41	37	56	47	53
Century II	Discovery	90	114	104	114	156	116	Niobrara	96	--	--	135	--	--
Century II	Voyager	--	--	--	90	39	--	Newton	73	48	34	89	19	53
Century II	(S) 2500	103	162	139	--	--	--	Scout 66	68	36	28	59	54	49
Star	Champ	117	--	--	136	--	--	TAM 107	86	71	94	61	40	70
Star	Salute	72	--	--	150	--	--	TAM 200	93	91	86	130	57	91
Terra	HR 153	--	95	94	--	--	--	Tonkawa	76	82	115	46	140	92
								Triumph 64	--	57	75	72	85	--
								Vista	94	--	--	144	--	--
								Yuma	105	--	--	--	--	--
								(W) Arlin	96	138	108	71	104	103
								Test Average (bu/a)	55	27	22	13	14	26
								C.V. (%)	10	11	14	14	27	--
								L.S.D.(0.05)**	12	13	17	15	32	--

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

**Table 11. Yield (% of test average) 1995 Kansas Winter Wheat Performance Tests - West.**

Private		Test Location					Public	Test Location				
Brand	Cultivar	EL	TD	GD	FD	Avg.	Cultivar	EL	TD	GD	FD	Avg.
AgriPro	AP 7501	125	119	--	--	--	2163	110	110	113	114	112
AgriPro	AP 7601	--	109	--	--	--	Akron	100	98	114	101	103
AgriPro	WX92-0408 Exp	141	132	--	--	--	Alliance	99	117	--	--	--
AgriPro	WX92-3210 Exp	--	121	--	--	--	Arapahoe	113	117	110	124	116
AgriPro	Coronado	89	94	96	86	91	Cimarron	105	104	111	127	112
AgriPro	Rowdy	108	--	--	--	--	Custer	113	102	115	76	102
AgriPro	Laredo	95	76	87	95	88	Halt	82	76	89	79	82
AgriPro	Longhorn	89	93	90	93	91	Ike	102	99	89	124	104
AgriPro	Hickok	103	--	--	--	--	Jagger	122	113	99	90	106
AgriPro	Ogallala	113	110	114	118	114	Jules	95	113	124	132	116
AgriPro	Ponderosa	95	--	--	--	--	Karl	91	96	86	98	93
AgriPro	Tomahawk	96	--	--	--	--	Karl 92	101	93	97	87	94
AGSECO	Mankato	104	110	105	--	--	KS91H153-2	109	92	95	91	97
AGSECO	7805	--	--	91	89	--	KS92PO263-137	100	112	111	126	112
AGSECO	7853	94	60	80	101	84	Larned	71	84	70	59	71
AGSECO	9001	94	113	123	121	113	Niobrara	107	109	108	125	112
AGSECO	Colby 94	105	106	101	112	106	Newton	72	90	78	78	80
AWWPA	(W)KS84HW196Exp	--	54	--	--	--	Scout 66	63	79	72	62	69
AWWPA	(W) Rio Blanco	88	87	--	100	--	TAM 107	83	82	83	79	82
AWWPA	(W) Oro Blanco	107	117	117	122	116	TAM 200	100	113	101	112	106
Century II	Discovery	84	--	--	--	--	Tonkawa	94	99	101	92	96
Century II	Voyager	70	75	95	65	76	Triumph 64	60	--	--	--	--
Century II	(S) 2500	135	--	--	--	--	Vista	116	126	117	133	123
Quantum	XH1520 Exp	112	107	112	--	--	Yuma	107	95	105	111	104
Quantum	XH1706 Exp	106	107	114	--	--	(W) Arlin	91	89	90	67	84
Star	Champ	106	--	--	--	--						
Star	Salute	97	--	--	--	--	Test Average (bu/acre)	43	51	46	25	41
							C.V. (%)	11	9	6	11	--
							L.S.D.(0.05)**	13	11	7	12	--

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

**Table 12. Yield (% of test average) 1995 Kansas Winter Wheat Performance Tests - Irrigated.**

Private		Test Location					Public	Test Location				
Brand	Cultivar	SI	TI	GI	FI	Avg.	Cultivar	SI	TI	GI	FI	Avg.
AgriPro	AP 7301	42	83	82	86	73	2163	121	131	99	124	119
AgriPro	AP 7501	130	119	133	132	128	2180	85	--	--	105	--
AgriPro	AP 7601	154	114	118	124	127	Cimarron	57	93	114	84	87
AgriPro	WX92-0408 Exp	216	131	144	177	167	Custer	25	96	114	90	81
AgriPro	WX92-3210 Exp	158	119	123	140	135	Ike	156	91	111	94	113
AgriPro	Coronado	106	95	81	83	91	Jagger	108	107	107	121	111
AgriPro	Rowdy	82	110	99	124	104	Karl	135	89	103	102	107
AgriPro	Laredo	--	81	64	101	--	Karl 92	120	98	86	99	101
AgriPro	Hickok	150	95	94	115	113	KS91H153-2	61	87	70	103	80
AgriPro	Ogallala	--	120	93	126	--	KS92PO263-137	173	131	130	144	145
AgriPro	Pecos	72	94	103	86	89	Newton	86	87	64	48	71
AgriPro	Ponderosa	119	--	--	--	--	TAM 107	54	79	77	80	72
AgriPro	Tomahawk	115	--	--	--	--	TAM 200	61	109	93	94	89
AGSECO	Mankato	--	115	106	--	--	Tonkawa	69	83	122	75	87
AGSECO	7853	113	65	79	120	94	Yuma	15	102	87	65	67
AGSECO	9001	--	115	145	107	--	(W) Arlin	67	105	71	64	77
AWWPA	(W)KS84HW196Exp	--	48	--	--	--						
AWWPA	(W) Rio Blanco	87	90	--	69	--	Test Average (bu/acre)	15	50	29	18	28
AWWPA	(W) Oro Blanco	98	126	118	95	110	C.V. (%)	23	8	10	13	--
Century II	Discovery	74	--	--	--	--	L.S.D.(0.05)**	24	9	12	16	--
Century II	Voyager	47	82	71	23	56						

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

**Table 13a. Period-of-years yield (% of test average) Kansas Winter Wheat Tests - East.**

Brand	Cultivar	Brown					Riley				
		1995	1994	1992	1991	Avg.	1995	1994	1992	1991	Avg.
AgriPro	AP 7501	--	--	--	--	--	104	--	--	--	104
AgriPro	WX92-0408 Exp	--	--	--	--	--	132	--	--	--	132
AgriPro	Coronado	71	--	--	--	71	78	--	--	--	78
AgriPro	Rowdy	89	--	--	--	89	57	--	--	--	57
AgriPro	Hickok	82	96	--	--	89	75	--	--	--	75
AgriPro	Pecos	--	--	92	--	92	--	--	85	--	85
AgriPro	(S) Boone	89	120	--	--	104	109	--	--	--	109
AGSECO	Mankato	113	124	--	--	119	--	100	--	--	100
AGSECO	7853	104	117	141	107	117	101	129	131	127	122
AWWPA	(W) Rio Blanco	--	--	--	--	--	--	--	57	--	57
AWWPA	(W) Oro Blanco	86	--	--	--	86	110	--	--	--	110
Century II	Discovery	106	77	75	--	86	117	98	114	96	106
Century II	(S) 2500	112	76	--	--	94	174	109	--	--	142
NK	(S) Coker 9474	--	--	--	--	--	--	--	--	--	--
NK	(S) Coker 9543	--	--	--	--	--	--	--	--	--	--
Ohlde	(S) T441	159	127	87	--	124	163	103	129	--	132
Star	Champ	100	130	--	--	115	88	105	--	--	97
Star	Salute	54	104	--	--	79	48	108	--	--	78
Terra	HR 153	97	--	141	--	119	--	--	--	--	--
Terra	(S) SR 204	132	--	141	--	137	--	--	--	--	--
Terra	(S) SR 205	161	--	--	--	161	--	--	--	--	--
---	2163	104	97	121	137	115	114	113	127	129	121
---	Arapahoe	114	81	154	89	109	64	88	90	69	78
---	Arkan	65	104	81	102	88	43	93	80	105	80
---	Cimarron	129	93	94	76	98	113	113	75	105	102
---	Custer	100	--	--	--	100	98	--	--	--	98
---	Ike	97	122	118	--	112	48	103	101	--	84
---	Jagger	124	95	--	--	110	155	122	--	--	138
---	Karl	93	128	136	136	123	105	90	161	123	120
---	Karl 92	103	114	--	--	109	99	96	--	--	97
---	KS91H153-2	80	--	--	--	80	77	--	--	--	77
---	KS92PO263-137	77	137	--	--	107	127	131	--	--	129
---	Larned	70	78	109	59	79	21	51	79	64	53
---	Niobrara	90	--	--	--	90	60	--	--	--	60
---	Newton	49	102	118	87	89	36	87	39	83	61
---	Scout 66	65	84	126	77	88	22	49	39	58	42
---	TAM 107	72	76	104	96	87	63	106	47	104	80
---	Tonkawa	91	--	--	--	91	68	--	--	--	68
---	Vista	94	96	--	--	95	51	105	--	--	78
---	(S) Caldwell	129	91	92	128	110	147	108	143	125	131
---	(S) Cardinal	122	78	85	101	96	177	112	104	113	126
---	(S) Clark	100	112	79	128	105	186	68	153	119	131
---	(S) Ernie	136	--	--	--	136	147	--	--	--	147
---	(S) Excel	78	103	--	--	90	83	94	--	--	89
---	(S) Freedom	92	60	88	--	80	75	93	155	--	108
---	(S) Jackson	138	--	--	--	138	135	--	--	--	135
---	(S) MO12258 Exp	134	--	--	--	134	177	--	--	--	177
---	(W) Arlin	88	78	37	--	68	83	123	82	--	96
Test Average (bu/acre)		40	44	37	44	41	17	39	25	42	31
C.V. (%)		9	11	--	--	--	25	12	--	--	--
L.S.D.(0.05)**		10	13	23	14	--	30	14	23	23	--

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

**Table 13b. Period-of-years yield (% of test average) Kansas Winter Wheat Tests - East.**

Brand	Cultivar	Franklin					Labette				
		1995	1994	1993	1992	Avg.	1995	1994	1993	1992	Avg.
AgriPro	AP 7501	--	--	--	--	--	--	--	--	--	--
AgriPro	WX92-0408 Exp	--	--	--	--	--	--	--	--	--	
AgriPro	Coronado	106	--	--	--	106	98	--	--	98	
AgriPro	Rowdy	112	--	--	--	112	94	--	--	94	
AgriPro	Hickok	--	--	--	--	--	--	--	--	--	
AgriPro	Pecos	103	124	119	78	106	84	83	103	109	95
AgriPro	(S) Boone	113	129	--	--	121	101	113	--	--	107
AGSECO	Mankato	--	--	--	--	--	--	--	--	--	
AGSECO	7853	105	130	90	138	116	111	92	83	111	99
AWWPA	(W) Rio Blanco	--	--	--	--	--	74	--	--	--	74
AWWPA	(W) Oro Blanco	90	--	--	--	90	95	--	--	--	95
Century II	Discovery	84	100	80	93	89	119	88	86	97	98
Century II	(S) 2500	114	109	126	--	116	109	103	115	--	109
NK	(S) Coker 9474	--	--	--	--	--	121	120	--	--	121
NK	(S) Coker 9543	--	--	--	--	--	108	--	--	--	108
Ohlde	(S) T441	136	113	116	115	120	135	124	109	96	116
Star	Champ	--	--	--	--	--	--	--	--	--	--
Star	Salute	--	--	--	--	--	--	--	--	--	--
Terra	HR 153	97	--	93	141	110	110	--	82	116	103
Terra	(S) SR 204	112	--	109	114	111	109	114	121	124	117
Terra	(S) SR 205	152	--	--	--	152	114	106	--	--	110
---	2163	109	95	114	157	119	115	91	98	122	107
---	Arapahoe	--	--	--	--	--	--	--	--	--	--
---	Arkan	77	82	100	88	87	72	74	100	86	83
---	Cimarron	77	--	121	60	86	96	120	113	95	106
---	Custer	122	--	--	--	122	77	--	--	--	77
---	Ike	103	92	81	141	104	104	116	88	100	102
---	Jagger	102	--	--	--	102	133	114	--	--	123
---	Karl	76	115	100	139	108	88	108	106	140	110
---	Karl 92	89	124	121	--	112	99	95	104	--	99
---	KS91H153-2	92	--	--	--	92	105	--	--	--	105
---	KS92PO263-137	97	--	--	--	97	107	132	--	--	120
---	Larned	52	99	63	98	78	70	93	83	65	78
---	Niobrara	--	--	--	--	--	--	--	--	--	--
---	Newton	71	98	79	94	85	59	99	71	74	75
---	Scout 66	36	91	65	102	73	49	93	77	65	71
---	TAM 107	82	90	120	97	97	73	95	110	102	95
---	Tonkawa	106	--	--	--	106	84	--	--	--	84
---	Vista	--	--	--	--	--	--	--	--	--	--
---	(S) Caldwell	127	41	75	89	83	110	87	95	113	101
---	(S) Cardinal	129	107	80	113	107	131	105	109	106	113
---	(S) Clark	93	82	73	102	87	108	78	114	105	101
---	(S) Ernie	108	--	--	--	108	101	142	--	--	121
---	(S) Excel	98	81	--	--	89	116	73	--	--	95
---	(S) Freedom	99	102	112	81	98	93	84	105	93	94
---	(S) Jackson	121	--	--	--	121	113	--	--	--	113
---	(S) MO12258 Exp	114	--	--	--	114	107	--	--	--	107
---	(W) Arlin	96	85	108	63	88	92	79	109	110	97
Test Average (bu/acre)		40	42	40	34	39	35	39	46	45	41
C.V. (%)		10	9	--	--	--	9	9	--	--	--
L.S.D.(0.05)**		12	15	17	29	--	10	10	8	12	--

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



**Table 14a. Period-of-years yield (% of test average) Kansas Winter Wheat Tests - Central.**

Brand	Cultivar	Republic					Harvey				
		1995	1994	1993	1992	Avg.	1995	1994	1993	1992	Avg.
AgriPro	AP 7501	105	--	--	--	105	--	--	--	--	--
AgriPro	AP 7601	110	--	--	--	110	--	--	--	--	--
AgriPro	WX92-0408 Exp	128	--	--	--	128	--	--	--	--	--
AgriPro	WX92-3210 Exp	118	--	--	--	118	--	--	--	--	--
AgriPro	Coronado	87	--	--	--	87	124	--	--	--	124
AgriPro	Rowdy	102	--	--	--	102	92	--	--	--	92
AgriPro	Hickok	97	110	--	--	103	102	109	--	--	105
AgriPro	Pecos	--	--	--	68	68	95	100	116	112	106
AgriPro	Ponderosa	93	110	94	--	99	65	92	78	--	79
AgriPro	Tomahawk	82	114	82	157	109	56	107	89	106	89
AGSECO	Mankato	106	110	--	--	108	--	--	--	--	--
AGSECO	7853	101	119	100	139	115	103	113	101	122	110
AGSECO	Colby 94	109	--	--	--	109	--	--	--	--	--
AWWPA	(W) Rio Blanco	--	--	--	51	51	--	--	--	77	77
AWWPA	(W) Oro Blanco	98	--	--	--	98	91	--	--	--	91
Century II	Discovery	90	83	101	107	95	114	93	104	118	107
Century II	Voyager	--	--	100	46	73	--	--	72	78	75
Century II	(S) 2500	103	101	--	--	102	162	91	--	--	127
Star	Champ	117	107	--	--	112	--	--	--	--	--
Star	Salute	72	104	--	--	88	--	--	--	--	--
Terra	HR 153	--	--	--	--	--	95	115	104	--	105
---	2163	131	92	106	149	119	116	93	128	151	122
---	2172	--	--	--	106	106	87	102	121	126	109
---	2180	--	83	122	120	108	131	99	118	137	121
---	Alliance	100	--	--	--	100	--	--	--	--	--
---	Arapahoe	111	107	130	124	118	--	--	--	--	--
---	Arkan	74	80	94	70	80	66	80	103	95	86
---	Cimarron	99	110	114	88	103	72	111	113	88	96
---	Custer	97	--	--	--	97	125	--	--	--	125
---	Ike	109	116	143	132	125	85	118	88	126	104
---	Jagger	135	103	--	--	119	169	109	--	--	139
---	Karl	104	107	138	140	122	116	97	106	145	116
---	Karl 92	106	117	140	--	121	125	100	113	--	113
---	KS91H153-2	101	--	--	--	101	76	--	--	--	76
---	KS92PO263-137	96	103	--	--	100	107	102	--	--	105
---	Larned	83	105	90	93	93	41	90	81	72	71
---	Niobrara	96	--	--	--	96	--	--	--	--	--
---	Newton	73	92	89	73	82	48	100	89	68	76
---	Scout 66	68	86	90	92	84	36	84	74	64	64
---	TAM 107	86	109	104	88	97	71	114	81	75	85
---	TAM 200	93	103	116	70	95	91	87	118	66	91
---	Tonkawa	76	--	--	--	76	82	--	--	--	82
---	Triumph 64	--	--	--	--	--	57	91	91	106	86
---	Vista	94	99	97	--	97	--	--	--	--	--
---	Yuma	105	105	106	--	105	--	--	--	--	--
---	(W) Arlin	96	109	66	58	82	138	101	101	106	112
Test Average (bu/acre)		55	74	54	45	57	27	50	47	41	41
C.V. (%)		10	9	--	--	--	11	5	--	--	--
L.S.D.(0.05)**		12	11	22	16	--	13	6	7	11	--

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

**Table 14b. Period-of-years yield (% of test average) Kansas Winter Wheat Tests - Central.**

Brand	Cultivar	Reno					Stafford					Sumner			
		1995	1994	1993	1992	Avg.	1995	1994	1993	1992	Avg.	1995	1994	1993	Avg.
AgriPro	AP 7501	--	--	--	--	--	--	--	--	--	--	--	--	--	--
AgriPro	AP 7601	--	--	--	--	--	--	--	--	--	--	--	--	--	--
AgriPro	WX92-0408 Exp	--	--	--	--	--	--	--	--	--	--	--	--	--	--
AgriPro	WX92-3210 Exp	--	--	--	--	--	--	--	--	--	--	--	--	--	--
AgriPro	Coronado	105	--	--	--	105	117	--	--	--	117	86	--	--	86
AgriPro	Rowdy	82	--	--	--	82	58	--	--	--	58	112	--	--	112
AgriPro	Hickok	117	97	--	--	107	--	91	--	--	91	--	87	--	87
AgriPro	Pecos	128	97	103	100	107	--	--	--	--	--	101	116	119	112
AgriPro	Ponderosa	82	95	87	--	88	82	107	99	--	96	--	99	84	92
AgriPro	Tomahawk	68	101	93	118	95	125	122	108	108	115	--	107	79	93
AGSECO	Mankato	85	106	--	--	96	--	--	--	--	--	--	--	--	--
AGSECO	7853	89	99	114	112	104	124	110	101	119	114	129	132	121	128
AGSECO	Colby 94	92	--	--	--	92	--	--	--	--	--	--	--	--	--
AWWPA	(W) Rio Blanco	--	--	--	76	76	--	83	85	70	79	65	--	--	65
AWWPA	(W) Oro Blanco	77	--	--	--	77	83	--	--	--	83	89	--	--	89
Century II	Discovery	104	96	109	108	104	114	75	94	89	93	156	--	113	135
Century II	Voyager	--	--	58	75	66	90	104	83	57	84	39	--	64	52
Century II	(S) 2500	139	107	--	--	123	--	--	--	--	--	--	--	--	--
Star	Champ	--	--	--	--	--	136	--	--	--	136	--	--	--	--
Star	Salute	--	--	--	--	--	150	--	--	--	150	--	--	--	--
Terra	HR 153	94	103	108	--	102	--	--	--	--	--	--	--	--	--
---	2163	98	97	120	121	109	138	96	106	115	114	185	109	103	133
---	2172	120	100	118	115	113	43	86	94	90	78	109	110	130	116
---	2180	116	89	103	120	107	90	81	105	125	100	130	90	126	116
---	Alliance	--	--	--	--	--	--	--	--	--	--	--	--	--	--
---	Arapahoe	--	--	--	--	--	117	106	92	100	104	--	128	115	122
---	Arkan	68	91	92	91	85	39	86	91	89	77	42	81	80	68
---	Cimarron	107	106	125	103	110	124	77	93	97	98	108	104	117	110
---	Custer	128	--	--	--	128	52	--	--	--	52	143	--	--	143
---	Ike	66	105	104	132	102	137	100	94	123	113	61	95	106	87
---	Jagger	175	109	--	--	142	134	95	--	--	114	219	126	--	172
---	Karl	104	100	107	143	114	100	88	99	120	102	49	90	88	76
---	Karl 92	108	105	115	--	109	104	97	105	--	102	83	102	104	96
---	KS91H153-2	108	--	--	--	108	119	--	--	--	119	49	--	--	49
---	KS92PO263-137	145	115	--	--	130	120	126	--	--	123	87	131	--	109
---	Larned	37	90	74	81	71	56	117	98	101	93	47	72	74	65
---	Niobrara	--	--	--	--	--	135	--	--	--	135	--	--	--	--
---	Newton	34	99	75	65	68	89	104	108	91	98	19	92	69	60
---	Scout 66	28	89	72	79	67	59	97	89	105	87	54	78	73	68
---	TAM 107	94	103	86	92	94	61	97	106	102	91	40	55	51	49
---	TAM 200	86	99	97	73	89	130	114	118	102	116	57	99	113	90
---	Tonkawa	115	--	--	--	115	46	--	--	--	46	140	--	--	140
---	Triumph 64	75	90	105	111	96	72	99	82	103	89	85	82	96	87
---	Vista	--	--	--	--	--	144	108	112	--	121	--	105	95	100
---	Yuma	--	--	--	--	--	--	--	--	--	--	--	--	--	--
---	(W) Arlin	108	96	107	111	106	71	100	116	95	95	104	87	126	106
Test Average (bu/acre)		22	56	37	38	38	13	35	49	44	35	14	28	32	24
C.V. (%)		14	5	--	--	--	14	12	--	--	--	27	13	--	--
L.S.D.(0.05)**		17	6	9	14	--	15	15	12	14	--	32	18	16	--

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

**Table 15a. Period-of-years yield (% of test average) Kansas Winter Wheat Tests - West.**

Brand	Cultivar	Ellis					Thomas				
		1995	1994	1993	1992	Avg.	1995	1994	1993	1991	Avg.
AgriPro	AP 7501	125	--	--	--	125	119	--	--	--	119
AgriPro	AP 7601	--	--	--	--	--	109	--	--	--	109
AgriPro	WX92-0408 Exp	141	--	--	--	141	132	--	--	--	132
AgriPro	WX92-3210 Exp	--	--	--	--	--	121	--	--	--	121
AgriPro	Coronado	89	--	--	--	89	94	--	--	--	94
AgriPro	Rowdy	108	--	--	--	108	--	--	--	--	--
AgriPro	Laredo	95	112	120	101	107	76	99	123	--	99
AgriPro	Longhorn	89	83	94	98	91	93	92	99	--	95
AgriPro	Hickok	103	108	--	--	106	--	94	--	--	94
AgriPro	Ogallala	113	100	89	--	101	110	96	67	--	91
AgriPro	Ponderosa	95	93	76	--	88	--	91	21	--	56
AgriPro	Tomahawk	96	115	105	103	105	--	99	48	110	85
AGSECO	Mankato	104	108	--	--	106	110	--	--	--	110
AGSECO	7805	--	--	97	106	102	--	91	97	107	98
AGSECO	7853	94	95	103	101	98	60	97	88	92	84
AGSECO	9001	94	101	98	100	98	113	106	103	103	106
AGSECO	Colby 94	105	--	--	--	105	106	--	--	--	106
AWWPA	(W)KS84HW196Exp	--	--	--	--	--	54	96	136	--	95
AWWPA	(W) Rio Blanco	88	97	110	102	99	87	91	134	--	104
AWWPA	(W) Oro Blanco	107	--	--	--	107	117	--	--	--	117
Century II	Discovery	84	90	78	87	85	--	--	57	--	57
Century II	Voyager	70	96	91	96	88	75	76	91	76	80
Century II	(S) 2500	135	100	--	--	117	--	--	--	--	--
Quantum	XH1520 Exp	112	--	--	--	112	107	--	--	--	107
Quantum	XH1706 Exp	106	--	--	--	106	107	--	--	--	107
Star	Champ	106	109	--	--	107	--	--	--	--	--
Star	Salute	97	101	--	--	99	--	--	--	--	--
---	2163	110	96	96	111	103	110	92	68	112	96
---	Akron	100	--	--	--	100	98	--	--	--	98
---	Alliance	99	--	--	--	99	117	--	--	--	117
---	Arapahoe	113	101	119	109	110	117	104	107	109	109
---	Cimarron	105	90	120	100	104	104	92	117	102	104
---	Custer	113	--	--	--	113	102	--	--	--	102
---	Halt	82	--	--	--	82	76	--	--	--	76
---	Ike	102	107	119	108	109	99	107	144	--	117
---	Jagger	122	99	--	--	110	113	108	--	--	110
---	Jules	95	--	--	--	95	113	98	118	--	110
---	Karl	91	92	99	79	90	96	95	92	107	98
---	Karl 92	101	93	108	--	101	93	104	106	--	101
---	KS91H153-2	109	--	--	--	109	92	--	--	--	92
---	KS92PO263-137	100	101	--	--	101	112	114	--	--	113
---	Larned	71	106	103	99	95	84	100	111	108	101
---	Niobrara	107	--	--	--	107	109	--	--	--	109
---	Newton	72	107	89	97	91	90	104	101	99	99
---	Scout 66	63	109	92	90	88	79	91	107	108	96
---	TAM 107	83	101	118	94	99	82	108	117	99	102
---	TAM 200	100	101	107	105	103	113	97	93	100	101
---	Tonkawa	94	--	--	--	94	99	--	--	--	99
---	Triumph 64	60	78	96	90	81	--	--	--	--	--
---	Vista	116	110	120	--	115	126	112	131	--	123
---	Yuma	107	--	90	105	101	95	--	63	--	79
---	(W) Arlin	91	78	113	95	94	89	79	121	--	96
Test Average (bu/acre)		43	38	56	47	46	51	50	31	54	46
C.V. (%)		11	9	--	--	--	9	5	--	--	--
L.S.D.(0.05)**		13	12	13	13	--	11	7	14	7	--

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

**Table 15b. Period-of-years yield (% of test average) Kansas Winter Wheat Tests - West.**

Brand	Cultivar	Greeley					Finney				
		1995	1994	1993	1991	Avg.	1995	1994	1993	1992	Avg.
AgriPro	AP 7501	--	--	--	--	--	--	--	--	--	--
AgriPro	AP 7601	--	--	--	--	--	--	--	--	--	--
AgriPro	WX92-0408 Exp	--	--	--	--	--	--	--	--	--	--
AgriPro	WX92-3210 Exp	--	--	--	--	--	--	--	--	--	--
AgriPro	Coronado	96	--	--	--	96	86	--	--	--	86
AgriPro	Rowdy	--	--	--	--	--	--	--	--	--	--
AgriPro	Laredo	87	99	--	--	93	95	94	--	--	95
AgriPro	Longhorn	90	92	104	--	95	93	96	100	92	95
AgriPro	Hickok	--	105	--	--	105	--	95	--	--	95
AgriPro	Ogallala	114	99	100	--	104	118	102	111	--	110
AgriPro	Ponderosa	--	74	99	--	86	--	99	97	--	98
AgriPro	Tomahawk	--	93	103	107	101	--	99	109	93	101
AGSECO	Mankato	105	--	--	--	105	--	--	--	--	--
AGSECO	7805	91	103	104	112	102	89	100	97	110	99
AGSECO	7853	80	94	92	120	96	101	102	105	104	103
AGSECO	9001	123	--	102	--	113	121	--	91	120	110
AGSECO	Colby 94	101	--	--	--	101	112	--	--	--	112
AWWPA	(W)KS84HW196Exp	--	--	--	--	--	--	--	--	--	--
AWWPA	(W) Rio Blanco	--	89	101	--	95	100	87	100	92	95
AWWPA	(W) Oro Blanco	117	--	--	--	117	122	--	--	--	122
Century II	Discovery	--	--	86	--	86	--	--	95	87	91
Century II	Voyager	95	85	88	88	89	65	94	82	77	80
Century II	(S) 2500	--	--	--	--	--	--	--	--	--	--
Quantum	XH1520 Exp	112	111	--	--	111	--	112	--	--	112
Quantum	XH1706 Exp	114	--	--	--	114	--	--	--	--	--
Star	Champ	--	--	--	--	--	--	--	--	--	--
Star	Salute	--	--	--	--	--	--	--	--	--	--
---	2163	113	109	101	77	100	114	94	100	101	102
---	Akron	114	--	--	--	114	101	--	--	--	101
---	Alliance	--	--	--	--	--	--	--	--	--	--
---	Arapahoe	110	96	109	87	101	124	103	101	103	108
---	Cimarron	111	98	103	107	105	127	84	96	103	102
---	Custer	115	--	--	--	115	76	--	--	--	76
---	Halt	89	--	--	--	89	79	--	--	--	79
---	Ike	89	98	103	--	97	124	109	109	113	114
---	Jagger	99	85	--	--	92	90	113	--	--	102
---	Jules	124	110	107	--	114	132	--	--	--	132
---	Karl	86	89	96	125	99	98	93	100	92	96
---	Karl 92	97	99	104	--	100	87	94	107	--	96
---	KS91H153-2	95	--	--	--	95	91	--	--	--	91
---	KS92PO263-137	111	115	--	--	113	126	105	--	--	115
---	Larned	70	94	91	95	87	59	102	84	93	84
---	Niobrara	108	--	--	--	108	125	--	--	--	125
---	Newton	78	104	96	102	95	78	103	96	108	96
---	Scout 66	72	92	81	103	87	62	94	91	87	84
---	TAM 107	83	102	104	103	98	79	102	98	99	95
---	TAM 200	101	112	112	110	109	112	98	96	110	104
---	Tonkawa	101	--	--	--	101	92	--	--	--	92
---	Triumph 64	--	--	--	--	--	--	--	--	--	--
---	Vista	117	105	111	--	111	133	104	112	--	116
---	Yuma	105	107	94	--	102	111	103	105	106	106
---	(W) Arlin	90	75	102	--	89	67	97	110	111	96
Test Average (bu/acre)		46	39	56	33	43	25	52	47	39	41
C.V. (%)		6	9	--	--	--	11	6	--	--	--
L.S.D.(0.05)**		7	12	10	23	--	12	7	12	11	--

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

**Table 16a. Period-of-years yield (% of test average) Kansas Winter Wheat Tests - Irrigated.**

Brand	Cultivar	Stafford					Thomas				
		1995	1994	1993	1992	Avg.	1995	1994	1993	1991	Avg.
AgriPro	AP 7301	42	--	--	--	42	83	--	--	--	83
AgriPro	AP 7501	130	--	--	--	130	119	--	--	--	119
AgriPro	AP 7601	154	--	--	--	154	114	--	--	--	114
AgriPro	WX92-0408 Exp	216	--	--	--	216	131	--	--	--	131
AgriPro	WX92-3210 Exp	158	--	--	--	158	119	--	--	--	119
AgriPro	Coronado	106	--	--	--	106	95	--	--	--	95
AgriPro	Rowdy	82	--	--	--	82	110	--	--	--	110
AgriPro	Laredo	--	--	--	--	--	81	106	120	--	102
AgriPro	Hickok	150	122	--	--	136	95	98	--	--	96
AgriPro	Ogallala	--	--	--	--	--	120	101	59	--	93
AgriPro	Pecos	72	103	105	103	96	94	103	107	--	101
AgriPro	Ponderosa	119	126	110	--	118	--	97	40	--	69
AgriPro	Tomahawk	115	138	109	126	122	--	103	72	118	98
AGSECO	Mankato	--	89	--	--	89	115	103	--	--	109
AGSECO	7853	113	106	114	120	113	65	--	85	109	86
AGSECO	9001	--	--	--	--	--	115	89	--	--	102
AWWPA	(W)KS84HW196Exp	--	--	--	--	--	48	93	143	--	94
AWWPA	(W) Rio Blanco	87	112	92	105	99	90	101	112	--	101
AWWPA	(W) Oro Blanco	98	--	--	--	98	126	--	--	--	126
Century II	Discovery	74	84	83	79	80	--	--	61	90	75
Century II	Voyager	47	80	52	49	57	82	90	109	77	90
---	2163	121	102	132	114	117	131	106	51	105	98
---	2180	85	78	138	128	107	--	--	--	--	--
---	Cimarron	57	72	66	74	67	93	96	113	106	102
---	Custer	25	--	--	--	25	96	--	--	--	96
---	Ike	156	107	102	140	126	91	110	157	--	119
---	Jagger	108	126	--	--	117	107	104	--	--	106
---	Karl	135	118	109	130	123	89	89	96	113	97
---	Karl 92	120	106	119	--	115	98	98	91	--	96
---	KS91H153-2	61	--	--	--	61	87	--	--	--	87
---	KS92PO263-137	173	109	--	--	141	131	110	--	--	121
---	Newton	86	113	97	108	101	87	103	120	87	99
---	TAM 107	54	58	69	82	66	79	96	129	103	102
---	TAM 200	61	108	85	75	82	109	100	112	103	106
---	Tonkawa	69	--	--	--	69	83	--	--	--	83
---	Yuma	15	--	--	--	15	102	--	68	--	85
---	(W) Arlin	67	82	96	83	82	105	93	110	--	103
Test Average (bu/acre)		15	47	44	67	43	50	48	27	63	47
C.V. (%)		23	11	--	--	--	8	7	--	--	--
L.S.D.(0.05)**		24	13	17	15	--	9	9	14	7	--

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

**Table 16b. Period-of-years yield (% of test average) Kansas Winter Wheat Tests - Irrigated.**

Brand	Cultivar	Greeley					Finney				
		1995	1994	1993	1992	Avg.	1995	1994	1993	1992	Avg.
AgriPro	AP 7301	82	--	--	--	82	86	--	--	--	86
AgriPro	AP 7501	133	--	--	--	133	132	--	--	--	132
AgriPro	AP 7601	118	--	--	--	118	124	--	--	--	124
AgriPro	WX92-0408 Exp	144	--	--	--	144	177	--	--	--	177
AgriPro	WX92-3210 Exp	123	--	--	--	123	140	--	--	--	140
AgriPro	Coronado	81	--	--	--	81	83	--	--	--	83
AgriPro	Rowdy	99	--	--	--	99	124	--	--	--	124
AgriPro	Laredo	64	96	122	108	98	101	104	107	104	104
AgriPro	Hickok	94	102	--	--	98	115	100	--	--	107
AgriPro	Ogallala	93	104	97	--	98	126	100	105	--	110
AgriPro	Pecos	103	112	108	101	106	86	91	95	97	92
AgriPro	Ponderosa	--	91	98	--	95	--	94	108	--	101
AgriPro	Tomahawk	--	101	117	95	104	--	102	105	100	102
AGSECO	Mankato	106	112	--	--	109	--	109	--	--	109
AGSECO	7853	79	105	95	102	96	120	116	106	99	110
AGSECO	9001	145	--	--	--	145	107	96	--	--	102
AWWPA	(W)KS84HW196Exp	--	--	--	--	--	--	--	--	--	--
AWWPA	(W) Rio Blanco	--	104	90	101	98	69	82	89	105	86
AWWPA	(W) Oro Blanco	118	--	--	--	118	95	--	--	--	95
Century II	Discovery	--	--	83	96	89	--	--	94	83	89
Century II	Voyager	71	72	81	74	75	23	94	90	88	74
---	2163	99	101	108	99	102	124	101	103	110	109
---	2180	--	91	102	76	90	105	91	--	--	98
---	Cimarron	114	110	99	119	110	84	96	97	119	99
---	Custer	114	--	--	--	114	90	--	--	--	90
---	Ike	111	103	115	111	110	94	111	117	116	110
---	Jagger	107	103	--	--	105	121	115	--	--	118
---	Karl	103	102	109	89	101	102	99	107	102	102
---	Karl 92	86	109	111	--	102	99	106	113	--	106
---	KS91H153-2	70	--	--	--	70	103	--	--	--	103
---	KS92PO263-137	130	125	--	--	127	144	117	--	--	131
---	Newton	64	88	94	110	89	48	92	87	98	82
---	TAM 107	77	106	91	105	95	80	95	90	103	92
---	TAM 200	93	108	103	121	106	94	90	92	104	95
---	Tonkawa	122	--	--	--	122	75	--	--	--	75
---	Yuma	87	105	90	95	94	65	106	92	96	90
---	(W) Arlin	71	100	104	97	93	64	104	102	100	93
Test Average (bu/acre)		29	70	74	88	65	18	69	65	71	56
C.V. (%)		10	8	--	--	--	13	9	--	--	--
L.S.D.(0.05)**		12	10	13	10	--	16	13	8	8	--

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

**Table 17. Test weight (lbs per bushel) 1995 Kansas Winter Wheat Performance Tests - East.**

Private		Test Location					Public	Test Location				
Brand	Cultivar	BR	RL	FR	LB	Avg.	Cultivar	BR	RL	FR	LB	Avg.
AgriPro	AP 7501	--	53	--	--	--	2163	54	47	51	57	52
AgriPro	WX92-0408 Exp	--	53	--	--	--	Arapahoe	56	53	--	--	--
AgriPro	Coronado	49	50	53	57	52	Arkan	51	49	52	55	52
AgriPro	Rowdy	55	49	53	56	53	Cimarron	54	52	52	56	54
AgriPro	Hickok	51	50	--	--	--	Custer	55	54	55	57	55
AgriPro	Pecos	--	--	54	57	--	Ike	53	52	52	56	53
AgriPro	(S) Boone	50	52	51	55	52	Jagger	51	52	53	56	53
AGSECO	Mankato	54	--	--	--	--	Karl	54	54	54	58	55
AGSECO	7853	55	56	56	59	57	Karl 92	55	54	54	58	55
AWWPA	(W) Rio Blanco	--	--	--	57	--	KS91H153-2	52	57	55	58	55
AWWPA	(W) Oro Blanco	54	53	54	58	55	KS92PO263-137	53	52	54	58	54
Century II	Discovery	55	52	53	57	54	Larned	50	53	52	56	53
Century II	(S) 2500	55	53	54	58	55	Niobrara	51	50	--	--	--
NK	(S) Coker 9474	--	--	--	59	--	Newton	45	52	51	53	50
NK	(S) Coker 9543	--	--	--	56	--	Scout 66	50	53	50	55	52
Ohlde	(S) T441	55	51	54	55	54	TAM 107	49	52	51	56	52
Star	Champ	52	50	--	--	--	Tonkawa	54	54	56	57	55
Star	Salute	44	53	--	--	--	Vista	54	51	--	--	--
Terra	HR 153	57	--	56	59	--	(S) Caldwell	54	49	52	56	53
Terra	(S) SR 204	56	--	56	53	--	(S) Cardinal	55	52	53	54	53
Terra	(S) SR 205	53	--	53	55	--	(S) Clark	51	49	51	56	52
							(S) Ernie	54	49	52	55	53
							(S) Excel	50	47	48	54	50
							(S) Freedom	51	48	48	52	50
							(S) Jackson	56	50	54	56	54
							(S) MO12258 Exp	55	52	52	54	53
							(W) Arlin	51	54	53	56	53
							Test Average	53	52	53	56	53
							C.V. (%)	4	3	2	1	--
							L.S.D.(0.05)**	3	2	1	1	--

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

**Table 18. Test weight (lbs per bushel) 1995 Kansas Winter Wheat Performance Tests - Central.**

Private Brand	Cultivar	Test Location					Avg.	Public Cultivar	Test Location					Avg.
		RP	HV	RN	SD	SU			RP	HV	RN	SD	SU	
AgriPro	AP 7501	53	--	--	--	--	--	2163	54	54	47	51	52	51
AgriPro	AP 7601	55	--	--	--	--	--	2172	--	54	50	50	49	--
AgriPro	WX92-0408 Exp	56	--	--	--	--	--	2180	--	58	49	52	50	--
AgriPro	WX92-3210 Exp	56	--	--	--	--	--	Alliance	53	--	--	--	--	--
AgriPro	Coronado	55	56	49	52	52	53	Arapahoe	54	--	--	55	--	--
AgriPro	Rowdy	55	55	48	51	55	53	Arkan	55	55	50	51	54	53
AgriPro	Hickok	56	57	50	--	--	--	Cimarron	56	54	50	52	54	53
AgriPro	Pecos	--	56	52	--	55	--	Custer	56	56	52	50	53	54
AgriPro	Ponderosa	55	52	47	51	--	--	Ike	57	55	50	55	53	54
AgriPro	Tomahawk	53	52	45	52	--	--	Jagger	56	57	52	53	56	55
AGSECO	Mankato	54	--	48	--	--	--	Karl	57	59	52	55	55	55
AGSECO	7853	58	57	50	55	56	55	Karl 92	56	58	52	54	54	55
AGSECO	Colby 94	53	--	49	--	--	--	KS91H153-2	57	57	52	56	55	55
AWWPA	(W) Rio Blanco	--	--	--	--	51	--	KS92PO263-137	53	56	51	54	51	53
AWWPA	(W) Oro Blanco	55	54	48	53	55	53	Larned	55	54	48	53	51	52
Century II	Discovery	54	55	51	54	54	54	Niobrara	53	--	--	52	--	--
Century II	Voyager	--	--	--	53	51	--	Newton	52	52	46	51	50	50
Century II	(S) 2500	56	58	50	--	--	--	Scout 66	55	53	48	52	43	50
Star	Champ	55	--	--	53	--	--	TAM 107	55	53	50	51	49	52
Star	Salute	53	--	--	54	--	--	TAM 200	54	55	50	52	51	53
Terra	HR 153	--	56	51	--	--	--	Tonkawa	56	58	53	52	55	55
								Triumph 64	--	55	50	54	49	--
								Vista	53	--	--	51	--	--
								Yuma	54	--	--	--	--	--
								(W) Arlin	56	57	50	50	52	53
								Test Average	55	56	50	53	52	53
								C.V. (%)	2	2	3	2	4	--
								L.S.D.(0.05)**	2	1	2	1	3	--

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



**Table 19. Test weight (lbs per bushel) 1995 Kansas Winter Wheat Performance Tests - West.**

Private		Test Location					Public	Test Location				
Brand	Cultivar	EL	TD	GD	FD	Avg.	Cultivar	EL	TD	GD	FD	Avg.
AgriPro	AP 7501	59	61	--	--	--	2163	58	60	58	52	57
AgriPro	AP 7601	--	61	--	--	--	Akron	56	61	59	53	57
AgriPro	WX92-0408 Exp	60	62	--	--	--	Alliance	58	60	--	--	--
AgriPro	WX92-3210 Exp	--	61	--	--	--	Arapahoe	58	60	59	55	58
AgriPro	Coronado	57	61	60	52	58	Cimarron	61	63	61	54	60
AgriPro	Rowdy	60	--	--	--	--	Custer	60	62	60	55	59
AgriPro	Laredo	58	60	59	53	57	Halt	54	60	58	52	56
AgriPro	Longhorn	56	61	58	51	56	Ike	61	62	60	55	59
AgriPro	Hickok	61	--	--	--	--	Jagger	59	61	59	53	58
AgriPro	Ogallala	62	63	62	56	61	Jules	57	60	57	55	57
AgriPro	Ponderosa	58	--	--	--	--	Karl	60	62	61	55	59
AgriPro	Tomahawk	57	--	--	--	--	Karl 92	59	61	61	55	59
AGSECO	Mankato	57	62	60	--	--	KS91H153-2	62	62	60	56	60
AGSECO	7805	--	--	60	54	--	KS92PO263-137	59	62	60	55	59
AGSECO	7853	60	61	61	56	60	Larned	59	62	58	54	58
AGSECO	9001	56	60	60	54	58	Niobrara	57	60	59	54	57
AGSECO	Colby 94	58	60	60	54	58	Newton	55	61	60	53	57
AWWPA	(W)KS84HW196Exp	--	60	--	--	--	Scout 66	59	61	59	54	58
AWWPA	(W) Rio Blanco	57	62	--	55	--	TAM 107	57	61	59	54	58
AWWPA	(W) Oro Blanco	58	62	60	55	59	TAM 200	61	63	61	55	60
Century II	Discovery	59	--	--	--	--	Tonkawa	61	62	60	56	60
Century II	Voyager	59	61	58	54	58	Triumph 64	60	--	--	--	--
Century II	(S) 2500	60	--	--	--	--	Vista	59	61	60	54	58
Quantum	XH1520 Exp	59	61	58	--	--	Yuma	56	60	59	51	56
Quantum	XH1706 Exp	58	60	59	--	--	(W) Arlin	58	61	60	55	58
Star	Champ	58	--	--	--	--						
Star	Salute	60	--	--	--	--	Test Average	59	61	59	54	58
							C.V. (%)	3	1	2	2	--
							L.S.D.(0.05)**	2	1	1	1	--

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

**Table 20. Test weight (lbs per bushel) 1995 Kansas Winter Wheat Performance Tests -Irrigated.**

Private		Test Location					Public	Test Location				
Brand	Cultivar	SI	TI	GI	FI	Avg.	Cultivar	SI	TI	GI	FI	Avg.
AgriPro	AP 7301	51	60	53	50	54	2163	50	61	52	48	52
AgriPro	AP 7501	53	62	55	50	55	2180	52	--	--	48	--
AgriPro	AP 7601	52	61	55	50	54	Cimarron	53	62	57	46	55
AgriPro	WX92-0408 Exp	54	62	56	51	56	Custer	51	62	56	50	55
AgriPro	WX92-3210 Exp	51	62	54	50	54	Ike	54	62	55	51	55
AgriPro	Coronado	51	60	51	50	53	Jagger	52	61	53	50	54
AgriPro	Rowdy	52	62	56	50	55	Karl	53	61	57	51	56
AgriPro	Laredo	--	60	52	50	--	Karl 92	53	62	56	52	56
AgriPro	Hickok	54	62	54	50	55	KS91H153-2	53	62	54	53	56
AgriPro	Ogallala	--	63	56	51	--	KS92PO263-137	54	62	55	52	56
AgriPro	Pecos	53	62	56	49	55	Newton	52	62	53	46	53
AgriPro	Ponderosa	53	--	--	--	--	TAM 107	49	61	54	48	53
AgriPro	Tomahawk	51	--	--	--	--	TAM 200	52	63	56	47	55
AGSECO	Mankato	--	61	55	--	--	Tonkawa	54	61	55	51	56
AGSECO	7853	55	61	56	54	57	Yuma	49	60	51	43	51
AGSECO	9001	--	61	55	47	--	(W) Arlin	50	62	54	50	54
AWWPA	(W)KS84HW196Exp	--	60	--	--	--						
AWWPA	(W) Rio Blanco	53	62	--	50	--	Test Average	52	61	54	49	54
AWWPA	(W) Oro Blanco	53	62	55	49	55	C.V. (%)	3	1	2	2	--
Century II	Discovery	52	--	--	--	--	L.S.D.(0.05)**	2	1	2	1	--
Century II	Voyager	50	61	52	48	53						

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

**Table 21. Maturity (days +/- Scout 66) 1995 Kansas Winter Wheat Performance Tests - East.**

Private		Test Location					Public	Test Location				
Brand	Cultivar	BR	RL	FR	LB	Avg.	Cultivar	BR	RL	FR	LB	Avg.
AgriPro	AP 7501	--	-5.5	--	--	--	2163	-5.5	-7	-4.3	-7.3	-6
AgriPro	WX92-0408 Exp	--	-6.8	--	--	--	Arapahoe	0.5	0.5	--	--	--
AgriPro	Coronado	-5.8	-7.8	-5.3	-11	-7.4	Arkan	-4.3	-5.3	-5	-9.5	-6
AgriPro	Rowdy	-8.3	-7.5	-6.8	-11	-8.4	Cimarron	-5.5	-8.5	-5	-11	-7.5
AgriPro	Hickok	-8	-6.5	--	--	--	Custer	-5.8	-7	-6	-11	-7.4
AgriPro	Pecos	--	--	-7.8	-12	--	Ike	-2	-2.3	-0.5	-2.5	-1.8
AgriPro	(S) Boone	-3.5	-6	-3.8	-10.8	-6	Jagger	-9.8	-9.3	-8	-12.3	-9.8
AGSECO	Mankato	-3.3	--	--	--	--	Karl	-5	-7.3	-4.5	-10.5	-6.8
AGSECO	7853	-6	-7	-2.8	-4.3	-5	Karl 92	-5.8	-8.3	-5.5	-10.8	-7.6
AWWPA	(W) Rio Blanco	--	--	--	-7.5	--	KS91H153-2	-2.8	-3	-1	-4.8	-2.9
AWWPA	(W) Oro Blanco	-4	-5.8	-3.3	-8	-5.3	KS92PO263-137	-3	-5.3	-2.5	-6.5	-4.3
Century II	Discovery	-4.8	-7.3	-2.8	-8.3	-5.8	Larned	-1.8	-0.5	-1	-1.3	-1.1
Century II	(S) 2500	-2.5	-3	-1.3	-3.8	-2.6	Niobrara	-1.5	-1.3	--	--	--
NK	(S) Coker 9474	--	--	--	-11.3	--	Newton	-2	-2	-0.5	-2	-1.6
NK	(S) Coker 9543	--	--	--	-10.3	--	Scout 66	5/26	5/21	5/10	5/1	5/15
Ohlde	(S) T441	-6.5	-5.8	-2.3	-8	-5.6	TAM 107	-8.3	-9.5	-6	-10.8	-8.6
Star	Champ	-3.5	-3.8	--	--	--	Tonkawa	-5.5	-6.5	-4.5	-10	-6.6
Star	Salute	-1.3	-1.3	--	--	--	Vista	-1.3	-0.5	--	--	--
Terra	HR 153	-5.5	--	-2.5	-3.5	--	(S) Caldwell	-6.8	-8	-4	-6.8	-6.4
Terra	(S) SR 204	-2.5	--	0	-5.8	--	(S) Cardinal	-2	-2.8	1	-2	-1.4
Terra	(S) SR 205	-5.5	--	-2.3	-6.3	--	(S) Clark	-6.8	-8.5	-5.3	-10.8	-7.8
							(S) Ernie	-4	-7	-4	-12.3	-6.8
							(S) Excel	-2.5	-2.5	-1.8	-2.8	-2.4
							(S) Freedom	-1.5	-2.8	0.5	-6.3	-2.5
							(S) Jackson	-3.5	-3.5	-2.8	-8.8	-4.6
							(S) MO12258 Exp	-4.5	-7	-3.8	-10.3	-6.4
							(W) Arlin	-7.5	-8.3	-7.8	-13.5	-9.3
							Test Average	-4.5	-5.4	-3.5	-7.9	-5.3
							C.V. (%)	5.2	8.5	15.4	5.9	--
							L.S.D.(0.05)**	1.3	1.6	1.1	1.6	--

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

**Table 22. Maturity (days +/- Scout 66) 1995 Kansas Winter Wheat Performance Tests - Central.**

Private Brand	Cultivar	Test Location						Public Cultivar	Test Location					
		RP	HV	RN	SD	SU	Avg.		RP	HV	RN	SD	SU	Avg.
AgriPro	AP 7501	0	--	--	--	--	--	2163	-2.5	-7.3	-5.3	-4.8	-6	-5.2
AgriPro	AP 7601	-1.8	--	--	--	--	--	2172	--	-6.3	-5.5	-6.4	-5	--
AgriPro	WX92-0408 Exp	-2.5	--	--	--	--	--	2180	--	-11.1	-7.8	-11.2	-10	--
AgriPro	WX92-3210 Exp	-0.8	--	--	--	--	--	Alliance	-0.8	--	--	--	--	--
AgriPro	Coronado	-1.5	-10.8	-6.5	-8.8	-5	-6.5	Arapahoe	1.8	--	--	-1.6	--	--
AgriPro	Rowdy	-1	-10.6	-6	-8.2	-7	-6.6	Arkan	-1	-5.8	-4.5	-7.2	-4	-4.5
AgriPro	Hickok	-2	-10.3	-6.3	--	--	--	Cimarron	-1.5	-8.1	-5.5	-6.8	-7	-5.8
AgriPro	Pecos	--	-8.8	-7	--	-7	--	Custer	-1.8	-10.6	-6.5	-7.6	-8	-6.9
AgriPro	Ponderosa	-1	-4.8	-2.5	-4.6	--	--	Ike	-1.5	-4.1	-1.8	-7	0	-2.9
AgriPro	Tomahawk	-1.8	-4.1	-1.5	-3.4	--	--	Jagger	-1.8	-10.8	-6.5	-10.4	-9	-7.7
AGSECO	Mankato	-1.8	--	-3	--	--	--	Karl	-4.3	-8.8	-4.8	-7	-6	-6.2
AGSECO	7853	-3.3	-5.8	-3.5	-5.8	-2	-4.1	Karl 92	-2.8	-10.6	-6.5	-9.2	-7	-7.2
AGSECO	Colby 94	-1.8	--	-3.3	--	--	--	KS91H153-2	-0.5	-4.3	-3.3	-2.6	1	-1.9
AWWPA	(W) Rio Blanco	--	--	--	--	-5	--	KS92PO263-137	-0.3	-5.6	-4.5	-3.2	-4	-3.5
AWWPA	(W) Oro Blanco	-3.3	-6.1	-4.3	-4.4	-4	-4.4	Larned	0	-0.8	-0.3	-2	0	-0.6
Century II	Discovery	-1.3	-6.8	-4	-5.8	-7	-5	Niobrara	-0.8	--	--	-2.2	--	--
Century II	Voyager	--	--	--	-2.6	-2	--	Newton	-1	-3.3	-2	-3	-1	-2.1
Century II	(S) 2500	-0.3	-5.6	-2.8	--	--	--	Scout 66	5/18	5/19	5/17	5/15	5/10	5/16
Star	Champ	-0.8	--	--	-4.6	--	--	TAM 107	-5	-10.8	-7.5	-9.2	-9	-8.3
Star	Salute	-1.8	--	--	-4.6	--	--	TAM 200	-3	-7.3	-3.8	-4.6	-3	-4.3
Terra	HR 153	--	-5.8	-3.5	--	--	--	Tonkawa	-2.8	-7.8	-4.5	-6.2	-8	-5.9
								Triumph 64	--	-6.1	-3	-6.6	-5	--
								Vista	-1.3	--	--	-3	--	--
								Yuma	-2.5	--	--	--	--	--
								(W) Arlin	-3.3	-11.6	-6.8	-11	-10	-8.5
								Test Average	-1.7	-7.4	-4.5	-5.8	-5.2	-4.9
								C.V. (%)	2.8	5.2	6.3	20.8	--	--
								L.S.D.(0.05)**	0.5	0.7	0.9	2	--	--

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

**Table 23. Maturity (days +/- Scout 66) 1995 Kansas Winter Wheat Performance Tests - West.**

Private		Test Location					Public	Test Location				
Brand	Cultivar	EL	TD	GD	FD	Avg.	Cultivar	EL	TD	GD	FD	Avg.
AgriPro	AP 7501	--	0	--	--	--	2163	--	0.8	0.8	0.5	0.7
AgriPro	AP 7601	--	1.3	--	--	--	Akron	--	0.8	0.5	-0.8	0.2
AgriPro	WX92-0408 Exp	--	-0.8	--	--	--	Alliance	--	0.3	--	--	--
AgriPro	WX92-3210 Exp	--	-0.3	--	--	--	Arapahoe	--	2.8	2	-0.3	1.5
AgriPro	Coronado	--	-0.3	0.3	-2	-0.7	Cimarron	--	-0.3	0.3	-0.5	-0.2
AgriPro	Rowdy	--	--	--	--	--	Custer	--	-3.3	-1.5	0.8	-1.3
AgriPro	Laredo	--	-2.3	-4	-2.5	-2.9	Halt	--	-3	-3.3	2.3	-1.3
AgriPro	Longhorn	--	2.5	4	2	2.8	Ike	--	-1.5	-5	-3	-3.2
AgriPro	Hickok	--	--	--	--	--	Jagger	--	-4.3	-4.8	-2.3	-3.8
AgriPro	Ogallala	--	-1.3	-1	0	-0.8	Jules	--	4.8	4.8	4.5	4.7
AgriPro	Ponderosa	--	--	--	--	--	Karl	--	0.5	-1.3	-2.3	-1
AgriPro	Tomahawk	--	--	--	--	--	Karl 92	--	-3	-2.8	-2.3	-2.7
AGSECO	Mankato	--	-1.5	-1.3	--	--	KS91H153-2	--	-3	-0.8	-0.5	-1.4
AGSECO	7805	--	--	3.3	2.3	--	KS92PO263-137	--	0.8	1.5	1.3	1.2
AGSECO	7853	--	-3.3	-3.3	-2.8	-3.1	Larned	--	-0.3	-0.3	0.3	-0.1
AGSECO	9001	--	-1	1.3	3	1.1	Niobrara	--	1	0	-0.3	0.3
AGSECO	Colby 94	--	2.8	1.3	0.5	1.5	Newton	--	0.5	0.3	1.8	0.8
AWWPA	(W)KS84HW196Exp	--	-4.5	--	--	--	Scout 66	--	5/28	5/27	5/21	5/25
AWWPA	(W) Rio Blanco	--	1.8	--	0	--	TAM 107	--	-3.5	-5	-2	-3.5
AWWPA	(W) Oro Blanco	--	1.3	2.5	3.5	2.4	TAM 200	--	0	0.3	-0.5	-0.1
Century II	Discovery	--	--	--	--	--	Tonkawa	--	-1	0.5	2.3	0.6
Century II	Voyager	--	3.3	5	4	4.1	Triumph 64	--	--	--	--	--
Century II	(S) 2500	--	--	--	--	--	Vista	--	1.3	0.5	-1.3	0.2
Quantum	XH1520 Exp	--	-0.5	-0.8	--	--	Yuma	--	0.3	0.8	-0.3	0.3
Quantum	XH1706 Exp	--	-1.3	-1.8	--	--	(W) Arlin	--	-4.3	-2.5	-3.3	-3.3
Star	Champ	--	--	--	--	--						
Star	Salute	--	--	--	--	--	Test Average	--	-0.6	-0.6	-0.1	-0.4
							C.V. (%)	--	3.3	5.1	6.5	--
							L.S.D.(0.05)**	--	1.1	1.6	1.6	--

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

**Table 24. Maturity (days +/- Newton) 1995 Kansas Winter Wheat Performance Tests - Irrigated.**

Private		Test Location					Public	Test Location				
Brand	Cultivar	SI	TI	GI	FI	Avg.	Cultivar	SI	TI	GI	FI	Avg.
AgriPro	AP 7301	-8	-3.3	-3.3	-8.5	-5.8	2163	-3.6	0	0.5	-3.3	-1.6
AgriPro	AP 7501	-0.8	-0.5	-0.3	-2.3	-1	2180	-8.2	--	--	-8.5	--
AgriPro	AP 7601	-0.6	0.3	0.8	-0.3	0	Cimarron	-2	0.3	-0.3	-4.3	-1.6
AgriPro	WX92-0408 Exp	-4.6	-2	-0.5	-5.5	-3.2	Custer	-3.2	-3.3	-2	-5.8	-3.6
AgriPro	WX92-3210 Exp	-5.4	-1.8	0	-3.5	-2.7	Ike	-0.2	-2	-2.5	-6	-2.7
AgriPro	Coronado	-6.8	-2	-0.8	-5	-3.6	Jagger	-6.8	-4	-2	-5.5	-4.6
AgriPro	Rowdy	-5.8	-3.5	0.8	-6.3	-3.7	Karl	-5	-1.8	-1.3	-4.3	-3.1
AgriPro	Laredo	--	-3.5	-0.5	-6	--	Karl 92	-6.6	-2.8	-1.5	-6.8	-4.4
AgriPro	Hickok	-5.2	-3.3	0.5	-4.5	-3.1	KS91H153-2	1	-2.8	0.3	-3.3	-1.2
AgriPro	Ogallala	--	-1.5	0	-5.3	--	KS92PO263-137	-1.6	1.3	0.3	0	0
AgriPro	Pecos	-7.4	-3.3	0	-1.3	-3	Newton	5/13	5/28	6/1	5/27	5/25
AgriPro	Ponderosa	-1.2	--	--	--	--	TAM 107	-4.2	-4	-1.5	-5.5	-3.8
AgriPro	Tomahawk	-0.8	--	--	--	--	TAM 200	0.6	-1.8	0.3	-3.8	-1.2
AGSECO	Mankato	--	-3	-1.5	--	--	Tonkawa	-2.8	-1.3	-1.5	-0.5	-1.5
AGSECO	7853	-2.2	-2.8	-1.8	-8.3	-3.7	Yuma	1	-2.3	-1.5	-2.5	-1.3
AGSECO	9001	--	-1.5	-0.5	-3	--	(W) Arlin	-8.4	-4	-1.3	-8.8	-5.6
AWWPA	(W)KS84HW196Exp	--	-4.3	--	--	--						
AWWPA	(W) Rio Blanco	-2.6	1.5	--	-2.5	--	Test Average	-3.4	-1.8	-0.7	-4.1	-2.5
AWWPA	(W) Oro Blanco	-3	0	0.3	-1	-0.9	C.V. (%)	13.7	3.2	2.9	4.9	--
Century II	Discovery	-0.8	--	--	--	--	L.S.D.(0.05)**	1.4	1	1.1	1.3	--
Century II	Voyager	0.8	4.5	1.3	1	1.9						

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

**Table 25. Plant heights (inches) 1995 Kansas Winter Wheat Performance Tests - East.**

Private		Test Location					Public	Test Location				
Brand	Cultivar	BR	RL	FR	LB	Avg.	Cultivar	BR	RL	FR	LB	Avg.
AgriPro	AP 7501	--	35	--	--	--	2163	37	35	36	29	34
AgriPro	WX92-0408 Exp	--	35	--	--	--	Arapahoe	39	37	--	--	--
AgriPro	Coronado	33	33	36	31	33	Arkan	38	34	35	29	34
AgriPro	Rowdy	34	33	34	28	32	Cimarron	36	34	39	31	35
AgriPro	Hickok	33	32	--	--	--	Custer	38	35	37	33	36
AgriPro	Pecos	--	--	32	28	--	Ike	37	35	40	34	37
AgriPro	(S) Boone	41	36	39	32	37	Jagger	39	34	38	32	36
AGSECO	Mankato	38	--	--	--	--	Karl	37	33	37	30	34
AGSECO	7853	38	35	38	34	36	Karl 92	35	32	35	29	33
AWWPA	(W) Rio Blanco	--	--	--	28	--	KS91H153-2	37	34	39	34	36
AWWPA	(W) Oro Blanco	35	33	33	29	32	KS92PO263-137	39	35	35	33	35
Century II	Discovery	37	32	35	33	34	Larned	44	35	42	36	39
Century II	(S) 2500	35	34	34	30	33	Niobrara	43	36	--	--	--
NK	(S) Coker 9474	--	--	--	28	--	Newton	36	36	39	31	35
NK	(S) Coker 9543	--	--	--	28	--	Scout 66	44	35	44	34	39
Ohlde	(S) T441	38	36	38	30	35	TAM 107	38	34	37	30	35
Star	Champ	38	35	--	--	--	Tonkawa	40	35	38	32	36
Star	Salute	35	33	--	--	--	Vista	38	33	--	--	--
Terra	HR 153	38	--	39	35	--	(S) Caldwell	39	35	37	31	35
Terra	(S) SR 204	41	--	40	31	--	(S) Cardinal	40	38	40	32	37
Terra	(S) SR 205	40	--	39	32	--	(S) Clark	38	37	40	31	36
							(S) Ernie	35	33	37	28	33
							(S) Excel	39	35	35	31	35
							(S) Freedom	39	33	39	31	35
							(S) Jackson	38	35	38	31	35
							(S) MO12258 Exp	38	32	34	28	33
							(W) Arlin	38	35	38	32	36
							Test Average	38	35	37	31	35
							C.V. (%)	5	6	4	6	--
							L.S.D.(0.05)**	2	2	2	2	--

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

**Table 26. Plant heights (inches) 1995 Kansas Winter Wheat Performance Tests - Central.**

Private Brand	Cultivar	Test Location					Avg.	Public Cultivar	Test Location					Avg.
		RP	HV	RN	SD	SU			RP	HV	RN	SD	SU	
AgriPro	AP 7501	37	--	--	--	--	--	2163	37	36	39	28	35	35
AgriPro	AP 7601	35	--	--	--	--	--	2172	--	32	37	26	33	--
AgriPro	WX92-0408 Exp	37	--	--	--	--	--	2180	--	35	37	28	32	--
AgriPro	WX92-3210 Exp	38	--	--	--	--	--	Alliance	42	--	--	--	--	--
AgriPro	Coronado	37	36	38	31	33	35	Arapahoe	43	--	--	32	--	--
AgriPro	Rowdy	33	35	36	25	33	32	Arkan	40	35	41	25	33	35
AgriPro	Hickok	37	35	38	--	--	--	Cimarron	41	37	41	28	35	36
AgriPro	Pecos	--	32	40	--	32	--	Custer	41	38	40	31	35	37
AgriPro	Ponderosa	40	37	39	27	--	--	Ike	42	39	41	32	37	38
AgriPro	Tomahawk	38	36	40	30	--	--	Jagger	38	39	41	29	35	36
AGSECO	Mankato	42	--	40	--	--	--	Karl	37	37	37	29	33	35
AGSECO	7853	39	37	41	31	36	37	Karl 92	36	37	38	28	32	34
AGSECO	Colby 94	42	--	44	--	--	--	KS91H153-2	38	37	39	29	34	35
AWWPA	(W) Rio Blanco	--	--	--	--	33	--	KS92PO263-137	41	37	42	31	34	37
AWWPA	(W) Oro Blanco	34	36	39	28	33	34	Larned	44	40	41	31	38	39
Century II	Discovery	38	37	38	28	36	35	Niobrara	45	--	--	33	--	--
Century II	Voyager	--	--	--	31	36	--	Newton	40	37	39	28	35	36
Century II	(S) 2500	36	35	37	--	--	--	Scout 66	46	39	41	31	41	39
Star	Champ	42	--	--	32	--	--	TAM 107	38	35	40	29	31	34
Star	Salute	37	--	--	28	--	--	TAM 200	36	36	36	29	33	34
Terra	HR 153	--	38	40	--	--	--	Tonkawa	40	39	40	32	35	37
								Triumph 64	--	38	44	32	38	--
								Vista	39	--	--	28	--	--
								Yuma	39	--	--	--	--	--
								(W) Arlin	38	38	40	30	35	36
								Test Average	39	37	39	29	34	36
								C.V. (%)	4	3	4	6	4	--
								L.S.D.(0.05)**	2	1	2	2	1	--

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



**Table 27. Plant heights (inches) 1995 Kansas Winter Wheat Performance Tests - West.**

Private Brand	Cultivar	Test Location					Public Cultivar	Test Location				
		EL	TD	GD	FD	Avg.		EL	TD	GD	FD	Avg.
AgriPro	AP 7501	32	36	--	--	--	2163	30	35	34	27	32
AgriPro	AP 7601	--	34	--	--	--	Akron	32	39	40	31	35
AgriPro	WX92-0408 Exp	30	35	--	--	--	Alliance	34	39	--	--	--
AgriPro	WX92-3210 Exp	--	36	--	--	--	Arapahoe	36	42	39	31	37
AgriPro	Coronado	31	35	34	27	32	Cimarron	29	37	36	30	33
AgriPro	Rowdy	29	--	--	--	--	Custer	31	37	33	28	32
AgriPro	Laredo	29	31	30	26	29	Halt	30	34	32	26	31
AgriPro	Longhorn	33	39	37	27	34	Ike	34	38	36	30	34
AgriPro	Hickok	27	--	--	--	--	Jagger	32	35	35	27	32
AgriPro	Ogallala	29	34	32	28	30	Jules	36	40	38	31	36
AgriPro	Ponderosa	30	--	--	--	--	Karl	30	36	34	28	32
AgriPro	Tomahawk	31	--	--	--	--	Karl 92	31	34	34	26	31
AGSECO	Mankato	32	37	37	--	--	KS91H153-2	31	33	32	27	31
AGSECO	7805	--	--	38	30	--	KS92PO263-137	32	37	37	31	34
AGSECO	7853	32	35	34	29	33	Larned	33	40	39	30	35
AGSECO	9001	31	38	37	29	34	Niobrara	36	40	38	32	37
AGSECO	Colby 94	34	41	38	33	36	Newton	34	39	35	28	34
AWWPA	(W)KS84HW196Exp	--	34	--	--	--	Scout 66	35	43	41	31	37
AWWPA	(W) Rio Blanco	28	32	--	27	--	TAM 107	32	34	33	27	31
AWWPA	(W) Oro Blanco	31	35	36	29	33	TAM 200	29	34	34	27	31
Century II	Discovery	30	--	--	--	--	Tonkawa	30	37	35	28	33
Century II	Voyager	32	40	40	30	36	Triumph 64	34	--	--	--	--
Century II	(S) 2500	31	--	--	--	--	Vista	32	35	36	30	33
Quantum	XH1520 Exp	30	37	35	--	--	Yuma	31	35	36	30	33
Quantum	XH1706 Exp	32	37	36	--	--	(W) Arlin	31	36	34	27	32
Star	Champ	33	--	--	--	--						
Star	Salute	32	--	--	--	--	Test Average	32	37	36	29	33
							C.V. (%)	5	2	4	5	--
							L.S.D.(0.05)**	2	1	2	2	--

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

**Table 28. Plant heights (inches) 1995 Kansas Winter Wheat Performance Tests - Irrigated.**

Private		Test Location					Public	Test Location				
Brand	Cultivar	SI	TI	GI	FI	Avg.	Cultivar	SI	TI	GI	FI	Avg.
AgriPro	AP 7301	26	34	32	29	30	2163	30	36	37	28	33
AgriPro	AP 7501	29	36	36	28	32	2180	27	--	--	25	--
AgriPro	AP 7601	28	33	35	29	31	Cimarron	23	35	37	29	31
AgriPro	WX92-0408 Exp	31	34	35	31	33	Custer	25	36	34	28	31
AgriPro	WX92-3210 Exp	31	36	36	30	33	Ike	32	38	36	32	34
AgriPro	Coronado	32	34	33	28	32	Jagger	30	34	33	28	31
AgriPro	Rowdy	26	33	31	29	30	Karl	32	35	35	29	33
AgriPro	Laredo	--	32	29	28	--	Karl 92	29	33	33	31	32
AgriPro	Hickok	27	34	32	27	30	KS91H153-2	27	34	32	30	31
AgriPro	Ogallala	--	35	33	28	--	KS92PO263-137	30	37	37	28	33
AgriPro	Pecos	25	33	33	25	29	Newton	29	38	34	28	32
AgriPro	Ponderosa	30	--	--	--	--	TAM 107	26	35	33	29	30
AgriPro	Tomahawk	32	--	--	--	--	TAM 200	26	35	31	31	31
AGSECO	Mankato	--	38	35	--	--	Tonkawa	31	36	37	27	33
AGSECO	7853	32	35	32	29	32	Yuma	19	36	37	28	30
AGSECO	9001	--	37	37	32	--	(W) Arlin	31	35	34	29	32
AWWPA	(W)KS84HW196Exp	--	35	--	--	--						
AWWPA	(W) Rio Blanco	25	33	--	28	--	Test Average	28	35	34	29	31
AWWPA	(W) Oro Blanco	29	35	37	29	32	C.V. (%)	9	3	4	6	--
Century II	Discovery	27	--	--	--	--	L.S.D.(0.05)**	3	1	2	2	--
Century II	Voyager	27	40	39	27	33						

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

**Table 29. Lodging (%) 1995 Kansas Winter Wheat Performance Tests - East and Central.**

Private Brand	Cultivar	Test Location						Public Cultivar	Test Location					
		BR	RL	LB	HV	RN	SD		BR	RL	LB	HV	RN	SD
AgriPro	(S) Boone	15	3	6	--	--	--	2163	15	3	1	1	40	0
AgriPro	AP 7501	--	0	--	--	--	--	2172	--	--	--	18	38	3
AgriPro	Coronado	8	0	8	2	21	1	2180	--	--	--	1	23	0
AgriPro	Hickok	18	43	--	38	63	--	Arapahoe	20	35	--	--	--	1
AgriPro	Pecos	--	--	8	1	15	--	Arkan	16	10	4	1	33	1
AgriPro	Ponderosa	--	--	--	0	18	5	Cimarron	24	33	15	23	91	16
AgriPro	Rowdy	14	0	8	0	44	0	Custer	18	10	4	4	24	0
AgriPro	Tomahawk	--	--	--	3	15	18	Ike	21	8	15	16	61	0
AgriPro	WX92-0408 Exp	--	9	--	--	--	--	Jagger	15	10	5	14	35	1
AGSECO	7853	26	13	38	16	70	6	Karl	18	8	23	6	18	0
AGSECO	Colby 94	--	--	--	--	84	--	Karl 92	18	0	16	3	30	0
AGSECO	Mankato	11	--	--	--	90	--	KS91H153-2	15	11	24	1	64	4
AWWPA	(W) Rio Blanco	--	--	6	--	--	--	KS92PO263-137	13	0	3	0	16	1
AWWPA	(W) Oro Blanco	12	0	3	0	23	0	Larned	24	38	35	31	85	81
Century II	(S) 2500	18	5	20	0	55	--	Newton	18	5	19	44	74	43
Century II	Discovery	16	48	23	15	78	6	Niobrara	15	43	--	--	--	5
Century II	Voyager	--	--	--	--	--	7	Scout 66	33	43	64	64	93	83
NK	(S) Coker 9474	--	--	3	--	--	--	TAM 200	--	--	--	2	91	24
NK	(S) Coker 9543	--	--	9	--	--	--	TAM 107	16	8	4	0	40	1
Ohlde	(S) T441	19	5	3	--	--	--	Tonkawa	5	8	5	0	33	0
Star	Champ	21	13	--	--	--	17	Triumph 64	--	--	--	73	99	54
Star	Salute	13	0	--	--	--	1	Vista	6	35	--	--	--	0
Terra	(S) SR 204	20	--	9	--	--	--	(S) MO12258 Exp	24	16	6	--	--	--
Terra	(S) SR 205	19	--	8	--	--	--	(S) Cardinal	25	0	9	--	--	--
Terra	HR 153	21	--	36	11	65	--	(S) Excel	24	0	9	--	--	--
								(S) Freedom	18	10	3	--	--	--
								(S) Jackson	20	19	19	--	--	--
								(S) Clark	14	3	13	--	--	--
								(S) Caldwell	24	6	9	--	--	--
								(S) Ernie	26	8	6	--	--	--
								(W) Arlin	11	0	19	13	21	0
								Test Average	17	12	13	12	49	11
								C.V. (%)	63	148	61	75	35	59
								L.S.D.(0.05)**	NS	20	9	11	20	7

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

**Table 30. Lodging (%) 1995 Kansas Winter Wheat Performance Tests - West and Irrigated.**

Private		Test Location						Public		Test Location					
Brand	Cultivar	TD	GD	SI	TI	GI	FI	Cultivar	TD	GD	SI	TI	GI	FI	
AgriPro	AP 7301	--	--	4	5	10	0	2163	0	0	0	0	0	28	
AgriPro	AP 7501	0	--	3	0	0	0	2180	--	--	16	--	--	0	
AgriPro	AP 7601	0	--	0	0	0	20	Akron	0	4	--	--	--	--	
AgriPro	WX92-0408 Exp	0	--	0	0	5	8	Alliance	0	--	--	--	--	--	
AgriPro	WX92-3210 Exp	0	--	0	0	20	5	Arapahoe	0	26	--	--	--	--	
AgriPro	Coronado	0	1	0	0	3	5	Cimarron	3	10	27	3	58	80	
AgriPro	Rowdy	--	--	1	0	5	40	Custer	0	0	7	0	0	0	
AgriPro	Laredo	3	14	--	8	43	23	Halt	5	13	--	--	--	--	
AgriPro	Longhorn	0	10	--	--	--	--	Ike	0	6	1	5	73	68	
AgriPro	Hickok	--	--	14	5	18	85	Jagger	0	14	3	3	33	30	
AgriPro	Ogallala	0	3	--	3	55	20	Jules	0	0	--	--	--	--	
AgriPro	Pecos	--	--	3	3	0	5	Karl	0	3	3	0	28	30	
AgriPro	Ponderosa	--	--	17	--	--	--	Karl 92	0	4	0	5	58	53	
AgriPro	Tomahawk	--	--	12	--	--	--	KS91H153-2	5	18	31	8	73	75	
AGSECO	Mankato	0	4	--	5	65	--	KS92PO263-137	0	0	2	0	0	0	
AGSECO	7805	--	28	--	--	--	--	Larned	13	43	--	--	--	--	
AGSECO	7853	10	6	7	23	55	3	Niobrara	3	18	--	--	--	--	
AGSECO	9001	0	4	--	0	18	63	Newton	0	8	19	5	73	78	
AGSECO	Colby 94	3	3	--	--	--	--	Scout 66	55	73	--	--	--	--	
AWWPA	(W)KS84HW196Exp	30	--	--	33	--	--	TAM 107	5	10	6	5	48	85	
AWWPA	(W) Rio Blanco	0	--	3	8	--	95	TAM 200	0	15	19	13	43	98	
AWWPA	(W) Oro Blanco	0	0	0	0	0	3	Tonkawa	0	0	0	0	0	53	
Century II	Discovery	--	--	19	--	--	--	Vista	0	3	--	--	--	--	
Century II	Voyager	0	8	8	3	0	18	Yuma	0	4	37	3	0	48	
Quantum	XH1520 Exp	0	1	--	--	--	--	(W) Arlin	3	6	7	3	18	63	
Quantum	XH1706 Exp	0	3	--	--	--	--								
								Test Average	3	10	8	4	26	36	
								C.V. (%)	124	105	134	123	69	59	
								L.S.D.(0.05)**	4	12	12	6	21	25	

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

**Table 31. Disease notes from 1995 Kansas Winter Wheat Performance Tests.**

Private		RL	RL	RL	RL	LB	FD	FI	Public	RL	RL	RL	RL	LB	FD	FI
Brand	Cultivar	G <sup>1</sup>	G <sup>2</sup>	R <sup>3</sup>	S <sup>4</sup>	B <sup>5</sup>	F <sup>6</sup>	F <sup>6</sup>	Cultivar	G <sup>1</sup>	G <sup>2</sup>	R <sup>3</sup>	S <sup>4</sup>	B <sup>5</sup>	F <sup>6</sup>	F <sup>6</sup>
AgriPro	AP 7301	--	--	--	--	--	--	4.3	2163	3	7	20MS	3	5.3	3.5	4
AgriPro	AP 7501	5	8	R	5	--	--	4	2180	--	--	--	--	--	--	4.8
AgriPro	AP 7601	--	--	--	--	--	--	3.8	Akron	--	--	--	--	--	3	--
AgriPro	WX92-0408 Exp	3	7	R	3	--	--	3.3	Alliance	--	--	--	--	--	--	--
AgriPro	WX92-3210 Exp	--	--	--	--	--	--	4	Arapahoe	4	7	trMR	4	--	2	--
AgriPro	Coronado	5	7	trMR	5	6	5.8	5.5	Arkan	7	9	20S	7	7	--	--
AgriPro	Rowdy	7	9	R	9	6	--	4	Cimarron	9	9	40S	8	6.5	2.3	3.8
AgriPro	Laredo	--	--	--	--	--	3.8	4.3	Custer	4	9	R	6	4.8	3.3	3.8
AgriPro	Longhorn	--	--	--	--	--	3.5	--	Halt	--	--	--	--	--	5	--
AgriPro	Hickok	7	9	R	9	--	--	4.5	Ike	8	9	40S	7	5.8	2.5	3
AgriPro	Ogallala	--	--	--	--	--	3	4	Jagger	2	4	R	2	6	4	3.8
AgriPro	Pecos	--	--	--	--	7.3	--	5	Jules	--	--	--	--	--	2.3	--
AgriPro	Ponderosa	--	--	--	--	--	--	--	Karl	8	9	60S	4	8	3.5	4.3
AgriPro	Tomahawk	--	--	--	--	--	--	--	Karl 92	8	9	60S	4	8.3	2.8	3.8
AgriPro	(S) Boone	2	4	R	4	5.5	--	--	KS91H153-2	4	9	R	4	6.3	3.8	4
AGSECO	Mankato	--	--	--	--	--	--	--	KS92PO263-137	3	6	20MS	3	5.8	2.8	3.3
AGSECO	7805	--	--	--	--	--	3.5	--	Larned	8	9	40S	8	8.5	4.8	--
AGSECO	7853	7	9	10S	8	5.5	2.8	2	Niobrara	6	9	20MS	8	--	2	--
AGSECO	9001	--	--	--	--	--	3.8	3.5	Newton	9	9	80S	8	8.5	4.3	4.5
AGSECO	Colby 94	--	--	--	--	--	3.3	--	Scout 66	9	9	30S	9	8.8	4.3	--
AWWPA	(W) Rio Blanco	--	--	--	--	7.3	3	4.3	TAM 107	9	9	80S	5	8.3	4.5	4.5
AWWPA	(W) Oro Blanco	6	9	20S	7	7.3	3.3	4	TAM 200	--	--	--	--	--	2.3	4.3
Century II	Discovery	8	9	trS	6	5.5	--	--	Tonkawa	6	9	R	7	6.5	3.5	4.3
Century II	Voyager	--	--	--	--	--	4.5	4.5	Triumph 64	--	--	--	--	--	--	--
Century II	(S) 2500	2	3	R	3	6.8	--	--	Vista	7	9	trMR	9	--	2	--
NK	(S) Coker 9474	--	--	--	--	4.3	--	--	Yuma	--	--	--	--	--	3.8	5.3
NK	(S) Coker 9543	--	--	--	--	4.3	--	--	(S) Caldwell	4	7	trMS	3	7	--	--
Ohlde	(S) T441	1	2	R	1	3.8	--	--	(S) Cardinal	4	5	10MR	3	5.3	--	--
Quantum	XH1520 Exp	--	--	--	--	--	--	--	(S) Clark	3	7	trMR	3	5.8	--	--
Quantum	XH1706 Exp	--	--	--	--	--	--	--	(S) Ernie	5	8	30S	5	7	--	--
Star	Champ	5	9	trMR	7	--	--	--	(S) Excel	3	7	R	4	5.5	--	--
Star	Salute	5	9	R	6	--	--	--	(S) Freedom	5	7	trMR	4	6.5	--	--
Terra	HR 153	--	--	--	--	4.8	--	--	(S) Jackson	4	7	10S	3	5.3	--	--
Terra	(S) SR 204	--	--	--	--	6.8	--	--	(S) MO12258Exp	4	6	trS	3	7.8	--	--
Terra	(S) SR 205	--	--	--	--	6.8	--	--	(W) Arlin	5	8	20MS	7	7.5	6.3	4.5
Test Average										5.2	7.5	--	4.9	6.4	3.5	4.1
C.V. (%)										--	--	--	--	--	23	20.2
L.S.D.(0.05)										--	--	--	--	0.8	1	1

Unless otherwise indicated, ratings are on a 1-9 scale with 1 best and 9 poorest. These ratings are from individual tests and may not characterize the reaction of a variety under all circumstances. Several ratings have no C.V. or L.S.D. because they were unreplicated.

<sup>1</sup>Green leaf duration, first note. A visual estimate of how well the flag leaf is holding up after anthesis.

<sup>2</sup>Green leaf duration, second note. Examining both ratings provides a picture of how the leaves held up under disease pressure over time.

<sup>3</sup>Rust; number quantifies leaf area affected as a percentage, letters characterize reaction: S = susceptible, MR = moderately resistant, etc.

<sup>4</sup>*Septoria tritici*.

<sup>5</sup>Barley yellow dwarf virus.

<sup>6</sup>Freeze damage note taken 5/16, several weeks after a hard freeze on April 10-11.

**Table 32. Planted seed characteristics, coleoptile lengths, and Hessian fly ratings**

**1995 Kansas Winter Wheat Performance Tests.**

Private Brand	Cultivar	Test Seed Col.					Public Cultivar	Test Seed Col.				
		TKW (gm)	wt. (lb/bu)	/lb (1000)	length (in.) <sup>1</sup>	Hess. fly <sup>2</sup>		TKW (gm)	wt. (lb/bu)	/lb (1000)	length (in.) <sup>1</sup>	Hess. fly <sup>2</sup>
AgriPro	AP 7301	29.5	58.5	15.4	2.9	9	2163	38.2	60.8	11.9	3.3	1
AgriPro	AP 7501	25.4	58.6	17.9	3.1	6	2172	34.7	58	13.1	3.2	5
AgriPro	AP 7601	25.5	58.3	17.8	3.1	5	2180	37.2	61.1	12.2	3.1	3
AgriPro	Coronado	38.1	59.3	11.9	2.9	8	Akron	37.2	60.1	12.2	3.3	9
AgriPro	Hickok	29	60.8	15.6	3.3	9	Alliance	29.3	53.5	15.5	2.8	3
AgriPro	Laredo	27.8	53.5	16.3	3.3	9	Arapahoe	30.6	55.3	14.8	3.3	5
AgriPro	Longhorn	33.8	58.8	13.4	4.7	9	Arkan	31	56.9	14.6	4.6	2
AgriPro	Ogallala	30	59.4	15.1	3.5	9	Cimarron	32.1	58.9	14.1	3.5	7
AgriPro	Pecos	33.9	56.8	13.4	3	1	Custer	28.5	58.1	15.9	3.1	9
AgriPro	Ponderosa	39.4	59.5	11.5	3.1	9	Halt	36.5	59.4	12.4	3.2	9
AgriPro	Rowdy	33.4	60.1	13.6	3.1	9	Ike	28.9	58.1	15.7	3.2	2
AgriPro	Tomahawk	35.4	57.3	12.8	3.5	9	Jagger	34.8	57.2	13	3.7	9
AgriPro	WX92-0408 Exp	30.1	57.1	15.1	3.3	9	Jules	30.3	55.1	15	2.9	9
AgriPro	WX92-3210 Exp	31.5	57.6	14.4	3.5	8	Karl	33.9	59.8	13.4	3.5	9
AgriPro	(S) Boone	38.2	54.8	11.9	3.8	9	Karl 92	34.8	58.8	13	3.4	9
AGSECO	Mankato	29.5	58.2	15.4	2.8	8	KS91H153-2	33.8	60	13.4	3.8	1
AGSECO	7805	30.1	56.6	15.1	3.8	9	KS92PO263-137	31.2	58.3	14.5	3.2	1
AGSECO	7853	35.6	63	12.7	3	9	Larned	35.3	57.3	12.9	4.3	2
AGSECO	9001	26.1	52.7	17.4	3	9	Newton	30.6	57.6	14.8	3.5	9
AGSECO	Colby 94	36.6	60	12.4	2.9	8	Niobrara	33.3	53.4	13.6	3.3	9
AWWPA	(W) KS84HW196Exp	28.8	57.2	15.8	3.9	9	Scout 66	28.5	56	15.9	4.3	9
AWWPA	(W) Rio Blanco	22.9	54.2	19.8	3.3	9	TAM 107	39.8	58.6	11.4	3.9	9
AWWPA	(W) Oro Blanco	32.1	60	14.1	2.9	9	TAM 200	23.5	60.2	19.3	3.1	9
Century II	Discovery	26.8	57.4	16.9	3.3	9	Tonkawa	30.1	59.8	15.1	3.5	9
Century II	Voyager	24.7	55.1	18.3	4.3	9	Triumph 64	37.6	57.7	12.1	3.7	9
Century II	(S) 2500	32	58	14.2	3.5	9	Vista	31	57.2	14.6	2.9	1
NK-Coker	(S) 9474	36.9	57	12.3	--	6	Yuma	38.5	59.1	11.8	2.8	9
NK-Coker	(S) 9543	31.9	57.7	14.2	3.3	5	(S) Caldwell	31.7	55.9	14.3	3.1	2
Ohlde	(S) T441	27.8	55.5	16.3	3	4	(S) Cardinal	38.5	54.6	11.8	3.7	2
Quantum	XH1520 Exp	30.9	54.8	14.7	3.7	9	(S) Clark	39.6	58.2	11.5	3.6	1
Quantum	XH1706 Exp	33	55.6	13.8	2.8	9	(S) Ernie	43.1	54	10.5	3.9	9
Star	Champ	34.3	55.6	13.2	3	9	(S) Excel	29.9	54.3	15.2	2.8	3
Star	Salute	26	55.8	17.5	3.9	5	(S) Freedom	36.6	54.7	12.4	3.4	1
Terra	HR 153	35.9	62.7	12.6	2.9	9	(S) Jackson	34.5	58.8	13.1	3	8
Terra	(S) SR 204	30.3	61.2	15	3	2	(S) MO12258Exp	37.6	54.2	12.1	3.9	2
Terra	(S) SR 205	30.3	57.9	15	3.3	7	(W) Arlin	32	54.2	14.2	3.2	9
							Maximum	43.1	63	23	4.7	9
							Minimum	19.7	49.2	10.5	2.8	1
							Average	32.1	57.3	14.4	3.4	7

<sup>1</sup> Coleoptile lengths provided by T. Joe Martin, Kansas State University Agricultural Research Center - Hays.

<sup>2</sup> Hessian fly ratings by J. Hatchett, USDA; 1 = highly resistant, 9 = highly susceptible. Tested with the Great Plains Hessian fly.

**Table 33. Protein (% at 14% moisture) 1994 Kansas Winter Wheat Performance Tests - East.**

Private		Test Location					Public	Test Location				
Brand	Cultivar	BR	RL	FR	LB	Avg.	Cultivar	BR	RL	FR	LB	Avg.
AgriPro	Hickok	12.2	--	--	--	--	2163	12.7	12.3	11.8	11.7	12.1
AgriPro	Pecos	--	--	12.2	12.1	--	2180	--	14.2	13.8	12.3	--
AgriPro	Ponderosa	13.5	--	--	--	--	Arapahoe	13.9	12.2	--	--	--
AgriPro	Tomahawk	13.0	--	--	--	--	Arkan	13.5	13.7	12.3	14.1	13.4
AgriPro	(S) Boone	12.2	--	10.7	11.0	--	Chisholm	12.9	--	11.5	11.3	--
AgriPro	(S) Hickory	--	--	--	10.4	--	Cimarron	12.9	13.6	--	11.5	--
AgriPro	(S) Sawyer	--	--	--	11.6	--	Ike	11.8	12.8	11.3	11.0	11.7
AGSECO	Mankato	11.9	12.3	--	--	--	Jagger	14.2	13.0	--	12.1	--
AGSECO	7846	--	--	11.4	11.7	--	Karl	12.8	15.0	11.0	12.5	12.8
AGSECO	7853	12.6	14.0	10.6	12.5	12.5	Karl 92	12.1	14.4	10.5	12.1	12.3
AGSECO	TAM 300	13.1	13.7	12.5	13.0	13.1	KS92PO263-137 Exp	11.9	11.8	--	10.4	--
Century II	Discovery	14.5	15.5	13.9	13.0	14.2	KS92PO363-134 Exp	13.3	13.1	--	11.9	--
Century II	(S) 2500 Exp	13.6	13.4	12.6	11.8	12.8	Larned	13.0	12.8	11.6	11.5	12.2
Great Plains	(S) 416	--	--	--	12.8	--	Newton	12.2	11.8	11.3	12.3	11.9
Great Plains	(S) 417-2	--	--	--	12.8	--	Scout 66	13.5	13.3	12.8	10.9	12.6
Great Plains	(S) 512-2	--	--	--	12.6	--	TAM 107	13.4	12.7	11.5	12.6	12.6
Great Plains	(S) 610	--	--	--	11.4	--	TAM 200	13.9	12.3	11.4	11.8	12.3
Great Plains	(S) 618	--	--	--	11.7	--	Triumph 64	--	--	12.3	--	--
HybriTech	(S) Pacer	--	--	--	12.4	--	Vista	13.2	12.2	--	--	--
HybriTech	(S) Spencer	--	--	--	11.6	--	(S) Caldwell	11.8	11.0	13.1	11.2	11.8
Minas	Fundulea	--	12.9	--	--	--	(S) Cardinal	13.3	11.7	10.6	11.1	11.7
NK-Coker	(S) 9474	--	--	--	11.6	--	(S) Clark	11.4	12.7	10.4	12.7	11.8
Ohlde	(S) T408	11.5	11.9	11.1	12.6	11.8	(S) Ernie	--	--	--	10.5	--
Ohlde	(S) T441	11.6	11.8	11.6	10.6	11.4	(S) Excel	11.6	11.9	11.6	12.1	11.8
Ohlde	(S) T63	12.4	11.9	10.7	13.1	12.0	(S) Freedom	14.2	11.6	11.2	11.5	12.1
Pioneer	(S) 2548	12.8	--	11.0	10.4	--	(W) Arlin	12.7	12.7	12.5	11.3	12.3
Pioneer	(S) 2571	11.3	--	10.9	10.4	--						
Star	Champ	12.2	12.7	--	--	--	Location Averages	12.8	12.8	11.7	11.8	12.3
Star	Salute	13.6	13.4	--	--	--						
Terra	(S) SR 204	--	--	--	12.1	--						
Terra	(S) SR 205	--	--	--	10.8	--						

**Table 34. Protein (% at 14% moisture) 1994 Kansas Winter Wheat Performance Tests - Central.**

Private		Test Location					Public	Test Location				
Brand	Cultivar	RP	HV	RN	SD	Avg.	Cultivar	RP	HV	RN	SD	Avg.
AgriPro	Hickok	13.9	12.6	13.0	14.8	13.6	2163	13.7	13.1	13.8	14.4	13.8
AgriPro	Pecos	--	13.0	13.6	--	--	2172	--	12.7	13.1	14.7	--
AgriPro	Ponderosa	14.6	14.0	14.0	15.4	14.5	2180	14.5	13.6	14.2	15.6	14.5
AgriPro	Sierra	--	--	13.7	--	--	Arapahoe	14.2	--	--	14.5	--
AgriPro	Tomahawk	14.3	13.3	13.6	15.1	14.0	Arkan	14.2	13.3	14.2	14.9	14.2
AGSECO	Mankato	14.3	--	13.4	--	--	Cimarron	14.5	13.1	14.2	15.4	14.3
AGSECO	7846	--	13.0	--	--	--	Ike	15.0	12.8	14.0	15.4	14.3
AGSECO	7853	14.2	13.7	13.4	14.4	13.9	Jagger	15.0	12.5	13.8	14.3	13.9
AGSECO	Colby	12.9	--	12.2	--	--	Karl	14.6	14.1	15.0	16.1	15.0
AGSECO	TAM 300	14.8	14.2	14.0	15.3	14.6	Karl 92	14.1	13.0	14.5	15.2	14.2
AWWPA	(W) Rio Blanco	--	--	--	14.5	--	KS92PO263-137 Exp	13.2	12.7	12.9	14.9	13.4
Century II	Discovery	15.3	13.5	14.6	16.2	14.9	KS92PO363-134 Exp	14.0	13.6	13.9	14.5	14.0
Century II	Voyager	--	--	--	15.9	--	Larned	14.1	13.1	13.5	14.0	13.7
Century II	(S) 2500 Exp	14.0	13.6	14.0	--	--	Newton	14.0	12.4	12.9	13.6	13.2
Quantum	579	--	13.0	13.1	14.2	--	Redland	13.5	--	--	--	--
Star	Champ	14.1	--	--	--	--	Scout 66	14.9	13.0	13.6	14.4	14.0
Star	Salute	14.8	--	--	--	--	TAM 107	13.4	12.7	13.2	14.9	13.6
Terra	HR 153	--	13.0	13.2	--	--	TAM 200	13.7	13.4	13.3	14.4	13.7
							Triumph 64	--	13.1	14.1	14.3	--
							Vista	14.6	--	--	14.5	--
							Yuma	13.3	--	--	--	--
							(S) Caldwell	12.4	--	--	--	--
							(S) Cardinal	13.3	--	--	--	--
							(S) Clark	13.4	--	--	--	--
							(S) Excel	13.5	--	--	--	--
							(S) Freedom	13.7	--	--	--	--
							(W) Arlin	13.8	12.2	13.2	14.6	13.4
							Location Averages	14.0	13.2	13.7	14.8	14.0



**Table 35. Protein (% at 14% moisture) 1994 Kansas Winter Wheat Performance Tests - West.**

Private		Test Location					Public	Test Location				
Brand	Cultivar	EL	TD	GD	FD	Avg.	Cultivar	EL	TD	GD	FD	Avg.
AgriPro	Hickok	12.9	13.3	11.0	13.7	12.7	2163	13.4	12.2	8.9	13.1	11.9
AgriPro	Laredo	14.0	13.2	9.5	13.9	12.6	Arapahoe	13.9	12.8	9.8	14.1	12.6
AgriPro	Longhorn	14.2	13.7	10.3	13.7	13.0	Cimarron	14.5	13.3	10.1	13.8	12.9
AgriPro	Ogallala	14.6	13.6	10.3	14.4	13.2	CO880210 Exp	--	11.4	9.1	12.4	--
AgriPro	Ponderosa	14.7	14.1	10.8	14.6	13.6	Ike	13.7	12.9	10.0	14.5	12.8
AgriPro	Tomahawk	14.1	13.1	9.4	14.0	12.7	Jagger	14.4	12.7	10.0	13.8	12.7
AGSECO	Mankato	14.0	--	--	--	--	Jules	--	12.1	8.7	--	--
AGSECO	7805	--	12.5	9.3	13.1	--	Karl	15.8	14.5	11.1	15.5	14.2
AGSECO	7846	--	--	9.1	--	--	Karl 92	15.5	13.4	11.6	14.7	13.8
AGSECO	7853	13.8	13.2	10.8	14.6	13.1	KS92PO263-137 Exp	13.1	12.1	9.4	12.6	11.8
AGSECO	9001	14.2	12.8	--	--	--	KS92PO363-134 Exp	14.4	13.2	11.0	13.7	13.1
AGSECO	Colby	12.0	11.8	8.5	12.6	11.2	Larned	13.5	12.5	9.6	13.1	12.2
AGSECO	TAM 300	15.0	--	--	--	--	Newton	13.0	12.1	12.1	13.2	12.6
AWWPA	(W) Rio Blanco	13.6	12.4	9.5	13.4	12.2	Scout 66	13.7	12.8	9.4	13.5	12.3
AWWPA	(W)KS84HW196Exp	--	11.9	--	--	--	TAM 107	13.3	12.0	9.2	12.5	11.8
Century II	Discovery	15.5	--	--	--	--	TAM 200	13.1	12.5	8.8	13.0	11.9
Century II	Voyager	14.0	14.3	10.3	14.3	13.2	Triumph 64	14.3	--	--	--	--
Century II	(S) 2500 Exp	14.7	--	--	--	--	Vista	14.4	12.2	9.1	13.6	12.3
Quantum	566	--	12.9	--	--	--	Yuma	--	--	8.9	12.4	--
Quantum	579	13.6	--	--	13.9	--	(W) Arlin	14.2	12.7	9.6	14.0	12.6
Quantum	XH1520 Exp	--	--	9.5	14.1	--						
Quantum	XH1756 Exp	13.9	12.3	8.7	--	--	Location Averages	14.0	12.8	9.8	13.6	12.7
Star	Champ	13.5	--	--	--	--						
Star	Salute	14.4	--	--	--	--						
Trio	T13	--	12.0	8.9	12.9	--						

**Table 36. Protein (% at 14% moisture) 1994 Kansas Winter Wheat Performance Tests- Irrigated.**

Private		Test Location					Public	Test Location				
Brand	Cultivar	SI	TI	GI	FI	Avg.	Cultivar	SI	TI	GI	FI	Avg.
AgriPro	Hickok	15.2	12.5	11.4	12.8	13.0	2163	16.0	12.1	11.2	12.5	13.0
AgriPro	Laredo	--	12.6	11.4	13.3	--	2172	14.9	--	--	--	--
AgriPro	Longhorn	--	13.0	12.2	14.1	--	2180	15.8	--	12.0	13.4	--
AgriPro	Ogallala	--	13.4	12.2	14.0	--	Arkan	16.4	--	--	--	--
AgriPro	Pecos	14.8	12.5	11.5	13.0	13.0	Cimarron	16.2	12.8	11.7	13.3	13.5
AgriPro	Ponderosa	15.8	13.4	12.8	13.8	14.0	Ike	15.3	13.1	12.1	13.4	13.5
AgriPro	Sierra	--	13.5	11.7	13.2	--	Jagger	15.7	13.1	12.2	13.5	13.6
AgriPro	Tomahawk	15.1	12.6	11.6	13.5	13.2	Jules	14.9	11.9	11.3	--	--
AGSECO	Mankato	15.7	12.6	11.6	12.8	13.2	Karl	16.8	14.0	12.8	13.8	14.3
AGSECO	7805	--	--	11.7	12.7	--	Karl 92	15.9	13.8	11.9	12.9	13.6
AGSECO	7846	--	--	11.0	12.6	--	KS92PO263-137 Exp	14.8	12.2	10.9	11.9	12.4
AGSECO	7853	15.7	13.8	11.9	13.2	13.6	KS92PO363-134 Exp	15.0	13.5	12.3	13.3	13.5
AGSECO	9001	--	12.9	--	13.3	--	Newton	14.1	12.2	10.2	12.5	12.2
AGSECO	Colby	--	11.9	10.5	12.3	--	TAM 107	15.2	13.3	11.7	12.0	13.1
AGSECO	TAM 300	15.8	--	--	--	--	TAM 200	15.6	12.3	10.9	13.0	12.9
AWWPA	(W) Rio Blanco	15.7	12.5	11.0	13.5	13.2	Yuma	--	--	10.7	11.9	--
AWWPA	(W)KS84HW196Exp	--	12.3	--	--	--	(W) Arlin	16.5	12.9	11.3	13.2	13.5
Century II	Discovery	17.4	--	--	--	--						
Century II	Voyager	16.7	13.2	13.8	14.0	14.4	Location Averages	15.6	12.8	11.7	13.1	13.3
Quantum	579	15.6	--	--	--	--						
Terra	HR 153	15.8	--	--	--	--						
Trio	T13	--	12.1	--	--	--						

Excerpts from the

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Permission is hereby given to Kansas State University to test our varieties and/or hybrids designated on the attached entry forms in the manner indicated on the test announcement. I understand that all results from Kansas crop performance tests belong to the University and to the public and shall be controlled by the University so as to produce the greatest benefit to the public. It is further agreed that the name of the University shall not be used by the company in any commercial advertising either in regard to this agreement or any other related matter.

\* This agreement must be signed by an authorized individual before results involving the company's entries can be published by the Experiment Station. Except for the limitation that the name "KANSAS STATE UNIVERSITY" cannot be used in advertising (you may use something like "official state tests" or "state yield trials"), this does not preclude the use of data for advertising, if done in a fair manner.

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