

1996 Kentucky Small Grain Variety Trials

C.R. Tutt, C.S. Swanson, D.P. Fryman
and D.A. Van Sanford

In 1996, Kentucky farmers harvested 28.1 million bushels of soft red winter wheat produced on 530,000 acres. The average yield of 53 bu/a was unchanged from last year. Barley yields were 70 bu/a, the same as 1995 yields.

Small grain performance tests were conducted in six of the seven agro-climatic regions of Kentucky (Fig. 1). Agricultural areas within each region are considered to have similar soil types and climatic conditions. Each region having a substantial acreage of a small grain commodity will have a trial conducted in that region for that commodity.

The objective of the Kentucky small grain variety trials is to evaluate varieties of barley and wheat that are commercially available or may soon be available to Kentucky farmers. New varieties are continually being developed by agricultural experiment stations and commercial firms. Annual evaluation of small grain varieties and selections provides seedsmen, farmers, and other agricultural workers with current information to help them select the varieties best adapted to their locality and individual requirements.

Since weather, soil and other environmental factors will alter varietal performance from one location to another, tests are grown in six locations (Fig. 1) in the state.

Experimental Methods

The plots were planted with a specially built multi-row cone seeder.

Table 1—Small Grain Harvested Acreage and Yields in Kentucky, 1994-1996.*

Crop	1996		1995		1994	
	Harvest 1000 A	Yield Bu/A	Harvest 1000 A	Yield Bu/A	Harvest 1000 A	Yield Bu/A
Wheat	530	53	460	53	450	57
Barley	20	70	16	70	14	75

* July 12, 1996, Kentucky Crop and Livestock Reporting Service.

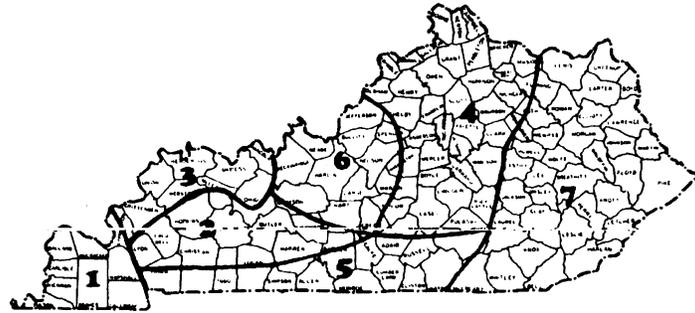


Figure 1—Agro-climatic regions of Kentucky small grain variety trials.

Region	1996 Location	Cooperator	Crop Tested
1. Purchase	Mayfield	Joe Lynch	Wheat
2. Ohio Valley	Owensboro	Bob Alvie	Wheat
3. Bluegrass	Lexington	Kentucky Agricultural Experiment Station	Barley, Wheat
4. Southern Tier	Hopkinsville Princeton (Limestone soil)	Donnie & Duane Moore Research and Education Center	Barley, Wheat Barley, Wheat
5. North Central	Hardinsburg	Gene David Shrewsbury	Wheat

Acknowledgement is made to the following individuals for their contributions to the bulletin: Bill Green, Wayne Mattingly, Curt Judy and Carol Mackey-Hinton, County Extension Agents for Agriculture, for assistance in locating test sites and collecting data; D. Hershman for disease ratings; K. Hong, B. Zeng, X. Yang, B. Endsley and J. Mudd for data collection; Mary Ann Kelley for text and table preparation; and Freddie Higgins for data analysis.

Each plot consisted of six rows to form a plot 4 feet wide, which was later trimmed to 10 feet in length. Each variety was grown in four replications, and the data presented are the average response from the four replications of 40 square feet harvested with a small plot combine. Planting dates of all trials for the past 3 years are listed in Table 2.

In some instances, uncontrollable factors — such as excessive rainfall, winter killing, high winds, hail, grazing cattle, etc.—adversely affected an experiment so that the results were judged unreliable. When this occurred, results are not given for that location and year. Data averaged over a period of years gives a more accurate picture of varietal performance than does annual data.

Results and Discussion

Since genetic expression of a variety is greatly influenced by environmental conditions, it is best to have several years' data from which to draw conclusions. Performance of a variety tested for only one year should not be compared with a 3-year average of another variety, since it is possible that results in one of the other years were extremely good or poor, and thus not comparable.

The yield of a variety is relative and should be compared with the yields of the other varieties in the same experiment and at the same location. Small differences in yield of only a few bushels per acre between two varieties from an individual test should not be interpreted to indicate the superiority of one variety over another. However, if one variety consistently out-yields another over a period of several years, the chances are that the differences are real.

Lodging data are very difficult to interpret. A high-yielding variety should not necessarily be down-graded

because of a high percentage of lodging for a given year at a given location. Local weather conditions, such as wind and rain, may cause a variety to lodge much more than it normally does. Variety trials normally have a greater degree of lodging than do farmer fields. It should also be emphasized that a variety reported to be 50% lodged does not imply that only 50% of the grain could be harvested. With good equipment, almost all of the grain can often be saved. Lodging data for a period of years should receive more consideration than annual lodging data since they will give a more accurate picture of varietal performance.

1996 Test Conditions

Favorable weather during October allowed for timely seeding of wheat and barley variety trials. November was cooler and drier than normal and the tests went into winter not having as much growth as would be desirable. December continued cooler and drier than normal with considerable temperature extremes with extended periods of highs in the 60s and 70s and extreme lows near zero degrees. Extreme up and down temperatures continued through January and the first part of February with the coldest temperatures of the winter occurring the first week of February. Above average precipitation and below average temperatures continued through March and the first half of April. The trials came out of the winter in quite poor condition having undergone three periods of burn down of vegetative growth due to extreme fluctuations in temperature. Diseases were very light at all locations with the exception of some head scab infection. Overall, yields were little affected by diseases.

The Princeton limestone (Table 7) and Lexington (Table 6) trials were treated with fungicides to control fungal diseases. Tests at all other locations were

Table 2—Region, Location, Preceding Crop and Planting Dates of Kentucky Small Grain Trials, 1994-1996.

Region	Location	Preceding Crop	Preceding Crop	Planting Date			
				1996	1995	1994	
Purchase	Mayfield	1995-96	Soybeans	Wheat	11/21	10/25	10/13
	Murray	1994	Corn				
Ohio Valley	Owensboro	1994-96	Corn	Wheat	10/23	10/17	10/26
Bluegrass	Lexington		Fallow	Barley	10/13	10/13	10/12
				Wheat	10/17	10/13	10/21
Southern Tier	Elkton	1994	Corn	Barley	10/18	10/27	10/14
	Hopkinsville	1995-96	Corn	Wheat	10/18	10/27	10/14
	Princeton		Fallow	Barley	10/26	10/26	10/13
	(Limestone soil)			Wheat	10/26	10/26	10/28
North Central	Hardinsburg	1994-96	Corn	Wheat	10/17	10/12	10/15

untreated so varieties could be rated for disease resistance. However, there was little opportunity for disease ratings due to the overall light disease pressure infections at the test locations.

Small Grain Varieties for 1997

Varieties eligible for certification include (1) varieties that may have potential for Kentucky and (2) older varieties that are still acceptable for production in Kentucky. The characteristics of the small grain varieties are summarized in Tables 3 and 10.

Soft Red Winter Wheat Varieties

Kentucky's climate and soils are well suited for the production of high quality soft red winter wheat. No single variety has all the desirable characteristics, but each has certain advantages. Yielding ability, straw strength, height, earliness, grain quality, and disease resistance are important in choosing a variety. Varietal performance is presented in Tables 4-8.

Winter Barley Varieties

Winter barleys are less winterhardy than winter wheat but more hardy than winter oats. The degree of winterhardiness, straw strength, and maturity are important characteristics when choosing a variety. Varietal performance data are presented in Tables 11-12A.

Certified Seed

Planting certified seed is one of the first steps in ensuring a good small grain crop. The extra cost of certified seed is justified in view of the high quality of seed obtained. Certified seed is seed which has been grown in such a way as to ensure the genetic identity and purity of a variety. Certified seed also helps to maintain freedom from weed and other crop seed and, in some cases, freedom from disease. The Kentucky Agricultural Experiment Station recommends that Kentucky-certified seed be used whenever possible for growing commercial crops of small grains.

TABLE 3 CHARACTERISTICS OF WHEAT VARIETIES TESTED IN 1996.

VARIETY	PROTECTED ³	SOURCE	RELEASE DATE	YIELD (BU/AC)	TEST WEIGHT (LB/BU)	LOGGING (%)	PLANT HEIGHT (IN.)	SURVIVAL (%)	HEADING DATE 1996
2510	YES	PIONEER HI BRED INT.	1991	64.2	57.1	0.0	32.8	57.5	19-May
2540	YES	PIONEER HI BRED INT.	1995	63.8	56.2	0.0	33.1	46.5	17-May
2552	YES	PIONEER HI BRED INT.	1994	61.1	57.3	0.0	32.7	47.9	17-May
2568	YES	PIONEER HI BRED INT.	1995	61.0	55.9	0.0	32.0	41.3	16-May
AGRIPRO SHILOH	YES	AGRIPRO BIOSCIENCES	1994	59.5	56.7	0.0	32.9	50.4	17-May
AGRIPRO CLEMENS	YES	AGRIPRO BIOSCIENCES	1994	59.4	57.5	0.0	36.7	51.0	18-May
HOPEWELL	YES	OHIO	1995	59.4	55.8	0.0	34.6	54.0	19-May
PATTERSON	YES	INDIANA	1994	58.6	56.5	0.0	34.6	50.4	14-May
COKER 9663	YES	NORTHUP KING	1996	58.2	57.3	0.0	37.5	50.4	19-May
AGRIPRO ELKHART	YES	AGRIPRO BIOSCIENCES	1995	58.2	57.9	0.0	35.0	40.4	17-May
82W	YES	AGRA TECH	1994	58.0	55.7	0.0	34.4	51.5	15-May
MADISON	YES	VIRGINIA	1990	57.4	56.8	0.0	35.1	46.0	17-May
JUSTICE	YES	KENTUCKY AMERICAN SEEDS	1995	55.8	57.5	0.0	34.9	58.1	16-May
2628	YES	PIONEER HI BRED INT.	1994	54.5	57.2	0.0	31.9	35.4	17-May
FREEDOM	YES	OHIO	1991	54.4	54.2	0.0	34.7	34.6	19-May
GLORY	YES	OHIO	1994	53.6	57.1	0.0	32.7	43.5	17-May
PATRIOT	YES	KENTUCKY AMERICAN SEEDS	1994	53.3	56.9	0.0	32.6	39.6	17-May
CLARK	YES	INDIANA	1988	53.3	55.9	0.0	34.1	45.8	14-May
VERNE	YES	KENTUCKY	1990	52.0	56.2	0.1	36.6	39.2	18-May
2580	YES	PIONEER HI BRED INT.	1992	51.3	56.5	0.0	32.2	39.6	16-May
BECKER	YES	OHIO	1985	50.0	54.9	0.0	31.2	41.0	19-May
DB 562W	YES	DIENER BROS.	1995	50.0	56.0	0.0	33.6	29.8	18-May
FFR 523W	YES	SOUTHERN STATES COOP.	1995	49.3	55.4	0.0	27.4	35.0	16-May
GRANT	YES	INDIANA	1994	48.8	54.9	0.0	32.0	45.0	16-May
AGRIPRO FOSTER	YES	AGRIPRO BIOSCIENCES	1996	48.6	54.8	0.0	32.3	34.4	19-May
CARDINAL	YES	OHIO	1986	48.5	55.2	0.0	36.7	28.5	20-May
AGRIPRO MASON	YES	AGRIPRO BIOSCIENCES	1995	48.1	55.5	0.0	32.7	33.8	17-May
2684	YES	PIONEER HI BRED INT.	1994	47.8	56.5	0.0	30.6	31.5	19-May
FFR 525	YES	SOUTHERN STATES COOP.	1994	47.4	56.0	0.0	32.4	21.5	18-May
COKER 9543	YES	NORTHUP KING	1990	45.8	56.8	0.0	30.5	35.0	17-May
WAKEFIELD	YES	VIRGINIA	1990	44.0	54.4	0.0	34.4	25.0	21-May
FFR 555W	YES	SOUTHERN STATES COOP.	1990	43.9	53.9	0.0	30.3	24.6	19-May
ERNIE	YES	MISSOURI	1994	41.9	55.9	0.0	29.3	20.9	17-May
AGRIPRO HICKORY	YES	AGRIPRO BIOSCIENCES	1994	41.6	57.2	0.0	33.6	21.7	18-May
CALDWELL	YES	INDIANA	1980	41.4	55.9	0.0	33.6	19.6	19-May
FEATHERSTONE	YES	FEATHERSTONE FARMS	1995	41.1	55.9	0.0	31.3	21.3	20-May
JACKSON	YES	VIRGINIA	1993	38.5	55.2	0.0	30.3	14.0	20-May
DB 494W	YES	DIENER BROS.	1994	37.8	56.3	0.0	31.6	15.4	17-May
COKER 9803	YES	NORTHUP KING	1990	36.2	56.9	0.0	29.0	17.5	19-May
2643	YES	PIONEER HI BRED INT.	1994	22.4	52.7	0.0	25.8	9.1	21-May
FFR 502	YES	SOUTHERN STATES COOP.	1995	8.9	53.2	0.0	26.6	5.3	18-May

MEAN = 49.5 BU/A
CV = 17.1%
LSD(0.05) = 3.9 BU/A

¹The CV is a measure of experimental error. The lower the CV the more reliable the results.

²The LSD (Least Significant Difference) is the minimum difference required for two varieties to be significantly different from one another.

³Unauthorized propagation prohibited. Seed of these varieties must be sold by variety name only as a class of certified seed. This includes varieties for which protection has been applied and those for which protection has been granted.

TABLE 3a AVERAGE PERFORMANCE OF WHEAT VARIETIES TESTED IN 1995-1996.

VARIETY	YIELD (BU/AC)	TEST WEIGHT (LB/BU)	LOGGING (%)	PLANT HEIGHT (IN.)	SURVIVAL (%)	HEADING DATE 1996
2552	60.5	56.9	0.0	33.3	74.0	17-May
2510	57.6	56.2	0.0	32.9	78.8	19-May
AGRIPRO ELKHART	55.9	58.4	0.0	35.7	70.2	17-May
AGRIPRO CLEMENS	54.4	57.4	0.0	36.2	75.5	18-May
AGRIPRO SHILOH	54.1	55.9	0.0	32.4	75.2	17-May
824	53.7	55.2	0.0	33.7	75.7	15-May
MADISON	53.3	55.3	0.0	33.0	73.0	17-May
GLORY	53.1	56.2	0.0	33.2	71.8	17-May
PATTERSON	53.0	56.5	0.0	34.3	75.2	14-May
2628	52.9	56.7	0.0	32.6	67.7	17-May
VERNE	52.8	55.7	0.1	36.7	69.6	18-May
HOPEWELL	52.0	55.1	0.0	34.2	77.0	19-May
PATRIOT	51.7	56.4	0.0	33.3	69.8	17-May
AGRIPRO FOSTER	50.5	55.2	0.0	32.8	67.2	19-May
2684	50.5	56.5	0.0	31.0	65.7	19-May
FREEDOM	50.2	54.3	0.0	34.6	67.3	19-May
2580	49.9	55.6	0.0	31.5	69.8	16-May
BECKER	49.3	54.3	0.0	31.9	70.5	19-May
FFR 525	48.8	56.3	0.0	32.5	60.7	18-May
WAKEFIELD	48.3	55.3	0.0	34.6	62.5	21-May
CARDINAL	48.0	54.7	0.0	36.5	64.3	20-May
CLARK	47.6	55.0	0.0	33.4	72.9	14-May
FFR 555	47.4	53.9	0.0	31.4	62.3	19-May
COKER 9543	46.9	56.1	0.0	30.2	67.5	17-May
FFR 523	46.9	54.4	0.0	27.9	67.5	16-May
JACKSON	45.7	55.8	0.0	31.6	57.0	20-May
AGRIPRO HICKORY	44.7	56.5	0.0	33.6	60.8	18-May
GRANT	44.5	54.2	0.0	31.6	72.5	18-May
COKER 9803	44.4	56.8	0.0	29.7	58.8	19-May
ERNIE	42.9	55.0	0.0	28.8	60.4	17-May
CALDWELL	41.0	55.5	0.0	33.7	59.8	19-May
2643	35.4	54.0	0.0	26.4	54.6	21-May

TABLE 3b AVERAGE PERFORMANCE OF WHEAT VARIETIES TESTED IN 1994-1996.

VARIETY	YIELD (BU/AC)	TEST WEIGHT (LB/BU)	LODGING (%)	PLANT HEIGHT (IN.)	SURVIVAL (%)	HEADING DATE 1996
2510	67.0	56.2	0.0	34.0	83.2	19-May
AGRIPRO CLEMENS	64.8	57.3	1.0	37.8	82.7	18-May
MADISON	63.8	56.0	0.1	34.8	79.0	17-May
VERNE	63.7	56.2	0.3	38.3	77.9	18-May
2628	63.0	57.2	0.0	33.8	75.8	17-May
PATRIOT	62.9	56.6	0.0	34.1	78.3	17-May
2580	61.6	55.9	0.0	33.2	77.7	16-May
BECKER	61.5	54.5	0.0	33.4	78.8	19-May
WAKEFIELD	61.3	56.0	0.1	36.2	73.8	21-May
2684	61.3	57.2	0.1	32.7	74.9	19-May
FFR 555	61.1	54.8	0.0	32.8	72.6	19-May
AGRIPRO FOSTER	60.8	55.7	0.0	34.5	76.5	19-May
FREEDOM	60.5	54.9	0.3	36.0	75.8	19-May
FFR 525	60.0	56.7	0.9	34.2	71.9	18-May
JACKSON	59.2	56.3	1.7	33.7	69.2	20-May
CARDINAL	57.5	55.6	0.3	38.1	72.6	20-May
AGRIPRO HICKORY	57.0	56.9	0.0	34.9	70.8	18-May
CLARK	55.5	55.6	0.0	34.6	78.8	14-May
GRANT	55.1	54.9	0.0	32.6	76.8	18-May
ERNIE	54.8	55.5	0.2	30.4	72.2	17-May
COKER 9803	53.1	57.4	0.3	30.9	66.3	19-May
COKER 9543	52.7	56.6	0.1	30.9	71.7	17-May
2643	50.8	55.6	0.0	27.8	67.8	21-May
CALDWELL	49.3	55.9	0.2	34.8	65.9	19-May

TABLE 4 WHEAT PERFORMANCE TRIALS FOR PURCHASE REGION*, 1994-1996.

VARIETY	---YIELD (BU/AC)---		---TEST WT (LB/BU)---		----PCT LODGED----		---PCT SURVIVAL----		PLANT HEIGHT (IN)	HEADING DATE
	1996	1995	1996	1995	1996	1995	1996	1995		
JUSTICE	55	55	55.7	55.7	0	0	30	30	35	16-May
2540	55	55	56.0	56.0	0	0	30	30	33	11-May
AGRIPO ELKHART	53	57	56.8	58.2	0	0	15	100	35	16-May
2568	52	44	54.4	54.4	0	0	18	100	32	12-May
2510	52	44	55.1	55.3	0	0	23	100	32	19-May
2628	50	52	56.6	55.1	0	0	21	100	33	14-May
PATRIOT	50	48	56.5	54.4	0	0	19	100	33	15-May
PATTERSON	50	45	54.4	55.4	0	0	24	100	34	14-May
MADISON	49	40	55.0	50.4	0	0	21	100	35	12-May
2580	49	43	55.5	52.4	0	0	25	100	33	13-May
2552	48	53	54.3	53.9	0	0	16	100	33	17-May
82W	47	47	53.0	52.8	0	0	20	100	34	12-May
DB 562W	46	46	54.4	54.4	0	0	11	100	34	17-May
HOPEWELL	45	38	51.8	52.5	0	0	18	100	34	18-May
COKER 9663	45	45	56.5	56.5	0	0	16	100	38	18-May
FFR 525	45	48	55.6	53.7	0	0	11	100	33	13-May
FFR 523	44	37	53.3	52.1	0	0	18	100	28	12-May
CLARK	44	35	54.1	51.6	0	0	16	100	34	12-May
GLORY	44	44	55.5	52.7	0	0	20	100	33	17-May
2684	44	51	55.6	53.7	0	0	11	100	31	17-May
AGRIPO MASON	44	44	53.5	53.5	0	0	19	100	33	13-May
ERNIE	42	34	54.5	47.4	0	0	10	100	30	13-May
FEATHERSTONE	42	42	56.8	56.8	0	0	15	100	32	16-May
FREEDOM	42	44	53.6	53.9	0	0	13	100	33	17-May
AGRIPO CLEMENS	42	46	53.8	55.6	0	0	13	100	35	19-May
BECKER	42	44	52.1	53.8	0	0	21	100	32	18-May
AGRIPO FOSTER	40	45	52.2	53.7	0	0	18	100	32	18-May
COKER 9543	40	48	55.7	53.2	0	0	14	100	31	13-May
VERNE	40	54	52.6	52.4	0	0	13	100	36	16-May
AGRIPO HICKORY	40	48	55.9	53.9	0	0	19	100	35	13-May
AGRIPO SHILOH	40	46	53.5	51.7	0	0	16	100	32	17-May
DB 494W	39	39	54.7	54.7	0	0	9	100	31	16-May
WAKEFIELD	37	46	54.8	54.4	0	0	9	100	33	15-May
CALDWELL	34	41	53.7	53.7	0	0	9	100	34	18-May
COKER 9803	33	50	57.6	53.5	0	0	8	100	29	13-May
CARDINAL	31	42	51.6	52.0	0	0	5	100	35	22-May
GRANT	31	41	51.5	52.7	0	0	13	100	30	19-May
2643	29	47	54.9	52.7	0	0	6	100	26	17-May
FFR 555	28	47	52.0	51.0	0	0	10	100	29	18-May
JACKSON	27	50	51.1	52.9	0	0	5	100	30	19-May
FFR 502	14	14	54.0	54.0	0	0	2	100	29	17-May
MEAN	42	45	54.4	53.1	0	0	15	100	32	

CV = 18.1%

LSD(0.05) = 8.3 BU/A

* LOCATION: Graves County

TABLE 5 WHEAT PERFORMANCE TRIALS FOR OHIO VALLEY REGION*, 1994-1996.

VARIETY	---YIELD (BU/AC)---			--TEST WT (LB/BU)--			----PCT LODGED----			---PCT SURVIVAL---			PLANT HEIGHT (IN)		HEADING DATE			
	1996	1995	1994	1996	1995	1994	1996	1995	1994	1996	1995	1994	1996	1994				
2510	66	52	76	65	59.7	53.8	53.3	55.6	0	0	0	43	100	89	77	32	18-May	
2552	64	69	66	66	58.2	56.0	57.1	0	0	0	28	100	64	31	31	64	31	15-May
COKER 9663	64	64	64	64	59.3	59.3	59.3	0	0	0	31	100	31	44	100	72	34	16-May
HOPEWELL	63	46	55	55	59.2	52.6	55.9	0	0	0	44	100	28	28	28	34	16-May	
2540	63	63	63	63	57.8	57.8	57.8	0	0	0	45	100	45	45	45	35	11-May	
VORIS 6040	62	51	84	65	56.8	56.8	56.8	0	0	0	29	100	84	71	34	34	17-May	
FREEDOM	61	54	58	58	57.8	52.4	55.6	55.3	0	0	0	48	100	74	34	34	11-May	
82W	60	55	92	69	58.4	54.2	56.3	0	0	0	46	100	94	80	37	37	15-May	
AGRIPRO CLEMENS	60	60	60	60	59.2	58.5	55.1	57.6	0	0	0	31	100	66	33	33	16-May	
AGRIPRO SHILOH	60	62	61	61	58.7	54.7	56.7	59.8	0	0	0	64	64	64	34	34	13-May	
JUSTICE	58	58	58	58	59.8	59.8	59.8	59.8	0	0	0	41	100	71	34	34	11-May	
PATTERSON	58	55	56	56	59.5	55.9	57.7	56.4	0	0	0	29	100	64	33	33	16-May	
GLORY	58	58	58	58	58.4	54.4	56.4	59.8	0	0	0	64	64	64	35	35	14-May	
AGRIPRO ELKHART	57	61	59	59	59.4	60.1	59.8	57.9	0	0	0	46	46	46	34	34	12-May	
VORIS 6044	56	56	56	56	57.9	57.9	57.9	57.9	0	0	0	34	100	81	72	33	11-May	
CLARK	56	48	59	54	57.5	56.5	53.2	55.7	0	0	0	34	100	86	73	35	15-May	
MADISON	55	56	78	63	59.1	52.0	55.4	55.5	0	0	0	31	100	94	75	33	12-May	
2580	54	59	88	67	58.3	54.4	54.8	55.8	0	0	0	15	100	75	63	37	17-May	
CARDINAL	54	54	80	63	58.7	53.1	55.4	55.7	0	0	0	30	100	93	74	33	14-May	
PATRIOT	53	58	86	65	58.8	55.8	52.0	55.5	0	0	0	19	100	91	72	32	15-May	
2568	53	53	53	53	56.7	56.7	56.7	56.7	0	0	0	25	100	61	28	28	17-May	
BECKER	52	51	88	64	57.4	53.4	53.0	54.6	0	0	0	19	100	86	68	36	16-May	
FFR 523	51	53	52	52	58.5	51.2	54.9	57.4	0	0	0	24	24	24	33	33	15-May	
VERNE	51	60	78	63	57.1	56.0	54.5	55.9	0	0	0	15	15	15	33	33	15-May	
DB 562W	50	50	50	50	57.4	57.4	57.4	57.4	0	0	0	14	100	60	58	34	17-May	
AGRIPRO MASON	49	49	49	49	56.0	56.0	56.0	56.0	0	0	0	31	100	71	68	33	17-May	
CALDWELL	48	48	59	52	58.7	52.6	56.5	55.9	0	0	0	21	100	89	70	32	16-May	
GRANT	48	34	71	51	56.6	51.9	55.2	54.6	0	0	0	13	100	86	66	30	14-May	
AGRIPRO FOSTER	45	61	78	61	55.5	54.4	53.7	54.5	0	0	0	10	100	90	67	35	15-May	
2628	44	64	76	61	57.2	55.5	55.9	56.2	0	0	0	14	100	86	67	30	20-May	
FFR 525	43	62	76	60	55.1	58.4	53.3	55.6	0	0	0	19	100	100	73	29	16-May	
WAKEFIELD	43	61	79	61	56.7	55.8	55.1	55.9	0	0	0	8	100	88	65	30	19-May	
FFR 555	42	55	80	59	57.9	52.2	53.8	54.6	0	0	0	10	100	84	65	29	15-May	
COKER 9543	38	57	43	46	57.6	51.9	52.0	53.8	0	0	0	7	100	90	66	29	16-May	
JACKSON	38	57	82	59	57.4	53.7	54.0	55.0	0	0	0	9	9	9	31	31	20-May	
DB 494W	38	37	69	76	59.3	59.3	59.3	59.3	0	0	0	8	8	8	27	27	20-May	
2684	37	69	76	61	60.3	57.8	54.2	57.4	0	0	0	3	3	3	25	25	20-May	
ERNIE	33	56	75	55	54.9	56.7	53.2	54.9	0	0	0	24	24	24	70	70	20-May	
FEATHERSTONE	32	56	75	55	58.3	58.3	58.3	58.3	0	0	0	8	8	8	62	62	18-May	
AGRIPRO HICKORY	25	63	80	56	58.4	53.8	55.8	56.0	0	0	0	4	4	4	63	63	20-May	
COKER 9803	23	62	62	49	58.6	55.2	55.1	56.3	0	0	0	3	3	3	64	64	20-May	
2643	14	51	77	47	49.1	54.5	55.8	53.1	0	0	0	1	1	1	70	70	20-May	
FFR 502	1	1	1	1	57.8	54.7	54.4	55.6	0	0	0	24	24	24	86	86	32	

MEAN

CV = 20.0%

LSD(0.05) = 10.7 BU/A

* LOCATION: Daviess County

TABLE 6 WHEAT PERFORMANCE TRIALS FOR BLUEGRASS REGION*, 1994-1996.

VARIETY	---YIELD (BU/AC)---		--TEST WT (LB/BU)--		----PCT LODGED----		---PCT SURVIVAL---		PLANT HEIGHT (IN)	HEADING DATE						
	1996	1995	1996	1995	1996	1995	1996	1995								
2510	81	60	76	72	57.1	57.9	58.7	57.9	0	0	86	100	100	95	34	19-May
2568	78	78	78	78	55.5	55.5	55.5	55.5	0	0	54	53	54	54	32	17-May
2552	77	47	62	62	58.2	58.3	58.3	58.3	0	0	63	100	100	81	34	18-May
AGRIPRO SHILOH	75	39	57	57	56.8	57.3	57.1	57.1	0	0	76	100	100	88	33	18-May
AGRIPRO CLEMENS	73	47	74	64	57.1	59.5	59.9	58.8	0	0	81	100	100	94	37	18-May
GLORY	72	52	62	62	57.6	58.3	58.0	58.0	0	0	81	100	100	91	33	18-May
MADISON	70	50	75	65	57.0	58.6	58.1	57.9	0	1	78	100	100	93	35	18-May
2540	69	69	69	69	55.6	55.6	55.6	55.6	0	0	45	100	100	45	33	19-May
HOPEWELL	69	44	56	56	55.8	56.4	56.1	56.1	0	0	78	100	100	89	35	19-May
FREEDOM	67	45	67	60	53.9	55.7	58.2	55.9	0	1	60	100	100	87	34	19-May
COKER 9663	67	67	67	67	56.5	56.5	56.5	56.5	0	0	69	100	100	69	38	20-May
FFR 523	66	41	53	53	55.4	56.2	55.8	55.8	0	0	70	100	100	85	30	18-May
82W	66	47	56	56	55.4	57.5	56.5	56.5	0	0	74	100	100	87	34	17-May
JUSTICE	66	66	66	66	57.1	57.1	57.1	57.1	0	0	75	100	100	75	34	19-May
2628	65	45	71	60	55.9	58.6	59.4	58.0	0	0	61	100	100	87	32	18-May
VERNE	64	48	73	62	58.3	57.9	58.8	58.3	0	0	86	100	100	95	37	18-May
AGRIPRO FOSTER	64	48	77	63	53.7	58.0	59.1	56.9	0	0	61	100	100	87	33	19-May
PATTERSON	64	41	75	52	54.7	58.7	56.7	56.7	0	0	68	100	100	84	35	16-May
2580	63	41	75	59	54.5	58.3	58.7	57.2	0	0	68	100	100	89	32	18-May
BECKER	62	47	75	61	53.7	56.8	56.8	55.8	0	0	69	100	100	90	32	19-May
WAKEFIELD	61	47	77	62	56.2	58.5	59.4	58.0	0	0	44	100	100	81	35	21-May
GRANT	59	44	70	58	52.7	57.6	58.7	56.3	0	0	70	100	100	90	32	19-May
AGRIPRO ELKHART	59	37	48	48	55.7	60.1	57.9	57.9	0	0	59	100	100	79	34	19-May
AGRIPRO MASON	59	59	59	59	56.0	56.0	56.0	56.0	0	0	55	100	100	55	34	18-May
2684	58	43	76	59	52.0	58.7	61.2	57.3	0	0	68	100	100	89	32	19-May
FFR 525	58	38	63	53	53.5	58.4	59.8	57.8	0	1	41	100	100	80	34	19-May
CLARK	57	41	56	51	55.8	57.7	58.1	57.2	0	0	58	100	100	86	34	16-May
PATRIOT	57	44	76	59	53.1	58.7	58.8	56.9	0	0	61	100	100	87	33	19-May
COKER 9543	56	46	58	53	55.0	60.0	59.7	58.2	0	1	59	100	100	86	32	18-May
FEATHERSTONE	55	55	55	55	55.2	55.2	55.2	55.2	0	0	31	100	100	31	33	19-May
FFR 555	54	45	80	59	53.6	57.3	59.5	56.8	0	0	34	100	100	78	31	20-May
DB 562W	52	52	52	52	53.5	53.5	53.5	53.5	0	0	36	100	100	36	33	20-May
AGRIPRO HICKORY	52	39	70	54	55.5	59.4	58.7	57.9	0	0	38	100	100	79	34	19-May
JACKSON	49	46	69	55	53.1	60.6	60.3	58.0	0	0	18	100	100	73	31	20-May
CARDINAL	48	43	63	51	54.1	55.4	59.2	56.2	0	0	40	100	100	80	36	21-May
COKER 9803	45	40	66	50	56.1	60.9	60.7	59.2	0	0	24	100	100	75	30	18-May
ERNIE	43	44	67	51	54.7	57.8	58.1	56.9	0	0	41	100	100	80	29	18-May
CALDWELL	32	36	58	42	54.2	56.7	59.5	56.8	0	1	18	100	100	73	32	21-May
2643	31	35	71	45	49.3	59.3	61.2	56.6	0	0	11	100	100	70	28	21-May
DB 494W	19	19	19	19	55.3	55.3	55.3	55.3	0	0	10	100	100	10	31	20-May
FFR 502	10	10	10	10	49.9	49.9	49.9	49.9	0	0	9	100	100	9	29	23-May
MEAN	58	44	70	57	55.0	58.2	59.2	57.5	0	0	54	100	100	85	33	

CV = 19.1%

LSD(0.05) = 12.3 BU/A

* LOCATION: Lexington, Spindletop farm

The 1994, 1995 and 1996 tests at this location were treated with fungicides at the feekees growth stages 8 and 10.5.

TABLE 7 WHEAT PERFORMANCE TRIALS FOR SOUTHERN TIER REGION*, 1994-1996.

VARIETY	---YIELD (BU/AC)---			--TEST WT (LB/BU)--			----PCT LODGED-----			---PCT SURVIVAL----			PLANT HEIGHT (IN)		HEADING DATE	
	1996	1995	1994	1996	1995	1994	1996	1995	1994	1996	1995	1994	1996	1996	1996	
2540	76	76	76	56.2	56.2	56.2	0	0	0	51	51	51	34	16-May		
COKER 9663	72	72	72	58.7	58.7	58.7	0	0	0	34	34	34	39	18-May		
AGRIPRO SHILOH	71	47	59	56.8	53.2	55.0	0	0	0	43	100	71	33	16-May		
AGRIPRO CLEMENS	71	49	92	58.4	55.5	58.1	0	0	0	44	100	81	38	19-May		
VORIS 6040	71	71	71	54.3	54.3	54.3	0	0	0	51	51	51	36	15-May		
2510	70	52	83	55.4	53.8	55.8	0	0	0	46	100	82	35	18-May		
AGRIPRO ELKHART	69	57	63	59.7	57.0	58.4	0	0	0	34	100	67	36	16-May		
2568	65	65	65	55.5	55.5	55.5	0	0	0	41	41	41	33	15-May		
JUSTICE	64	64	64	57.0	57.0	57.0	0	0	0	43	43	43	36	15-May		
2552	64	60	62	57.3	55.1	56.2	0	0	0	48	100	74	33	17-May		
82W	64	47	55	55.7	53.0	54.4	0	0	0	35	100	68	35	15-May		
2628	64	48	88	58.4	54.5	58.7	0	0	0	29	100	76	33	16-May		
VERNE	62	53	86	57.7	54.0	57.5	1	0	4	28	100	76	39	17-May		
MADISON	62	52	89	56.3	50.6	58.7	0	0	0	34	100	78	36	17-May		
HOPEWELL	62	44	53	57.0	53.2	55.1	0	0	0	36	100	68	37	20-May		
PATTERSON	62	47	54	57.8	55.1	56.5	0	0	0	39	100	69	36	15-May		
PATRIOT	61	51	92	57.7	54.1	60.2	0	0	0	31	100	77	33	18-May		
VORIS 6044	61	61	61	57.2	57.2	57.2	0	0	0	43	43	43	32	15-May		
FFR 525	56	52	97	57.5	53.8	57.8	0	0	0	19	100	73	36	17-May		
COKER 9543	55	44	66	58.0	55.4	58.3	0	0	0	30	100	77	32	16-May		
2684	55	50	84	56.9	55.1	60.7	0	0	0	20	100	73	30	18-May		
GLORY	55	58	57	56.1	54.2	55.2	0	0	0	26	100	63	32	18-May		
AGRIPRO MASON	55	55	55	54.9	54.9	54.9	0	0	0	30	30	30	32	16-May		
FREEDOM	54	47	77	48.9	52.3	56.8	0	0	0	24	100	75	36	20-May		
ERNIE	54	43	89	57.8	52.4	58.5	0	0	0	19	100	73	31	16-May		
CARDINAL	54	48	75	54.5	53.9	57.1	0	0	0	15	100	72	39	20-May		
CLARK	54	37	73	56.9	46.4	58.0	0	0	0	40	100	80	36	14-May		
AGRIPRO FOSTER	53	55	88	54.5	54.8	56.2	0	0	0	23	100	74	33	20-May		
GRANT	52	38	77	55.6	48.7	56.3	0	0	0	29	100	76	34	17-May		
JACKSON	51	55	88	56.5	55.3	56.4	0	0	0	16	100	72	32	19-May		
CALDWELL	51	39	70	58.2	56.1	55.7	0	0	3	14	100	71	35	19-May		
FFR 555	51	53	89	54.5	54.6	55.9	0	0	0	23	100	74	31	19-May		
DB 562W	50	50	50	56.4	56.4	56.4	0	0	0	20	20	20	34	19-May		
DB 494W	49	49	49	56.5	56.5	56.5	0	0	0	16	16	16	33	19-May		
FEATHERSTONE	48	48	48	57.4	57.4	57.4	0	0	0	19	19	19	32	20-May		
COKER 9803	47	49	75	57.9	54.6	58.1	0	0	0	15	100	72	30	18-May		
AGRIPRO HICKORY	46	43	86	58.4	54.2	57.8	0	0	0	15	100	72	34	18-May		
BECKER	43	48	87	54.3	53.4	57.6	0	0	0	21	100	74	31	10-May		
WAKEFIELD	43	51	91	53.3	55.2	56.9	0	0	3	14	100	71	36	22-May		
2580	42	51	88	55.7	53.6	58.6	0	0	0	18	100	73	32	17-May		
FFR 523	41	45	43	55.3	51.6	53.5	0	0	0	21	100	61	27	15-May		
2643	20	49	83	53.0	53.7	59.6	0	0	0	5	100	68	25	20-May		
FFR 502	10	10	10	54.0	54.0	54.0	0	0	0	2	2	2	27	20-May		
MEAN	55	49	84	56.3	53.7	57.7	0	0	0	28	100	76	33			

CV = 11.6%
LSD(0.05) = 7.3 BU/A
* LOCATION: Princeton, limestone soil

The 1994, 1995 and 1996 tests at this location were treated with fungicides at the Feekes growth stages 8 and 10.5.

TABLE 7a WHEAT PERFORMANCE TRIALS FOR SOUTHERN TIER REGION*, 1994-1996.

VARIETY	---YIELD (BU/AC)---		--TEST WT (LB/BU)--		----PCT LODGED----		---PCT SURVIVAL---		PLANT HEIGHT (IN)	HEADING DATE					
	1996	1995	1994	1994	1996	1995	1994	1994			1996	1996			
PATTERSON	67	51	59	57.4	58.5	58.0	0	0	0	61	100	81	34	07-May	
GRANT	64	46	87	55.9	56.0	58.5	56.8	0	0	0	66	100	91	86	11-May
2510	63	52	102	58.0	56.7	59.3	58.0	0	0	0	65	100	96	87	13-May
HOPEWELL	62	51	56	56.2	56.3	56.3	56.3	0	0	0	75	100	88	33	12-May
AGRIPRO SHILOH	62	53	57	57.5	56.5	57.0	57.0	0	0	0	70	100	85	33	10-May
FREEDOM	61	42	89	55.8	55.7	56.0	55.8	0	0	0	24	100	99	74	13-May
DB 562W	60	60	60	57.4	57.4	57.4	57.4	0	0	0	38	100	38	33	10-May
2568	60	60	60	56.4	56.4	56.4	56.4	0	0	0	45	100	45	31	09-May
2540	60	60	60	54.6	54.6	54.6	54.6	0	0	0	56	100	56	32	13-May
AGRIPRO CLEMENS	60	51	85	59.5	58.3	58.2	58.7	0	0	0	44	100	99	81	12-May
AGRIPRO ELKHART	60	53	56	58.7	58.5	58.6	58.6	0	0	0	39	100	69	35	10-May
82W	60	52	56	56.6	55.0	55.8	55.8	0	0	0	63	100	81	34	09-May
2552	58	68	63	58.8	57.3	58.1	58.1	0	0	0	53	100	76	31	11-May
CLARK	57	42	87	56.3	56.5	59.5	57.4	0	0	0	53	100	96	83	07-May
BECKER	57	51	96	56.9	53.6	56.3	55.6	0	0	0	50	100	99	83	12-May
PATRIOT	56	51	87	58.5	57.8	58.1	58.1	0	0	0	36	100	94	77	10-May
CARDINAL	56	50	84	57.1	55.3	58.3	56.9	0	0	0	44	100	94	79	12-May
MADISON	54	45	92	58.1	55.6	58.4	57.4	0	0	0	35	100	95	77	11-May
2580	54	56	82	57.9	55.6	57.5	57.0	0	0	0	30	100	93	74	10-May
CALDWELL	53	44	70	55.7	55.5	58.5	56.6	0	0	0	34	100	83	72	11-May
DB 494W	51	51	51	54.9	54.9	54.9	54.9	0	0	0	23	100	23	32	11-May
COKER 9663	51	51	51	57.7	57.7	57.7	57.7	0	0	0	30	100	30	36	13-May
AGRIPRO FOSTER	51	48	89	56.9	56.4	57.3	56.9	0	0	0	26	100	99	75	15-May
FFR 523	50	42	46	55.1	53.9	54.5	54.5	0	0	0	26	100	63	26	10-May
2628	49	49	92	58.0	56.8	59.9	58.2	0	0	0	25	100	96	74	11-May
VERNE	49	53	91	56.3	56.8	58.9	57.3	0	0	0	21	100	94	72	11-May
GLORY	49	49	49	57.7	55.1	56.4	56.4	0	0	0	36	100	68	32	10-May
JUSTICE	48	48	48	58.1	58.1	58.1	58.1	0	0	0	65	100	65	35	11-May
AGRIPRO HICKORY	46	42	83	57.8	56.4	60.3	58.2	0	0	0	13	100	98	70	11-May
2684	45	49	84	57.1	56.3	60.0	57.8	0	0	0	15	100	100	72	13-May
FFR 555	44	55	95	49.6	54.0	57.1	53.6	0	0	0	18	100	73	29	05-May
ERNIE	43	39	81	56.6	54.6	57.5	56.2	0	0	0	15	100	99	71	13-May
COKER 9543	42	44	74	59.6	55.3	60.1	58.3	0	0	0	25	100	78	68	11-May
FFR 525	42	47	80	56.7	56.9	58.9	57.5	0	0	0	13	100	95	69	11-May
AGRIPRO MASON	37	37	37	55.5	55.5	55.5	55.5	0	0	0	11	100	11	30	13-May
JACKSON	37	53	94	56.3	57.7	59.2	57.7	0	0	0	10	100	94	68	15-May
WAKEFIELD	35	54	96	50.3	56.5	58.5	55.1	0	0	0	11	100	99	70	18-May
FEATHERSTONE	33	33	33	52.4	52.4	52.4	52.4	0	0	0	9	100	9	29	16-May
COKER 9803	30	60	74	56.0	58.3	60.3	58.2	0	0	0	10	100	85	65	15-May
2643	18	55	91	52.7	55.7	59.6	56.0	0	0	0	3	100	68	26	18-May
FFR 502	2	2	2	52.7	55.7	59.6	56.0	0	0	0	2	100	2	27	18-May
MEAN	50	50	87	56.5	56.2	58.6	57.1	0	0	0	34	100	95	76	32

CV = 16.8%

LSD(0.05) = 9.4 BU/A

* LOCATION: Christian County

TABLE 8 WHEAT PERFORMANCE TRIALS FOR NORTH CENTRAL REGION*, 1994-1996.

VARIETY	---YIELD (BU/AC)---		--TEST WT (LB/BU)--		----PCT LODGED----		----PCT SURVIVAL----		PLANT HEIGHT (IN) 1996
	1996	1995	1996	1995	1996	1995	1996	1995	
2540	61	61	57.0	57.0	0	0	69	69	34
2568	58	58	57.0	57.0	0	0	71	71	33
2552	56	63	57.0	58.5	0	0	81	100	34
HOPEWELL	55	47	55.0	55.3	0	0	74	100	35
2628	55	51	57.0	56.5	0	0	64	100	34
MADISON	54	53	55.0	55.7	0	0	75	100	36
2510	54	48	57.0	56.9	0	0	83	100	33
CLARK	53	49	55.0	55.8	0	0	75	100	35
PATTERSON	53	46	55.0	55.4	0	0	70	100	35
AGRIPRO CLEMENS	52	48	57.0	56.7	0	3	79	100	39
AGRIPRO ELKHART	51	57	57.0	59.0	0	0	68	100	36
COKER 9663	51	51	55.0	55.0	0	0	63	63	38
82W	51	50	55.0	55.4	0	0	70	100	36
AGRIPRO SHILOH	50	45	57.0	56.8	0	0	66	100	33
CARDINAL	48	49	55.0	55.7	0	5	53	100	38
2684	48	58	57.0	57.9	0	0	64	100	33
VERNE	47	54	55.0	54.4	0	0	69	100	38
2580	47	43	57.0	53.8	0	0	66	100	33
AGRIPRO MASON	47	47	57.0	57.0	0	0	73	73	35
GLORY	46	56	57.0	57.0	0	0	69	100	33
WAKEFIELD	45	58	55.0	56.5	0	0	60	100	37
FFR 555	45	53	56.0	54.2	0	0	50	100	32
BECKER	44	51	55.0	51.4	0	0	60	100	31
FFR 523	44	50	55.0	55.7	0	0	54	100	27
JUSTICE	44	44	57.0	57.0	0	0	73	73	35
PATRIOT	44	50	57.0	54.8	0	0	60	100	33
COKER 9543	43	49	55.0	56.7	0	0	64	100	31
AGRIPRO HICKORY	42	53	57.0	57.4	0	0	39	100	34
DB 562W	42	42	57.0	57.0	0	0	50	50	34
FREEDOM	41	48	55.0	56.3	0	0	59	100	36
GRANT	40	39	57.0	54.0	0	0	61	100	33
AGRIPRO FOSTER	40	59	56.0	56.6	0	0	58	100	34
FFR 525	40	55	56.0	58.0	0	8	35	100	32
COKER 9803	39	56	55.0	58.4	0	0	45	100	31
FEATHERSTONE	38	38	55.0	55.0	0	0	45	45	32
ERNIE	36	48	57.0	55.7	0	0	34	100	30
CALDWELL	31	36	55.0	55.6	0	0	30	100	33
DB 494W	31	31	57.0	57.0	0	0	25	25	32
JACKSON	30	56	57.0	57.6	0	0	28	100	30
2643	23	53	57.0	56.1	0	0	26	100	26
FFR 502	16	16	55.0	55.0	0	0	16	16	29
MEAN	45	51	56.1	56.4	0	0	58	100	76

CV = 15.8%
LSD(0.05) = 8.0 BU/A
* LOCATION: Breckinridge County

TABLE 9 — DISEASE RATINGS OF WHEAT VARIETIES IN 1996. 1, 5

VARIETY ²	LEAF RUST ³	LEAF BLOTCH	GLUME BLOTCH	POWDERY MILDEW	WSSMV ⁴
CALDWELL	S	VS	VS	VS	S
PATTERSON	VS	S	MS	--	--
VERNE	VS	S	S	MS	R
CARDINAL	VS	VS	S	VS	S
CLARK	VS	VS	VS	S	R
BECKER	VS	VS	VS	VS	R
MADISON	VS	S	MS	MS	MR
WAKEFIELD	VS	S	S	MS	S
FREEDOM	R	MS	MS	MS	MS
JACKSON	VS	MR	--	MR	S
GRANT	MR	S	MS	S	--
ERNIE	VS	S	S	--	--
PATRIOT	R	S	S	--	--
LIBERTY	R	S	MS	--	--
2510	S	MS	MS	VS	MR
2552	VS	VS	MR	--	--
2684	MS	MR	MR	MR	MR
2643	R	S	MS	--	--
2628	VS	VS	MR	--	--
2580	MS	S	S	S	VS
AGRIPRO SAWYER	S	S	MS	VS	S
AGRIPRO CLEMENS	MR	VS	MR	--	--
AGRIPRO HICKORY	MR	S	MS	--	--
AGRIPRO SHILOH	R	MS	MS	--	--
AGRIPRO ELKHART	MR	S	MR	--	--
AGRIPRO FOSTER	S	MR	MS	MR	--
90W	VS	MS	MS	--	--
82W	VS	MS	MS	--	--
FFR 555W	VS	VS	MS	--	--
FFR 568W	S	S	S	MS	MS
FFR 523W	MR	S	MR	MR	--
FFR 525	VS	MR	MR	--	--
COKER 9803	S	MR	MR	MR	S
COKER 9543	MS	VS	S	S	MS
COKER 9474	R	S	S	VS	S
VIGORO 934	VS	S	MS	--	--
VIGORO 941	MR	S	MS	--	--
VIGORO EXPT. 951	S	S	MS	--	--
DB 941	VS	S	MS	--	--
DB 494	VS	VS	S	--	--
GLORY	VS	S	MS	--	--
HOPWELL	VS	VS	S	--	--

¹VS=VERY SUSCEPTIBLE; R=RESISTANT; MR=MODERATELY RESISTANT; S=SUSCEPTIBLE; MS=MODERATELY SUSCEPTIBLE; (--)=INSUFFICIENT OPPORTUNITY TO RATE IN PRESENCE OF DISEASE.
 In general, varieties with a VS or S reaction to a given disease will not perform well if that disease becomes severe, while varieties rated R or MR will perform well in those situations. Varieties with an MS reaction will have an intermediate response.
²Ratings of newly released varieties based on 1 yr. and 1 location.
³Based on disease progress and final disease level.
⁴Wheat spindle streak mosaic virus.
⁵Disease pressure was not sufficient in 1996 to make ratings. Data shown on the table are the 1995 ratings.

TABLE 10 CHARACTERISTICS OF BARLEY VARIETIES TESTED IN 1996.

VARIETY	PROTECTED ³	SOURCE	RELEASE DATE	YIELD (BU/AC)	TEST WEIGHT (LB/BU)	LODGING (%)	PLANT HEIGHT (IN.)	SURVIVAL (%)	HEADING DATE
WYSOR	NO	VIRGINIA	1985	70.9	44.4	0.0	33.5	26.3	04-May
STARLING	YES	VIRGINIA	1993	66.5	44.2	0.0	34.0	16.9	07-May
CALAO	YES	VIRGINIA	1994	61.6	47.2	0.0	24.4	12.6	04-May
PIKE	YES	INDIANA	1975	58.3	45.1	0.0	30.0	19.5	03-May
NOMINI	YES	VIRGINIA	1992	44.6	43.6	0.0	31.4	7.0	05-May
PAMUNKEY	YES	VIRGINIA	1993	40.3	43.5	0.0	29.4	4.1	08-May
BARSOY	NO	KENTUCKY	1966	30.6	44.8	0.0	28.5	6.6	30-Apr

MEAN = 53.3 BU/A

CV = 16.8%

LSD(0.05) = 7.5 BU/A

¹The CV is a measure of experimental error. The lower the CV the more reliable the results.

²The LSD (Least Significant Difference) is the minimum difference required for two varieties to be significantly different from one another.

³Unauthorized propagation prohibited⁴. Seed of these varieties must be sold by variety name only as a class of certified seed. This includes varieties for which protection has been applied and those for which protection has been granted.

TABLE 11 BARLEY PERFORMANCE TRIALS FOR BLUEGRASS REGION*, 1993-1995.

VARIETY	---YIELD (BU/AC)---			--TEST WT (LB/BU)--			----PCT LODGED-----			---PCT SURVIVAL----			PLANT HEIGHT (IN) 1995	HEADING DATE 1995			
	1995	1994	1993	MEAN	1995	1994	1993	MEAN	1995	1994	1993	MEAN					
STARLING	69	116	98	94	38.8	48.0	44.1	43.6	3	0	89	30	100	100	100	31	24-Apr
PIKE	66	100	76	80	40.0	51.0	45.4	45.5	63	5	95	54	100	100	100	28	22-Apr
WYSOR	65	108	93	89	41.2	48.7	45.4	45.1	14	1	89	35	100	100	100	32	24-Apr
PAMUNKEY	61	105	98	88	44.8	49.7	48.6	47.7	4	0	74	26	100	100	100	32	21-Apr
SCHOCHOH	59	99	69	76	40.9	49.7	47.6	46.1	70	0	91	54	100	100	100	28	22-Apr
CALLAO	58	95	77	77	45.4	51.4	48.4		23	3	0	8	100	100	100	24	18-Apr
NOMINI	56	102	98	77	39.2	45.0	42.1		5	0	85	45	100	100	100	33	23-Apr
BARSOY	53	102	84	80	40.9	52.5	48.2	47.2	11	0	89	33	100	100	100	27	21-Apr
MEAN	61	103	88	83	41.4	50.1	46.6	45.7	24.1	1	77	36	100	100	100	29	

CV = 8.23%

LSD(0.05) = 6.1 BU/A

* LOCATION: Lexington

The 1996 test was not harvested due to winterkill.

TABLE 12 BARLEY PERFORMANCE TRIALS FOR SOUTHERN TIER REGION*, 1994-1996.

VARIETY	---YIELD (BU/AC)---			--TEST WT (LB/BU)--			----PCT LODGED----			---PCT SURVIVAL---			PLANT HEIGHT (IN) 1996	HEADING DATE 1996			
	1996	1995	1994	1996	1995	1994	1996	1995	1994	1996	1995	1994			1996		
WYSOR	68	88	105	87	42.4	45.3	57.1	48.3	0	0	0	21	100	100	74	32	11-May
STARLING	62	79	100	80	43.0	43.8	57.5	48.1	0	0	0	14	100	100	71	33	12-May
CALAO	53	69	100	74	46.4	48.2	56.4	50.3	0	0	0	8	100	100	69	22	11-May
PIKE	45	47	107	66	45.6	45.1	58.7	49.8	0	0	0	8	100	100	69	28	07-May
NOMINI	41	76	107	58	42.0	45.5	43.8	43.8	0	0	0	5	100	100	53	31	11-May
PAMUNKEY	31	80	100	70	38.1	48.6	57.9	48.2	0	0	0	2	100	100	67	28	11-May
BARSOY	18	57	108	61	44.8	45.1	58.7	49.5	0	0	0	2	100	100	67	26	08-May
MEAN	45	71	103	73	43.2	45.9	57.7	48.9	0	0	0	9	100	100	70	28	

CV = 20.1%

LSD(0.05) = 10.7 BU/A

* LOCATION: Princeton, Limestone soil

TABLE 12a BARLEY PERFORMANCE TRIALS FOR SOUTHERN TIER REGION*, 1994-1996.

VARIETY	---YIELD (BU/AC)---			--TEST WT (LB/BU)--			----PCT LODGED----			---PCT SURVIVAL---			PLANT HEIGHT (IN) 1996	HEADING DATE 1996				
	1996	1995	1994	1996	1995	1994	1996	1995	1994	1996	1995	1994			1996			
WYSOR	74	87	118	93	46.4	44.5	45.5	45.5	0	43	3	15	31	100	95	75	35	04-May
PIKE	71	63	111	82	44.6	42.4	48.5	45.2	0	0	0	0	31	100	99	77	32	02-May
STARLING	71	91	121	94	45.3	40.3	44.1	43.2	0	43	5	16	20	100	100	73	35	06-May
CALAO	70	106	125	100	48.0	46.0	42.1	45.4	0	70	24	31	18	100	95	71	27	04-May
PAMUNKEY	50	101	113	88	48.9	46.5	47.6	47.7	0	1	0	0	6	100	100	69	31	08-May
NOMINI	49	95	107	72	45.2	44.9	45.1	45.1	0	19	0	6	9	100	100	54	32	05-May
BARSOY	44	67	107	73	44.8	44.8	50.2	46.6	0	0	1	0	11	100	98	70	31	30-Apr
MEAN	61	87	116	88	46.2	44.2	46.3	45.6	0	25	5	10	18	100	98	72	32	

CV = 14.4%

LSD(0.05) = 11.0 BU/A

* LOCATION: Christian county