

# 1995 Kentucky Small Grain Variety Trials

C.R. Tutt, C.S. Swanson,  
D.A. Van Sanford and W.L. Pearce

In 1995, Kentucky farmers harvested 24.4 million bushels of soft red winter wheat produced on 460,000 acres. The average yield of 53 bu/a was down 4 bu/a from the yield of 1994. Barley yields were up 2 bu/a from 1994 levels.

Small grain performance tests were conducted in six of the seven agroclimatic 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, 1993-1995.\*

Crop	1995		1994		1993	
	Harvest 1000 A	Yield Bu/A	Harvest 1000 A	Yield Bu/A	Harvest 1000 A	Yield Bu/A
Wheat	460	53	450	57	470	48
Barley	16	77	74	75	16	64

\* July 13, 1995, Kentucky Crop and Livestock Reporting Service.



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

Region	1994 Location	Cooperator	Crop Tested
1. Purchase	Mayfield	Joe Lynch	Wheat
2. Western Coal Field	Princeton (Sandstone soil)	Research and Education Center	Barley, Wheat
3. Ohio Valley	Owensboro	Bob Alvie	Wheat
4. Bluegrass	Lexington	Kentucky Agricultural Experiment Station	Barley, Wheat
5. Southern Tier	Hopkinsville Princeton (Limestone soil)	Donnie & Duane Moore Research and Education Center	Barley, Wheat Barley, Wheat
6. 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, and X. Yang 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.

## 1995 Test Conditions

Favorable weather during October allowed for timely seeding of wheat and barley variety trials. Both November and December were unseasonably warm and dry and good stand establishment and fall growth were obtained at all test locations. January and February weather was warmer and wetter than normal, resulting in excellent winter survival for all tests. Warm and dry weather during March and April were conducive to good spring growth and little disease development. However, the mild fall and winter did encourage Barley Yellow Dwarf virus infection at the Princeton, Lexington and Christian county locations which probably resulted in some yield reductions at these sites.

The Princeton limestone (Table 8) and Lexington (Table 7) trials were treated with fungicides to control fungal diseases. However, yield and test weight of the Princeton limestone trial were reduced somewhat by the presence of the soilborne take-all fungus disease which could not by

Table 2—Region, Location, Preceding Crop and Planting Dates of Kentucky Small Grain Trials, 1993-1995.

Region	Location	Year	Preceding Crop		Planting Date		
			Crop	Crop	1995	1994	1993
Purchase	Mayfield	1995	Soybeans	Wheat	10/25	10/13	10/20
	Murray	1993-94	Corn				
Western Coal Field	Princeton (Sandstone soil)		Fallow	Barley	10/26	10/29	10/12
				Wheat	10/26	10/29	10/12
Ohio Valley	Hawesville Owensboro	1993	Corn	Wheat	10/17	10/26	10/14
		1994-95	Corn				
Bluegrass	Lexington		Fallow	Barley	10/13	10/12	10/14
				Wheat	10/13	10/21	10/16
Southern Tier	Elkton	1993-94	Corn	Barley	10/27	10/14	10/15
	Hopkinsville	1995	Corn	Wheat	10/27	10/14	10/15
	Princeton (Limestone soil)		Fallow	Barley	10/26	10/28	10/13
				Wheat	10/26	10/28	10/13
North Central	Bardstown	1993	Corn	Wheat	10/12	10/15	10/21
	Hardinsburg	1994-95	Corn				

controlled by foliar fungicides. Tests at all other locations were untreated so varieties could be rated for disease resistance. Although the Barley Yellow Dwarf virus was present this year, no varietal ratings were made since the dry spring resulted in slow uptake of nitrogen which caused a general yellowing of the crop and made BYDV ratings difficult.

### **Small Grain Varieties for 1996**

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 11.

#### ***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 4-9.

#### ***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 12-14A.

#### **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 1995.**

VARIETY	PROTECTED	SOURCE	RELEASE DATE	YIELD (BU/AC)	TEST WEIGHT (LB/BU)	LODGING (%)	PLANT HEIGHT (IN.)	SURVIVAL (%)	HEADING DATE
2552	Yes	Pioneer Hi Bred Int.	1994	59.9	56.5	0.0	33.8	100.0	30-Apr
ELKHART	Yes	Agripro Biosciences	1995	53.7	58.8	0.0	36.4	100.0	28-Apr
DB 494	Yes	Diener Bros.	1994	53.6	55.2	0.0	34.3	100.0	29-Apr
VERNE	Yes	Kentucky	1990	53.5	55.3	0.0	36.8	100.0	1-May
2684	Yes	Pioneer Hi Bred Int.	1994	53.1	56.6	0.0	31.5	100.0	25-Apr
JACKSON	Yes	Virginia	1993	52.9	56.3	0.0	33.0	100.0	30-Apr
WAKEFIELD	Yes	Virginia	1990	52.7	56.2	0.0	34.8	100.0	2-May
COKER 9803	Yes	Northrup King	1990	52.7	56.8	0.0	30.5	100.0	27-Apr
GLORY	Yes	Ohio	1994	52.6	55.3	0.0	33.7	100.0	1-May
85C-031-06	Yes	Kentucky	1995	52.5	55.7	0.0	33.2	100.0	30-Apr
2628	Yes	Pioneer Hi Bred Int.	1994	51.4	56.2	0.0	33.4	100.0	30-Apr
2510	Yes	Pioneer Hi Bred Int.	1991	51.1	55.3	0.0	32.9	100.0	5-May
FFR 555W	Yes	Southern States Coop.	1990	51.0	53.9	0.0	32.5	100.0	30-Apr
FFR 525	Yes	Southern States Coop.	1994	50.1	56.5	0.0	32.6	100.0	28-Apr
PATRIOT	Yes	Kentucky American Seeds	1994	50.0	55.9	0.0	33.9	100.0	28-Apr
VIGORO 934	Yes	Vigoro Seeds	1994	49.7	57.6	0.0	33.8	100.0	1-May
82W	Yes	Agra Tech	1994	49.5	54.7	0.0	33.0	100.0	28-Apr
CLEMENS	Yes	Agripro Biosciences	1994	49.4	57.4	0.0	35.8	100.0	4-May
MADISON	Yes	Virginia	1990	49.2	53.8	0.0	30.9	100.0	27-Apr
VIGORO 941	Yes	Vigoro Seeds	1994	48.7	54.9	0.0	33.5	100.0	26-Apr
SHILOH	Yes	Agripro Biosciences	1994	48.6	55.0	0.0	31.9	100.0	1-May
BECKER	Yes	Ohio	1994	48.5	53.7	0.0	32.7	100.0	2-May
2580	Yes	Pioneer Hi Bred Int.	1992	48.5	54.7	0.0	30.8	100.0	27-Apr
2643	Yes	Pioneer Hi Bred Int.	1994	48.4	55.3	0.0	27.1	100.0	27-Apr
COKER 9543	Yes	Northrup King	1990	48.0	55.4	0.0	30.0	100.0	27-Apr
HICKORY	Yes	Agripro Biosciences	1994	47.8	55.9	0.0	33.7	100.0	25-Apr
CARDINAL	Yes	Ohio	1986	47.5	54.2	0.0	36.3	100.0	4-May
PATTERSON	Yes	Indiana	1994	47.4	56.5	0.0	34.1	100.0	27-Apr
90W	Yes	Agra Tech	1994	47.3	57.5	0.0	33.5	100.0	1-May
SAWYER	Yes	Agripro	1992	46.5	53.3	0.0	31.6	100.0	29-Apr
FREEDOM	Yes	Ohio	1991	46.1	54.4	0.0	34.6	100.0	2-May
FFR 568W	Yes	Southern States Coop.	1990	45.5	55.5	0.0	33.3	100.0	1-May
VIGORO EXP 951	Yes	Vigoro Seeds	1995	45.0	55.9	0.0	33.6	100.0	30-Apr
DB 541	Yes	Diener Bros.	1994	45.0	54.2	0.0	34.7	100.0	3-May
COKER 9474	Yes	Northrup King	1993	44.8	56.8	0.0	30.6	100.0	28-Apr
HOPEWELL	Yes	Ohio	1995	44.6	54.4	0.0	33.8	100.0	3-May
FFR 523W	Yes	Southern States	1995	44.5	53.5	0.0	28.3	100.0	27-Apr
ERNIE	Yes	Missouri	1994	43.9	54.1	0.0	28.3	100.0	27-Apr
LIBERTY	Yes	Kentucky American Seeds	1994	42.3	56.0	0.0	35.5	100.0	3-May
CLARK	Yes	Indiana	1988	41.9	54.1	0.0	32.7	100.0	28-Apr
CALDWELL	Yes	Indiana	1980	40.5	55.0	0.0	33.8	100.0	29-Apr
GRANT	Yes	Indiana	1994	40.3	53.5	0.0	31.2	100.0	3-May

MEAN = 48.6 BU/A  
 CV = 12.9%  
 LSD(0.05) = 2.9 BU/A

<sup>1</sup>The CV is a measure of experimental error. The lower the CV the more reliable the results.

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

<sup>3</sup>"Unauthorized 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 1994-1995.

VARIETY	YIELD (BU/AC)	TEST WEIGHT (LB/BU)	LOGGING (%)	PLANT HEIGHT (IN.)	SURVIVAL (%)	HEADING DATE
WAKEFIELD	69.5	56.7	0.2	37.0	98.4	6-May
FFR 555W	69.1	55.1	0.0	34.0	97.0	4-May
VERNE	69.0	56.1	0.3	39.1	97.4	4-May
JACKSON	68.9	56.8	2.7	35.3	97.1	4-May
2510	68.0	55.8	0.0	34.5	96.6	9-May
2684	67.5	57.6	0.2	33.7	97.1	30-Apr
PATRIOT	67.2	56.5	0.0	34.8	97.9	2-May
CLEMENS	67.0	57.2	1.5	38.2	98.7	7-May
BECKER	66.9	54.4	0.0	34.4	98.0	6-May
2628	66.9	57.2	0.0	34.7	96.5	4-May
B5C-031-06	66.6	56.1	0.0	35.5	97.9	6-May
MADISON	66.5	55.6	0.1	34.5	96.1	1-May
2580	66.1	55.7	0.0	33.7	97.1	2-May
FFR 525	65.8	57.0	1.1	35.0	97.4	2-May
2643	64.5	57.0	0.0	28.8	97.6	2-May
HICKORY	64.2	56.9	0.0	35.5	95.9	2-May
FREEDOM	63.1	55.2	0.4	36.6	96.8	5-May
SAWYER	63.0	54.4	0.6	34.3	97.1	3-May
CARDINAL	61.7	55.8	0.2	38.7	95.1	8-May
90W	61.7	58.1	0.5	35.7	97.9	5-May
COKER 9803	61.4	57.7	0.4	31.8	92.1	3-May
FFR 568W	61.0	56.7	0.0	36.6	97.4	5-May
ERNIE	61.0	55.3	0.3	30.9	98.1	1-May
GRANT	57.9	54.9	0.0	32.9	93.4	7-May
COKER 9474	56.7	58.2	0.0	33.3	96.5	3-May
CLARK	56.3	55.4	0.0	34.8	95.7	2-May
COKER 9543	55.9	56.5	0.1	31.1	91.5	3-May
CALDWELL	52.9	55.8	0.3	35.2	90.0	6-May

5

**TABLE 3b — AVERAGE PERFORMANCE OF WHEAT VARIETIES TESTED IN 93-95.**

VARIETY	YIELD (BU/AC)	TEST WEIGHT (LB/BU)	LODGING (%)	PLANT HEIGHT (IN.)	SURVIVAL (%)	HEADING DATE
FFR 555W	68.0	54.5	0.5	34.1	94.5	4-May
WAKEFIELD	67.5	56.0	1.8	37.1	95.8	6-May
JACKSON	67.4	56.6	4.0	35.1	94.3	4-May
Z684	66.9	57.6	1.1	33.9	94.8	30-Apr
2510	66.8	55.7	0.4	34.1	94.9	8-May
VERNE	66.5	56.1	0.9	39.4	94.9	5-May
MADISON	65.5	55.5	1.0	35.2	94.7	2-May
85C-031-06	65.2	55.8	0.5	35.6	94.9	6-May
2580	63.9	55.6	1.5	34.0	92.2	2-May
COKER 9803	63.3	58.0	1.9	32.5	91.3	3-May
FREEDOM	60.5	54.6	1.6	36.4	93.2	6-May
SAWYER	60.5	54.3	3.1	34.3	93.8	3-May
FFR 568W	59.1	56.3	0.7	36.5	94.5	6-May
CARDINAL	58.0	55.0	0.7	38.6	90.3	8-May
COKER 9543	57.3	56.1	2.9	31.7	89.2	3-May
CLARK	56.5	55.5	0.5	34.7	93.1	2-May
COKER 9474	55.2	58.2	0.7	33.2	92.3	3-May
CALDWELL	50.0	54.8	0.7	35.3	84.8	5-May

TABLE 4 — WHEAT PERFORMANCE TRIALS FOR PURCHASE 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	1995	1994	1993	MEAN		
ELKHART	57			57	58.2			58.2	0	0	0	0	100			100	38	21-Apr
VERNE	54	92	65	70	52.4	56.3	56.6	55.1	0	0	0	0	100	100	99	100	39	24-Apr
2552	53			53	53.9			53.9	0	0	0	0	100			100	36	22-Apr
VIGORO 941	53			53	53.7			53.7	0	0	0	0	100			100	37	20-Apr
2628	52	87		69	55.1	57.2		56.2	0	0	0	0	100	96		98	35	23-Apr
VIGORO 934	52			52	56.5			56.5	0	0	0	0	100			100	34	25-Apr
2684	51	83	59	64	53.7	58.1	57.6	56.5	0	0	0	0	100	100	100	100	32	18-Apr
COKER 9803	50	80	63	64	53.5	59.5	59.0	57.3	0	0	0	0	100	93	100	98	31	21-Apr
JACKSON	50	85	64	66	52.9	56.2	56.3	55.1	0	31	0	10	100	100	100	100	35	24-Apr
DB 494	49			49	56.6			56.6	0	0	0	0	100			100	35	22-Apr
PATRIOT	48	81		65	54.4	55.3		54.9	0	0	0	0	100	100		100	34	22-Apr
COKER 9543	48	79	59	62	53.2	57.6	57.9	56.2	0	0	0	0	100	81	100	94	31	21-Apr
FFR 525	48	89		68	53.7	58.4		56.1	0	8	0	3	100	96		98	34	20-Apr
HICKORY	48	84		66	53.9	59.0		56.5	0	0	0	0	100	95		98	35	19-Apr
2643	47	83		65	52.7	57.4		55.1	0	0	0	0	100	100		100	27	19-Apr
FFR 555W	47	91	61	66	51.0	55.5	54.8	53.8	0	0	0	0	100	99	100	100	35	22-Apr
90W	47	80		64	56.8	60.5		58.7	0	6	0	2	100	100		100	36	24-Apr
82W	47			47	52.8			52.8	0	0	0	0	100			100	34	21-Apr
CLEMENS	46	77		61	55.6	55.8		55.7	0	15	0	5	100	100		100	37	25-Apr
COKER 9474	46	73	54	58	55.5	59.6	58.8	58.0	0	0	0	0	100	96	96	98	32	21-Apr
SHILOH	46			46	51.7			51.7	0	0	0	0	100			100	34	25-Apr
WAKEFIELD	46	90	64	66	54.4	56.8	54.7	55.3	0	0	0	0	100	100	100	100	36	24-Apr
PATTERSON	45			45	55.4			55.4	0	0	0	0	100			100	35	20-Apr
85C-031-06	45	76	63	61	53.7	55.7	56.2	55.2	0	0	0	0	100	100	100	100	34	24-Apr
BECKER	44	90		67	53.8	54.0		53.9	0	0	0	0	100	100		100	35	25-Apr
FREEDOM	44	87	55	62	53.9	54.9	54.0	54.3	0	4	0	1	100	99	98	99	36	25-Apr
GLORY	44			44	52.7			52.7	0	0	0	0	100			100	33	25-Apr
2510	44	89	60	64	52.5	55.3	56.1	54.6	0	0	0	0	100	95	99	98	33	26-Apr
VIGORO EXP 951	44			44	54.8			54.8	0	0	0	0	100			100	35	22-Apr
2580	43	83	55	60	52.4	55.0	55.1	54.2	0	0	0	0	100	95	100	98	30	20-Apr
DB 541	42			42	54.0			54.0	0	0	0	0	100			100	37	27-Apr
CARDINAL	42	81	54	59	52.0	57.9	54.3	54.7	0	0	0	0	100	96	98	98	38	27-Apr
CALDWELL	41	68	45	51	53.7	54.4	55.7	54.6	0	0	0	0	100	84	93	92	35	22-Apr
FFR 568W	41	79	50	57	54.1	56.5	55.4	55.3	0	0	0	0	100	98	100	99	35	22-Apr
GRANT	41	75		58	52.7	54.5		53.6	0	0	0	0	100	89		94	32	25-Apr
LIBERTY	41			41	54.6			54.6	0	0	0	0	100			100	38	27-Apr
MADISON	40	88	57	62	50.4	57.5	56.0	54.6	0	0	0	0	100	99	100	100	31	19-Apr
SAWYER	40	76	58	58	52.8	54.8	54.0	53.9	0	8	0	3	100	96	100	99	31	20-Apr
HOPEWELL	38			38	52.5			52.5	0	0	0	0	100			100	35	27-Apr
FFR 523	37			37	52.1			52.1	0	0	0	0	100			100	27	21-Apr
CLARK	35	81	56	57	51.6	56.4	54.8	54.3	0	0	0	0	100	96	99	98	32	21-Apr
ERNIE	34	83		59	47.4	56.7		52.1	0	4	0	1	100	99		99	29	21-Apr
MEAN	45	82	58	62	53.6	56.7	55.9	55.4	0	2	0	1	100	96	99	98	34	

CV = 13.7%

LSD(0.05) = 7.0 BU/A

\* LOCATION: Graves County

**TABLE 5 — WHEAT PERFORMANCE TRIALS FOR WESTERN COAL FIELD REGION\*, 1991-1993.**

VARIETY	---YIELD (BU/AC)---				--TEST WT (LB/BU)--				----PCT LODGED-----				---PCT SURVIVAL----				PLANT HEIGHT (IN) 1993	HEADING DATE 1993	
	1993	1992	1991	MEAN	1993	1992	1991	MEAN	1993	1992	1991	MEAN	1993	1992	1991	MEAN			
2684	52			52	56.2				56.2	0				88			88	30	06-May
COKER 9803	51	32	12	32	55.0	52.5	50.9	52.8	0	0	0	0	86	10	20	39	30	05-May	
2580	46			46	51.3			51.3	0			0	73			73	29	07-May	
2510	46	52		49	51.9	53.8		52.9	0	0		0	88	38		63	28	13-May	
BECKER		41	11	26		51.7	45.5	48.6		0	0	0		28	44	36	31	07-May	
VERNE	43	44	21	36	54.6	55.5	46.8	52.3	0	0	0	0	80	25	46	50	33	10-May	
FFR 568W	43	42	21	35	54.2	55.8	49.8	53.3	0	0	0	0	84	30	53	55	32	10-May	
FFR 555W	43	60	13	38	48.9	55.8	46.3	50.3	0	0	0	0	83	38	31	50	29	08-May	
JACKSON	43			43	53.1			53.1	0			0	76			76	29	11-May	
FFR 511W	42	43	15	33	52.2	55.2	47.4	51.6	0	0	0	0	79	26	21	42	30	07-May	
MADISON	41	53	26	40	53.7	55.7	50.3	53.2	0	0	0	0	84	29	48	53	32	07-May	
2548	41	48	17	35	51.2	50.2	46.9	49.4	0	0	0	0	74	35	46	52	27	10-May	
WAKEFIELD	40	56	11	36	53.9	54.3	44.4	50.9	0	0	0	0	80	36	33	50	32	11-May	
COKER 9543	39	36	11	29	52.5	54.2	47.7	51.5	0	0	0	0	68	21	28	39	28	06-May	
FREEDOM	38	44		41	49.4	53.1		51.3	0	0		0	81	20		51	30	11-May	
HOWELL	37	42	16	32	54.6	56.4	53.3	54.8	0	0	0	0	85	20	33	46	36	11-May	
COKER 9474	35			35	52.8			52.8	0			0	73			73	26	07-May	
SALUDA	35	19	8	21	55.0	42.4	42.8	46.7	0	0	0	0	75	5	16	32	28	11-May	
AGRIPRO SAWYER	33	41	19	31	51.2	53.1	47.9	50.7	0	0	0	0	78	21	40	46	28	08-May	
CLARK	31	50	16	32	51.9	55.2	47.8	51.6	0	0	0	0	81	50	45	59	29	06-May	
CALDWELL	30	22	6	19	52.2	52.4	50.0	51.5	0	0	0	0	63	7	20	30	30	10-May	
TYLER	28	47	17	31	49.4	53.7	45.4	49.5	0	0	0	0	69	29	49	49	35	12-May	
CARDINAL	27	36	11	24	50.5	53.6	43.8	49.3	0	0	0	0	65	15	29	36	33	17-May	
MEAN	39	42	15	32	52.5	53.4	47.5	51.1	0	0	0	0	78	25	35	46	30		

CV = 15.3%

LSD(0.05) = 8.4 BU/A

\* LOCATION: Princeton, sandstone soil

The 1994 test was discarded due to poor stands in the fall.

The 1995 test was discarded due to unreliable data.



TABLE 6 — WHEAT PERFORMANCE TRIALS FOR OHIO VALLEY 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	1995	1994	1993	MEAN		
2552	69			69	56.0			56.0	0	0	0	0	100			100	34	01-May
2684	69	76	72	72	57.8	54.2	58.6	56.9	0	3	8	3	100	84	100	95	33	25-Apr
2628	64	76		70	55.5	55.9		55.7	0	0	0	0	100	86		93	35	01-May
HICKORY	63	80		71	53.8	55.8		54.8	0	0	0	0	100	79		89	37	26-Apr
DB 494	63			63	52.9			52.9	0	0	0	0	100			100	36	30-Apr
COKER 9803	62	62	71	65	55.2	55.1	59.8	56.7	0	5	10	5	100	85	100	95	31	29-Apr
SHILOH	62			62	54.7			54.7	0	0	0	0	100			100	34	03-May
FFR 525	62	76		69	58.4	53.3		55.9	0	0	0	0	100	90		95	34	27-Apr
ELKHART	61			61	60.1			60.1	0	0	0	0	100			100	38	01-May
B5C-031-06	61	78	64	68	54.4	53.7	56.9	55.0	0	0	3	1	100	89	100	96	35	02-May
WAKEFIELD	61	79	72	70	55.8	55.1	54.0	55.0	0	0	8	3	100	94	100	98	36	02-May
VERNE	60	78	68	69	56.0	54.5	56.6	55.7	0	0	3	1	100	86	100	95	38	02-May
2580	59	88	64	70	54.4	54.8	57.5	55.6	0	0	0	0	100	94	99	98	33	28-Apr
PATRIOT	58	86		72	55.8	52.0		53.9	0	0	0	0	100	93		96	35	28-Apr
GLORY	58			58	54.4			54.4	0	0	0	0	100			100	34	02-May
COKER 9543	57	43	63	55	51.9	52.0	57.0	53.6	0	0	3	1	100	100	100	100	32	27-Apr
JACKSON	57	82	68	69	53.7	54.0	57.2	55.0	0	0	9	3	100	88	98	95	34	02-May
VIGORO 934	57			57	58.1			58.1	0	0	0	0	100			100	35	01-May
VIGORO EXP 951	56			56	56.2			56.2	0	0	0	0	100			100	35	29-Apr
MADISON	56	79	71	69	52.0	55.4	57.5	55.0	0	0	6	2	100	86	100	95	32	24-Apr
ERNIE	56	75		66	56.7	53.2		55.0	0	0	0	0	100	90		95	30	27-Apr
SAWYER	56	86	65	69	51.8	53.7	55.2	53.6	0	0	9	3	100	91	100	97	32	30-Apr
PATTERSON	55			55	55.9			55.9	0	0	0	0	100			100	38	28-Apr
CLEMENS	55	92		73	58.5	55.1		56.8	0	0	0	0	100	94		97	38	06-May
FFR 555W	55	80	70	68	52.2	53.8	55.5	53.8	0	0	0	0	100	86	100	95	34	02-May
82W	54			54	54.2			54.2	0	0	0	0	100			100	35	30-Apr
FFR 568W	54	79	55	63	56.1	56.4	55.9	56.1	0	0	6	2	100	93	98	97	34	03-May
CARDINAL	54	80	56	63	53.1	55.4	53.5	54.0	0	0	0	0	100	75	96	90	36	05-May
FFR 523	53			53	51.2			51.2	0	0	0	0	100			100	31	28-Apr
2510	52	76	60	63	53.8	53.3	54.3	53.8	0	0	0	0	100	89	100	96	35	06-May
COKER 9474	52	69	63	61	57.3	57.0	61.2	58.5	0	0	3	1	100	94	100	98	33	30-Apr
VIGORO 941	52			52	54.8			54.8	0	0	0	0	100			100	35	27-Apr
2643	51	77		64	54.5	55.8		55.2	0	0	0	0	100	88		94	28	27-Apr
BECKER	51	88		70	53.4	53.0		53.2	0	0		0	100	91		96	33	04-May
FREEDOM	51	84	54	63	52.4	55.6	52.4	53.5	0	0	14	5	100	84	100	95	36	04-May
90W	50	71		60	56.3	55.6		56.0	0	0	0	0	100	95		98	33	02-May
CALDWELL	48	59	49	52	52.6	56.5	53.1	54.1	0	0	5	2	100	60	91	84	35	01-May
CLARK	48	59	69	59	56.5	53.2	57.4	55.7	0	0	0	0	100	81	100	94	36	28-Apr
LIBERTY	46			46	54.2			54.2	0	0	0	0	100			100	37	04-May
HOPEWELL	46			46	52.6			52.6	0	0	0	0	100			100	35	05-May
DB 541	46			46	51.6			51.6	0	0	0	0	100			100	36	06-May
GRANT	34	71		52	51.9	55.2		53.6	0	0	0	0	100	71		86	32	05-May
MEAN	55	76	64	65	54.7	54.6	56.3	55.2	0	0	2	1	100	87	99	95	34	

CV = 12.5%

LSD(0.05) = 8.1 BU/A

\* LOCATION: Daviess County

TABLE 7 — WHEAT 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	1995	1994	1993	MEAN		
2510	60	77	98	78	57.9	58.7	60.2	58.9	0	0	8	3	100	100	100	100	31	16-May
GLORY	52			52	58.3			58.3	0	0	0	0	100				33	09-May
MADISON	50	75	82	69	58.6	58.1	58.8	58.5	0	1	11	4	100	100	99	100	32	07-May
85C-031-06	48	77	88	71	58.0	59.1	58.6	58.6	0	0	6	2	100	100	99	100	34	11-May
VERNE	48	73	81	67	57.9	58.8	59.0	58.6	0	0	10	3	100	100	100	100	37	11-May
WAKEFIELD	47	77	86	70	58.5	59.4	58.9	58.9	0	0	21	7	100	100	98	99	33	13-May
2552	47			47	58.3			58.3	0	0	0	0	100			100	34	10-May
BECKER	47	75		61	56.8	56.8		56.8	0	0		0	100	100		100	32	11-May
CLEMENS	47	74		60	59.5	59.9		59.7	0	0	0	0	100	100		100	34	13-May
82W	47			47	57.5			57.5	0	0	0	0	100			100	33	08-May
FFR 568W	47	69	85	67	58.4	60.2	59.7	59.4	0	0	8	3	100	100	99	100	33	10-May
SAWYER	46	75	83	68	57.0	57.1	57.6	57.2	0	0	28	9	100	100	99	100	32	08-May
JACKSON	46	69	84	66	60.6	60.3	60.0	60.3	0	0	28	9	100	100	100	100	32	11-May
COKER 9543	46	58	87	63	60.0	59.7	60.9	60.2	0	1	33	11	100	100	99	100	29	06-May
FREEDOM	45	67	87	66	55.7	58.2	58.1	57.3	0	1	11	4	100	100	96	99	33	11-May
DB 494	45			45	56.6			56.6	0	0	0	0	100			100	32	09-May
2628	45	71		58	58.6	59.4		59.0	0	0	0	0	100	100		100	33	10-May
FFR 555W	45	80	98	74	57.3	59.5	58.1	58.3	0	0	9	3	100	100	100	100	31	11-May
GRANT	44	70		57	57.6	58.7		58.2	0	0	0	0	100	100		100	31	10-May
ERNIE	44	67		56	57.8	58.1		58.0	0	0	0	0	100	100		100	30	06-May
PATRIOT	44	76		60	58.7	58.8		58.8	0	0	0	0	100	100		100	33	09-May
VIGORO 934	44			44	59.7			59.7	0	0	0	0	100			100	34	09-May
HOPEWELL	44			44	56.4			56.4	0	0	0	0	100			100	32	11-May
2684	43	76	87	69	58.7	61.2	59.4	59.8	0	0	10	3	100	100	99	100	32	06-May
CARDINAL	43	63	76	61	55.4	59.2	59.0	57.9	0	0	10	3	100	100	95	98	35	12-May
DB 541	42			42	57.3			57.3	0	0	0	0	100			100	32	12-May
VIGORO 941	42			42	58.3			58.3	0	0	0	0	100			100	33	06-May
90W	41	67		54	60.7	61.8		61.3	0	0	0	0	100	100		100	33	09-May
CLARK	41	57	81	60	57.7	58.1	58.9	58.2	0	0	10	3	100	100	98	99	33	08-May
PATTERSON	41			41	58.7			58.7	0	0	0	0	100			100	34	07-May
2580	41	75	90	68	58.3	58.7	59.6	58.9	0	0	28	9	100	100	94	98	31	08-May
FFR 523	41			41	56.2			56.2	0	0	0	0	100			100	28	08-May
COKER 9803	40	66	87	64	60.9	60.7	60.9	60.8	0	0	21	7	100	100	98	99	31	07-May
HICKORY	39	70		55	59.4	58.7		59.1	0	0	0	0	100	100		100	33	06-May
SHILOH	39			39	57.3			57.3	0	0	0	0	100			100	31	10-May
FFR 525	38	63		50	58.4	59.8		59.1	0	1	0	0	100	100		100	32	09-May
ELKHART	37			37	60.1			60.1	0	0	0	0	100			100	34	08-May
COKER 9474	37	56	73	55	58.6	60.9	61.6	60.4	0	0	11	4	100	100	95	98	31	08-May
CALDWELL	36	59	60	52	56.7	59.5	57.4	57.9	0	1	4	2	100	100	90	97	33	09-May
VIGORO EXP 951	36			36	59.0			59.0	0	0	0	0	100			100	31	09-May
2643	35	71		53	59.3	61.2		60.3	0	0	0	0	100	100		100	27	07-May
LIBERTY	34			34	59.8			59.8	0	0	0	0	100			100	33	10-May
MEAN	43	70	84	66	58.3	59.3	59.2	58.9	0	0	7	2	100	100	98	99	32	

CV = 12.1%

LSD(0.05) = 6.1 BU/A

\* LOCATION: Lexington, Spindletop farm

The 1993, 1994 and 1995 test at this location was treated with fungicides at the Feekes growth stages 8 and 10.5.

TABLE 8 — WHEAT PERFORMANCE TRIALS FOR SOUTHERN TIER 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	1995	1994	1993	MEAN		
2552	60			60	55.1			55.1	0	0	0	0	100			100	33	27-Apr
GLORY	58			58	54.2			54.2	0	0	0	0	100			100	35	28-Apr
ELKHART	57			57	57.0			57.0	0	0	0	0	100			100	38	24-Apr
DB 494	57			57	52.9			52.9	0	0	0	0	100			100	35	25-Apr
85C-031-06	55	88	72	72	54.8	56.2	56.5	55.8	0	0	0	0	100	100	80	93	34	27-Apr
JACKSON	55	88	81	75	55.3	56.4	58.6	56.8	0	0	0	0	100	100	85	95	32	25-Apr
VERNE	53	86	70	70	54.0	57.5	53.3	54.9	0	4	0	1	100	100	83	94	36	27-Apr
FFR 555W	53	89	75	72	54.6	55.9	53.0	54.5	0	0	0	0	100	100	83	94	33	25-Apr
MADISON	52	89	73	72	50.6	58.7	53.1	54.1	0	0	0	0	100	100	84	95	31	23-Apr
FFR 525	52	97		74	53.8	57.8		55.8	0	0	0	0	100	100		100	33	25-Apr
2510	52	83	76	70	53.8	55.8	57.5	55.7	0	0	0	0	100	100	86	95	32	30-Apr
WAKEFIELD	51	91	78	73	55.2	56.9	53.8	55.3	0	3	0	1	100	100	84	95	35	29-Apr
2580	51	88	66	68	53.6	58.6	57.0	56.4	0	0	0	0	100	100	69	90	31	24-Apr
PATRIOT	51	92		71	54.1	60.2		57.2	0	0	0	0	100	100		100	34	24-Apr
2684	50	85	78	71	55.1	60.7	58.7	58.2	0	0	0	0	100	100	81	94	31	23-Apr
2643	49	83		66	53.7	59.6		56.7	0	0	0	0	100	100		100	27	24-Apr
90W	49	84		66	55.3	59.3		57.3	0	0	0	0	100	100		100	35	28-Apr
COKER 9803	49	75	74	66	54.6	58.1	58.3	57.0	0	0	0	0	100	100	75	92	30	24-Apr
CLEMENS	49	93		71	55.5	58.1		56.8	0	0	0	0	100	100		100	36	01-May
FFR 568W	49	77	63	63	53.4	59.1	53.3	55.3	0	0	0	0	100	100	74	91	34	28-Apr
2628	48	88		68	54.5	58.7		56.6	0	0	0	0	100	100		100	32	25-Apr
CARDINAL	48	75	64	62	53.9	57.1	52.1	54.4	0	0	0	0	100	100	71	90	38	01-May
BECKER	48	88		68	53.4	57.6		55.5	0	0	0	0	100	100		100	32	28-Apr
SHILOH	47			47	53.2			53.2	0	0	0	0	100			100	33	27-Apr
FREEDOM	47	77	63	62	52.3	56.8	55.4	54.8	0	0	0	0	100	100	78	93	36	29-Apr
82W	47			47	53.0			53.0	0	0	0	0	100			100	33	24-Apr
PATTERSON	47			47	55.1			55.1	0	0	0	0	100			100	32	24-Apr
VIGORO 941	47			47	54.0			54.0	0	0	0	0	100			100	34	21-Apr
SAWYER	46	81	66	64	51.2	57.0	56.5	54.9	0	0	0	0	100	100	75	92	32	25-Apr
VIGORO EXP 951	46			46	53.2			53.2	0	0	0	0	100			100	35	28-Apr
VIGORO 934	45			45	52.9			52.9	0	0	0	0	100			100	34	28-Apr
LIBERTY	45			45	53.8			53.8	0	0	0	0	100			100	37	28-Apr
FFR 523	45			45	51.6			51.6	0	0	0	0	100			100	27	25-Apr
DB 541	44			44	53.3			53.3	0	0	0	0	100			100	36	29-Apr
COKER 9543	44	66	69	60	55.4	58.3	52.4	55.4	0	0	0	0	100	100	74	91	30	24-Apr
HOPEWELL	44			44	53.2			53.2	0	0	0	0	100			100	34	29-Apr
HICKORY	43	86		65	54.2	57.8		56.0	0	0	0	0	100	100		100	34	21-Apr
ERNIE	43	89		66	52.4	58.5		55.5	0	0	0	0	100	100		100	26	24-Apr
CALDWELL	39	70	57	55	56.1	55.7	51.4	54.4	0	3	0	1	100	100	65	88	33	24-Apr
COKER 9474	39	74	56	56	52.5	60.2	59.7	57.5	0	0	0	0	100	100	76	92	29	23-Apr
GRANT	38	78		58	48.7	56.3		52.5	0	0	0	0	100	100		100	30	29-Apr
CLARK	37	74	64	58	46.4	58.0	54.1	52.8	0	0	0	0	100	100	71	90	32	24-Apr
MEAN	48	83	70	67	53.6	57.9	55.3	55.6	0	0	0	0	100	100	77	92	33	

CV = 12.3%

LSD(0.05) = 6.8 BU/A

\* LOCATION: Princeton, limestone soil

The 1993, 1994 and 1995 test at this location was treated with fungicides at the Feekes growth stages 8 and 10.5.

TABLE 8a — WHEAT PERFORMANCE TRIALS FOR SOUTHERN TIER 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	1995	1994	1993	MEAN		
2552	68		68		57.3		57.3		0	0	0	0	100		100		33	24-Apr
COKER 9803	60	74	64	66	58.3	60.3	58.6	59.1	0	0	0	0	100	85	89	91	31	21-Apr
2580	56	82	56	65	55.6	57.5	55.3	56.1	0	0	0	0	100	93	84	92	31	21-Apr
DB 494	55		55		56.2		56.2		0	0	0	0	100		100		34	24-Apr
2643	55	92		73	55.7	59.6		57.7	0	0	0	0	100	100		100	27	22-Apr
FFR 555W	55	95	61	70	54.0	57.1	53.4	54.8	0	0	0	0	100	100	91	97	32	24-Apr
WAKEFIELD	54	96	59	70	56.5	58.5	54.2	56.4	0	0	0	0	100	99	94	98	33	25-Apr
ELKHART	53		53		58.5		58.5		0	0	0	0	100		100		34	22-Apr
VERNE	53	91	62	69	56.8	58.9	56.2	57.3	0	0	0	0	100	94	93	95	35	27-Apr
JACKSON	53	95	59	69	57.7	59.2	56.3	57.7	0	0	0	0	100	94	94	96	32	25-Apr
SHILOH	53		53		56.5		56.5		0	0	0	0	100		100		30	26-Apr
82W	52		52		55.0		55.0		0	0	0	0	100		100		31	24-Apr
2510	52	102	61	71	56.7	59.3	56.6	57.5	0	0	0	0	100	96	93	96	33	02-May
PATTERSON	51		51		58.5		58.5		0	0	0	0	100		100		34	21-Apr
CLEMENS	51	85		68	58.3	58.2		58.3	0	0	0	0	100	99		99	33	29-Apr
PATRIOT	51	87		69	57.8	58.1		58.0	0	0	0	0	100	94		97	35	22-Apr
DB 541	51		51		55.5		55.5		0	0	0	0	100		100		35	28-Apr
BECKER	51	96		74	53.6	56.3		55.0	0	0	0	0	100	99		100	31	27-Apr
COKER 9474	51	69	49	56	59.3	61.8	58.6	59.9	0	0	0	0	100	93	89	94	30	25-Apr
HOPEWELL	51		51		56.3		56.3		0	0	0	0	100		100		33	29-Apr
CARDINAL	50	84	49	61	55.3	58.3	55.3	56.3	0	0	0	0	100	94	88	94	34	29-Apr
VIGORO 934	50		50		59.5		59.5		0	0	0	0	100		100		32	26-Apr
GLORY	49		49		55.1		55.1		0	0	0	0	100		100		33	25-Apr
2628	49	92		70	56.8	59.9		58.4	0	0	0	0	100	96		98	32	25-Apr
2684	49	84	66	66	56.3	60.0	57.5	57.9	0	0	0	0	100	100	91	97	30	20-Apr
90W	48	79		63	58.8	58.9		58.9	0	0	0	0	100	94		97	33	27-Apr
85C-031-06	48	89	56	64	56.4	57.3	54.8	56.2	0	0	0	0	100	99	90	96	30	24-Apr
SAWYER	47	83	50	60	52.5	55.8	53.8	54.0	0	0	0	0	100	96	93	96	32	24-Apr
FFR 525	47	80		63	56.9	58.9		57.9	0	0	0	0	100	95		98	31	22-Apr
GRANT	46	88		67	56.0	58.5		57.3	0	0	0	0	100	91		96	31	29-Apr
VIGORO 941	46		46		54.8		54.8		0	0	0	0	100		100		31	20-Apr
MADISON	45	92	69	69	55.6	58.4	55.5	56.5	0	0	0	0	100	95	91	95	28	20-Apr
CALDWELL	44	70	44	53	55.5	58.5	56.2	56.7	0	0	0	0	100	83	79	87	34	24-Apr
COKER 9543	44	74	57	58	55.3	60.1	56.4	57.3	0	0	0	0	100	78	88	88	27	21-Apr
VIGORO EXP 951	44		44		56.7		56.7		0	0	0	0	100		100		32	24-Apr
LIBERTY	44		44		56.8		56.8		0	0	0	0	100		100		33	27-Apr
FFR 523	42		42		53.9		53.9		0	0	0	0	100		100		27	22-Apr
CLARK	42	87	57	62	56.5	59.5	56.9	57.6	0	0	0	0	100	96	90	95	30	22-Apr
FREEDOM	42	89	48	60	55.7	56.0	54.4	55.4	0	0	0	0	100	99	88	95	32	28-Apr
HICKORY	42	83		62	56.4	60.3		58.4	0	0	0	0	100	98		99	30	21-Apr
FFR 568W	41	82	49	57	55.1	58.1	56.4	56.5	0	0	0	0	100	94	93	95	31	25-Apr
ERNIE	39	81		60	54.6	57.5		56.1	0	0	0	0	100	99		99	28	20-Apr
MEAN	49	86	57	64	56.3	58.6	55.9	56.9	0	0	0	0	100	95	90	95	32	

CV = 11.3%

LSD(0.05) = 6.6 BU/A

\* LOCATION: Christian County

TABLE 9 — WHEAT PERFORMANCE TRIALS FOR NORTH CENTRAL REGION\*, 1993-1995.

VARIETY	---YIELD (BU/AC)---				--TEST WT (LB/BU)--				----PCT LODGED----				---PCT SURVIVAL----				PLANT HEIGHT (IN)
	1995	1994	1993	MEAN	1995	1994	1993	MEAN	1995	1994	1993	MEAN	1995	1994	1993	MEAN	1995
2552	63			63	58.5			58.5	0	0	0	0	100			100	34
85C-031-06	59	80	55	65	56.6	57.2	52.8	55.5	0	0	0	0	100	84	83	89	33
WAKEFIELD	58	92	50	67	56.5	57.1	53.4	55.7	0	0	3	1	100	85	85	90	36
2684	58	94	47	66	57.9	57.1	55.4	56.8	0	0	0	0	100	77	78	85	31
ELKHART	57			57	59.0			59.0	0	0	0	0	100			100	38
JACKSON	56	97	55	69	57.6	57.3	53.7	56.2	0	0	8	3	100	80	74	85	33
COKER 9803	56	65	54	58	58.4	57.2	58.1	57.9	0	0	0	0	100	27	81	69	29
GLORY	56			56	57.0			57.0	0	0	0	0	100			100	35
FFR 525	55	91		73	58.0	56.3		57.2	0	4	0	1	100	85		93	32
VIGORO 941	55			55	53.8			53.8	0	0	0	0	100			100	32
VERNE	54	93	47	65	54.4	56.3	55.8	55.5	0	0	0	0	100	87	80	89	38
HICKORY	53	87		70	57.4	55.1		56.3	0	0	0	0	100	73		87	34
DB 494	53			53	55.7			55.7	0	0	0	0	100			100	34
MADISON	53	86	53	64	55.7	57.1	52.3	55.0	0	0	0	0	100	65	89	85	32
2643	53	84		69	56.1	58.2		57.2	0	0	0	0	100	78		89	28
FFR 555W	53	96	55	68	54.2	57.1	50.8	54.0	0	0	0	0	100	73	76	83	32
VIGORO 934	52			52	59.1			59.1	0	0	0	0	100			100	34
BECKER	51	80	47	66	51.4	52.2	55.0	51.8	0	0	0	0	100	82	74	91	33
2628	51	86		69	56.5	58.1		57.3	0	0	0	0	100	73		87	34
82W	50			50	55.4			55.4	0	0	0	0	100			100	33
FFR 523	50			50	55.7			55.7	0	0	0	0	100			100	30
PATRIOT	50	87		69	54.8	55.1		55.0	0	0	0	0	100	73		87	33
CLARK	49	72	39	53	55.8	55.1	55.1	55.3	0	0	0	0	100	68	81	83	34
COKER 9543	49	65	43	52	56.7	58.1	51.3	55.4	0	0	18	6	100	21	70	64	30
90W	49	82		66	56.8	56.2		56.5	0	0	0	0	100	82		91	33
CARDINAL	49	78	36	54	55.7	57.0	50.0	54.2	0	3	0	1	100	70	63	78	37
CLEMENS	48	95		72	56.7	55.2		56.0	0	3	0	1	100	90		95	36
2510	48	87	52	62	56.9	56.0	52.7	55.2	0	0	0	0	100	73	79	84	34
FREEDOM	48	83	48	60	56.3	55.1	51.7	54.4	0	0	0	0	100	75	70	82	35
ERNIE	48	77		63	55.7	55.3		55.5	0	0	0	0	100	87		94	28
HOPEWELL	47			47	55.3			55.3	0	0	0	0	100			100	34
SAWYER	46	81	39	55	54.5	55.0	50.8	53.4	0	0	15	5	100	77	74	84	31
PATTERSON	46			46	55.4			55.4	0	0	0	0	100			100	33
COKER 9474	46	76	38	53	57.7	57.2	55.8	56.9	0	0	0	0	100	68	68	79	30
SHILOH	45			45	56.8			56.8	0	0	0	0	100			100	31
DB 541	45			45	53.3			53.3	0	0	0	0	100			100	33
LIBERTY	45			45	56.7			56.7	0	0	0	0	100			100	35
VIGORO EXP '951	44			44	55.6			55.6	0	0	0	0	100			100	34
2580	43	93	43	60	53.8	55.3	53.3	54.8	0	0	0	0	100	80	70	83	31
FFR 568W	42	78	46	55	56.1	57.1	54.7	56.0	0	0	0	0	100	82	80	87	33
GRANT	39	78		59	54.0	55.1		54.6	0	0	0	0	100	62		81	32
CALDWELL	36	71	30	46	55.6	55.0	46.0	52.2	0	0	0	0	100	42	53	65	33
MEAN	50	83	46	62	56.1	56.2	53.1	55.4	0	0	1	0	100	72	75	84	33

CV = 14.8%

LSD(0.05) = 8.5 BU/A

\* LOCATION: Breckinridge County

TABLE 10 — DISEASE RATINGS OF WHEAT VARIETIES IN 1995<sup>1</sup>

VARIETY <sup>2</sup>	LEAF RUST <sup>3</sup>	LEAF BLOTCH	GLUME BLOTCH	POWDERY MILDEW	WSSMV <sup>4</sup>	BYDV <sup>5</sup>
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	
SAWYER	S	S	MS	VS	S	
CLEMENS	MR	VS	MR	--	--	
HICKORY	MR	S	MS	--	--	
SHILOH	R	MS	MS	--	--	
ELKHART	MR	S	MR	--	--	
90W	VS	MS	MS	--	--	
82W	VS	MS	MS	--	--	
FFR 555W	VS	VS	S	MS	MS	
FFR 568W	S	S	S	MR	MS	
FFR 523W	MR	S	MR	--	--	
FFR 525	VS	MR	MR	--	--	
COKER 9803	S	S	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	MS	VS	S	--	--	
GLORY	VS	S	MS	--	--	
HOPEWELL	VS	VS	S	--	--	
KY 85C-031-06	S	MR	MS	MR	--	

<sup>1</sup>VS=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.

<sup>2</sup>Ratings of newly released varieties based on 1 yr. and 1 location.

<sup>3</sup>Based on disease progress and final disease level.

<sup>4</sup>Wheat spindle streak mosaic virus.

<sup>5</sup>BYDV ratings not made in 1995 due to dry weather in early spring which limited nitrogen uptake resulting in a general yellowing of plants which made ratings unreliable.

**TABLE 11 — CHARACTERISTICS OF BARLEY VARIETIES TESTED IN 1995.**

VARIETY	PROTECTED	SOURCE	RELEASE DATE	YIELD (BU/AC)	TEST WEIGHT (LB/BU)	LODGING (%)	PLANT HEIGHT (IN.)	SURVIVAL (%)	HEADING DATE
PAMUNKEY	Yes	Virginia	1993	80.4	46.6	1.7	30.6	100.0	15-Apr
WYSOR	No	Virginia	1985	79.7	43.7	18.8	32.0	100.0	15-Apr
STARLING	Yes	Virginia	1993	79.5	41.0	15.0	33.5	100.0	17-Apr
CALLAO	Yes	Virginia	1994	77.4	46.5	30.8	24.8	100.0	12-Apr
NOMINI	Yes	Virginia	1992	75.5	45.2	8.0	32.0	100.0	18-Apr
SCHOCHOH	No	Kentucky	1989	59.9	43.1	24.2	26.7	100.0	14-Apr
BARSOY	No	Kentucky	1966	59.3	43.6	3.8	27.7	100.0	11-Apr
PIKE	Yes	Indiana	1975	58.7	42.5	20.8	25.7	100.0	13-Apr

MEAN = 70.7 BU/A  
 CV = 10.3%  
 LSD(0.05) = 5.0 BU/A

<sup>1</sup>The CV is a measure of experimental error. The lower the CV the more reliable the results.

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

<sup>3</sup>"Unauthorized 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 12 — BARLEY PERFORMANCE TRIALS FOR WESTERN COAL FIELD REGION\*, 1990, 1991, 1993.

VARIETY	---YIELD (BU/AC)---				--TEST WT (LB/BU)--				----PCT LODGED-----				---PCT SURVIVAL----				PLANT HEIGHT (IN) 1993	HEADING DATE 1993
	1993	1991	1990	MEAN	1993	1991	1990	MEAN	1993	1991	1990	MEAN	1993	1991	1990	MEAN		
SCHOCHOH	44	30	45	40	46.3	37.0	41.3	41.5	0	5	18	8	73	36	100	70	24	05-May
PAMUNKEY	43			43	46.7			46.7	0			0	40			40	25	29-Apr
WYSOR	23	45	66	44	43.2	37.0	42.7	41.0	0	0	10	3	74	28	100	67	24	02-May
BARSOY	20	28	34	27	44.2	36.0	41.4	40.5	0	8	25	11	49	29	100	59	24	28-Apr
NOMINI	20			20	41.2			41.2	0			0	53			53	25	03-May
PIKE	17	34	35	28	42.7	36.0	39.8	39.5	0	8	60	23	68	53	100	73	22	30-Apr
STARLING	14			14	37.5			37.5	0			0	46			46	27	04-May
MEAN	27	34	45	35	43.4	36.5	41.3	40.4	0	3	19	7	58	36	100	65	24	

CV = 22.9%

LSD(0.05) = 6.7 BU/A

\* LOCATION: Princeton, Sandstone Soil

The 1992 trial was discarded due to winterkill.

The 1994 trial was discarded due to poor stands in the fall.

The 1995 trial was discarded due to unreliable data.



**TABLE 13 — BARLEY PERFORMANCE TRIALS FOR BLUEGRASS REGION\*, 1993-1995.**

VARIETY	---YIELD (BU/AC)---				--TEST WT (LB/BU)--				----PCT LODGED-----				---PCT SURVIVAL----				PLANT HEIGHT (IN)	HEADING DATE
	1995	1994	1993	MEAN	1995	1994	1993	MEAN	1995	1994	1993	MEAN	1995	1994	1993	MEAN	1995	1995
STARLING	69	116	98	94	38.8	48.0	44.1	43.6	3	0	89	30	100	100	100	100	31	24-Apr
PTKE	66	100	76	80	40.0	51.0	45.4	45.5	63	5	95	54	100	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	100	32	24-Apr
PAMUNKEY	61	105	98	88	44.8	49.7	48.6	47.7	4	0	74	26	100	100	100	100	32	21-Apr
SCHOCHOR	59	99	69	76	40.9	49.7	47.6	46.1	70	0	91	54	100	100	100	100	28	22-Apr
CALLAO	58	95		77	45.4	51.4		48.4	23	3	0	8	100	100		100	24	18-Apr
NOMINI	56		98	77	39.2		45.0	42.1	5		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	100	27	21-Apr
MEAN	61	103	88	83	41.4	50.1	46.3	45.7	24.1	1	77	36	100	100	100	100	29	

CV = 8.23%

LSD(0.05) = 6.1 BU/A

\* LOCATION: Lexington

**TABLE 14 — BARLEY PERFORMANCE TRIALS FOR SOUTHERN TIER 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	1995	1994	1993	MEAN		
WYSOR	88	105	107	100	45.3	57.1	59.5	54.0	0	0	0	0	100	100	81	94	31	17-Apr
PAMUNKEY	80	101	97	93	48.6	57.9	58.3	54.9	0	0	0	0	100	100	73	91	28	15-Apr
STARLING	79	100	108	96	43.8	57.5	43.7	48.3	0	0	0	0	100	100	71	90	32	18-Apr
NOMINI	76		98	87	45.5		45.9	45.7	0		0	0	100		81	91	31	16-Apr
CALLAO	69	100		84	48.2	56.4		52.3	0	0	0	0	100	100		100	23	14-Apr
BARSOY	57	108	96	87	45.1	58.7	42.9	48.9	0	0	0	0	100	100	78	93	24	13-Apr
SCHOCHOH	48	103	100	84	45.5	57.5	56.7	53.2	0	0	0	0	100	100	90	97	24	15-Apr
PIKE	47	107	92	82	45.1	58.7	42.9	48.9	0	0	0	0	100	100	83	94	22	14-Apr
MEAN	68	103	100	89	45.9	57.7	50.0	50.8	0	0	0	0	100	100	80	94	27	

CV = 11.5%  
LSD(0.05) = 9.5 BU/A  
\* LOCATION: Princeton, Limestone soil

TABLE 14a — BARLEY PERFORMANCE TRIALS FOR SOUTHERN TIER 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	1995	1994	1993	MEAN		
CALLAO	106	125		115	46.0	42.1		44.1	70	24	0	31	100	95		98	28	12-Apr
PAMUNKEY	101	113	85	99	46.5	47.6	47.9	47.3	1	0	60	20	100	100	78	93	33	13-Apr
NOMINI	95		91	93	41.9		42.7	43.8	19		45	32	100		84	92	34	15-Apr
STARLING	91	121	85	99	40.3	44.1	43.6	42.7	43	5	39	29	100	100	83	94	37	17-Apr
WYSOR	87	118	84	96	44.5	45.5	42.8	44.3	43	3	13	19	100	95	89	95	34	15-Apr
SCHOCHOH	73	120	81	91	42.8	48.6	46.0	45.8	3	0	66	23	100	100	91	97	29	14-Apr
BARSOY	67	108	67	81	44.8	50.2	43.1	46.0	0	1	35	12	100	98	75	91	32	11-Apr
PIKE	63	111	60	78	42.4	48.5	38.5	43.1	0	0	80	27	100	99	84	94	27	13-Apr
MEAN	84	116	85.4	94	44.0	46.7	43.5	44.6	22.4	5	42	24	100	98	83	94	32	

CV = 10.3%

LSD(0.05) = 10.6 BU/A

\* LOCATION: Christian County

The College of Agriculture is an Equal Opportunity Organization.

Issued 8-95—6.3M