



Progress Report 290

*1985
Kentucky
Small Grain
Variety Trials*

UNIVERSITY OF KENTUCKY
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1985 Kentucky Small Grain Variety Trials

D. A. Van Sanford, C. R. Tutt,
C. S. Swanson, and M. M. Mattingly

In 1985, Kentucky farmers harvested 11.2 million bushels of soft red winter wheat produced on 310,000 acres. The average yield of 36 bu/a was down from the 1984 average of 38 bu/a. Barley production was down 9% from 1984 levels with a yield average of 39 bu/a.

Table 1.—Small Grain Harvested Acreage and Yields in Kentucky, 1983-1985.*

Crop	1985		1984		1983	
	Harvest 1000 A	Yield Bu/A	Harvest 1000 A	Yield Bu/A	Harvest 1000 A	Yield Bu/A
Wheat	310	36	500	38	580	35
Barley	26	39	30	40	25	38
Oats	9	42	6	44	6	42
Rye	2	28	3	30	3	29

*July 1, 1985, Kentucky Crop and Livestock Reporting Service

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.

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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

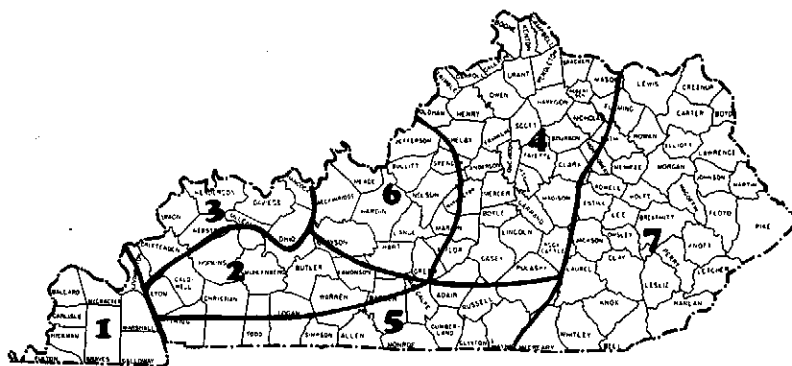


Figure 1.—Agro-climatic regions of Kentucky small grain variety trials.

Region	1985 Location	Cooperator	Crop Tested
1 Purchase	Hickman	Joe & Joe F. Campbell	Wheat
2 Western Coal Field	Princeton (Sandstone soil)	Research & Education Center—Princeton	Barley, Wheat
3 Ohio Valley	Calhoun	Carroll Howard & Sons	Wheat
4 Bluegrass	Lexington	Kentucky Agricultural Experiment Station	Barley, Wheat
5 Southern Tier	Russellville Princeton (Limestone soil)	Knox McIntosh Research & Education Center—Princeton	Barley, Wheat Barley, Wheat
6 North Central	Campbellsville	Nobel & Merion Howard	Wheat

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. Suggested varieties are revised each year because of the availability of new varieties, improvements in production practices, and continually changing disease and insect hazards.

EXPERIMENTAL METHODS

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

DATA COLLECTED

It is important to consider other characteristics in addition to grain yield when selecting a variety.

Grain yield of plots was taken by cutting all rows with a self-propelled combine. The weights of each plot were recorded in grams and converted to bushels per acre.

Test weight, or the weight of a bushel of grain, is a measure of the quality of the grain. The higher the test weight, the higher the quality and market value, unless the grain has been down-graded because of another quality factor.

Table 2.—Region, Location, Preceding Crop and Planting Dates of Kentucky Small Grain Trials, 1983-1985.

Region	Location	Preceding Crop	Crop	Planting Date			
				1985	1984	1983	
Purchase	Hickman	1983	Corn	Wheat	11/7	11/8	10/18
		1984	Fallow				
		1985	Fallow				
Western Coal Field	Princeton (Sandstone soil)	Fallow	Barley	10/18	11/1	10/13	
			Wheat	10/18	11/1	10/13	
Ohio Valley	Owensboro	1983	Soybeans	Wheat	11/8	11/7	10/25
		1984	Tobacco				
		1985	Soybeans				
Bluegrass	Lexington	Fallow	Barley	10/11	10/28	9/29	
			Wheat	10/19	10/28	10/15	
Southern Tier	Russellville	1983-85	Corn	Barley	10/30	11/1	10/14
			Wheat				
			Fallow				
North Central	Princeton (Limestone soil)	1983-84	Soybeans	Wheat	10/30	11/1	10/14
			Wheat				
			Fallow				
North Central	Greensburg	1983-84	Soybeans	Wheat	11/14	10/28	11/1
		1985	Soybeans				
North Central	Campbellsville	1985	Soybeans	Wheat	11/14	10/28	11/1
			Soybeans				

Lodging was recorded as the percentage of the total plants lying on the ground or leaning at a 45-degree angle from the vertical when the grain was mature. The term "maturity" as used in this report refers to the date the grain was ready to be combine harvested.

Plant height was recorded as the number of centimeters from the ground to the tip of the upright grain head, and converted to inches.

Survival was recorded as the percentage of plants estimated to have survived the winter. This is a measure of winterhardness and is an important factor to consider when selecting a variety.

Heading date is reported as the date when 50% of the heads had emerged from the plants in each plot. This is also a measure of maturity and is important when selecting a variety for use in a double-cropping system.

Disease and insect data are reported as relative amounts that occurred on the varieties at the time the readings were made. Thus, differences in varietal ratings may reflect factors such as maturity, as well as genetic differences in disease resistance.

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 and 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.

1985 TEST CONDITIONS

Wet weather in the fall of 1984 delayed planting of the 1985 crop across much of the state. Mild temperatures prevailed through December, however, so that even late planted small grains were well established as temperatures began to drop.

Extreme cold in January was accompanied by record amounts of snow over most of the state. The net result of the insulating snow cover was that very little winter kill was observed in wheat or barley.

As unusually warm, early spring hastened the growth of the 1985 crop so that heading dates were 2 ½ weeks earlier than normal. Mild seasonal temperatures prevailed during grain fill and the small grains crops were harvested approximately 2 weeks ahead of schedule.

Disease pressure was substantial in 1985. Powdery mildew and leaf rust were evident early in the spring, and significant yields losses can be attributed to the latter disease. Wheat spindle streak mosaic virus and Septoria leaf blotch were also observed at some locations. Disease ratings are described in Table 10.

1984 TEST CONDITIONS

An extremely dry summer in 1983 followed by an unusually wet October delayed seeding of small grains across the state.

Cold, wet weather prevailed in November and early season growth of wheat and barley was minimal. Sub-zero temperatures were recorded across the state in late December and early January. The absence of insulating snow cover during this period resulted in substantial winterkill of both barley and wheat. A freeze in late March also contributed to winter injury in these crops. Winterkill was so severe in barley test plots that no results are reported for 1984 (Tables 11-14A).

A late cool spring slowed growth of the wheat crop so that heading dates were later than usual. Poor spring growth and reduced stands due to winterkill created severe weed problems for many farmers.

Disease pressure was less intense in 1984 than in previous years. Powdery mildew was observed late and generally was not a problem. Septoria leaf blotch was abundant but was not believed to affect yields significantly. Leaf rust was present in most locations and where infection occurred early in the grain filling period, yields and test weights were reduced. Stem rust, caused by a different pathogen than leaf rust, was observed in significant numbers for the first time in Kentucky in 1984. Disease ratings for 2 locations are presented in Table 10.

1983 TEST CONDITIONS

Mild fall weather permitted planting of the 1982 crop to be completed on schedule.

Unusually warm temperatures prevailed through the fall and early winter. Lush growth of small grains was observed during this period and winterkill was essentially nonexistent. These mild conditions allowed for a heavy infestation of aphids, which can transmit barley yellow dwarf virus. Fungal pathogens which do not normally overwinter in Kentucky were able to survive the winter of 1982-83.

The mild winter was followed by a late cool spring with excessive precipitation. This combination of winter and spring conditions created an environment ideal for diseases of small grains.

Barley yellow dwarf virus was severe in the central and southern tier regions of the state. The severity of the disease is reflected in the low average yield of barley across the state (38 bu/a).

Wheat was affected by the yellow dwarf virus, but also had to contend with wheat spindle streak mosaic virus, powdery mildew, leaf blotch, leaf rust, glume blotch, and head scab. The highest levels of head scab observed in years were seen in 1983.

SMALL GRAIN VARIETIES FOR 1986

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.

Arthur and Abe were the most widely grown varieties for many years. With the development of higher yielding varieties adapted to Kentucky, that picture is changing.

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. Varieties now commonly grown are Barsoy and Pike.

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 1985.

Variety	Protected ³	Source	Release Date	Yield (bu/a)	Test Weight (lb/bu)	Lodging (%)	Plant Height (in.)	Survival (%)	Heading Date
HW 3021 *	No	Rohm and Haas Seeds	--	59.7	52.2	11.3	39.3	88.0	02 May
Compton	Yes	Indiana	1983	59.5	55.8	9.5	35.2	80.5	04 May
Coker 916	Yes	Rohm and Haas Seeds	1982	59.4	55.3	8.4	32.4	83.6	29 Apr
HW 3015 *	No	Rohm and Haas Seeds	--	59.3	53.9	23.4	39.7	79.1	02 May
Scotty	No	Illinois	1982	58.8	55.6	10.9	36.0	79.1	04 May
Feland	Yes	Southern States	1982	58.5	56.4	9.1	36.7	78.9	03 May
Saluda	No	Virginia	1983	58.2	54.8	22.0	33.1	76.1	04 May
Nelson	No	Arkansas	1983	57.4	56.7	3.0	38.1	76.8	30 Apr
Magnum	Yes	NAPB	1984	57.1	56.6	8.9	34.6	82.3	01 May
2550	Yes	Pioneer Hi Bred Int'l	1982	56.5	54.8	10.9	35.7	81.8	06 May
Adder	Yes	Indiana	1985	56.0	53.4	7.3	33.3	83.0	03 May
Wheeler	No	Virginia	1980	54.4	57.0	5.7	39.5	79.1	03 May
Coker 80-33	Yes	Rohm and Haas Seeds	1984	54.4	55.1	6.4	37.1	75.4	06 May
Bailey 4287	Yes	Bailey Seeds	1984	53.2	55.5	14.6	37.0	77.5	03 May
JS 222	Yes	J. M. Schultz Seed Co.	1981	52.9	56.0	7.3	39.8	80.2	04 May
Caldwell	Yes	Indiana	1980	52.7	53.9	15.0	36.5	77.7	05 May
Blazer	Yes	NAPB	1984	51.9	55.1	15.2	37.9	81.4	02 May
Adena	Yes	Ohio	1984	51.3	53.7	9.1	34.3	86.6	04 May
Coker 747	Yes	Rohm and Haas Seeds	1977	50.5	54.1	32.0	33.6	84.8	03 May
EW 30-10	Yes	Garst Seed Co.	1984	50.2	52.9	9.6	35.9	79.1	06 May
Hunter	Yes	NAPB	1982	50.1	56.8	8.0	29.0	68.4	28 Apr
Doublecrop	No	Arkansas	1975	49.7	55.9	5.7	37.6	79.1	27 Apr
McNair 1003	Yes	Rohm and Haas Seeds	1977	49.6	49.3	13.2	35.7	78.9	02 May
Beau	Yes	Indiana	1976	47.9	57.8	5.4	37.0	73.0	04 May
Fillmore	Yes	Indiana	1982	45.8	54.7	11.6	40.6	73.6	10 May
Tyler	No	Virginia	1980	45.4	51.5	14.5	40.3	83.6	05 May
Hart	No	Missouri	1976	45.2	53.1	12.1	38.6	82.0	03 May
Massey	No	Virginia	1981	44.5	53.2	19.7	37.9	76.8	02 May
Pike	Yes	Missouri	1980	43.5	52.9	18.0	36.4	75.4	04 May
Abe	Yes	Indiana	1972	42.3	55.4	13.4	36.8	62.0	03 May
Arthur	No	Indiana	1968	41.8	55.9	10.0	38.6	61.7	04 May
Arthur 71	Yes	Indiana	1971	40.0	56.6	8.9	37.6	57.8	03 May

* Hybrid Wheats

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

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

³ "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.

CV = 11%¹
LSD (.05) = 3 bu/a²

Table 4.—Wheat Performance Trials for Purchase Region, 1983-1985.

VARIETY	-- YIELD (BU/AC) --				TEST WT (LB/BU)				--- PCT LODGED ---				PLANT HEIGHT (IN)				-- PCT SURVIVAL --				HEADING DATE			
	1985	1984	1983	MEAN	1985	1984	1983	MEAN	1985	1984	1983	MEAN	1985	1984	1983	MEAN	1985	1984	1983	MEAN	1985	1984	1983	MEAN
COMPTON	54	45	.	49	57.9	55.8	.	56.8	0	0	.	0	34	34	.	34	86	38	.	62	03MAY	17MAY		10MAY
COKER 916	53	21	40	38	54.6	56.0	55.0	55.2	0	0	8	3	30	28	33	30	85	13	100	66	29APR	16MAY	08MAY	08MAY
NELSON	50	18	.	34	57.1	56.0	.	56.5	0	0	.	0	37	32	.	35	81	14	.	48	30APR	15MAY		07MAY
HUNTER	49	18	33	33	57.7	58.8	54.8	57.1	0	0	0	0	29	27	28	28	81	15	100	65	27APR	15MAY	06MAY	06MAY
HW 3021	48	.	.	48	52.4	.	.	52.4	0	.	.	0	37	.	.	37	90	.	.	90	01MAY			01MAY
ADENA	48	.	.	48	55.4	.	.	55.4	0	.	.	0	31	.	.	31	90	.	.	90	03MAY			03MAY
ADDER	47	.	.	47	54.0	.	.	54.0	0	.	.	0	32	.	.	32	88	.	.	88	03MAY			03MAY
BLAZER	47	.	.	47	57.6	.	.	57.6	0	.	.	0	37	.	.	37	89	.	.	89	01MAY			01MAY
COKER 747	46	42	38	42	57.3	58.8	54.2	56.8	0	0	0	0	31	34	34	33	91	41	100	78	03MAY	15MAY	12MAY	11MAY
2550	46	44	45	45	55.1	56.3	52.8	54.7	0	0	0	0	34	32	38	35	80	33	100	71	06MAY	16MAY	12MAY	12MAY
SCOTTY	45	28	32	35	56.1	53.6	52.5	54.1	0	0	0	0	34	32	38	35	83	28	100	70	03MAY	18MAY	13MAY	11MAY
MAGNUM	45	34	.	40	58.2	56.3	.	57.3	0	0	.	0	32	31	.	31	85	35	.	60	01MAY	16MAY		08MAY
HW 3015	45	.	.	45	54.8	.	.	54.8	0	.	.	0	39	.	.	39	88	.	.	88	02MAY			02MAY
COKER 80-33	45	.	.	45	55.1	.	.	55.1	0	.	.	0	36	.	.	36	86	.	.	86	03MAY			03MAY
FELAND	45	34	39	39	56.7	56.7	55.2	56.2	0	0	1	0	34	35	38	36	85	23	100	69	03MAY	18MAY	13MAY	12MAY
MASSEY	42	51	52	48	55.4	56.9	55.6	56.0	0	0	3	1	37	39	39	38	85	36	100	74	01MAY	18MAY	08MAY	09MAY
JS 222	41	40	39	40	54.5	54.5	55.4	54.8	0	0	3	1	36	37	39	37	81	30	100	70	04MAY	18MAY	13MAY	12MAY
EW 30-10	41	.	.	41	53.7	.	.	53.7	0	.	.	0	34	.	.	34	80	.	.	80	06MAY			06MAY
SALUDA	38	26	49	38	51.2	57.0	52.8	53.7	0	0	0	0	31	30	32	31	64	21	100	62	05MAY	18MAY	13MAY	12MAY
MCNAIR 1003	38	29	38	35	48.5	53.6	51.5	51.2	0	0	1	0	33	33	35	34	76	18	100	65	01MAY	18MAY	10MAY	10MAY
BAILEY 4287	38	.	.	38	53.8	.	.	53.8	0	.	.	0	34	.	.	34	60	.	.	60	02MAY			02MAY
HART	38	40	42	40	53.2	54.8	55.6	54.5	0	0	0	0	37	34	39	37	78	36	100	71	02MAY	15MAY	11MAY	10MAY
PIKE	35	33	48	39	53.2	57.0	55.9	55.4	0	0	3	1	35	35	38	36	80	19	100	66	03MAY	19MAY	13MAY	12MAY
CALDWELL	35	33	53	41	55.3	54.8	55.4	55.0	0	0	0	0	35	34	37	35	79	24	100	68	05MAY	18MAY	12MAY	12MAY
BEAU	34	27	34	32	56.4	58.0	56.8	57.1	0	0	0	0	34	32	34	34	64	23	100	62	04MAY	17MAY	13MAY	11MAY
WHEELER	34	41	48	41	55.8	57.2	57.4	56.8	0	0	0	0	38	37	40	38	83	30	100	71	04MAY	18MAY	13MAY	12MAY
TYLER	33	48	54	45	50.0	54.4	55.5	53.3	0	0	15	5	38	40	41	40	86	43	100	76	05MAY	18MAY	13MAY	12MAY
ARTHUR	29	31	32	31	56.6	57.2	53.6	55.8	0	0	0	0	36	35	36	35	48	28	100	58	04MAY	15MAY	12MAY	11MAY
ABE	27	50	30	36	52.3	56.5	52.9	53.9	0	0	3	1	33	40	32	35	56	49	100	68	04MAY	18MAY	13MAY	12MAY
ARTHUR 71	27	33	29	30	57.6	56.2	57.2	57.0	0	0	3	1	34	35	37	35	56	29	100	62	04MAY	15MAY	13MAY	11MAY
FILLMORE	27	38	56	40	55.0	53.0	58.1	55.4	0	0	0	0	37	38	41	39	73	30	100	68	10MAY	22MAY	18MAY	17MAY
DOUBLECROP	26	32	44	34	54.8	53.8	57.2	55.3	0	0	0	0	35	33	34	34	68	35	100	68	28APR	11MAY	06MAY	05MAY

CV (1985) = 16%
LSD (1985) = 9 bu/a

Table 5.—Wheat Performance Trials for Western Coal Field Region, 1983-1985.

VARIETY	-- YIELD (BU/AC) --				TEST WT (LB/BU)				--- PCT LODGED ---				PLANT HEIGHT (IN)				-- PCT SURVIVAL --				HEADING DATE			
	1985	1984	1983	MEAN	1985	1984	1983	MEAN	1985	1984	1983	MEAN	1985	1984	1983	MEAN	1985	1984	1983	MEAN	1985	1984	1983	MEAN
NELSON	63	31	.	47	56.5	58.0	.	57.3	0	0	.	0	39	35	.	37	93	39	.	66	27APR	17MAY		07MAY
HW 3015	63	.	.	63	51.5	.	.	51.5	8	.	.	8	39	.	.	39	88	.	.	88	29APR			29APR
BAILEY 4287	62	.	.	62	55.8	.	.	55.8	0	.	.	0	38	.	.	38	94	.	.	94	01MAY			01MAY
ADDER	61	.	.	61	53.5	.	.	53.5	0	.	.	0	33	.	.	33	94	.	.	94	01MAY			01MAY
2550	61	41	33	45	53.9	55.0	54.5	54.5	0	0	0	0	36	33	34	34	91	63	100	85	04MAY	20MAY	17MAY	14MAY
MAGNUM	59	24	.	41	56.6	58.2	.	57.4	6	0	.	3	36	30	.	33	98	59	.	78	27APR	17MAY		07MAY
FELAND	58	33	39	44	54.7	58.8	54.0	55.8	5	0	0	2	36	34	38	36	91	40	100	77	01MAY	21MAY	15MAY	13MAY
COKER 80-33	57	.	.	57	52.2	.	.	52.2	10	.	.	10	37	.	.	37	94	.	.	94	04MAY			04MAY
COMPTON	56	38	.	47	57.2	59.4	.	58.3	0	0	.	0	36	34	.	35	93	61	.	77	03MAY	21MAY		11MAY
WHEELER	56	48	40	48	54.8	58.5	54.4	55.9	5	0	0	2	39	36	40	38	91	61	100	84	30APR	20MAY	14MAY	12MAY
SALUDA	56	35	42	44	53.1	58.4	53.3	54.9	23	0	0	8	33	29	35	32	89	45	100	78	01MAY	21MAY	14MAY	12MAY
CALDWELL	55	33	35	41	53.9	55.2	51.5	53.5	0	0	0	0	36	34	36	35	90	51	100	80	02MAY	21MAY	16MAY	13MAY
SCOTTY	55	46	30	44	55.0	57.9	53.2	55.4	20	0	0	7	36	35	37	36	95	66	100	87	02MAY	21MAY	16MAY	13MAY
COKER 916	54	27	31	37	52.9	54.6	49.1	52.2	4	0	0	1	31	30	33	32	93	29	100	74	27APR	18MAY	11MAY	09MAY
DOUBLECROP	53	14	28	32	56.9	58.8	55.4	57.0	0	0	0	0	37	34	37	36	94	68	100	87	24APR	13MAY	10MAY	06MAY
FILLMORE	51	46	38	45	55.5	55.7	55.9	55.7	0	0	0	0	42	39	40	40	88	64	100	88	09MAY	25MAY	23MAY	19MAY
JS 222	51	46	40	46	55.2	56.8	55.4	55.8	8	0	0	3	39	37	39	38	90	70	100	87	30APR	20MAY	13MAY	11MAY
EW 30-10	50	.	.	50	52.8	.	.	52.8	8	.	.	8	37	.	.	37	93	.	.	93	02MAY			02MAY
ADENA	50	.	.	50	50.2	.	.	50.2	0	.	.	0	36	.	.	36	100	.	.	100	02MAY			02MAY
COKER 747	49	40	39	43	45.1	58.7	52.6	52.1	36	0	0	12	34	33	34	34	96	65	100	87	30APR	20MAY	15MAY	12MAY
HW 3021	48	.	.	48	49.4	.	.	49.4	3	.	.	3	40	.	.	40	93	.	.	93	30APR			30APR
ARTHUR	48	24	30	34	57.6	58.0	53.3	56.3	13	0	0	4	40	35	37	37	84	63	100	82	04MAY	19MAY	13MAY	12MAY
BEAU	47	24	31	34	56.9	55.2	56.6	56.2	0	0	0	0	37	33	35	35	89	65	100	85	01MAY	20MAY	15MAY	13MAY
BLAZER	46	.	.	46	53.3	.	.	53.3	0	.	.	0	38	.	.	38	96	.	.	96	29APR			29APR
ARTHUR 71	45	24	28	32	56.2	58.4	54.9	56.5	5	0	0	2	39	33	38	36	79	50	100	76	30APR	19MAY	15MAY	12MAY
ABE	43	49	30	41	54.4	57.1	54.6	55.4	23	0	0	8	37	39	34	36	81	69	100	83	30APR	21MAY	14MAY	12MAY
HUNTER	43	32	32	35	57.6	56.0	54.5	56.0	0	0	0	0	27	28	29	28	56	13	100	56	24APR	19MAY	08MAY	07MAY
HART	40	31	32	35	52.1	56.0	51.2	53.1	5	0	0	2	40	36	37	38	94	61	100	85	02MAY	20MAY	16MAY	13MAY
MCNAIR 1003	39	30	29	33	45.5	51.6	48.0	48.4	0	0	25	8	35	34	36	35	85	26	100	70	29APR	22MAY	12MAY	11MAY
PIRE	39	46	31	39	50.8	56.0	52.1	53.0	3	0	0	1	37	34	36	36	95	69	100	88	02MAY	20MAY	17MAY	13MAY
TYLER	39	45	46	43	46.6	55.4	53.7	51.9	3	0	0	1	41	37	40	39	96	70	100	89	02MAY	22MAY	16MAY	14MAY
MASSEY	34	45	39	39	48.6	58.9	53.1	53.5	35	0	9	15	36	36	37	36	86	56	100	81	28APR	21MAY	12MAY	10MAY

CV (1985) = 8%

LSD (1985) = 7 bu/a

Table 6.—Wheat Performance Trials for Ohio Valley Region, 1983-1985.

VARIETY	-- YIELD (BU/AC) --				TEST WT (LB/BU)				--- PCT LODGED ---				PLANT HEIGHT (IN)				-- PCT SURVIVAL --				HEADING DATE			
	1985	1984	1983	MEAN	1985	1984	1983	MEAN	1985	1984	1983	MEAN	1985	1984	1983	MEAN	1985	1984	1983	MEAN	1985	1984	1983	MEAN
HW 3021	63	.	.	63	53.2	.	.	53.2	15	.	.	15	38	.	.	38	74	.	.	74	05MAY			05MAY
NELSON	61	36	.	48	58.1	50.0	.	54.0	0	0	.	0	37	33	.	35	44	5	.	25	04MAY	24MAY		13MAY
COKER 916	61	45	45	50	56.6	50.1	52.2	53.0	0	40	0	13	31	37	31	33	46	5	100	51	08MAY	25MAY	13MAY	14MAY
BLAZER	55	.	.	55	57.5	.	.	57.5	0	.	.	0	37	.	.	37	38	.	.	38	06MAY			06MAY
CALDWELL	54	45	31	43	57.2	49.5	54.2	53.6	0	43	0	14	36	36	32	34	36	14	100	50	09MAY	26MAY	19MAY	18MAY
MAGNUM	54	57	.	56	57.5	52.5	.	55.0	8	40	.	24	34	35	.	34	38	24	.	31	07MAY	25MAY		15MAY
SALUDA	53	47	40	47	53.5	49.4	54.2	52.4	20	21	15	19	32	31	31	31	41	12	100	51	07MAY	26MAY	19MAY	17MAY
DOUBLECROP	53	56	33	47	57.5	53.9	53.6	55.0	14	25	5	15	37	37	34	36	45	19	100	55	03MAY	21MAY	12MAY	12MAY
2550	53	58	30	47	51.9	49.1	47.6	49.5	5	29	0	11	35	35	34	35	46	18	100	55	10MAY	25MAY	18MAY	18MAY
HW 3015	51	.	.	51	56.2	.	.	56.2	3	.	.	3	39	.	.	39	36	.	.	36	08MAY			08MAY
ADDER	51	.	.	51	54.4	.	.	54.4	14	.	.	14	32	.	.	32	38	.	.	38	09MAY			09MAY
SCOTTY	51	49	28	42	51.3	49.5	52.5	51.1	6	63	0	23	33	36	34	34	34	19	100	51	09MAY	28MAY	18MAY	19MAY
HUNTER	51	20	45	39	53.1	50.2	55.0	52.8	0	3	8	3	29	30	29	29	28	1	100	43	05MAY	25MAY	10MAY	13MAY
COMPTON	51	58	.	54	56.8	54.2	.	55.5	30	36	.	33	34	34	.	34	39	24	.	31	10MAY	26MAY		17MAY
MCNAIR 1003	50	45	36	44	50.7	46.7	44.7	47.4	18	8	0	8	37	36	31	34	45	11	100	52	07MAY	27MAY	16MAY	17MAY
WHEELER	50	54	37	47	58.0	49.9	56.5	54.8	11	18	0	10	38	37	37	37	43	19	100	54	08MAY	27MAY	19MAY	18MAY
BAILEY 4287	48	.	.	48	56.4	.	.	56.4	18	.	.	18	34	.	.	34	43	.	.	43	08MAY			08MAY
FELAND	48	31	47	42	53.7	49.2	52.5	51.8	3	3	0	2	37	35	36	36	31	4	100	45	08MAY	27MAY	18MAY	18MAY
COKER 747	48	50	41	46	55.7	49.9	54.4	53.3	29	64	2	32	34	34	31	33	55	16	100	57	08MAY	25MAY	19MAY	18MAY
JS 222	47	49	29	42	56.7	50.4	51.4	52.8	8	9	0	5	39	38	35	37	39	15	100	51	08MAY	28MAY	19MAY	19MAY
BEAU	46	55	22	41	58.6	54.5	51.0	54.7	8	25	0	11	36	32	32	33	26	21	100	49	09MAY	26MAY	18MAY	18MAY
HART	42	48	34	41	53.2	50.9	49.4	51.2	5	9	3	5	37	35	37	36	49	18	100	55	08MAY	27MAY	16MAY	17MAY
ADENA	41	.	.	41	54.1	.	.	54.1	6	.	.	6	35	.	.	35	55	.	.	55	10MAY			10MAY
EW 30-10	40	.	.	40	53.7	.	.	53.7	0	.	.	0	35	.	.	35	33	.	.	33	12MAY			12MAY
COKER 80-33	39	.	.	39	54.4	.	.	54.4	13	.	.	13	36	.	.	36	28	.	.	28	12MAY			12MAY
PIKE	36	49	35	40	52.5	50.3	49.7	50.8	5	53	3	20	33	36	34	34	28	16	100	48	10MAY	27MAY	20MAY	19MAY
TYLER	33	41	33	36	50.1	46.1	45.8	47.3	13	40	5	19	38	37	36	37	43	23	100	55	12MAY	28MAY	19MAY	20MAY
MASSEY	33	38	44	38	53.2	49.0	48.6	50.3	13	48	4	21	38	37	37	37	25	13	100	46	08MAY	28MAY	15MAY	17MAY
FILLMORE	31	40	43	38	53.2	49.8	54.6	52.5	4	55	0	20	38	41	40	40	26	23	100	50	15MAY	30MAY	24MAY	23MAY
ABE	28	61	26	39	52.3	50.6	48.0	50.3	5	45	0	17	36	37	33	35	10	29	100	46	10MAY	25MAY	17MAY	17MAY
ARTHUR 71	21	50	30	34	58.2	53.2	52.8	54.7	0	36	0	12	35	37	33	35	9	16	100	42	09MAY	24MAY	19MAY	18MAY
ARTHUR	16	55	28	33	48.2	54.4	50.2	50.9	0	34	0	11	35	37	35	36	4	19	100	41	09MAY	24MAY	17MAY	17MAY

CV (1985) = 15%
LSD (1985) = 6 bu/a

Table 7.—Wheat Performance Trials for Bluegrass Region, 1983-1985.

VARIETY	-- YIELD (BU/AC) --				TEST WT (LB/BU)				--- PCT LODGED ---				PLANT HEIGHT (IN)				-- PCT SURVIVAL --				HEADING DATE			
	1985	1984	1983	MEAN	1985	1984	1983	MEAN	1985	1984	1983	MEAN	1985	1984	1983	MEAN	1985	1984	1983	MEAN	1985	1984	1983	MEAN
SALUDA	91	75	71	79	60.0	56.9	56.9	57.9	50	0	88	46	36	36	38	37	99	79	100	92	06MAY	24MAY	19MAY	17MAY
HW 3021	85	.	.	85	53.9	.	.	53.9	18	.	.	18	40	.	.	40	99	.	.	99	04MAY			04MAY
SCOTTY	84	76	70	77	59.3	56.2	53.9	56.5	11	0	90	34	40	40	40	40	99	90	100	96	06MAY	25MAY	20MAY	18MAY
COMPTON	84	76	.	80	54.7	58.2	.	56.4	5	0	.	3	38	40	.	39	99	93	.	96	06MAY	25MAY		15MAY
HW 3015	84	.	.	84	57.2	.	.	57.2	28	.	.	28	40	.	.	40	94	.	.	94	04MAY			04MAY
COKER 916	83	49	54	62	60.2	53.3	53.6	55.7	34	0	99	44	35	37	36	36	99	45	100	81	02MAY	25MAY	14MAY	14MAY
FELAND	83	64	70	72	60.6	55.5	58.1	58.1	44	0	88	44	40	39	42	40	100	54	100	85	05MAY	27MAY	19MAY	17MAY
CALDWELL	81	69	62	71	59.7	53.7	52.0	55.1	28	0	79	35	40	38	40	39	99	79	100	93	06MAY	24MAY	18MAY	16MAY
WHEELER	81	65	58	68	61.5	57.2	57.1	58.6	10	0	63	24	41	43	40	41	98	66	100	88	06MAY	27MAY	21MAY	18MAY
NA SW78-111	80	.	.	80	61.7	.	.	61.7	30	.	.	30	40	.	.	40	93	.	.	93	04MAY			04MAY
MAGNUM	80	69	.	74	57.6	53.4	.	55.5	14	0	.	7	37	38	.	37	99	90	.	94	04MAY	24MAY		14MAY
ADDER	79	.	.	79	59.0	.	.	59.0	19	.	.	19	38	.	.	38	98	.	.	98	06MAY			06MAY
JS 222	78	63	63	68	60.5	52.5	56.6	56.5	13	0	66	26	43	42	42	42	99	68	100	89	06MAY	26MAY	21MAY	18MAY
2550	78	74	69	74	61.5	54.7	53.1	56.4	8	0	79	29	37	39	40	39	99	83	100	94	07MAY	24MAY	21MAY	18MAY
FILLMORE	78	65	62	68	58.2	53.7	55.9	55.9	8	0	73	27	43	43	48	45	99	83	100	93	11MAY	27MAY	25MAY	21MAY
BAILEY 4287	76	.	.	76	60.0	.	.	60.0	8	.	.	8	40	.	.	40	99	.	.	99	05MAY			05MAY
MCNAIR 1003	75	52	48	58	55.8	46.2	50.9	51.0	56	0	91	49	36	40	37	38	99	43	100	80	04MAY	27MAY	16MAY	16MAY
DOUBLECROP	75	64	48	62	61.7	61.6	58.2	60.5	15	0	73	29	40	40	41	41	99	91	100	97	01MAY	19MAY	14MAY	11MAY
ARTHUR	74	66	57	66	61.7	58.5	59.1	59.8	8	0	49	19	44	43	41	43	99	78	100	92	05MAY	24MAY	20MAY	16MAY
ABE	73	72	54	66	61.5	58.3	57.7	59.2	15	5	69	30	40	42	40	41	96	91	100	96	05MAY	24MAY	20MAY	17MAY
NELSON	72	60	.	66	58.9	54.2	.	56.5	8	0	.	4	41	41	.	41	98	58	.	78	03MAY	25MAY		13MAY
TYLER	71	66	67	68	54.5	52.8	54.2	53.8	13	0	81	31	42	43	42	42	99	88	100	95	07MAY	26MAY	21MAY	18MAY
EW 30-10	71	.	.	71	53.0	.	.	53.0	13	.	.	13	37	.	.	37	100	.	.	100	07MAY			07MAY
BEAU	70	67	70	69	61.5	59.7	59.6	60.3	6	0	8	5	40	41	40	40	96	79	100	92	06MAY	26MAY	20MAY	18MAY
PIKE	69	70	57	65	57.9	53.7	54.3	55.3	26	0	73	33	41	41	38	40	99	86	100	95	06MAY	25MAY	21MAY	18MAY
BLAZER	68	.	.	68	59.7	.	.	59.7	34	.	.	34	38	.	.	38	94	.	.	94	04MAY			04MAY
ADENA	68	.	.	68	59.9	.	.	59.9	8	.	.	8	36	.	.	36	100	.	.	100	06MAY			06MAY
COKER 747	66	71	55	64	58.2	58.4	53.7	56.8	41	0	93	45	36	39	37	37	98	86	100	95	06MAY	24MAY	21MAY	17MAY
ARTHUR 71	66	64	59	63	61.8	57.4	58.2	59.1	18	18	50	28	43	43	42	43	96	78	100	91	05MAY	25MAY	20MAY	17MAY
COKER 80-33	65	.	.	65	60.3	.	.	60.3	5	.	.	5	37	.	.	37	90	.	.	90	08MAY			08MAY
HUNTER	63	36	61	54	60.7	49.2	55.9	55.3	35	0	88	41	30	35	33	33	99	31	100	77	01MAY	27MAY	17MAY	15MAY
MASSEY	63	61	61	62	51.8	53.6	54.2	53.2	33	0	94	42	40	43	38	40	99	68	100	89	04MAY	26MAY	15MAY	16MAY
HART	59	60	60	60	58.0	54.7	55.5	56.1	8	0	18	8	39	42	41	41	100	70	100	90	05MAY	26MAY	21MAY	17MAY

CV (1985) = 7%

LSD (1985) = 8 bu/a

Table 8.—Wheat Performance Trials for Southern Tier Region, 1983-1985.¹

VARIETY	-- YIELD (BU/AC) --				TEST WT (LB/BU)				--- PCT LODGED ---				PLANT HEIGHT (IN)				-- PCT SURVIVAL --				HEADING DATE			
	1985	1984	1983	MEAN	1985	1984	1983	MEAN	1985	1984	1983	MEAN	1985	1984	1983	MEAN	1985	1984	1983	MEAN	1985	1984	1983	MEAN
HV 3015	76	.	.	76	57.8	.	.	57.8	16	.	.	16	41	.	.	41	94	.	.	94	01MAY			01MAY
FELAND	73	44	32	50	59.4	54.7	51.8	55.3	9	0	46	18	37	35	36	36	90	13	100	68	03MAY	24MAY	16MAY	15MAY
SCOTTY	67	57	21	48	58.9	55.0	50.0	54.6	35	0	29	21	36	38	36	36	91	50	100	80	02MAY	22MAY	15MAY	14MAY
WHEELER	65	52	31	50	58.7	54.1	49.8	54.2	6	0	44	17	39	41	35	38	91	26	100	73	02MAY	23MAY	17MAY	14MAY
SALUDA	64	45	32	47	60.7	53.3	51.4	55.1	39	0	41	27	34	33	31	33	89	19	100	69	04MAY	22MAY	15MAY	14MAY
COKER 80-33	64	.	.	64	58.5	.	.	58.5	6	.	.	6	39	.	.	39	88	.	.	88	05MAY			05MAY
NELSON	63	44	.	54	59.6	55.7	.	57.6	0	0	.	0	36	37	.	37	79	20	.	49	29APR	20MAY		09MAY
HUNTER	63	50	18	44	59.0	52.2	51.6	54.3	9	0	38	15	30	35	28	31	70	29	100	66	28APR	21MAY	10MAY	10MAY
COMPTON	63	60	.	62	58.9	57.2	.	58.0	20	0	.	10	35	39	.	37	96	60	.	78	03MAY	20MAY		11MAY
ADDER	63	.	.	63	52.2	.	.	52.2	14	.	.	14	33	.	.	33	99	.	.	99	02MAY			02MAY
COKER 916	63	47	25	45	57.5	55.6	50.8	54.6	11	0	64	25	34	31	31	32	95	26	100	74	30APR	20MAY	11MAY	11MAY
MAGNUM	62	62	.	62	58.0	56.6	.	57.3	21	0	.	11	35	36	.	35	98	46	.	72	29APR	20MAY		09MAY
BAILEY 4287	61	.	.	61	57.8	.	.	57.8	31	.	.	31	37	.	.	37	95	.	.	95	01MAY			01MAY
2550	59	55	28	47	58.5	52.0	48.4	53.0	23	0	20	14	36	36	33	35	94	39	100	78	04MAY	20MAY	15MAY	13MAY
JS 222	59	51	30	47	59.2	54.6	52.3	55.4	3	0	31	11	40	40	35	38	90	43	100	78	02MAY	21MAY	17MAY	14MAY
BLAZER	59	.	.	59	56.3	.	.	56.3	33	.	.	33	39	.	.	39	93	.	.	93	01MAY			01MAY
HV 3021	58	.	.	58	52.9	.	.	52.9	13	.	.	13	39	.	.	39	94	.	.	94	02MAY			02MAY
DOUBLECROP	58	42	22	41	60.2	56.6	54.2	57.0	6	0	15	7	37	38	34	36	93	41	100	78	26APR	14MAY	09MAY	07MAY
FILLMORE	56	60	41	52	55.3	54.5	53.3	54.4	10	0	15	8	40	42	40	41	85	36	100	74	09MAY	26MAY	21MAY	19MAY
EW 30-10	55	.	.	55	53.8	.	.	53.8	5	.	.	5	36	.	.	36	93	.	.	93	05MAY			05MAY
HART	55	55	32	47	57.1	53.1	50.8	53.7	6	0	11	6	39	39	36	38	94	36	100	77	02MAY	20MAY	15MAY	13MAY
ADENA	52	.	.	52	55.3	.	.	55.3	20	.	.	20	35	.	.	35	93	.	.	93	03MAY			03MAY
PIKE	52	57	20	43	55.9	54.1	51.6	53.9	19	0	68	29	36	37	32	35	88	38	100	75	01MAY	22MAY	16MAY	13MAY
COKER 747	52	60	25	46	55.5	55.4	52.2	54.4	66	0	69	45	34	37	32	34	96	53	100	83	02MAY	20MAY	15MAY	13MAY
ARTHUR	51	53	24	43	59.1	55.8	50.0	55.0	28	0	0	9	38	41	35	38	80	48	100	76	01MAY	19MAY	15MAY	12MAY
ARTHUR 71	50	58	18	42	58.8	57.4	50.2	55.5	25	0	43	23	38	41	33	37	56	53	100	70	02MAY	19MAY	16MAY	13MAY
CALDWELL	49	59	38	49	54.8	53.5	52.1	53.5	34	0	3	12	37	36	35	36	91	36	100	76	04MAY	22MAY	16MAY	14MAY
MASSEY	49	48	24	40	56.1	53.2	51.6	53.6	34	0	84	39	39	39	35	38	89	48	100	79	02MAY	22MAY	10MAY	11MAY
BEAU	47	54	24	42	58.0	57.1	50.6	55.2	14	0	3	5	37	37	32	35	93	40	100	78	03MAY	20MAY	15MAY	13MAY
MCAIR 1003	47	56	17	40	52.8	50.0	50.4	51.1	5	0	51	19	36	38	30	35	85	19	100	68	02MAY	23MAY	11MAY	12MAY
TYLER	45	52	35	44	54.0	52.1	50.6	52.2	14	0	25	13	41	41	40	41	93	50	100	81	05MAY	21MAY	16MAY	14MAY
ABE	44	56	22	41	57.2	56.9	53.4	55.8	14	0	3	5	38	39	31	36	70	58	100	76	02MAY	19MAY	16MAY	12MAY

CV (1985) = 13%

LSD (1985) = 10 bu/a

¹ Location was Princeton, limestone soil.

Table 8A.—Wheat Performance Trials for Southern Tier Region, 1983-1985.¹

VARIETY	-- YIELD (BU/AC) --				TEST WT (LB/BU)				--- PCT LODGED ---				PLANT HEIGHT (IN)				-- PCT SURVIVAL --				HEADING DATE			
	1985	1984	1983	MEAN	1985	1984	1983	MEAN	1985	1984	1983	MEAN	1985	1984	1983	MEAN	1985	1984	1983	MEAN	1985	1984	1983	MEAN
COKER 80-33	84	.	.	84	57.0	.	.	57.0	5	.	.	5	38	.	.	38	100	.	.	100	03MAY			03MAY
HW 3021	80	.	.	80	54.4	.	.	54.4	4	.	.	4	40	.	.	40	100	.	.	100	29APR			29APR
SALUDA	75	51	45	57	56.4	58.3	54.8	56.5	4	0	0	1	33	34	32	33	100	39	100	80	01MAY	19MAY	13MAY	11MAY
SCOTTY	75	56	34	55	57.2	57.4	54.9	56.5	0	0	0	0	36	36	34	35	100	64	100	88	30APR	17MAY	14MAY	11MAY
2550	74	56	40	57	55.8	58.7	53.4	56.0	10	0	0	3	37	34	33	35	100	69	100	90	03MAY	15MAY	15MAY	11MAY
COMPTON	73	53	.	63	56.0	60.6	.	58.3	6	0	.	3	34	37	.	35	99	70	.	84	01MAY	16MAY		08MAY
COKER 916	72	46	38	52	56.1	58.7	53.7	56.2	3	0	0	1	31	33	30	31	100	30	100	77	25APR	15MAY	09MAY	07MAY
ADENA	72	.	.	72	55.9	.	.	55.9	0	.	.	0	34	.	.	34	100	.	.	100	30APR			30APR
TYLER	70	71	55	65	56.3	58.3	53.9	56.2	6	0	0	2	41	41	40	40	100	85	100	95	02MAY	17MAY	13MAY	11MAY
NELSON	70	35	.	52	57.2	57.6	.	57.4	0	0	.	0	38	36	.	37	100	19	.	59	28APR	16MAY		06MAY
MAGNUM	70	54	.	62	57.0	59.9	.	58.4	3	0	.	1	34	33	.	33	100	79	.	89	01MAY	15MAY		08MAY
EW 30-10	69	.	.	69	56.5	.	.	56.5	0	.	.	0	37	.	.	37	99	.	.	99	02MAY			02MAY
MCNAIR 1003	69	51	37	52	51.0	56.7	51.5	53.1	1	0	0	0	35	37	33	35	100	29	100	76	28APR	19MAY	10MAY	09MAY
CALDWELL	68	49	39	52	55.9	56.7	54.4	55.7	0	0	0	0	37	36	34	35	100	49	100	83	02MAY	16MAY	14MAY	11MAY
HW 3015	68	.	.	68	53.3	.	.	53.3	54	.	.	54	40	.	.	40	100	.	.	100	01MAY			01MAY
COKER 747	68	56	42	55	57.8	61.7	57.6	59.0	19	0	0	6	32	36	31	33	100	65	100	88	30APR	16MAY	13MAY	10MAY
WHEELER	68	53	43	55	57.1	57.9	56.1	57.0	3	0	0	1	41	39	33	37	100	43	100	81	01MAY	18MAY	13MAY	11MAY
BLAZER	67	.	.	67	55.4	.	.	55.4	3	.	.	3	38	.	.	38	100	.	.	100	03MAY			03MAY
FELAND	67	50	41	53	57.5	58.9	57.5	58.0	0	0	0	0	36	37	36	36	98	35	100	78	30APR	18MAY	13MAY	11MAY
HART	66	63	35	55	54.8	59.1	53.8	55.9	3	0	0	1	40	36	35	37	100	79	100	93	30APR	15MAY	13MAY	09MAY
BEAU	66	50	32	49	58.3	60.6	53.2	57.4	5	0	0	2	37	36	33	35	95	63	100	86	30APR	16MAY	13MAY	10MAY
ADDER	65	.	.	65	54.4	.	.	54.4	3	.	.	3	34	.	.	34	100	.	.	100	30APR			30APR
MASSEY	64	62	48	58	55.6	58.7	56.7	57.0	5	0	0	2	36	39	35	37	100	60	100	87	28APR	17MAY	09MAY	08MAY
JS 222	64	55	40	53	57.3	58.9	55.2	57.1	13	0	0	4	40	38	35	38	100	56	100	85	02MAY	17MAY	13MAY	11MAY
BAILEY 4287	62	.	.	62	55.9	.	.	55.9	0	.	.	0	37	.	.	37	100	.	.	100	29APR			29APR
ABE	61	50	33	48	57.1	59.2	56.2	57.5	15	0	0	5	36	35	32	34	93	53	100	82	29APR	16MAY	12MAY	09MAY
PIKE	60	60	38	52	54.2	58.2	53.2	55.2	3	0	0	1	38	37	33	36	100	64	100	88	30APR	17MAY	15MAY	11MAY
ARTHUR 71	58	54	35	49	59.3	60.7	57.4	59.1	6	0	0	2	38	38	34	36	94	70	100	88	29APR	16MAY	13MAY	10MAY
HUNTER	58	47	40	48	58.0	57.7	58.3	58.0	0	0	0	0	28	34	27	30	98	34	100	77	23APR	17MAY	08MAY	06MAY
ARTHUR	56	49	31	45	58.7	59.2	56.4	58.1	10	0	0	3	40	37	33	36	94	58	100	84	30APR	15MAY	12MAY	09MAY
DOUBLECROP	55	42	34	44	56.6	59.8	56.6	57.7	0	0	0	0	37	33	32	34	100	65	100	88	23APR	12MAY	08MAY	04MAY
FILLMORE	52	54	45	50	57.8	59.3	57.2	58.1	0	0	0	0	43	40	37	40	98	60	100	86	06MAY	20MAY	19MAY	15MAY

CV (1985) = 11%

LSD (1985) = 11 bu/a

¹ Location was Russellville.

Table 9.—Wheat Performance Trials for North Central Region, 1983-1985.

VARIETY	-- YIELD (BU/AC) --				TEST WT (LB/BU)				--- PCT LODGED ---				PLANT HEIGHT (IN)				-- PCT SURVIVAL --			
	1985	1984	1983	MEAN	1985	1984	1983	MEAN	1985	1984	1983	MEAN	1985	1984	1983	MEAN	1985	1984	1983	MEAN
COMPTON	35	67	.	51	49.1	60.5	.	54.8	5	0	.	3	36	39	.	38	53	75	.	64
HW 3021	35	.	.	35	49.1	.	.	49.1	28	.	.	28	41	.	.	41	68	.	.	69
FELAND	35	47	57	46	52.2	56.3	56.2	54.9	4	0	0	1	37	38	35	37	58	18	100	58
SCOTTY	35	62	45	47	51.3	56.2	55.1	54.2	4	0	30	11	37	38	33	36	54	65	100	73
NA SW78-111	31	.	.	31	48.4	.	.	48.4	35	.	.	35	40	.	.	40	80	.	.	80
COKER 916	31	62	48	47	49.0	58.3	52.7	53.3	8	0	5	4	35	35	31	34	69	26	100	65
MAGNUM	30	66	.	48	51.1	58.7	.	54.9	11	0	.	6	37	36	.	36	60	73	.	66
JS 222	30	59	47	45	48.6	58.6	56.6	54.6	9	0	5	5	43	42	35	40	63	39	100	67
SALUDA	30	54	53	46	48.4	56.7	56.2	53.8	19	0	0	6	33	34	30	32	53	25	100	59
MCNAIR 1003	29	52	42	41	40.8	54.0	52.0	48.9	13	0	4	5	38	39	32	36	63	25	100	63
DOUBLECROP	29	57	43	43	43.6	62.4	56.3	54.3	5	0	40	15	41	38	34	38	56	74	100	77
HW 3015	28	.	.	28	46.2	.	.	46.2	56	.	.	56	40	.	.	40	55	.	.	55
ADENA	28	.	.	28	45.2	.	.	45.2	30	.	.	30	34	.	.	34	69	.	.	69
ADDER	27	.	.	27	46.6	.	.	46.6	3	.	.	3	32	.	.	32	66	.	.	66
MASSEY	27	68	59	51	51.7	57.6	57.1	55.5	19	0	1	7	40	40	35	39	54	39	100	64
COKER 80-33	27	.	.	27	48.2	.	.	48.2	6	.	.	6	37	.	.	37	43	.	.	43
TYLER	27	76	57	53	49.2	54.4	53.8	52.5	54	0	14	23	41	42	37	40	69	84	100	84
WHEELER	26	52	52	43	53.4	58.8	57.2	56.5	5	0	4	3	41	44	36	40	49	26	100	58
EW 30-10	26	.	.	26	46.8	.	.	46.8	43	.	.	43	35	.	.	35	58	.	.	58
BEAU	26	63	42	43	54.8	59.4	56.7	57.0	5	0	3	3	38	41	34	38	49	59	100	69
FILLMORE	25	59	52	45	47.6	54.1	58.2	53.3	60	0	30	30	41	44	38	41	49	63	100	70
CALDWELL	25	56	42	41	40.3	56.0	52.6	49.6	44	0	8	17	36	37	32	35	49	39	100	63
BAILEY 4287	25	.	.	25	48.8	.	.	48.8	46	.	.	46	38	.	.	38	53	.	.	53
COKER 747	25	71	48	48	48.8	60.1	56.1	55.0	33	0	0	11	34	38	30	34	58	65	100	74
2550	25	65	55	48	46.6	59.9	53.6	53.4	31	0	0	10	35	37	33	35	63	53	100	72
HUNTER	24	51	54	43	51.8	59.2	59.3	56.8	13	0	3	5	31	36	30	32	48	19	100	55
NELSON	22	42	.	32	49.6	57.2	.	53.4	18	0	.	7	39	38	.	39	44	16	.	30
BLAZER	22	.	.	22	46.0	.	.	46.0	38	.	.	38	39	.	.	39	61	.	.	61
ABE	20	68	40	43	52.8	60.2	56.6	56.5	23	0	9	10	37	41	33	37	28	63	100	63
ARTHUR	18	60	37	39	49.6	60.4	56.1	55.4	13	0	5	6	39	41	33	38	24	53	100	59
HART	16	70	43	43	43.4	59.9	55.4	52.9	59	0	4	21	39	42	36	39	60	68	100	76
PIKE	15	60	45	40	46.0	54.4	53.8	51.4	71	0	1	24	37	39	32	36	39	54	100	64
ARTHUR 71	13	56	38	35	44.0	60.8	55.6	53.5	9	0	8	5	37	42	34	38	14	50	100	55

CV (1985) = 11%

LSD (1985) = 5 bu/a

Table 10.—Disease Ratings of Wheat Varieties in 1985¹

Variety	Leaf Rust				Powdery Mildew ⁶		WSSM ⁷
	Pustule ² Coverage (%)	Flag Leaf Vigor ³	Flecking ⁴	Head Scab ⁵	(C)	(R)	
Abe	18.5	5.0	0.0	6.3	3.8	3.0	2.3
Arthur	20.0	3.8	0.3	3.0	3.0	3.3	2.3
Arthur 71	21.5	4.3	0.0	4.0	3.8	2.8	3.0
Doublecrop	6.5	4.3	0.5	6.8	3.8	3.0	2.8
2550	2.0	2.3	2.8	2.7	3.0	2.5	2.5
Caldwell	0.5	2.0	0.8	4.3	2.0	2.0	2.5
Scotty	0.3	2.3	1.5	5.3	1.5	1.3	2.5
Wheeler	27.0	3.8	0.8	6.7	3.8	2.0	2.8
Tyler	—	5.0	0.0	2.8	1.3	1.0	1.0
McNair 1003	15.0	5.0	0.0	7.5	1.5	1.0	5.0
Hart	—	5.0	0.0	5.3	4.8	4.8	1.3
Feland	0.0	2.0	2.8	16.5	1.0	1.3	2.3
Coker 916	0.3	2.8	0.8	8.0	2.5	1.5	1.8
Beau	13.0	2.8	1.0	2.5	1.8	2.0	2.5
Coker 747	21.3	4.3	1.3	10.8	4.0	2.0	2.3
Fillmore	0.3	2.0	2.0	1.3	3.5	2.5	2.8
Nelson	0.5	3.3	2.3	6.8	3.3	2.8	2.0
Adena	25.0	4.8	0.0	2.5	4.3	3.8	1.0
Pike	18.5	5.0	0.0	8.3	4.5	4.3	3.0
Massey	—	5.0	0.0	6.5	2.0	1.3	1.0
Hunter	3.3	3.0	1.3	10.0	1.0	2.0	3.5
Blazer	12.5	4.8	0.5	5.8	3.0	2.0	1.3
Coker 80-33	4.3	2.0	1.5	1.8	2.0	2.0	1.5
Saluda	5.5	3.0	2.5	14.5	1.5	1.3	3.5
JS 222	26.3	4.3	0.0	8.5	3.3	1.8	3.0
Compton	0.0	1.5	1.0	4.0	2.5	2.0	2.3
Adder	1.0	2.0	2.8	5.8	3.3	1.8	1.3
Magnum	3.8	3.0	2.3	3.5	2.8	1.5	2.3
HW 3015	13.0	3.3	1.3	9.5	2.8	4.0	1.0
HW 3021	30.0	4.8	0.3	4.5	1.3	1.0	3.8
EW 30-10	12.5	2.8	2.0	1.3	2.8	1.8	2.3
Bailey 4287	4.0	2.8	2.5	2.0	1.3	2.3	2.8

¹ Leaf rust, head scab and WSSM ratings made at Princeton, powdery mildew ratings made at Campbellsville (C) and Russellville (R).

² % of flag leaf infected with rust pustules. — = Leaf tissue too dry to evaluate.

³ 1 = Healthy green flag leaf, 5 = Dead flag leaf.

⁴ 0 = No flecking observed on flag leaf, 3 = Flecking observed on entire leaf.

⁵ Number of diseased head/20 ft of row.

⁶ 0 = Abscence of disease, 5 = Severe disease.

⁷ Wheat spindle streak mosaic. 0 = Abscence of disease, 5 = Severe disease.

Table 11.—Characteristics of Barley Varieties Tested in 1985.

Variety	Protected	Source	Release Date	Yield (bu/a)	Test Weight (lb/bu)	Lodging (%)	Plant Height (in.)	Survival (%)	Heading Date
Volbar	No	Tennessee	1974	87.7	42.4	59.7	41.9	77.2	29 Apr
Halton	No	Canada	-	80.5	43.7	42.5	39.2	87.2	01 May
Surry	No	Virginia	1976	71.5	41.6	59.3	37.8	87.5	25 Apr
Pike	Yes	Indiana	1975	69.4	44.2	70.0	33.5	93.1	23 Apr
Barsoy	No	Kentucky	1966	66.8	44.7	59.7	34.9	89.1	20 Apr

CV = 10%

LSD = 6 bu/a

Table 12.—Barley Performance Trials for Western Coal Field Region, 1982-1983, 1985.

VARIETY	-- YIELD (BU/AC) --				TEST WT (LB/BU)				--- PCT LODGED ---				PLANT HEIGHT (IN)				-- PCT SURVIVAL --				HEADING DATE			
	1985	1983	1982	MEAN	1985	1983	1982	MEAN	1985	1983	1982	MEAN	1985	1983	1982	MEAN	1985	1983	1982	MEAN	1985	1983	1982	MEAN
VOLBAR	75	84	94	84	40.4	38.4	43.7	40.8	58	0	0	10	42	39	45	42	85	100	78	88	29APR	07MAY	28APR	01MAY
HALTON	71	.	.	71	42.7	.	.	42.7	0	.	.	0	40	.	.	40	89	.	.	89	30APR			30APR
SURRY	67	56	77	67	39.2	39.5	42.6	40.4	35	0	0	12	40	32	38	37	91	100	94	95	23APR	01MAY	26APR	27APR
PIKE	54	46	84	61	40.2	40.0	45.8	42.0	79	0	11	30	35	27	36	32	90	100	100	97	22APR	05MAY	24APR	27APR
BARSOY	51	59	72	61	40.6	43.5	46.4	43.5	55	0	5	20	36	32	34	34	94	100	86	93	18APR	30APR	23APR	24APR

CV (1985) = 12%

LSD (1985) = 11 bu/a

Table 13.—Barley Performance Trials for Bluegrass Region, 1982-1983, 1985.

VARIETY	-- YIELD (BU/AC) --				TEST WT (LB/BU)				--- PCT LODGED ---				PLANT HEIGHT (IN)				-- PCT SURVIVAL --				HEADING DATE			
	1985	1983	1982	MEAN	1985	1983	1982	MEAN	1985	1983	1982	MEAN	1985	1983	1982	MEAN	1985	1983	1982	MEAN	1985	1983	1982	MEAN
VOLBAR	99	70	51	74	40.0	44.8	49.4	44.7	58	35	0	31	40	41	33	38	89	100	61	83	30APR	11MAY	07MAY	06MAY
PIKE	92	59	65	72	45.6	45.1	49.6	46.8	100	10	50	53	33	30	33	32	99	100	88	95	25APR	06MAY	02MAY	01MAY
BARSOY	96	50	63	66	47.0	46.1	50.5	47.9	99	7	15	39	34	31	32	32	96	100	81	93	23APR	03MAY	30APR	29APR
HALTON	82	.	.	82	44.0	.	.	44.0	74	.	.	74	37	.	.	37	98	.	.	98	30APR			30APR
SURRY	75	50	51	59	41.6	41.9	48.4	44.0	95	5	1	34	35	33	32	33	90	100	79	90	27APR	08MAY	05MAY	04MAY

CV (1985) = 9%

LSD (1985) = 11 bu/a

Table 14.—Barley Performance for Southern Tier Region, 1982-1983, 1985.¹

VARIETY	-- YIELD (BU/AC) --				TEST WT (LB/BU)				--- PCT LODGED ---				PLANT HEIGHT (IN)				-- PCT SURVIVAL --				HEADING DATE				
	1985	1983	1982	MEAN	1985	1983	1982	MEAN	1985	1983	1982	MEAN	1985	1983	1982	MEAN	1985	1983	1982	MEAN	1985	1983	1982	MEAN	
HALTON	80	.	.	80	44.8	.	.	44.8	84	.	.	84	39	.	.	39	63	.	.	63	07MAY				07MAY
VOLBAR	77	79	66	74	45.6	39.1	43.5	42.7	93	20	4	39	43	40	44	42	48	100	13	53	02MAY	07MAY	06MAY	05MAY	
SURRY	68	54	71	64	44.2	35.9	38.1	39.4	86	16	56	53	39	32	39	37	69	100	95	88	29APR	30APR	30APR	29APR	
BARSOY	65	69	84	73	47.1	46.9	47.0	47.0	34	3	5	14	36	34	37	35	66	100	70	79	21APR	29APR	25APR	25APR	
PIKE	64	58	87	70	46.3	39.9	43.5	43.2	78	10	50	46	35	29	37	34	84	100	96	93	25APR	03MAY	27APR	28APR	

CV (1985) = 15%
LSD (1985) = 11 bu/a

¹Location was Princeton, limestone soil.

Table 14A.—Barley Performance for Southern Tier Region, 1982-1983, 1985.¹

VARIETY	-- YIELD (BU/AC) --				TEST WT (LB/BU)				--- PCT LODGED ---				PLANT HEIGHT (IN)				-- PCT SURVIVAL --				HEADING DATE				
	1985	1983	1982	MEAN	1985	1983	1982	MEAN	1985	1983	1982	MEAN	1985	1983	1982	MEAN	1985	1983	1982	MEAN	1985	1983	1982	MEAN	
VOLBAR	99	81	68	83	43.8	44.1	44.9	44.3	35	0	0	12	43	39	40	42	88	100	35	74	28APR	06MAY	04MAY	02MAY	
HALTON	89	.	.	89	43.3	.	.	43.3	13	.	.	13	41	.	.	41	100	.	.	100	28APR				28APR
SURRY	76	65	91	78	41.5	39.9	44.8	42.1	21	14	0	12	38	34	40	37	100	100	100	100	22APR	26APR	28APR	25APR	
PIKE	67	42	87	65	44.6	37.3	47.6	43.2	24	28	9	20	32	31	34	32	100	100	100	100	21APR	30APR	23APR	25APR	
BARSOY	65	53	70	63	44.3	44.3	48.0	45.5	51	8	3	20	35	32	35	34	100	100	81	94	20APR	22APR	22APR	21APR	

CV (1985) = 9%
LSD (1985) = 10 bu/a

¹ Location was Hopkinsville (1982), Russellville (1983, 1985).

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