



Progress Report 298

*1986
Kentucky
Small Grain
Variety Trials*

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Contents

	<i>Page</i>
Introduction	3
Experimental Methods	4
Data Collected	4
Results and Discussion	5
1986 Test Conditions	5
1985 Test Conditions	5
1984 Test Conditions	6
Small Grain Varieties for 1987	6
Soft Red Winter Wheat Varieties	6
Winter Barley Varieties	6
Certified Seed	6

TABLES

1. Small Grain Harvested Acreage and Yields in Kentucky, 1984-1986	3
2. Region, Locations, Preceding Crop and Planting Dates of Kentucky Small Grain Trials, 1984-1986	4
3. Characteristics of Wheat Varieties Tested in 1986	7
4. Wheat Performance Trials for Purchase Region, 1984-1986	8
5. Wheat Performance Trials for Western Coal Field Region, 1984-1986	9
6. Wheat Performance Trials for Ohio Valley Region, 1984-1986	10
7. Wheat Performance Trials for Bluegrass Region, 1983-1985	11
8. Wheat Performance Trials for Southern Tier Region, 1984-1986	12
8A. Wheat Performance Trials for Southern Tier Region, 1984-1986	13
9. Wheat Performance Trials for North Central Region, 1984-1986	14
10. Disease Ratings of Wheat Varieties, 1986	15
11. Characteristics of Barley Varieties Tested in 1986	16
12. Barley Performance Trials for Western Coal Field Region, 1982-1983, 1985	17
13. Barley Performance Trials for Bluegrass Region, 1982-1983, 1985	17
14. Barley Performance Trials for Southern Tier Region, 1982-1983, 1985	18
14A. Barley Performance Trials for Southern Tier Region, 1983, 1985-1986	18

1986 Kentucky Small Grain Variety Trials

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In 1986, Kentucky farmers harvested 9.2 million bushels of soft red winter wheat produced on 270,000 acres. The average yield of 34 bu/a was down from the 1985 average of 36 bu/a. Barley acreage was down 23% from 1985 levels.

Table 1.—Small Grain Harvested Acreage and Yields in Kentucky, 1984-1986.*

Crop	1986		1985		1984	
	Harvest 1000 A	Yield Bu/A	Harvest 1000 A	Yield Bu/A	Harvest 1000 A	Yield Bu/A
Wheat	270	34	310	36	500	38
Barley	20	NA	26	39	30	40
Oats	12		9	42	6	44
Rye	2		2	28	3	30

*July 1, 1986, Kentucky Crop and Livestock Reporting Service. Barley, oat and rye yields not available at press time.

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

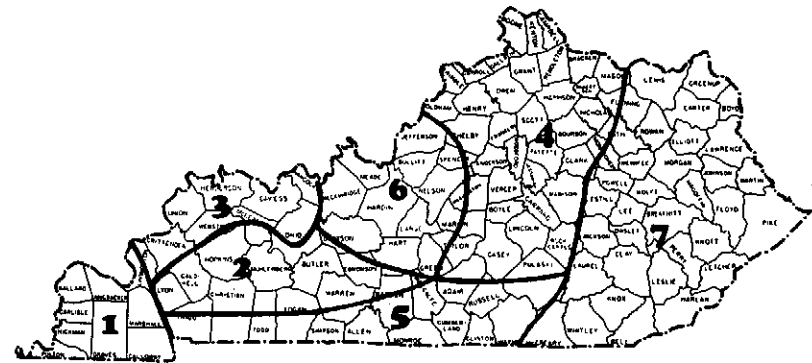


Figure 1.—Agro-climatic regions of Kentucky small grain variety trials.

Region	1986 Location	Cooperator	Crop Tested
1 Purchase	Clinton	Jerry Perry	Wheat
2 Western Coal Field	Princeton (Sandstone soil)	Research and Education Center	Barley, Wheat
3 Ohio Valley	Calhoun	Bobby Thomas	Wheat
4 Bluegrass	Lexington	Kentucky Agricultural Experiment Station	Barley, Wheat
5 Southern Tier	Franklin Princeton (Limestone soil)	Fred Bullock Research and Education Center	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, 1984-1986.

Region	Location	Preceding Crop	Crop	Planting Date			
				1986	1985	1984	
Purchase	Hickman	1984	Fallow	Wheat	10/17	11/7	11/8
	Clinton	1985 1986	Fallow Soybeans				
Western Coal Field	Princeton (Sandstone soil)		Fallow	Barley	10/18	10/18	11/1
				Wheat	10/18	10/18	11/1
Ohio Valley	Owensboro Calhoun	1984	Tobacco	Wheat	10/9	11/8	11/7
		1985	Soybeans				
		1986	Soybeans				
Bluegrass	Lexington		Fallow	Barley	10/19	10/11	10/28
				Wheat	10/19	10/19	10/28
Southern Tier	Russellville	1984-85	Corn	Barley	10/11	10/29	10/31
	Franklin	1986	Corn	Wheat	10/11	10/29	10/31
	Princeton (Limestone soil)		Fallow	Barley	10/28	10/30	11/1
				Wheat	10/28	10/30	11/1
North Central	Greensburg	1984	Soybeans	Wheat	10/10	11/14	10/28
	Campbellsville	1985- 86	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 inches from the ground to the tip of the upright grain head.

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.

1986 TEST CONDITIONS

Warm dry weather in late September and early October resulted in earlier than normal planting dates for some of the 1986 small grains crop. Subsequent rainfall in late October and November delayed or prevented further seeding of wheat and barley, leading to an overall reduction in acreage seeded.

The wet mild November weather led to excessive vegetative growth, disease, and nitrogen deficiency in some small grain fields. These conditions ended abruptly when the temperature dropped sharply on December 1, and much of the top growth was killed. Subsequent temperature fluctuations during January and February and very dry conditions continued to stress the plants. Losses due to winterkill ranged from 10% in parts of western Kentucky to 100% in the central Bluegrass area. The wheat and barley trials at Lexington and the barley trials at Princeton were discarded due to winterkill.

Heading dates were earlier than normal due to warm, dry spring conditions. Early spring disease pressure was minimized by the dry weather, although powdery mildew was observed in wheat fields prior to jointing. The incidence of leaf rust, in particular, was much lower than in recent years because of the dry weather. The prolonged shortage of moisture during early grain fill probably reduced yields to some extent. Heavy rains during mid grainfill resulted in a substantial infestation of glume blotch. Disease ratings are presented in Table 10.

A hard freeze occurred in April when many barley fields had just flowered and early wheats were beginning to flower. Yield losses in these situations were considerable.

In short, it was a difficult year for small grain production in Kentucky. The variety trials were subject to the same stresses as farmers' fields, and consequently, the performance data for 1986 is somewhat more variable than previous years' data.

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.

An unusually warm, early spring hastened the growth of the 1985 crop so that heading dates were 2½ 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.

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.

SMALL GRAIN VARIETIES FOR 1987

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 1986.

VARIETY	PROTECTED ³	SOURCE	RELEASE DATE	YIELD (BU/A)	TEST WEIGHT (LB/BU)	LODGING (%)	PLANT HEIGHT (IN.)	SURVIVAL (%)	HEADING DATE
CALDWELL	YES	INDIANA	1980	44.5	56.1	0.0	33.3	61.5	30APR86
JMS EX3	YES	JM SCHULTZ SEED CO.	----	42.9	52.9	0.0	33.9	52.3	02MAY86
TYLER	NO	VIRGINIA	1980	42.6	53.9	0.0	33.7	53.5	02MAY86
2550	YES	PIONEER HI BRED INT	1982	42.0	54.9	0.0	31.4	57.9	03MAY86
BECKER	YES	OHIO	1985	40.2	54.2	0.0	29.0	56.3	02MAY86
LINCOLN	YES	NAPB	1986	39.5	55.7	0.0	32.5	59.0	29APR86
TWAIN	YES	NAPB	1986	39.5	55.7	0.0	32.5	59.0	29APR86
MASSEY	NO	VIRGINIA	1981	39.0	54.3	0.0	33.6	60.4	01MAY86
2551	YES	PIONEER HI BRED INT	1986	38.6	52.0	0.0	30.4	62.3	30APR86
COMPTON	YES	INDIANA	1984	38.5	57.7	0.0	31.5	64.4	01MAY86
ADDER	YES	INDIANA	1985	38.2	54.6	0.0	29.8	66.5	01MAY86
SCOTTY	NO	ILLINOIS	1982	37.2	56.0	0.0	31.5	59.4	30APR86
SALUDA	NO	VIRGINIA	1983	35.7	57.0	0.0	27.8	46.3	30APR86
EW 4055	YES	GARST SEED CO.	----	34.9	55.2	0.0	31.3	57.3	30APR86
ARTHUR	NO	INDIANA	1968	32.6	57.2	0.0	33.5	63.0	28APR86
HART	NO	MISSOURI	1976	32.6	53.2	0.0	31.9	47.5	02MAY86
BAILEY 4287	YES	BAILEY SEEDS	1984	32.5	53.4	0.0	32.7	48.8	30APR86
COKER 916	YES	ROHM AND HAAS SEEDS	1982	31.5	54.6	0.0	27.8	54.6	28APR86
PIKE	YES	MISSOURI	1980	31.2	54.5	0.0	31.2	48.1	02MAY86
ABE	YES	INDIANA	1972	31.0	56.4	0.0	30.9	56.9	29APR86
WHEELER	NO	VIRGINIA	1980	30.6	55.7	0.0	31.8	36.7	01MAY86
NELSON	NO	ARKANSAS	1983	29.6	56.9	0.0	31.3	49.0	26APR86
ADENA	YES	OHIO	1984	25.0	52.5	0.0	26.7	43.5	01MAY86
FELAND	YES	SOUTHERN STATES	1982	20.8	51.1	0.0	29.4	22.9	04MAY86
DOUBLECROP	NO	ARKANSAS	1975	19.2	54.8	0.0	31.4	56.5	23APR86
FLA 302	YES	FLORIDA	1983	14.9	50.8	0.0	27.3	20.9	04MAY86

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 = 24%¹

LSD (.05) = 4.6 bu/a²

Table 4.—Wheat Performance Trials for Purchase Region, 1984-1986.

VARIETY	-- YIELD (BU/AC) --				TEST WT (LB/BU)				--- PCT LODGED ---				PLANT HEIGHT (IN)				-- PCT SURVIVAL --				HEADING DATE			
	1986	1985	1984	MEAN	1986	1985	1984	MEAN	1986	1985	1984	MEAN	1986	1985	1984	MEAN	1986	1985	1984	MEAN	1986	1985	1984	MEAN
JMS EX3	56	.	.	56	58.6	.	.	58.6	0	.	.	0	39	.	.	39	80	.	.	80	28APR	.	.	28APR
MASSEY	54	42	51	49	59.3	55.4	56.9	57.2	0	0	0	0	38	37	39	38	93	85	36	71	26APR	01MAY	18MAY	05MAY
TYLER	54	33	48	45	58.3	50.0	54.4	54.2	0	0	0	0	38	38	40	39	81	86	43	70	27APR	05MAY	18MAY	06MAY
BECKER	52	.	.	52	57.7	.	.	57.7	0	.	.	0	32	.	.	32	80	.	.	80	29APR	.	.	29APR
2550	51	46	44	47	61.0	55.1	56.3	57.5	0	0	0	0	34	34	32	33	73	80	33	62	30APR	06MAY	16MAY	07MAY
EW 4055	47	.	.	47	58.7	.	.	58.7	0	.	.	0	35	.	.	35	79	.	.	79	26APR	.	.	26APR
ADDER	47	47	.	47	58.7	54.0	.	56.3	0	0	.	0	31	32	.	31	78	88	.	83	26APR	03MAY	.	30APR
2551	46	.	.	46	57.6	.	.	57.6	0	.	.	0	33	.	.	33	79	.	.	79	28APR	.	.	28APR
SCOTTY	43	45	28	39	60.8	56.1	53.6	56.8	0	0	0	0	35	34	32	34	80	83	28	63	26APR	03MAY	18MAY	05MAY
COKER 916	43	53	21	39	58.1	54.6	56.0	56.2	0	0	0	0	31	30	28	29	86	85	13	61	23APR	29APR	16MAY	02MAY
WHEELER	43	34	41	39	60.6	55.8	57.2	57.9	0	0	0	0	36	38	37	37	66	83	30	60	26APR	04MAY	18MAY	06MAY
LINCOLN	42	.	.	42	59.6	.	.	59.6	0	.	.	0	35	.	.	35	83	.	.	83	26APR	.	.	26APR
PIKE	42	35	33	37	60.4	53.2	57.0	56.9	0	0	0	0	35	35	35	35	75	80	19	58	27APR	03MAY	19MAY	06MAY
HART	41	38	40	40	58.4	53.2	54.8	55.5	0	0	0	0	37	37	34	36	74	78	36	63	28APR	02MAY	15MAY	05MAY
CALDWELL	41	35	33	37	60.8	55.3	54.4	56.8	0	0	0	0	34	35	34	34	79	79	24	60	27APR	05MAY	18MAY	06MAY
SALUDA	40	38	26	35	60.0	51.2	57.0	56.1	0	0	0	0	30	31	30	30	76	64	21	54	27APR	05MAY	18MAY	06MAY
TWAIN	40	56	.	48	60.8	57.6	.	59.2	0	0	.	0	35	47	.	36	75	89	.	82	26APR	30APR	.	28APR
ADENA	39	48	.	43	58.5	55.4	.	56.9	0	0	.	0	31	31	.	31	83	90	.	86	26APR	03MAY	.	30APR
BAILEY 4287	38	38	.	38	59.4	53.8	.	56.6	0	0	.	0	35	34	.	35	80	60	.	70	27APR	02MAY	.	30APR
NELSON	36	50	18	35	60.2	57.1	56.0	57.8	0	0	0	0	34	37	32	34	80	81	14	58	22APR	30APR	15MAY	02MAY
COMPTON	35	54	45	45	61.0	57.9	55.8	58.2	0	0	0	0	33	34	34	34	76	86	38	67	27APR	03MAY	17MAY	05MAY
ARTHUR	34	29	31	31	60.8	56.6	57.2	58.2	0	0	0	0	35	36	35	35	79	48	28	51	26APR	04MAY	15MAY	05MAY
ABE	34	27	50	37	60.4	52.3	56.5	56.4	0	0	0	0	32	33	40	35	79	56	49	61	26APR	04MAY	18MAY	05MAY
FELAND	31	45	34	37	58.7	56.7	56.7	57.4	0	0	0	0	33	34	35	34	41	85	23	50	29APR	03MAY	18MAY	07MAY
DOUBLECROP	26	26	32	28	58.4	54.8	53.8	55.7	0	0	0	0	34	35	33	34	69	68	35	57	18APR	28APR	11MAY	28APR
FLA 302	25	46	27	33	59.4	53.9	55.5	56.3	0	0	0	0	30	34	31	32	43	78	15	45	01MAY	06MAY	21MAY	09MAY

CV (1986) = 13%

LSD (1986) = 8 bu/a

Table 5.—Wheat Performance Trials for Western Coal Field Region, 1984-1986.

VARIETY	-- YIELD (BU/AC) --				TEST WT (LB/BU)				--- PCT LODGED ---				PLANT HEIGHT (IN)				-- PCT SURVIVAL --				HEADING DATE			
	1986	1985	1984	MEAN	1986	1985	1984	MEAN	1986	1985	1984	MEAN	1986	1985	1984	MEAN	1986	1985	1984	MEAN	1986	1985	1984	MEAN
JMS EX3	48	.	.	48	55.5	.	.	55.5	0	.	.	0	31	.	.	31	41	.	.	41	05MAY			05MAY
TYLER	41	39	45	42	55.2	46.6	55.4	52.4	0	3	0	1	30	41	37	36	29	96	70	65	05MAY	02MAY	22MAY	09MAY
COMPTON	36	56	38	44	59.3	57.2	59.4	58.6	0	0	0	0	28	36	34	33	33	93	61	62	03MAY	03MAY	21MAY	08MAY
CALDWELL	33	55	33	41	56.8	53.9	55.2	55.3	0	0	0	0	29	36	34	33	28	90	51	56	03MAY	02MAY	21MAY	08MAY
MASSEY	31	34	45	37	53.1	48.6	58.9	53.5	0	35	0	12	29	36	36	34	28	86	56	57	04MAY	28APR	21MAY	07MAY
WHEELER	31	56	48	45	60.0	54.8	58.5	57.8	0	5	0	2	28	39	36	34	16	91	61	56	02MAY	30APR	20MAY	07MAY
2550	30	61	41	44	53.4	53.9	55.0	54.1	0	0	0	0	27	36	33	32	30	91	63	61	04MAY	04MAY	20MAY	09MAY
BECKER	29	.	.	29	56.4	.	.	56.4	0	.	.	0	26	.	.	26	19	.	.	19	05MAY			05MAY
LINCOLN	29	.	.	29	54.0	.	.	54.0	0	.	.	0	29	.	.	29	18	.	.	18	02MAY			02MAY
2551	28	.	.	28	54.1	.	.	54.1	0	.	.	0	27	.	.	27	25	.	.	25	02MAY			02MAY
TWAIN	28	54	.	41	59.8	52.0	.	55.9	0	0	.	0	30	35	.	32	31	98	.	64	04MAY	28APR		01MAY
BAILEY 4287	26	62	.	44	54.8	55.8	.	55.3	0	0	.	0	28	38	.	33	20	94	.	57	04MAY	01MAY		02MAY
SALUDA	26	56	35	39	59.4	53.1	58.4	57.0	0	23	0	8	26	33	29	29	20	89	45	51	03MAY	01MAY	21MAY	08MAY
ADDER	24	61	.	43	55.4	53.5	.	54.4	0	0	.	0	26	33	.	30	19	94	.	56	03MAY	01MAY		02MAY
PIKE	22	39	46	35	55.6	50.8	56.0	54.1	0	3	0	1	27	37	34	32	26	95	69	63	04MAY	02MAY	20MAY	08MAY
ARTHUR	21	48	24	31	56.8	57.6	58.0	57.5	0	13	0	4	29	40	35	34	33	84	63	60	02MAY	04MAY	19MAY	08MAY
SCOTTY	21	55	46	40	57.4	55.0	57.9	56.8	0	20	0	7	26	36	35	32	17	95	66	59	02MAY	02MAY	21MAY	08MAY
HART	20	40	31	30	54.0	52.1	56.0	54.0	0	5	0	2	26	40	36	34	17	94	61	57	04MAY	02MAY	20MAY	08MAY
NELSON	19	63	31	38	59.3	56.5	58.0	57.9	0	0	0	0	26	39	35	33	25	93	39	52	29APR	27APR	17MAY	04MAY
COKER 916	19	54	27	33	58.6	52.9	54.6	55.4	0	4	0	1	24	31	30	29	19	93	29	47	02MAY	27APR	18MAY	05MAY
EW 4055	18	.	.	18	56.0	.	.	56.0	0	.	.	0	27	.	.	27	14	.	.	14	05MAY			05MAY
ABE	17	43	49	36	58.0	54.4	57.1	56.5	0	23	0	8	27	37	39	34	13	81	69	54	03MAY	30APR	21MAY	08MAY
ADENA	17	50	.	34	53.7	50.2	.	51.9	0	0	.	0	23	36	.	30	18	100	.	59	04MAY	02MAY		03MAY
DOUBLECROP	14	53	14	27	56.0	56.9	58.8	57.2	0	0	0	0	27	37	34	33	20	94	68	61	26APR	24APR	13MAY	01MAY
FLA 302	6	59	22	29	52.8	51.7	49.2	51.2	0	0	0	0	25	37	35	32	2	81	9	31	06MAY	02MAY	25MAY	11MAY
FELAND	5	58	33	32	52.0	54.7	58.8	55.2	0	5	0	2	25	36	34	32	2	91	40	44	08MAY	01MAY	21MAY	09MAY

CV (1986) = 36%

LSD (1986) = 12 bu/a

Table 6.—Wheat Performance Trials for Ohio Valley Region, 1984-1986.

VARIETY	-- YIELD (BU/AC) --				TEST WT (LB/BU)				--- PCT LODGED ---				PLANT HEIGHT (IN)				-- PCT SURVIVAL --				HEADING DATE			
	1986	1985	1984	MEAN	1986	1985	1984	MEAN	1986	1985	1984	MEAN	1986	1985	1984	MEAN	1986	1985	1984	MEAN	1986	1985	1984	MEAN
CALDWELL	54	54	45	51	56.7	57.2	49.5	54.5	0	0	43	14	41	36	36	38	93	36	14	48	01MAY	09MAY	26MAY	12MAY
FELAND	52	48	31	44	59.5	53.7	49.2	54.1	0	3	3	2	37	37	35	36	74	31	4	36	03MAY	08MAY	27MAY	12MAY
TYLER	51	33	41	42	56.0	50.1	46.1	50.7	0	13	40	18	38	38	37	38	89	43	23	51	02MAY	12MAY	28MAY	13MAY
SCOTTY	51	51	49	50	58.5	51.3	49.5	53.1	0	6	63	23	36	33	36	35	90	34	19	48	30APR	09MAY	28MAY	12MAY
SALUDA	49	53	47	50	59.8	53.5	49.4	54.2	0	20	21	14	31	32	31	31	83	41	12	45	02MAY	07MAY	26MAY	11MAY
BECKER	49	.	.	49	56.0	.	.	56.0	0	.	.	0	32	.	.	32	88	.	.	88	03MAY	.	.	03MAY
2550	47	53	58	53	57.0	51.9	49.1	52.7	0	5	29	11	34	35	35	35	89	46	18	51	04MAY	10MAY	25MAY	13MAY
JMS EX3	46	.	.	46	55.1	.	.	55.1	0	.	.	0	37	.	.	37	81	.	.	81	03MAY	.	.	03MAY
LINCOLN	44	.	.	44	57.2	.	.	57.2	0	.	.	0	34	.	.	34	85	.	.	85	01MAY	.	.	01MAY
MASSEY	44	33	38	38	57.7	53.2	49.0	53.3	0	13	48	20	37	38	37	37	90	25	13	43	01MAY	08MAY	28MAY	12MAY
WHEELER	42	50	54	49	60.1	58.0	49.9	56.0	0	11	18	10	38	38	37	38	88	43	19	50	30APR	08MAY	27MAY	12MAY
EW 4055	41	.	.	41	55.8	.	.	55.8	0	.	.	0	35	.	.	35	86	.	.	86	29APR	.	.	29APR
COKER 916	40	61	45	49	57.8	56.6	50.1	54.8	0	0	40	13	32	31	37	33	86	46	5	46	27APR	04MAY	25MAY	08MAY
COMPTON	39	51	58	49	59.3	56.8	54.2	56.8	0	30	36	22	35	34	34	34	83	39	24	48	02MAY	10MAY	26MAY	12MAY
2551	39	.	.	39	54.3	.	.	54.3	0	.	.	0	31	.	.	31	93	.	.	93	01MAY	.	.	01MAY
HART	39	42	48	43	56.9	53.2	50.9	53.7	0	5	9	5	34	37	35	35	81	49	18	49	02MAY	08MAY	27MAY	12MAY
NELSON	38	61	36	45	58.8	58.1	50.0	55.6	0	0	0	0	38	37	33	36	89	44	5	46	26APR	04MAY	24MAY	08MAY
TWAIN	35	51	.	43	59.2	57.7	.	58.4	0	3	.	1	35	35	.	35	81	44	.	63	29APR	04MAY	.	02MAY
PIKE	35	36	49	40	54.8	52.5	50.3	52.5	0	5	53	19	34	33	36	34	83	28	16	42	02MAY	10MAY	27MAY	13MAY
ABE	34	28	61	41	57.2	52.3	50.6	53.4	0	5	45	17	35	36	37	36	86	10	29	42	29APR	10MAY	25MAY	11MAY
BAILEY 4287	33	48	.	41	55.9	56.4	.	56.1	0	18	.	9	36	34	.	35	80	43	.	61	02MAY	08MAY	.	05MAY
ADDER	31	51	.	41	55.8	54.4	.	55.1	0	14	.	7	31	32	.	32	93	38	.	65	02MAY	09MAY	.	05MAY
ARTHUR	27	16	55	33	57.8	48.2	54.4	53.5	0	0	34	11	35	35	37	36	94	4	19	39	28APR	09MAY	24MAY	10MAY
ADENA	27	41	.	34	53.2	54.1	.	53.6	0	6	.	3	29	35	.	32	93	55	.	74	30APR	10MAY	.	05MAY
FLA 302	26	52	22	33	55.5	54.7	49.2	53.1	0	4	3	2	34	35	16	28	60	34	1	31	03MAY	09MAY	28MAY	13MAY
DOUBLECROP	16	53	56	42	56.8	57.5	53.9	56.1	0	14	25	13	36	37	37	36	90	45	19	51	26APR	03MAY	21MAY	06MAY

CV (1986) = 23%

LSD (1986) = 13 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	08MAY			04MAY
SCOTTY	84	76	70	77	59.3	56.2	53.9	56.5	11	0	90	34	40	40	40	40	98	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	08MAY			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	08MAY	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	98	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	93	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	19	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, 1984-1986¹.

VARIETY	-- YIELD (BU/AC) --				TEST WT (LB/BU)				--- PCT LODGED ---				PLANT HEIGHT (IN)				-- PCT SURVIVAL --				HEADING DATE			
	1986	1985	1984	MEAN	1986	1985	1984	MEAN	1986	1985	1984	MEAN	1986	1985	1984	MEAN	1986	1985	1984	MEAN	1986	1985	1984	MEAN
CALDWELL	46	49	59	51	52.2	54.8	53.5	53.5	0	34	0	11	31	37	36	34	25	91	36	51	03MAY	04MAY	22MAY	09MAY
2551	41	.	.	41	47.2	.	.	47.2	0	.	.	0	32	.	.	32	48	.	.	48	03MAY	.	.	03MAY
BAILEY 4287	41	61	.	51	53.2	57.8	.	55.5	0	31	.	16	34	37	.	36	23	95	.	59	02MAY	01MAY	.	01MAY
ADDER	40	63	.	51	53.5	52.2	.	52.8	0	14	.	7	30	33	.	32	30	99	.	64	04MAY	02MAY	.	03MAY
COMPTON	39	63	60	54	56.0	58.9	57.2	57.4	0	20	0	7	31	35	39	35	33	96	60	63	04MAY	03MAY	20MAY	09MAY
ARTHUR	39	51	53	48	56.5	59.1	55.8	57.1	0	28	0	9	35	38	41	38	24	80	48	50	01MAY	01MAY	19MAY	06MAY
SALUDA	38	64	45	49	57.2	60.7	53.3	57.1	0	39	0	13	26	34	33	31	14	89	19	40	03MAY	04MAY	22MAY	09MAY
LINCOLN	36	.	.	36	54.1	.	.	54.1	0	.	.	0	32	.	.	32	24	.	.	24	02MAY	.	.	02MAY
2550	35	59	55	50	52.0	58.5	52.0	54.2	0	23	0	8	30	36	36	34	23	94	39	52	06MAY	04MAY	20MAY	10MAY
EW 4055	35	.	.	35	53.0	.	.	53.0	0	.	.	0	29	.	.	29	24	.	.	24	04MAY	.	.	04MAY
SCOTTY	35	67	57	53	52.4	58.9	55.0	55.4	0	35	0	12	30	36	38	35	18	91	50	53	05MAY	02MAY	22MAY	09MAY
TWAIN	33	69	.	51	54.0	59.8	.	56.9	0	14	.	7	33	37	.	35	29	100	.	64	02MAY	29APR	.	01MAY
JMS EX3	33	.	.	33	43.0	.	.	43.0	0	.	.	0	33	.	.	33	29	.	.	29	07MAY	.	.	07MAY
ABE	31	44	56	44	55.2	57.2	56.9	56.4	0	14	0	5	31	38	39	36	19	70	58	49	01MAY	02MAY	19MAY	07MAY
NELSON	31	63	44	46	53.2	59.6	55.7	56.2	0	0	0	0	30	36	37	34	18	79	20	39	30APR	29APR	20MAY	06MAY
TYLER	31	45	52	43	48.6	54.0	52.1	51.6	0	14	0	5	32	41	41	38	30	93	50	58	05MAY	05MAY	21MAY	10MAY
BECKER	30	.	.	30	49.8	.	.	49.8	0	.	.	0	27	.	.	27	21	.	.	21	06MAY	.	.	06MAY
DOUBLECROP	28	58	42	43	56.0	60.2	56.6	57.6	0	6	0	2	30	37	38	35	16	93	41	50	27APR	26APR	14MAY	02MAY
WHEELER	28	65	52	48	53.8	58.7	54.1	55.5	0	6	0	2	28	39	41	36	11	91	26	43	06MAY	02MAY	23MAY	10MAY
COKER 916	27	63	47	46	50.6	57.5	55.6	54.6	0	11	0	4	24	34	31	30	10	95	26	44	05MAY	30APR	20MAY	08MAY
PIKE	26	52	57	45	49.0	55.9	54.1	53.0	0	19	0	6	29	36	37	34	24	88	38	50	07MAY	01MAY	22MAY	10MAY
MASSEY	25	49	48	41	47.0	56.1	53.2	52.1	0	34	0	11	33	39	39	37	24	89	48	53	07MAY	02MAY	22MAY	10MAY
ADENA	22	52	.	37	50.0	55.3	.	52.6	0	20	.	10	25	35	.	30	16	93	.	54	08MAY	03MAY	.	05MAY
HART	18	55	55	42	47.6	57.1	53.1	52.6	0	6	0	2	30	39	39	36	9	94	36	46	08MAY	02MAY	20MAY	10MAY
FELAND	16	73	44	44	44.4	59.4	54.7	52.8	0	9	0	3	28	37	35	33	4	90	13	36	09MAY	03MAY	24MAY	12MAY
FLA 302	14	62	33	37	40.8	54.5	52.0	49.1	0	16	0	5	25	37	35	32	4	73	4	27	11MAY	06MAY	25MAY	13MAY

CV (1986) = 22%

LSD (1986) = 10 bu/a

¹ Location was Princeton, limestone soil.

Table 8A.—Wheat Performance Trials for Southern Tier Region, 1984-1986¹.

VARIETY	-- YIELD (BU/AC) --				TEST WT (LB/BU)				--- PCT LODGED ---				PLANT HEIGHT (IN)				-- PCT SURVIVAL --				HEADING DATE			
	1986	1985	1984	MEAN	1986	1985	1984	MEAN	1986	1985	1984	MEAN	1986	1985	1984	MEAN	1986	1985	1984	MEAN	1986	1985	1984	MEAN
CALDWELL	57	68	49	58	57.5	55.9	56.7	56.7	0	0	0	0	38	37	36	37	76	100	49	75	27APR	02MAY	16MAY	05MAY
ADDER	52	65	.	58	51.1	54.4	.	52.7	0	3	.	1	34	34	.	34	95	100	.	98	27APR	30APR	.	28APR
2550	51	74	56	60	54.1	55.8	58.7	56.2	0	10	0	3	37	37	34	36	71	100	69	80	30APR	03MAY	15MAY	05MAY
2551	51	.	.	51	52.8	.	.	52.8	0	.	.	0	33	.	.	33	74	.	.	74	28APR	.	.	28APR
COMPTON	50	73	53	59	55.6	56.0	60.6	57.4	0	6	0	2	34	34	37	35	90	99	70	86	28APR	01MAY	16MAY	05MAY
BECKER	49	.	.	49	54.0	.	.	54.0	0	.	.	0	32	.	.	32	80	.	.	80	30APR	.	.	30APR
PIKE	49	60	60	56	56.0	54.2	58.2	56.1	0	3	0	1	37	38	37	37	58	100	64	74	28APR	30APR	17MAY	05MAY
JMS EX3	48	.	.	48	54.1	.	.	54.1	0	.	.	0	37	.	.	37	49	.	.	49	30APR	.	.	30APR
TYLER	48	70	71	63	55.0	56.3	58.3	56.5	0	6	0	2	37	41	41	39	46	100	85	77	29APR	02MAY	17MAY	06MAY
SALUDA	45	75	51	57	58.2	56.4	58.3	57.6	0	4	0	1	31	33	34	33	54	100	39	64	27APR	01MAY	19MAY	05MAY
HART	44	66	63	58	52.9	54.8	59.1	55.6	0	3	0	1	36	40	36	37	63	100	79	80	29APR	30APR	15MAY	04MAY
LINCOLN	44	.	.	44	54.4	.	.	54.4	0	.	.	0	36	.	.	36	81	.	.	81	26APR	.	.	26APR
ARTHUR	43	56	49	50	57.1	58.7	59.2	58.3	0	10	0	3	38	40	37	38	83	94	58	78	26APR	30APR	15MAY	03MAY
MASSEY	43	64	62	56	55.2	55.6	58.7	56.5	0	5	0	2	36	36	39	37	65	100	60	75	27APR	28APR	17MAY	04MAY
SCOTTY	43	75	56	58	54.0	57.2	57.4	56.2	0	0	0	0	35	36	36	36	85	100	64	83	27APR	30APR	17MAY	04MAY
BAILEY 4287	42	62	.	52	53.1	55.9	.	54.5	0	0	.	0	36	37	.	37	49	100	.	74	28APR	29APR	.	28APR
COKER 916	39	72	46	52	53.0	56.1	58.7	55.9	0	3	0	1	32	31	33	32	75	100	30	68	23APR	25APR	15MAY	30APR
ABE	37	61	50	49	55.0	57.1	59.2	57.1	0	15	0	5	34	36	35	35	85	93	53	77	27APR	29APR	16MAY	03MAY
EW 4055	36	.	.	36	55.5	.	.	55.5	0	.	.	0	33	.	.	33	73	.	.	73	27APR	.	.	27APR
ADENA	32	72	.	52	53.4	55.9	.	54.6	0	0	.	0	30	34	.	32	29	100	.	64	29APR	30APR	.	29APR
TWAIN	30	73	.	51	54.8	54.8	.	54.8	0	5	.	3	35	37	.	36	31	100	.	66	28APR	27APR	.	28APR
NELSON	26	70	35	44	54.6	57.2	57.6	56.5	0	0	0	0	34	38	36	36	39	100	19	53	25APR	28APR	16MAY	02MAY
DOUBLECROP	25	55	42	41	55.4	56.6	59.8	57.3	0	0	0	0	38	37	33	36	79	100	65	81	19APR	23APR	12MAY	27APR
WHEELER	25	68	53	49	56.8	57.1	57.9	57.3	0	3	0	1	34	41	39	38	23	100	43	55	28APR	01MAY	18MAY	05MAY
FELAND	15	67	50	44	52.0	57.5	58.9	56.1	0	0	0	0	29	36	37	34	10	98	35	48	01MAY	30APR	18MAY	06MAY
FLA 302	11	65	37	38	50.0	54.1	52.8	52.3	0	0	0	0	26	37	35	32	8	95	15	39	01MAY	02MAY	21MAY	08MAY

CV (1986) = 29%
LSD (1986) = 16 bu/a

¹ Location was Franklin, 1986,
Russellville, 1984-85.

Table 9.—Wheat Performance Trials for North Central Region, 1984-1986.

VARIETY	-- YIELD (BU/AC) --				TEST WT (LB/BU)				--- PCT LODGED ---				PLANT HEIGHT (IN)				-- PCT SURVIVAL --			
	1986	1985	1984	MEAN	1986	1985	1984	MEAN	1986	1985	1984	MEAN	1986	1985	1984	MEAN	1986	1985	1984	MEAN
LINCOLN	43	.	.	43	55.0	.	.	55.0	0	.	.	0	30	.	.	30	64	.	.	64
2550	37	25	65	42	52.0	46.6	59.9	52.8	0	31	0	10	27	35	37	33	63	63	53	59
MASSEY	36	27	68	44	53.4	51.7	57.6	54.2	0	19	0	6	29	40	40	37	64	54	39	52
CALDWELL	36	25	56	39	52.7	40.3	56.0	49.7	0	44	0	15	28	36	37	34	69	49	39	52
ADDER	36	27	.	31	53.1	46.6	.	49.8	0	3	.	1	26	32	.	29	85	66	.	76
HART	34	16	70	40	49.2	43.4	59.9	50.8	0	59	0	20	27	39	42	36	43	60	68	57
ABE	33	20	68	40	52.8	52.8	60.2	55.3	0	23	0	8	28	37	41	35	60	28	63	50
BECKER	33	.	.	33	51.5	.	.	51.5	0	.	.	0	25	.	.	25	50	.	.	50
EW 4055	32	.	.	32	52.0	.	.	52.0	0	.	.	0	29	.	.	29	69	.	.	69
ARTHUR	31	18	60	37	54.0	49.6	60.4	54.7	0	13	0	4	29	39	41	36	66	24	53	48
SCOTTY	31	35	62	43	52.8	51.3	56.2	53.4	0	4	0	1	27	37	38	34	68	54	65	62
TYLER	31	27	76	44	50.4	49.2	54.4	51.3	0	54	0	18	28	41	42	37	46	69	84	66
COMPTON	30	35	67	44	55.3	49.1	60.5	55.0	0	5	0	2	28	36	39	35	73	53	75	67
NELSON	27	22	42	31	55.6	49.6	57.2	54.1	0	14	0	5	27	39	38	35	44	44	16	35
2551	27	.	.	27	45.8	.	.	45.8	0	.	.	0	27	.	.	27	56	.	.	56
JMS EX3	26	.	.	26	51.0	.	.	51.0	0	.	.	0	27	.	.	27	34	.	.	34
TWAIN	23	31	.	27	48.0	48.4	.	48.2	0	35	.	18	29	40	.	35	43	80	.	61
COKER 916	21	31	62	38	49.4	49.0	58.3	52.2	0	8	0	3	25	35	35	32	51	68	26	48
SALUDA	17	30	54	34	47.2	48.4	56.7	50.8	0	19	0	6	23	33	34	30	31	53	25	36
WHEELER	16	26	52	31	42.8	53.4	58.8	51.7	0	5	0	2	27	41	44	37	16	49	26	30
BAILEY 4287	15	25	.	20	44.0	48.8	.	46.4	0	46	.	23	27	38	.	32	41	53	.	47
PIKE	14	15	60	30	51.0	46.0	54.4	50.5	0	71	0	24	25	37	39	34	24	39	54	39
ADENA	14	28	.	21	46.0	45.2	.	45.6	0	30	.	15	23	34	.	28	24	69	.	46
FLA 302	7	23	30	20	46.6	39.4	50.9	45.6	0	73	0	24	24	34	38	32	9	50	12	23
DOUBLECROP	6	29	57	31	46.4	43.6	62.4	50.8	0	5	0	2	24	41	38	35	65	56	74	65
FELAND	5	35	47	29	40.0	52.2	56.3	49.5	0	4	0	1	25	37	38	33	6	58	18	27

CV (1986) = 22%
LSD (1986) = 8 bu/a

Table 10.—Disease Ratings of Wheat Varieties in 1986¹.

VARIETY ²	LEAF RUST	SEPTORIA DISEASES	POWDERY MILDEW
ABE	S	VS	S
ARTHUR	S	S	MS
DOUBLECROP	MS	S	VS
2550	MR	VS	MS
CALDWELL	MS	S	MS
SCOTTY	MR	MR	MS
WHEELER	MS	MR	S
TYLER	VS	MS	S
HART	VS	MS	VS
FELAND	MR	MS	MR
COKER 916	MR	S	MR
NELSON	MR	--	S
ADENA	MR	--	MS
PIKE	S	MS	S
MASSEY	VS	MR	MR
SALUDA	MS	MS	MS
COMPTON	MS	VS	S
ADDER	MR	--	MR
FLA 302	MR	VS	R
BAILEY 4287	MR	MR	MR
LINCOLN	MR	--	MR
TWAIN	MR	--	MR
BECKER	MS	--	S
EW 4055	MS	--	S
JMS EX3	S	--	MS
2551	MR	--	MR

¹ VS =Very Susceptible

S = Susceptible

MS = Moderately Susceptible

R = Resistant

MR = Moderately Resistant

(-) = Insufficient opportunity to rate in presence of disease

² Ratings of newly released varieties based on 1 yr. and 1 location only.

Table 11.—Characteristics of Barley Varieties Tested in 1986.

VARIETY	PROTECTED	SOURCE	RELEASE DATE	YIELD (BU/A)	TEST WEIGHT (LB/BU)	LODGING (%)	PLANT HEIGHT (IN.)	SURVIVAL (%)	HEADING DATE
WYSOR	NO	VIRGINIA	1985	68.1	48.0	1.3	37.5	80.0	18APR86
GENESIS	NO	MADISON SEED CO.	1985	43.0	44.6	2.5	34.3	67.5	12APR86
PIKE	YES	INDIANA	1975	37.7	46.6	5.0	33.3	77.5	14APR86
VOYAGER	NO	MADISON SEED CO.	1985	37.4	41.6	5.0	35.5	11.5	24APR86
VIKING	NO	MADISON SEED CO.	1985	32.2	40.4	3.8	35.5	15.3	24APR86
BARSOY	NO	KENTUCKY	1966	23.7	46.6	0.0	31.5	26.3	12APR86
SURVEYOR	NO	MADISON SEED CO.	1985	16.9	42.3	0.0	32.0	16.3	20APR86

CV = 29%

LSD (.05) = 18 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	54	0	0	18	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	3	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 Trials for Southern Tier Region, 1983, 1985-1986¹.

VARIETY	-- YIELD (BU/AC) --				TEST WT (LB/BU)				--- PCT LODGED ---				PLANT HEIGHT (IN)				-- PCT SURVIVAL --				HEADING DATE			
	1986	1985	1983	MEAN	1986	1985	1983	MEAN	1986	1985	1983	MEAN	1986	1985	1983	MEAN	1986	1985	1983	MEAN	1986	1985	1983	MEAN
WYSOR	68	82	.	75	48.0	43.4	.	45.7	1	0	.	1	38	37	.	37	80	98	.	89	18APR	25APR	.	21APR
GENESIS	43	.	.	43	44.6	.	.	44.6	3	.	.	3	34	.	.	34	68	.	.	68	12APR	.	.	12APR
PIKE	38	67	42	49	46.6	44.6	37.3	42.8	5	24	28	19	33	32	31	32	78	100	100	93	14APR	21APR	30APR	22APR
VOYAGER	37	.	.	37	41.6	.	.	41.6	5	.	.	5	36	.	.	36	12	.	.	12	24APR	.	.	24APR
VIKING	32	.	.	32	40.4	.	.	40.4	4	.	.	4	36	.	.	36	15	.	.	15	24APR	.	.	24APR
BARSOY	24	65	53	47	46.6	44.3	44.3	45.1	0	51	8	20	32	35	32	33	26	100	100	75	12APR	20APR	22APR	18APR
SURVEYOR	17	.	.	17	42.3	.	.	42.3	0	.	.	0	32	.	.	32	16	.	.	16	20APR	.	.	20APR

CV (1986) = 29%

LSD (1986) = 18 bu/a

¹ Location was Franklin, 1986,
Russellville 1983, 1985.

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