

1987 Kentucky Small Grain Variety Trials

Progress Report 305



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1987 Kentucky Small Grain Variety Trials

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In 1987, Kentucky farmers harvested 14.2 million bushels of soft red winter wheat produced on 330,000 acres. The average yield of 43 bu/a was up 30% from the 1986 average of 33 bu/a. Barley acreage was down 35% from 1986 levels.

Table 1.—Small Grain Harvested Acreage and Yields in Kentucky, 1985-1987.*

Crop	1987		1986		1985	
	Harvest 1000 A	Yield Bu/A	Harvest 1000 A	Yield Bu/A	Harvest 1000 A	Yield Bu/A
Wheat	330	43	270	33	310	36
Barley	11	NA	17	31	26	39
Oats	7		6	42	9	42
Rye	2		1	28	2	28

*July 1, 1987, 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

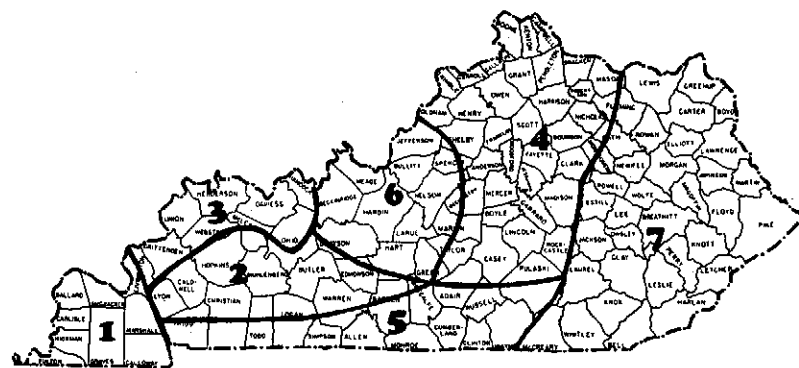


Figure 1.—Agro-climatic regions of Kentucky small grain variety trials.

Region	1987 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	Sandifer Bros.	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	Campbellville	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, 1985-1987.

Region	Location	Preceding Crop	Crop	Planting Date			
				1987	1986	1985	
Purchase	Hickman Clinton	1985	Fallow	Wheat	10/18	10/17	11/7
		1986	Soybeans				
		1987	Corn				
Western Coal Field	Princeton (Sandstone soil)		Fallow	Barley	10/15	10/18	10/18
				Wheat	10/15	10/18	10/18
Ohio Valley	Calhoun	1985-87	Soybeans	Wheat	10/21	10/9	11/8
Bluegrass	Lexington		Fallow	Barley	10/15	10/19	10/11
				Wheat	10/15	10/19	10/19
Southern Tier	Russellville Franklin	1985	Corn	Barley	10/9	10/11	10/29
		1986-87	Corn	Wheat	10/9	10/11	10/29
		Princeton (Limestone soil)	Fallow	Barley	10/16	10/28	10/30
				Wheat	10/16	10/28	10/30
North Central	Campbellsville	1985-87	Soybeans	Wheat	10/22	10/10	11/14

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.

1987 TEST CONDITIONS

Warm, dry weather in early October provided ideal planting conditions for much of the 1987 small grains crop. Rainfall in late October and November, however, either delayed or prevented late planting of wheat after soybean harvest.

Mild temperatures prevailed through the fall, leading to exces-

sive vegetative growth and a slight incidence of powdery mildew and leaf rust. Temperatures remained mild through much of the winter, and little winterkill was observed. Wheat spindle streak mosaic virus was more pronounced during this period than in previous years, possibly due to the mild conditions.

Warm spring weather resulted in early heading dates. Unusually hot, dry conditions during May shortened the grain filling period and hastened the maturity of wheat and barley. The lack of moisture reduced disease pressure significantly. In general, the onset of leaf rust and glume blotch occurred too late to reduce wheat yields substantially.

In spite of the extremely dry weather during grain fill, record wheat yields were observed in 1987.

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.

SMALL GRAIN VARIETIES FOR 1988

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 1987.

VARIETY	PROTECTED ³	SOURCE	RELEASE DATE	YIELD (BU/A)	TEST WEIGHT (LB/BU)	LODGING (%)	PLANT HEIGHT (IN.)	SURVIVAL (%)	HEADING DATE
FLA 302	YES	FLORIDA	1983	67.8	53.6	17.1	38.5	99.3	06MAY87
MASSEY	NO	VIRGINIA	1981	67.7	55.5	16.1	39.4	99.8	05MAY87
SALUDA	NO	VIRGINIA	1983	65.9	55.1	23.6	34.3	99.5	05MAY87
DB 685	YES	DIENER BROS. CO.	1986	65.6	54.2	10.0	40.0	99.6	06MAY87
2550	YES	PIONEER HI BRED INT	1982	65.4	54.9	11.6	36.6	99.3	06MAY87
CARDINAL	YES	OHIO	1986	64.7	55.4	11.8	39.8	99.1	06MAY87
TWAIN	YES	NAPB	1986	64.3	56.5	13.0	40.0	99.3	02MAY87
2551	YES	PIONEER HI BRED INT	1986	63.1	53.2	8.8	34.8	99.8	06MAY87
TYLER	NO	VIRGINIA	1980	63.1	54.5	5.7	40.1	99.1	06MAY87
BECKER	YES	OHIO	1985	62.6	53.2	2.0	34.0	99.3	07MAY87
LINCOLN	YES	NAPB	1986	61.6	55.2	18.4	38.4	99.5	05MAY87
WHEELER	NO	VIRGINIA	1980	61.3	56.9	17.0	42.4	100.0	05MAY87
ADENA	YES	OHIO	1984	60.9	54.9	6.6	34.9	99.5	05MAY87
COKER 916	YES	COKER SEEDS	1982	60.7	54.3	27.9	35.3	99.3	30APR87
COMPTON	YES	INDIANA	1984	58.7	55.7	18.6	36.8	99.8	06MAY87
SCOTTY	NO	ILLINOIS	1982	58.5	55.5	9.8	36.4	98.9	05MAY87
ADDER	YES	INDIANA	1985	57.5	51.9	17.9	36.6	99.5	06MAY87
CALDWELL	YES	INDIANA	1980	57.0	53.4	12.3	36.9	99.1	04MAY87
DOUBLECROP	NO	ARKANSAS	1975	57.0	58.8	9.5	40.0	99.3	28APR87
HART	NO	MISSOURI	1976	56.9	55.9	6.4	40.2	99.8	04MAY87
BAILEY 4287	YES	BAILEY SEEDS	1984	56.6	54.7	9.3	38.1	99.5	04MAY87
PIKE	YES	MISSOURI	1980	55.4	54.5	13.4	39.1	99.5	04MAY87
ARTHUR	NO	INDIANA	1968	55.3	55.3	9.5	40.7	99.5	04MAY87
MAGNUM	YES	NAPB	1983	55.1	56.0	6.8	34.3	99.5	03MAY87
ABE	YES	INDIANA	1972	53.1	55.2	14.5	37.8	99.5	04MAY87

CV = 12%¹

LSD(.05) = 4 bu/a²

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.

Table 4.—Wheat Performance Trials for Purchase Region, 1985-1987.

VARIETY	-- YIELD (BU/AC) --				TEST WT (LB/BU)				--- PCT LODGED ---				PLANT HEIGHT (IN)				-- PCT SURVIVAL --				HEADING DATE			
	1987	1986	1985	MEAN	1987	1986	1985	MEAN	1987	1986	1985	MEAN	1987	1986	1985	MEAN	1987	1986	1985	MEAN	1987	1986	1985	MEAN
DB 685	75	.	.	75	56.0	.	.	56.0	0	.	.	0	42	.	.	42	100	.	.	100	03MAY			03MAY
MASSEY	73	54	42	57	58.8	59.3	55.4	57.8	0	0	0	0	39	38	37	38	100	93	85	93	01MAY	26APR	02MAY	29APR
TWAIN	70	40	56	55	58.8	60.8	57.6	59.1	0	0	0	0	39	35	37	37	100	75	89	88	27APR	26APR	01MAY	27APR
BECKER	70	52	.	61	55.6	57.7	.	56.6	0	0	.	0	35	32	.	33	100	80	.	90	02MAY	29APR		30APR
CARDINAL	69	.	.	69	56.9	.	.	56.9	0	.	.	0	39	.	.	39	100	.	.	100	02MAY			02MAY
2551	67	46	.	57	55.3	57.6	.	56.4	0	0	.	0	34	33	.	34	100	79	.	89	02MAY	28APR		30APR
SALUDA	67	40	38	48	58.8	60.0	51.2	56.7	0	0	0	0	33	30	31	31	100	76	64	80	02MAY	27APR	06MAY	01MAY
ADENA	66	39	48	51	57.2	58.5	55.4	57.0	0	0	0	0	33	31	31	32	100	83	90	91	01MAY	26APR	04MAY	30APR
LINCOLN	65	42	.	54	56.5	59.6	.	58.0	0	0	.	0	38	35	.	36	100	83	.	91	01MAY	26APR		29APR
2550	65	51	46	54	56.7	61.0	55.1	57.6	0	0	0	0	36	34	34	35	100	73	80	84	02MAY	30APR	07MAY	03MAY
COKER 916	65	43	53	53	56.1	58.1	54.6	56.3	0	0	0	0	34	31	30	32	100	86	85	90	23APR	23APR	30APR	25APR
FLA 302	64	25	46	45	55.7	59.4	53.9	56.3	0	0	0	0	38	30	34	34	100	43	78	73	03MAY	01MAY	07MAY	03MAY
TYLER	64	54	33	50	57.5	58.3	50.0	55.3	0	0	0	0	39	38	38	39	100	81	86	89	02MAY	27APR	06MAY	02MAY
WHEELER	63	43	34	47	60.4	60.6	55.8	58.9	0	0	0	0	41	36	38	38	100	66	83	83	01MAY	26APR	05MAY	30APR
HART	59	41	38	46	58.5	58.4	53.2	56.7	0	0	0	0	39	37	37	38	100	74	78	84	30APR	28APR	03MAY	30APR
PIKE	58	42	35	45	56.9	60.4	53.2	56.8	0	0	0	0	37	35	35	36	100	75	80	85	30APR	27APR	04MAY	30APR
COMPTON	55	35	54	48	58.3	61.0	57.9	59.1	0	0	0	0	36	33	34	34	100	76	86	88	01MAY	27APR	04MAY	30APR
ADDER	54	47	47	49	54.7	58.7	54.0	55.8	0	0	0	0	35	31	32	33	100	78	88	88	01MAY	26APR	04MAY	30APR
BAILEY 4287	53	38	38	43	56.6	59.4	53.8	56.6	0	0	0	0	36	35	34	35	100	80	60	80	28APR	27APR	03MAY	29APR
SCOTTY	50	43	45	46	57.0	60.8	56.1	58.0	0	0	0	0	34	35	34	34	100	80	83	88	30APR	26APR	04MAY	30APR
MAGNUM	50	.	.	50	54.7	.	.	54.7	0	.	.	0	33	.	.	33	100	.	.	100	28APR			28APR
CALDWELL	50	41	35	42	55.6	60.8	55.3	57.2	0	0	0	0	36	34	35	35	100	79	79	86	30APR	27APR	06MAY	30APR
DOUBLECROP	49	26	26	34	60.1	58.4	54.8	57.8	0	0	0	0	39	34	35	36	100	69	68	79	21APR	18APR	29APR	22APR
ARTHUR	47	34	29	37	56.9	60.8	56.6	58.1	0	0	0	0	37	35	36	36	100	79	48	75	28APR	26APR	05MAY	29APR
ABE	46	34	27	36	59.1	60.4	52.3	57.3	0	0	0	0	34	32	33	33	100	79	56	78	29APR	26APR	05MAY	29APR

CV = 9%

LSD(.05) = 8 bu/a

Table 5.—Wheat Performance Trials for Western Coal Field Region, 1985-1987.

VARIETY	-- YIELD (BU/AC) --				TEST WT (LB/BU)				--- PCT LODGED ---				PLANT HEIGHT (IN)				-- PCT SURVIVAL --				HEADING DATE			
	1987	1986	1985	MEAN	1987	1986	1985	MEAN	1987	1986	1985	MEAN	1987	1986	1985	MEAN	1987	1986	1985	MEAN	1987	1986	1985	MEAN
DB 685	75	.	.	75	55.8	.	.	55.8	0	.	.	0	40	.	.	40	100	.	.	100	06MAY	.	.	06MAY
MASSEY	74	31	34	46	55.5	53.1	48.6	52.4	0	0	35	12	40	29	36	35	100	28	86	71	05MAY	04MAY	29APR	02MAY
CARDINAL	73	.	.	73	57.3	.	.	57.3	0	.	.	0	41	.	.	41	100	.	.	100	05MAY	.	.	05MAY
TYLER	72	41	39	51	58.4	55.2	46.6	53.4	0	0	3	1	41	30	41	37	100	29	96	75	06MAY	05MAY	03MAY	04MAY
2550	71	30	61	54	57.7	53.4	53.9	55.0	0	0	0	0	38	27	36	34	100	30	91	74	06MAY	04MAY	05MAY	05MAY
LINCOLN	71	29	.	50	57.1	54.0	.	55.5	0	0	.	0	40	29	.	34	100	18	.	59	05MAY	02MAY	.	03MAY
HART	71	20	40	43	58.3	54.0	52.1	54.8	0	0	5	2	43	26	40	36	100	17	94	70	04MAY	04MAY	03MAY	03MAY
BECKER	70	29	.	49	55.4	56.4	.	55.9	0	0	.	0	36	26	.	31	100	19	.	59	07MAY	05MAY	.	06MAY
FLA 302	69	6	59	45	51.9	52.8	51.7	52.1	0	0	0	0	38	25	37	33	100	2	81	61	06MAY	06MAY	03MAY	05MAY
ADENA	68	17	50	45	57.0	53.7	50.2	53.6	0	0	0	0	35	23	36	32	100	18	100	73	04MAY	04MAY	03MAY	03MAY
SALUDA	67	26	56	49	58.5	59.4	53.1	57.0	0	0	23	8	34	26	33	31	100	20	89	70	05MAY	03MAY	02MAY	03MAY
WHEELER	66	31	56	51	57.2	60.0	54.8	57.3	0	0	5	2	43	28	39	37	100	16	91	69	04MAY	02MAY	01MAY	02MAY
COMPTON	66	36	56	53	58.5	59.3	57.2	58.3	0	0	0	0	39	28	36	35	100	33	93	75	05MAY	03MAY	04MAY	04MAY
2551	64	28	.	46	55.5	54.1	.	54.8	0	0	.	0	35	27	.	31	100	25	.	63	06MAY	02MAY	.	04MAY
TWAIN	64	28	54	49	58.8	59.8	52.0	56.9	0	0	0	0	42	30	35	36	100	31	98	76	02MAY	04MAY	29APR	01MAY
ADDER	64	24	61	50	55.0	55.4	53.5	54.6	0	0	0	0	38	26	33	33	100	19	94	71	06MAY	03MAY	02MAY	03MAY
COKER 916	63	19	54	45	57.1	58.6	52.9	56.2	0	0	4	1	36	24	31	30	100	19	93	71	30APR	02MAY	28APR	29APR
ARTHUR	62	21	48	44	58.5	56.8	57.6	57.6	0	0	13	4	42	29	40	37	100	33	84	72	02MAY	02MAY	05MAY	03MAY
DOUBLECROP	62	14	53	43	60.7	56.0	56.9	57.9	0	0	0	0	42	27	37	35	100	20	94	71	28APR	26APR	25APR	26APR
BAILEY 4287	60	26	62	50	56.0	54.8	55.8	55.5	0	0	0	0	39	28	38	35	100	20	94	71	04MAY	04MAY	02MAY	03MAY
ABE	58	17	43	39	57.7	58.0	54.4	56.7	0	0	23	8	34	27	37	32	100	13	81	65	03MAY	03MAY	01MAY	02MAY
SCOTTY	58	21	55	44	56.6	57.4	55.0	56.3	0	0	20	7	36	26	36	33	100	17	95	71	04MAY	02MAY	03MAY	02MAY
CALDWELL	57	33	55	49	56.1	56.8	53.9	55.6	0	0	0	0	37	29	36	34	100	28	90	73	04MAY	03MAY	03MAY	03MAY
PIKE	56	22	39	39	57.0	55.6	50.8	54.5	0	0	3	1	40	27	37	34	100	26	95	74	05MAY	04MAY	03MAY	04MAY
MAGNUM	46	.	.	46	58.6	.	.	58.6	0	.	.	0	34	.	.	34	100	.	.	100	02MAY	.	.	02MAY

CV = 11%

LSD(.05) = 10 bu/a

Table 6.—Wheat Performance Trials for Ohio Valley Region, 1985-1987.

VARIETY	-- YIELD (BU/AC) --				TEST WT (LB/BU)				--- PCT LODGED ---				PLANT HEIGHT (IN)				-- PCT SURVIVAL --				HEADING DATE			
	1987	1986	1985	MEAN	1987	1986	1985	MEAN	1987	1986	1985	MEAN	1987	1986	1985	MEAN	1987	1986	1985	MEAN	1987	1986	1985	MEAN
2550	52	47	53	51	55.3	57.0	51.9	54.7	0	0	5	2	32	34	35	34	100	89	46	78	09MAY	04MAY	11MAY	08MAY
SALUDA	52	49	53	51	54.4	59.8	53.5	55.9	0	0	20	7	30	31	32	31	100	83	41	75	08MAY	02MAY	08MAY	06MAY
FLA 302	51	26	52	43	55.1	55.5	54.7	55.1	0	0	4	1	34	34	35	34	100	60	34	65	08MAY	03MAY	10MAY	07MAY
2551	50	39	.	45	54.7	54.3	.	54.5	0	0	.	0	31	31	.	31	100	93	.	96	07MAY	01MAY	.	04MAY
CALDWELL	50	54	54	53	54.6	56.7	57.2	56.2	0	0	0	0	33	41	36	37	100	93	36	76	06MAY	01MAY	10MAY	05MAY
SCOTTY	49	51	51	50	55.7	58.5	51.3	55.2	0	0	6	2	34	36	33	34	100	90	34	75	07MAY	30APR	10MAY	05MAY
DOUBLECROP	49	16	53	39	56.5	56.8	57.5	56.9	0	0	14	5	37	36	37	36	100	90	45	78	29APR	26APR	04MAY	29APR
BECKER	49	49	.	49	53.9	56.0	.	54.9	0	0	.	0	30	32	.	31	100	88	.	94	10MAY	03MAY	.	06MAY
DB 685	48	.	.	48	55.2	.	.	55.2	0	.	.	0	35	.	.	35	100	.	.	100	08MAY	.	.	08MAY
MASSEY	47	44	33	41	56.5	57.7	53.2	55.8	0	0	13	4	35	37	38	37	100	90	25	72	08MAY	01MAY	09MAY	06MAY
TWAIN	47	35	51	44	56.6	59.2	57.7	57.8	0	0	3	1	35	35	35	35	100	81	44	75	04MAY	29APR	05MAY	02MAY
COKER 916	46	40	61	49	54.7	57.8	56.6	56.4	0	0	0	0	30	32	31	31	100	86	46	78	03MAY	27APR	05MAY	01MAY
ADENA	46	27	41	38	56.3	53.2	54.1	54.5	0	0	6	2	30	29	35	31	100	93	55	83	07MAY	30APR	11MAY	06MAY
BAILEY 4287	46	33	48	42	55.1	55.9	56.4	55.8	0	0	18	6	34	36	34	35	100	80	43	74	06MAY	02MAY	09MAY	05MAY
TYLER	45	51	33	43	55.6	56.0	50.1	53.9	0	0	13	4	36	38	38	37	100	89	43	77	08MAY	02MAY	13MAY	07MAY
LINCOLN	45	44	.	45	55.9	57.2	.	56.5	0	0	.	0	33	34	.	34	100	85	.	93	07MAY	01MAY	.	04MAY
PIKE	45	35	36	39	55.5	54.8	52.5	54.3	0	0	5	2	36	34	33	34	100	83	28	70	07MAY	02MAY	11MAY	06MAY
HART	45	39	42	42	55.5	56.9	53.2	55.2	0	0	5	2	36	34	37	36	100	81	49	77	06MAY	02MAY	09MAY	05MAY
MAGNUM	45	.	.	45	56.1	.	.	56.1	0	.	.	0	29	.	.	29	100	.	.	100	04MAY	.	.	04MAY
CARDINAL	44	.	.	44	57.0	.	.	57.0	0	.	.	0	35	.	.	35	100	.	.	100	09MAY	.	.	09MAY
WHEELER	44	42	50	45	56.6	60.1	58.0	58.2	0	0	11	4	38	38	38	38	100	88	43	77	07MAY	30APR	09MAY	05MAY
COMPTON	43	39	51	44	56.7	59.3	56.8	57.6	0	0	30	10	32	35	34	33	100	83	39	74	08MAY	02MAY	11MAY	07MAY
ADDER	42	31	51	41	52.5	55.8	54.4	54.2	0	0	14	5	32	31	32	32	100	93	38	77	08MAY	02MAY	10MAY	06MAY
ARTHUR	42	27	16	28	56.2	57.8	48.2	54.1	0	0	0	0	38	35	35	36	100	94	4	66	06MAY	28APR	10MAY	04MAY
ABE	40	34	28	34	55.5	57.2	52.3	55.0	0	0	5	2	35	35	36	35	100	86	10	66	06MAY	29APR	11MAY	05MAY

CV = 9%

LSD(.05) = 6 bu/a

Table 7.—Wheat Performance Trials for Bluegrass Region, 1984-1985, 1987.¹

VARIETY	-- YIELD (BU/AC) --				TEST WT (LB/BU)				--- PCT LODGED ---				PLANT HEIGHT (IN)				-- PCT SURVIVAL --				HEADING DATE			
	1987	1985	1984	MEAN	1987	1985	1984	MEAN	1987	1985	1984	MEAN	1987	1985	1984	MEAN	1987	1985	1984	MEAN	1987	1985	1984	MEAN
SALUDA	77	91	75	81	52.7	60.0	56.9	56.5	85	50	0	45	38	36	36	37	96	98	79	91	11MAY	06MAY	23MAY	13MAY
TWAIN	70	80	.	75	56.4	61.7	.	59.0	63	30	.	46	45	40	.	42	95	93	.	94	10MAY	04MAY	.	07MAY
2550	70	78	74	74	53.7	61.5	54.7	56.6	33	8	0	13	40	37	39	39	95	99	83	92	13MAY	07MAY	23MAY	14MAY
DB 685	69	.	.	69	52.5	.	.	52.5	8	.	.	8	43	.	.	43	98	.	.	98	15MAY	.	.	15MAY
FLA 302	69	93	45	69	48.0	57.4	46.3	50.6	63	30	0	31	43	36	38	39	95	98	24	72	12MAY	06MAY	30MAY	16MAY
TYLER	69	71	66	69	52.5	54.5	52.8	53.3	18	13	0	10	44	42	43	43	94	99	88	93	14MAY	07MAY	25MAY	15MAY
COKER 916	66	83	49	66	50.9	60.2	53.3	54.8	59	34	0	31	40	35	37	37	95	99	45	80	09MAY	02MAY	24MAY	11MAY
MASSEY	64	63	61	63	56.2	51.8	53.6	53.9	53	33	0	28	45	40	43	42	99	99	68	88	12MAY	04MAY	25MAY	14MAY
WHEELER	62	81	65	69	56.3	61.5	57.2	58.3	53	10	0	21	47	41	43	44	100	98	66	88	13MAY	06MAY	26MAY	15MAY
CARDINAL	61	.	.	61	52.8	.	.	52.8	35	.	.	35	43	.	.	43	94	.	.	94	14MAY	.	.	14MAY
ARTHUR	61	74	66	67	52.0	61.7	58.5	57.4	35	8	0	14	47	44	43	45	96	99	78	91	12MAY	05MAY	23MAY	13MAY
HART	60	59	60	60	55.0	58.0	54.7	55.9	11	8	0	6	45	39	42	42	99	100	70	90	12MAY	05MAY	25MAY	14MAY
SCOTTY	59	84	76	73	54.5	59.3	56.2	56.7	30	11	0	14	40	40	40	40	93	98	90	93	14MAY	06MAY	24MAY	15MAY
COMPTON	59	84	76	73	55.1	54.7	58.2	56.0	68	5	0	24	39	38	40	39	99	99	93	97	14MAY	06MAY	24MAY	15MAY
2551	57	.	.	57	50.5	.	.	50.5	59	.	.	59	39	.	.	39	99	.	.	99	13MAY	.	.	13MAY
LINCOLN	56	.	.	56	50.8	.	.	50.8	88	.	.	88	40	.	.	40	96	.	.	96	12MAY	.	.	12MAY
DOUBLECROP	55	75	64	65	58.5	61.7	61.6	60.6	16	15	0	10	46	40	40	42	95	99	91	95	08MAY	01MAY	18MAY	09MAY
ADDER	55	79	.	67	50.8	59.0	.	54.9	68	19	.	43	39	38	.	38	96	98	.	97	14MAY	06MAY	.	10MAY
PIKE	55	69	70	64	54.3	57.9	53.7	55.3	25	26	0	17	45	41	41	42	96	99	86	94	12MAY	06MAY	24MAY	14MAY
MAGNUM	54	80	69	68	54.2	57.6	53.4	55.1	38	14	0	17	39	37	38	38	96	99	90	95	12MAY	04MAY	23MAY	13MAY
ABE	53	73	72	66	56.2	61.5	58.3	58.7	43	15	5	21	44	40	42	42	96	96	91	95	13MAY	05MAY	23MAY	14MAY
BAILEY 4287	52	76	.	64	52.9	60.0	.	56.4	28	8	.	18	45	40	.	42	96	99	.	98	12MAY	05MAY	.	09MAY
CALDWELL	49	81	69	67	50.0	59.7	53.7	54.5	59	28	0	29	39	40	38	39	94	99	79	90	11MAY	06MAY	23MAY	13MAY
ADENA	48	68	.	58	55.0	59.9	.	57.4	34	8	.	21	40	36	.	38	96	100	.	98	13MAY	06MAY	.	10MAY
BECKER	41	.	.	41	49.2	.	.	49.2	4	.	.	4	33	.	.	33	95	.	.	95	15MAY	.	.	15MAY

CV = 8%

LSD(.05) = 7 bu/a

¹1986 test discarded due to winterkill.

Table 8.—Wheat Performance Trials for Southern Tier Region, 1985-1987.¹

VARIETY	-- YIELD (BU/AC) --				TEST WT (LB/BU)				--- PCT LODGED ---				PLANT HEIGHT (IN)				-- PCT SURVIVAL --				HEADING DATE			
	1987	1986	1985	MEAN	1987	1986	1985	MEAN	1987	1986	1985	MEAN	1987	1986	1985	MEAN	1987	1986	1985	MEAN	1987	1986	1985	MEAN
FLA 302	86	11	65	54	52.8	50.0	54.1	52.3	50	0	0	17	43	26	37	35	100	8	95	68	01MAY	01MAY	03MAY	01MAY
MASSEY	76	43	64	61	49.1	55.2	55.6	53.3	35	0	5	13	40	36	36	38	100	65	100	88	30APR	27APR	29APR	28APR
MAGNUM	74	.	.	74	55.6	.	.	55.6	10	.	.	10	40	.	.	40	100	.	100		30APR	.	.	30APR
BAILEY 4287	74	42	62	59	52.6	53.1	55.9	53.9	38	0	0	13	40	36	37	38	100	49	100	83	29APR	28APR	30APR	28APR
SALUDA	73	45	75	64	47.2	58.2	56.4	53.9	80	0	4	28	40	31	33	35	100	54	100	85	01MAY	27APR	02MAY	30APR
2551	71	51	.	61	51.3	52.8	.	52.0	3	0	.	1	40	33	.	36	100	74	.	87	02MAY	28APR	.	30APR
ADDER	69	52	65	62	44.3	51.1	54.4	49.9	58	0	3	20	41	34	34	36	100	95	100	98	03MAY	27APR	01MAY	30APR
CALDWELL	68	57	68	64	48.5	57.5	55.9	54.0	28	0	0	9	43	38	37	39	100	76	100	92	02MAY	27APR	03MAY	30APR
DB 685	67	.	.	67	51.9	.	.	51.9	60	.	.	60	44	.	.	44	100	.	.	100	03MAY	.	.	03MAY
PIKE	66	49	60	58	52.9	56.0	54.2	54.4	66	0	3	23	43	37	38	39	100	58	100	86	30APR	28APR	01MAY	29APR
SCOTTY	66	43	75	61	50.4	54.0	57.2	53.9	35	0	0	12	41	35	36	37	100	85	100	95	03MAY	27APR	01MAY	30APR
ADENA	65	32	72	56	49.6	53.4	55.9	53.0	13	0	0	4	40	30	34	35	100	29	100	76	02MAY	29APR	01MAY	30APR
TYLER	65	48	70	61	47.7	55.0	56.3	53.0	20	0	6	9	45	37	41	41	100	46	100	82	03MAY	29APR	03MAY	01MAY
CARDINAL	62	.	.	62	52.0	.	.	52.0	48	.	.	48	44	.	.	44	100	.	.	100	03MAY	.	.	03MAY
BECKER	62	49	.	56	51.0	54.0	.	52.5	10	0	.	5	40	32	.	36	100	80	.	90	04MAY	30APR	.	02MAY
2550	62	51	74	62	53.0	54.1	55.8	54.3	44	0	10	18	40	37	37	38	100	71	100	90	03MAY	30APR	04MAY	02MAY
WHEELER	61	25	68	51	52.6	56.8	57.1	55.5	51	0	3	18	44	34	41	39	100	23	100	74	02MAY	28APR	02MAY	30APR
ABE	61	37	61	53	50.0	55.0	57.1	54.0	55	0	15	23	41	34	36	37	100	85	93	93	02MAY	27APR	30APR	29APR
ARTHUR	60	43	56	53	51.6	57.1	58.7	55.8	31	0	10	14	42	38	40	40	100	83	94	92	01MAY	26APR	01MAY	29APR
COKER 916	60	39	72	57	51.1	53.0	56.1	53.4	93	0	3	32	41	32	31	34	100	75	100	92	27APR	23APR	26APR	25APR
DOUBLECROP	59	25	55	46	58.6	55.4	56.6	56.9	50	0	0	17	42	38	37	39	100	79	100	93	24APR	19APR	24APR	22APR
COMPTON	59	50	73	61	47.7	55.6	56.0	53.1	51	0	6	19	40	34	34	36	100	90	99	96	03MAY	28APR	02MAY	01MAY
TWAIN	56	30	73	53	50.6	54.8	54.8	53.4	23	0	5	9	43	35	37	39	100	31	100	77	29APR	28APR	28APR	28APR
LINCOLN	51	44	.	47	52.0	54.4	.	53.2	39	0	.	19	43	36	.	39	100	81	.	91	02MAY	26APR	.	29APR
HART	41	44	66	50	52.5	52.9	54.8	53.4	34	0	3	12	40	36	40	38	100	63	100	88	02MAY	29APR	01MAY	30APR

CV = 9%

LSD(.05) = 10 bu/a

¹Location was Princeton, limestone soil.

Table 8A.—Wheat Performance Trials for Southern Tier Region, 1985-1987.¹

VARIETY	-- YIELD (BU/AC) --				TEST WT (LB/BU)				--- PCT LODGED ---				PLANT HEIGHT (IN)				-- PCT SURVIVAL --				HEADING DATE			
	1987	1986	1985	MEAN	1987	1986	1985	MEAN	1987	1986	1985	MEAN	1987	1986	1985	MEAN	1987	1986	1985	MEAN	1987	1986	1985	MEAN
CARDINAL	87	.	.	87	55.7	.	.	55.7	0	.	.	0	41	.	.	41	100	.	.	100	04MAY			04MAY
BECKER	85	30	.	57	54.2	49.8	.	52.0	0	0	.	0	34	27	.	30	100	21	.	61	05MAY	06MAY		06MAY
TWAIN	80	33	69	61	57.2	54.0	59.8	57.0	6	0	14	7	40	33	37	36	100	29	100	76	30APR	02MAY	30APR	30APR
MASSEY	80	25	49	51	56.3	47.0	56.1	53.1	25	0	34	20	39	33	39	37	100	24	89	71	03MAY	07MAY	03MAY	04MAY
LINCOLN	79	36	.	57	56.5	54.1	.	55.3	3	0	.	1	38	32	.	35	100	24	.	62	03MAY	02MAY		02MAY
2550	79	35	59	58	53.7	52.0	58.5	54.7	5	0	23	9	37	30	36	34	100	23	94	72	05MAY	06MAY	05MAY	05MAY
FLA 302	79	14	62	52	55.6	40.8	54.5	50.3	8	0	16	8	39	25	37	33	100	4	73	59	05MAY	11MAY	07MAY	07MAY
WHEELER	77	28	65	57	58.1	53.8	58.7	56.9	15	0	6	7	44	28	39	37	100	11	91	68	04MAY	06MAY	03MAY	04MAY
ADENA	77	22	52	50	53.4	50.0	55.3	52.9	0	0	20	7	35	25	35	31	100	16	93	70	03MAY	08MAY	04MAY	05MAY
2551	76	41	.	59	51.5	47.2	.	49.3	0	0	.	0	34	32	.	33	100	48	.	74	05MAY	03MAY		04MAY
CALDWELL	76	46	49	57	53.4	52.2	54.8	53.5	0	0	34	11	37	31	37	35	100	25	91	72	02MAY	03MAY	05MAY	03MAY
SCOTTY	75	35	67	59	57.0	52.4	58.9	56.1	4	0	35	13	37	30	36	34	100	18	91	70	04MAY	05MAY	03MAY	04MAY
TYLER	74	31	45	50	55.2	48.6	54.0	52.6	3	0	14	5	40	32	41	38	100	30	93	74	04MAY	05MAY	06MAY	04MAY
SALUDA	73	38	64	59	57.3	57.2	60.7	58.4	0	0	39	13	34	26	34	31	100	14	89	68	03MAY	03MAY	05MAY	03MAY
COMPTON	73	39	63	59	57.7	56.0	58.9	57.5	11	0	20	10	37	31	35	35	100	33	96	76	05MAY	04MAY	04MAY	04MAY
DOUBLECROP	72	28	58	53	59.5	56.0	60.2	58.6	0	0	6	2	41	30	37	36	100	16	93	70	27APR	27APR	27APR	27APR
COKER 916	72	27	63	54	55.5	50.6	57.5	54.5	44	0	11	18	35	24	34	31	100	10	95	68	29APR	05MAY	01MAY	01MAY
ARTHUR	70	39	51	53	57.4	56.5	59.1	57.7	0	0	28	9	42	35	38	38	100	24	80	68	02MAY	01MAY	02MAY	01MAY
DB 685	70	.	.	70	54.5	.	.	54.5	3	.	.	3	40	.	.	40	100	.	.	100	05MAY			05MAY
HART	69	18	55	47	56.5	47.6	57.1	53.7	0	0	6	2	40	30	39	36	100	9	94	68	03MAY	08MAY	03MAY	04MAY
BAILEY 4287	69	41	61	57	55.6	53.2	57.8	55.5	0	0	31	10	38	34	37	36	100	23	95	73	03MAY	02MAY	02MAY	02MAY
ADDER	68	40	63	57	52.0	53.5	52.2	52.6	0	0	14	5	37	30	33	34	100	30	99	76	03MAY	04MAY	03MAY	03MAY
PIKE	68	26	52	48	52.7	49.0	55.9	52.5	3	0	19	7	39	29	36	35	100	24	88	70	01MAY	07MAY	02MAY	03MAY
MAGNUM	67	.	.	67	56.1	.	.	56.1	0	.	.	0	34	.	.	34	100	.	.	100	01MAY			01MAY
ABE	67	31	44	48	57.4	55.2	57.2	56.6	4	0	14	6	41	31	38	36	100	19	70	63	02MAY	01MAY	03MAY	02MAY

CV = 20%

LSD(.05) = 19 bu/a

¹Location was Franklin, 1986-1987, Russellville, 1985.

Table 9.—Wheat Performance Trials for North Central Region, 1985-1987.

VARIETY	-- YIELD (BU/AC) --				TEST WT (LB/BU)				--- PCT LODGED ---				PLANT HEIGHT (IN)				-- PCT SURVIVAL --			
	1987	1986	1985	MEAN	1987	1986	1985	MEAN	1987	1986	1985	MEAN	1987	1986	1985	MEAN	1987	1986	1985	MEAN
LINCOLN	63	43	.	53	57.5	55.0	.	56.3	0	0	.	0	38	30	.	34	100	64	.	82
BECKER	63	33	.	48	52.9	51.5	.	52.2	0	0	.	0	31	25	.	28	100	50	.	75
TWAIN	63	23	31	39	57.3	48.0	48.4	51.2	0	0	35	12	37	29	40	36	100	43	80	74
MASSEY	60	36	27	41	56.1	53.4	51.7	53.7	0	0	19	6	37	29	40	36	100	64	54	73
2550	59	37	25	40	54.5	52.0	46.6	51.0	0	0	31	10	34	27	35	32	100	63	63	75
ADENA	57	14	28	33	55.9	46.0	45.2	49.0	0	0	30	10	32	23	34	29	100	24	69	64
FLA 302	57	7	23	29	55.9	46.6	39.4	47.3	0	0	73	24	36	24	34	31	100	9	50	53
CARDINAL	57	.	.	57	55.9	.	.	55.9	0	.	.	0	36	.	.	36	100	.	.	100
COMPTON	56	30	35	41	56.2	55.3	49.1	53.5	0	0	5	2	35	28	36	33	100	73	53	75
2551	56	27	.	41	53.7	45.8	.	49.7	0	0	.	0	31	27	.	29	100	56	.	78
WHEELER	55	16	26	33	56.8	42.8	53.4	51.0	0	0	5	2	41	27	41	36	100	16	49	55
DB 685	54	.	.	54	53.8	.	.	53.8	0	.	.	0	38	.	.	38	100	.	.	100
HART	54	34	16	35	55.2	49.2	43.4	49.3	0	0	59	20	39	27	39	35	100	43	60	68
DOUBLECROP	53	6	29	29	58.0	46.4	43.6	49.3	0	0	5	2	35	24	41	33	100	65	56	74
COKER 916	53	21	31	35	55.0	49.4	49.0	51.1	0	0	8	3	31	25	35	30	100	51	68	73
TYLER	53	31	27	37	54.3	50.4	49.2	51.3	0	0	54	18	36	28	41	35	100	46	69	72
SCOTTY	53	31	35	40	57.0	52.8	51.3	53.7	0	0	4	1	35	27	37	33	100	68	54	74
SALUDA	52	17	30	33	56.7	47.2	48.4	50.8	0	0	19	6	32	23	33	29	100	31	53	61
ADDER	50	36	27	37	54.3	53.1	46.6	51.3	0	0	3	1	34	26	32	31	100	85	66	84
MAGNUM	50	.	.	50	56.4	.	.	56.4	0	.	.	0	31	.	.	31	100	.	.	100
CALDWELL	49	36	25	37	55.4	52.7	40.3	49.5	0	0	44	15	33	28	36	32	100	69	49	73
ABE	47	33	20	33	50.7	52.8	52.8	52.1	0	0	23	8	36	28	37	34	100	60	28	63
ARTHUR	44	31	18	31	54.8	54.0	49.6	52.8	0	0	13	4	38	29	39	35	100	66	24	63
BAILEY 4287	43	15	25	28	54.0	44.0	48.8	48.9	0	0	46	15	35	27	38	33	100	41	53	65
PIKE	40	14	15	23	52.5	51.0	46.0	49.8	0	0	71	24	35	25	37	32	100	24	39	54

CV = 10%

LSD(.05) = 8 bu/a

Table 10.—Disease Ratings of Wheat Varieties, 1987.¹

VARIETY ²	LEAF RUST	LEAF BLOTCH	GLUME BLOTCH	POWDERY MILDEW	WSSMV ³
ABE	S	VS	MS	S	S
ARTHUR	S	S	MS	S	S
DOUBLECROP	MS	S	MS	VS	S
2550	MR	VS	S	MS	MS
CALDWELL	MS	S	S	S	S
SCOTTY	MR	MS	MS	MS	MS
WHEELER	MS	MS	MS	S	S
TYLER	VS	MS	MS	S	MR
HART	VS	S	MS	VS	R
COKER 916	MR	S	VS	MS	MS
ADENA	MS	MS	S	MS	R
PIKE	S	S	S	VS	S
MASSEY	VS	MR	MS	MR	R
SALUDA	MS	MS	MS	MS	VS
COMPTON	MS	S	VS	S	MS
ADDER	MR	MS	MS	MR	MS
FLA 302	MR	VS	MS	MS	VS
CARDINAL	MS	S	MS	VS	MR
MAGNUM	MS	MS	MS	MS	S
BAILEY 4287	MS	VS	MS	MS	S
LINCOLN	MR	MS	MS	MS	MR
TWAIN	MS	MS	S	MR	MR
DB 685	VS	MS	MS	MR	MR
BECKER	MS	MS	MS	VS	R
2551	MS	MS	MS	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.

³Wheat spindle streak mosaic virus.

Table 11.—Characteristics of Barley Varieties Tested in 1987.

VARIETY	PROTECTED	SOURCE	RELEASE DATE	YIELD (BU/A)	TEST WEIGHT (LB/BU)	LODGING (%)	PLANT HEIGHT (IN.)	SURVIVAL (%)	HEADING DATE
VIKING	NO	MADISON SEED CO.	1985	113	42.8	34.4	46.9	98.4	27APR87
VOYAGER	NO	MADISON SEED CO.	1985	112	42.4	43.8	46.5	98.8	27APR87
WYSOR	NO	VIRGINIA	1985	112	44.3	18.4	42.1	99.1	24APR87
RAY	NO	OHIO	1986	103	44.2	9.7	45.7	98.8	27APR87
BARSOY	NO	KENTUCKY	1966	97.2	45.2	19.1	39.1	99.4	18APR87
GENESIS	NO	MADISON SEED CO.	1985	96.9	44.5	20.6	40.1	98.8	18APR87
SURVEYOR	NO	MADISON SEED CO.	1985	96.0	42.7	32.8	42.7	99.4	23APR87
PIKE	YES	INDIANA	1975	94.7	44.5	27.2	38.5	99.1	22APR87

CV = 11%

LSD(.05) = 8 bu/a

Table 12.—Barley Performance Trials for Western Coal Field Region, 1983, 1985, 1987.

VARIETY	-- YIELD (BU/AC) --				TEST WT (LB/BU)				--- PCT LODGED ---				PLANT HEIGHT (IN)				-- PCT SURVIVAL --				HEADING DATE			
	1987	1985	1983	MEAN	1987	1985	1983	MEAN	1987	1985	1983	MEAN	1987	1985	1983	MEAN	1987	1985	1983	MEAN	1987	1985	1983	MEAN
VOYAGER	117	.	.	117	47.1	.	.	47.1	0	.	.	0	47	.	.	47	100	.	.	100	27APR	.	.	27APR
VIKING	114	.	.	114	46.4	.	.	46.4	0	.	.	0	48	.	.	48	100	.	.	100	27APR	.	.	27APR
WYSOR	109	77	.	93	45.4	40.5	.	42.9	0	10	.	5	43	38	.	40	100	98	.	99	23APR	26APR	.	24APR
RAY	98	.	.	98	49.4	.	.	49.4	0	.	.	0	45	.	.	45	100	.	.	100	26APR	.	.	26APR
GENESIS	97	.	.	97	46.5	.	.	46.5	0	.	.	0	39	.	.	39	100	.	.	100	16APR	.	.	16APR
PIKE	95	54	46	65	47.2	40.2	40.0	42.5	0	79	0	26	38	35	27	33	100	90	100	97	20APR	22APR	05MAY	25APR
BARSOY	95	51	59	69	48.8	40.6	43.5	44.3	0	55	0	18	38	36	32	35	100	94	100	98	16APR	18APR	30APR	21APR
SURVEYOR	89	.	.	89	42.2	.	.	42.2	0	.	.	0	42	.	.	42	100	.	.	100	22APR	.	.	22APR

CV = 9%
LSD(.05) = 13 bu/a

Table 13.—Barley Performance Trials for Bluegrass Region, 1983, 1985, 1987.

VARIETY	-- YIELD (BU/AC) --				TEST WT (LB/BU)				--- PCT LODGED ---				PLANT HEIGHT (IN)				-- PCT SURVIVAL --				HEADING DATE			
	1987	1985	1983	MEAN	1987	1985	1983	MEAN	1987	1985	1983	MEAN	1987	1985	1983	MEAN	1987	1985	1983	MEAN	1987	1985	1983	MEAN
GENESIS	127	.	.	127	40.7	.	.	40.7	1	.	.	1	44	.	.	44	95	.	.	95	25APR	.	.	25APR
SURVEYOR	127	.	.	127	44.2	.	.	44.2	45	.	.	45	48	.	.	48	98	.	.	98	28APR	.	.	28APR
BARSOY	126	86	50	87	43.8	47.0	46.1	45.6	0	99	3	34	43	34	31	36	98	96	100	98	23APR	23APR	03MAY	26APR
WYSOR	123	77	.	100	44.8	44.8	.	44.8	3	70	.	36	43	37	.	40	96	96	.	96	30APR	28APR	.	28APR
VIKING	120	.	.	120	40.4	.	.	40.4	65	.	.	65	51	.	.	51	94	.	.	94	02MAY	.	.	02MAY
VOYAGER	116	.	.	116	39.4	.	.	39.4	83	.	.	83	50	.	.	50	95	.	.	95	01MAY	.	.	01MAY
RAY	112	.	.	112	42.7	.	.	42.7	8	.	.	8	51	.	.	51	95	.	.	95	03MAY	.	.	03MAY
PIKE	111	92	59	87	43.7	45.6	45.1	44.8	13	100	10	41	41	33	30	34	96	99	100	98	28APR	25APR	06MAY	29APR

CV = 9%
LSD(.05) = 15 bu/a

Table 14.—Barley Performance Trials for Southern Tier Region, 1983, 1985, 1987.¹

VARIETY	-- YIELD (BU/AC) --				TEST WT (LB/BU)				--- PCT LODGED ---				PLANT HEIGHT (IN)				-- PCT SURVIVAL --				HEADING DATE			
	1987	1985	1983	MEAN	1987	1985	1983	MEAN	1987	1985	1983	MEAN	1987	1985	1983	MEAN	1987	1985	1983	MEAN	1987	1985	1983	MEAN
VIKING	118	.	.	118	46.2	.	.	46.2	0	.	.	0	46	.	.	46	100	.	.	100	26APR	.	.	26APR
VOYAGER	117	.	.	117	44.9	.	.	44.9	0	.	.	0	46	.	.	46	100	.	.	100	26APR	.	.	26APR
WYSOR	108	80	.	94	44.5	45.8	.	45.1	0	74	.	37	40	36	.	38	100	70	.	85	23APR	01MAY	.	27APR
RAY	106	.	.	106	37.8	.	.	37.8	0	.	.	0	44	.	.	44	100	.	.	100	25APR	.	.	25APR
PIKE	97	64	58	73	48.7	46.3	39.9	45.0	0	78	10	29	37	35	29	33	100	84	100	95	20APR	25APR	03MAY	25APR
BARSOY	93	65	69	76	45.7	47.1	46.9	46.6	0	34	3	12	37	36	34	35	100	66	100	89	19APR	21APR	29APR	22APR
SURVEYOR	92	.	.	92	42.6	.	.	42.6	0	.	.	0	41	.	.	41	100	.	.	100	22APR	.	.	22APR
GENESIS	89	.	.	89	46.8	.	.	46.8	0	.	.	0	37	.	.	37	100	.	.	100	18APR	.	.	18APR

CV = 7%
LSD(.05) = 10 bu/a

¹Location was Princeton, limestone soil.

Table 14A.—Barley Performance Trials for Southern Tier Region, 1985-1987.¹

VARIETY	-- YIELD (BU/AC) --				TEST WT (LB/BU)				--- PCT LODGED ---				PLANT HEIGHT (IN)				-- PCT SURVIVAL --				HEADING DATE			
	1987	1986	1985	MEAN	1987	1986	1985	MEAN	1987	1986	1985	MEAN	1987	1986	1985	MEAN	1987	1986	1985	MEAN	1987	1986	1985	MEAN
WYSOR	106	68	82	85	42.6	48.0	43.4	44.7	71	1	0	24	43	38	37	39	100	80	98	93	22APR	18APR	26APR	21APR
VIKING	99	32	.	66	38.4	40.4	.	39.4	73	4	.	38	43	36	.	39	100	15	.	58	24APR	24APR	.	24APR
VOYAGER	97	37	.	67	38.1	41.6	.	39.8	93	5	.	49	43	36	.	39	100	12	.	56	23APR	24APR	.	24APR
RAY	95	.	.	95	46.9	.	.	46.9	31	.	.	31	43	.	.	43	100	.	.	100	23APR	.	.	23APR
SURVEYOR	76	17	.	46	41.8	42.3	.	42.0	86	0	.	43	40	32	.	36	100	16	.	58	19APR	20APR	.	19APR
PIKE	76	38	67	60	38.6	46.6	44.6	43.3	96	5	24	42	39	33	32	35	100	78	100	93	21APR	14APR	22APR	19APR
BARSOY	75	24	65	55	42.6	46.6	44.3	44.5	76	0	51	43	39	32	35	35	100	26	100	75	16APR	12APR	21APR	16APR
GENESIS	74	43	.	59	44.2	44.6	.	44.4	81	3	.	42	41	34	.	37	100	68	.	84	14APR	12APR	.	13APR

CV = 17%
LSD(.05) = 22 bu/a

¹Location was Franklin, 1986-87, Russellville, 1985.

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