

1991
Kentucky
Small Grain
Variety Trials

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1991 Kentucky Small Grain Variety Trials

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In 1991, Kentucky farmers harvested 12.9 million bushels of soft red winter wheat produced on 430,000 acres. The average yield of 30 bu/a was down 10 bu/a from 1990. Barley yields were down 8% from 1990 levels.

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

The objective of the Kentucky small grain variety trials is to evaluate varieties of barley and wheat that are commercially available or may soon be available to Ken-

tucky farmers. New varieties are continually being developed by agricultural experiment stations and commercial firms. Annual evaluation of small grain varieties and selections provides seedsmen, farmers, and other agricultural workers with current information to help them select the varieties best adapted to their locality and individual requirements.

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

Experimental Methods

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

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

Results & 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.

Table 1. -- Small Grain Harvested Acreage and Yields in Kentucky, 1989-1991.*

Crop	1991		1990		1989	
	Harvest 1000 A	Yield Bu/A	Harvest 1000 A	Yield Bu/A	Harvest 1000 A	Yield Bu/A
Wheat	430	30	500	40	450	50
Barley	22	55	17	60	17	67

* July 1, 1991, Kentucky Crop and Livestock Reporting Service.

NOTE: Oat and rye data no longer available.

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

Region	1991 Location	Cooperator	Crop Tested
1 Purchase	Bardwell	Roger Hobbs	Wheat
2 Western Coal Field	Princeton (Sandstone soil)	Research and Education Center	Barley, Wheat
3 Ohio Valley	Hawesville	Hagman Brothers	Wheat
4 Bluegrass	Lexington*	Kentucky Agricultural Experiment Station	Barley, Wheat
5 Southern Tier	Bowling Green Princeton (Limestone soil)	James Reynolds Research and Education Center	Barley, Wheat Barley, Wheat
6 North Central	Bardstown	Frankie Blanford	Wheat

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Table 2. - Region, Location, Preceding Crop and Planting Dates of Kentucky Small Grain Trials, 1989-1991.

Region	Location		Preceding		Planting Date		
			Crop	Crop	1991	1990	1989
Purchase	Bardwell	1989	Fallow	Wheat	11/1	10/26	10/20
		1990	Corn				
		1991	Corn				
Western Coal Field	Princeton (Sandstone soil)		Fallow	Barley	11/1	10/27	10/13
				Wheat	11/1	10/27	10/13
Ohio Valley	Dixon	1989	Tobacco	Wheat	10/29	10/28	10/14
		1990	Corn				
		1991	Corn				
Bluegrass	Lexington		Fallow	Barley	10/16	10/13	10/7
				Wheat	10/16	10/13	10/11
Southern Tier	Bowling Green	1989-91	Corn	Barley	10/31	11/1	10/19
				Wheat	10/31	11/1	10/19
	Princeton (Limestone soil)	Fallow	Barley	11/2	10/27	10/12	
			Wheat	11/2	10/27	10/12	
North Central	Brandenburg	1989-90	Corn	Wheat	10/30	10/30	10/17
	Bardstown	1991	Corn				

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.

1991 Test Conditions

Dry weather in early October allowed some early planting of small grains. A rainy period in the middle of the month, however, delayed planting of much of the wheat and barley crops. Excess rainfall was recorded in

December, making it one of the wettest on record. Winterkill was minimal, although there were instances of heaving observed at several test locations, which resulted in lower than normal survival ratings. Unusually high temperatures throughout the spring resulted in early heading dates and a shortened grain filling period. Severe barley yellow dwarf virus symptoms were noted in the wheat trials at Lexington and Princeton. Heavy powdery mildew and leaf blotch pressure was observed at several locations. Head diseases were unusually severe this year, with *Septoria glume blotch* and head scab lowering yields and test weights at all locations. The uncontrollable

environmental variability in this years tests, a result of high stress levels, is reflected in high CV's for most tests (Tables 3-14A).

Small Grain Varieties for 1992

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 1991.

VARIETY	PROTECTED	SOURCE	RELEASE DATE	YIELD (BU/A)	TEST WEIGHT (LB/BU)	LODGING (%)	PLANT HEIGHT (IN.)	SURVIVAL (%)	HEADING DATE
MADISON	YES	VIRGINIA	1990	32.9	49.6	0.0	37.1	75.0	29APR91
VERNE	YES	KENTUCKY	1990	32.2	48.9	0.0	39.8	77.0	03MAY91
CLARK	YES	INDIANA	1988	31.2	49.8	0.0	36.8	79.3	29APR91
COKER 9733	YES	NORTHUP KING	1986	31.0	53.8	2.1	40.8	72.3	02MAY91
WHEELER	NO	VIRGINIA	1980	29.9	52.9	0.4	41.5	72.9	04MAY91
COKER 9803	YES	NORTHUP KING	1990	29.6	52.8	0.0	33.6	59.6	30APR91
MASSEY	NO	VIRGINIA	1981	29.3	51.8	0.0	40.1	67.9	02MAY91
2555	YES	PIONEER HI BRED INT	1987	28.0	47.4	0.0	37.1	76.4	29APR91
COKER 9024	YES	NORTHUP KING	1990	28.0	49.1	0.0	40.2	66.4	05MAY91
COKER 833	YES	NORTHUP KING	1984	27.6	50.7	0.0	37.6	74.5	06MAY91
COKER 9543	YES	NORTHUP KING	1990	27.5	50.2	0.0	33.3	71.6	29APR91
WAKEFIELD	YES	VIRGINIA	1990	27.1	48.2	0.0	38.0	68.4	05MAY91
DOUBLECROP	NO	ARKANSAS	1975	26.9	52.7	0.0	39.3	58.0	25APR91
FFR 555W	YES	SOUTHERN STATES CO-OP	1990	26.6	47.9	0.0	35.6	67.5	02MAY91
FFR 568	YES	SOUTHERN STATES CO-OP	1990	26.5	49.4	0.0	38.1	78.2	04MAY91
COKER 916	YES	NORTHUP KING	1982	26.0	48.1	0.0	34.7	69.6	29APR91
ARY 85-01	YES	AGRIPRO BIOSCIENCES INC.	1991	25.9	47.7	0.0	36.2	75.5	02MAY91
2548	YES	PIONEER HI BRED INT	1989	25.6	47.7	0.0	33.3	73.8	03MAY91
ANTHUR	NO	INDIANA	1968	24.2	52.2	0.4	40.0	63.2	02MAY91
TYLER	NO	VIRGINIA	1980	23.8	45.9	0.0	40.6	73.6	06MAY91
FFR EXP 361	YES	SOUTHERN STATES CO-OP	1991	23.5	47.8	0.0	35.0	55.4	01MAY91
COMPTON	YES	INDIANA	1984	23.1	51.6	0.7	36.0	68.9	04MAY91
MALLARD	YES	AGRIPRO BIOSCIENCES INC.	1990	22.7	46.6	0.0	34.8	70.0	02MAY91
HOWELL	YES	ILLINOIS	1990	22.6	51.9	0.0	40.0	71.8	07MAY91
SAUDA	NO	VIRGINIA	1983	22.5	47.6	0.0	33.9	65.0	04MAY91
FFR 544	YES	SOUTHERN STATES CO-OP	1989	22.1	49.4	0.0	35.0	76.8	02MAY91
DYNASTY	YES	OHIO	1987	21.7	47.4	0.0	37.5	76.3	04MAY91
CARDINAL	YES	OHIO	1986	21.1	46.8	0.0	38.3	67.0	07MAY91
CHEROKEE	YES	AGRIPRO BIOSCIENCES INC.	1990	21.1	47.7	0.0	39.3	65.0	29APR91
SCOTT	NO	ILLINOIS	1982	20.6	49.1	0.0	37.4	64.1	04MAY91
BECKER	YES	OHIO	1985	20.0	44.9	0.0	34.3	77.5	04MAY91
COKER 9877	YES	NORTHUP KING	1986	19.5	47.7	0.4	37.0	83.0	09MAY91
EXCEL	YES	OHIO	1990	16.4	42.1	0.0	35.3	64.8	05MAY91
CALDWELL	YES	INDIANA	1980	15.8	46.5	0.0	36.7	62.0	05MAY91

MEAN = 24.4 BU/A

CV = 18.0% 1

LSD(0.05) = 2.4 BU/A 2

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 3A. -- Average Performance of Wheat Varieties Tested in 1990-1991.

VARIETY	YIELD (BU/A)	TEST WEIGHT (LB/BO)	LODGING (%)	PLANT HEIGHT (IN)	SURVIVAL (%)	HEADING DATE
WAKEFIELD	42.1	52.5	6.8	37.5	84.1	07MAY
MADISON	41.1	52.7	10.3	35.6	87.4	02MAY
VERNE	39.9	52.8	4.8	38.2	88.4	05MAY
COKER 9803	38.7	56.1	7.9	32.4	79.7	03MAY
COKER 9733	38.5	54.2	11.6	39.4	86.2	06MAY
2548	38.3	51.8	1.1	33.1	86.9	05MAY
COKER 833	37.9	54.2	5.5	37.5	87.1	09MAY
COKER 9024	37.8	53.1	12.1	39.2	83.1	07MAY
CLARK	37.5	51.5	1.8	35.6	89.6	01MAY
FFR 568W	37.3	52.7	3.8	37.5	89.1	06MAY
WHEELER	37.1	55.5	1.8	39.5	86.0	06MAY
ABI 85-81	35.9	50.5	9.5	35.2	87.8	03MAY
MASSEY	35.6	54.1	9.0	38.4	83.7	05MAY
FFR 555W	35.5	50.2	2.9	33.8	83.7	05MAY
2555	35.2	50.7	4.9	35.6	88.0	02MAY
HOWELL	34.9	55.6	0.8	39.5	85.6	09MAY
TYLER	33.6	51.1	5.5	39.6	86.7	08MAY
COKER 916	33.6	51.1	4.1	33.1	83.3	02MAY
CARDINAL	33.4	50.7	4.0	38.3	83.5	08MAY
COKER 9877	32.5	52.2	1.7	37.3	81.3	11MAY
SALUDA	31.4	52.2	10.2	32.8	82.2	05MAY
ARTHUR	30.5	54.5	6.7	38.0	81.4	04MAY
FFR 544W	30.1	50.9	2.3	34.6	88.4	03MAY
DOUBLECROP	30.1	54.6	6.4	37.1	78.6	28APR
SCOTTY	30.0	51.9	5.3	36.3	82.0	07MAY
COMPTON	29.6	53.9	5.6	35.1	84.1	07MAY
BECKER	28.7	49.2	0.3	33.7	88.7	06MAY
DYNASTY	28.3	49.9	3.1	36.7	87.9	06MAY
CHEROKEE	27.7	50.3	2.1	38.0	82.2	02MAY
CALDWELL	26.0	49.7	1.5	36.3	80.5	06MAY

Table 3B. -- Average Performance of Wheat Varieties Tested in 1989-1991.

VARIETY	YIELD (BU/A)	TEST WEIGHT (LB/BU)	LODGING (%)	PLANT HEIGHT (IN)	SURVIVAL (%)	HEADING DATE
WAKEFIELD	53.1	53.6	9.6	36.7	88.7	07MAY
VERNE	52.8	53.5	10.8	37.6	92.1	05MAY
MADISON	52.3	53.5	12.2	34.5	91.1	02MAY
2548	50.7	53.0	4.4	32.3	90.8	05MAY
CLARK	49.5	52.5	6.0	34.8	92.7	01MAY
2555	48.7	51.7	7.4	34.6	91.8	03MAY
HOWELL	47.8	56.5	4.7	38.8	89.8	09MAY
WHEELER	47.5	55.8	10.4	38.6	90.3	07MAY
CARDINAL	47.5	51.6	4.8	37.8	88.6	09MAY
COKER 833	47.3	54.3	19.5	36.5	91.3	09MAY
COKER 9733	46.4	55.1	15.8	38.6	90.1	06MAY
FFR 544W	46.3	51.9	5.0	34.4	92.0	04MAY
TYLER	45.5	52.4	5.8	38.7	90.4	08MAY
BECKER	44.4	50.7	4.5	33.1	92.3	07MAY
SALUDA	44.3	53.2	11.5	32.0	87.4	06MAY
MASSEY	44.1	54.4	15.1	37.0	89.0	04MAY
DYNASTY	43.4	51.9	4.2	36.4	91.4	06MAY
COKER 9877	43.1	52.8	11.7	36.4	86.3	11MAY
COKER 916	42.3	52.3	9.5	32.6	87.7	02MAY
SCOTTY	41.9	53.3	8.0	35.4	87.6	07MAY
COMPTON	41.3	54.8	10.4	34.5	88.9	07MAY
ARTHUR	39.6	55.0	6.1	37.1	85.5	04MAY
DOUBLECROP	39.0	55.0	8.0	36.2	85.3	29APR
CALDWELL	38.9	51.4	3.2	35.7	86.2	07MAY

Table 4. -- Wheat Performance Trials for Purchase Region, 1989-1991.

VARIETY	-- YIELD (BU/AC) --		TEST WT (LB/BU)		--- PCT LODGED ---		PLANT HEIGHT (IN)		-- PCT SURVIVAL --		HEADING DATE		
	1991	1990	1989	MEAN	1991	1990	1989	MEAN	1991	1990	1989	MEAN	
CLARK	24	40	58	41	46.9	53.6	54.6	51.7	0	0	0	0	25APR 02MAY 02MAY 29APR
COKER 9733	21	34	39	31	52.5	58.4	56.0	55.6	0	0	0	0	01MAY 10MAY 06MAY 06MAY
MASSEY	18	41	46	35	49.7	58.2	55.3	54.4	0	0	0	0	01MAY 09MAY 04MAY 05MAY
DOUBLECROP	18	25	50	31	51.0	57.2	56.4	54.9	0	0	0	0	23APR 04MAY 29APR 29APR
MADISON	18	46	55	40	45.0	56.6	54.5	52.0	0	0	0	0	29APR 03MAY 03MAY 02MAY
COKER 9543	17	34	59	36	50.1	58.6	55.5	54.7	0	0	0	0	27APR 09MAY 06MAY 06MAY
WHEELER	16	34	63	38	43.4	54.6	54.1	50.7	0	0	0	0	27APR 04MAY 04MAY 02MAY
2355	15	36	26	26	43.6	58.4	54.0	54.0	0	0	0	0	28APR 07MAY 07MAY 30APR
COKER 9803	15	30	45	30	45.6	54.8	54.3	51.6	0	0	0	0	27APR 04MAY 03MAY 01MAY
COKER 916	15	42	51	36	47.4	57.2	53.8	52.8	0	0	0	0	06MAY 12MAY 07MAY 08MAY
COKER 833	14	40	27	27	44.6	55.8	50.2	50.2	0	0	0	0	01MAY 06MAY 06MAY 04MAY
ABI 85-81	14	27	38	26	50.4	55.2	55.8	53.8	0	0	0	0	01MAY 07MAY 05MAY 04MAY
ARTHUR	12	48	12	12	43.9	51.6	43.9	43.9	0	0	0	0	29APR 09MAY 07MAY 07MAY
FFR EXP 361	12	48	39	34	44.5	58.0	55.7	52.7	0	0	0	0	06MAY 09MAY 07MAY 07MAY
WAKEFIELD	12	26	62	33	45.7	51.2	55.0	50.6	0	0	0	0	02MAY 07MAY 06MAY 05MAY
DYNASTY	12	35	57	35	44.5	51.2	54.8	50.2	0	0	0	0	30APR 05MAY 04MAY 03MAY
FFR 544W	12	27	19	19	45.1	53.6	49.3	49.3	0	0	0	0	26APR 04MAY 04MAY 03MAY
CHEROKEE	11	44	76	44	43.8	57.6	54.5	52.0	0	0	0	0	04MAY 07MAY 04MAY 05MAY
VERNE	11	40	26	26	43.2	50.4	46.8	46.8	0	0	0	0	02MAY 06MAY 04MAY 04MAY
FFR 355W	10	42	26	26	45.0	58.2	51.6	51.6	0	0	0	0	05MAY 08MAY 07MAY 07MAY
FFR 568W	10	48	61	40	40.5	55.6	55.1	50.4	0	0	0	0	08MAY 08MAY 07MAY 08MAY
TYLER	10	35	63	36	41.4	53.6	54.3	49.8	0	0	0	0	04MAY 09MAY 07MAY 07MAY
BECKER	10	30	54	31	47.0	57.2	56.0	53.4	0	0	0	0	04MAY 12MAY 07MAY 08MAY
COMPTON	9	46	64	40	45.0	56.0	52.7	51.2	0	0	0	0	08MAY 09MAY 07MAY 08MAY
CARDINAL	9	37	54	33	41.3	41.3	41.3	41.3	0	0	0	0	01MAY 01MAY 01MAY 01MAY
MALLARD	8	37	54	33	43.5	55.6	54.2	51.1	0	0	0	0	03MAY 09MAY 05MAY 06MAY
2548	8	33	63	35	44.0	56.0	55.1	51.7	0	0	0	0	04MAY 09MAY 06MAY 06MAY
SALUDA	8	41	24	24	43.8	57.6	50.7	50.7	0	0	0	0	07MAY 10MAY 09MAY 09MAY
COKER 9024	8	41	61	36	47.2	59.2	57.0	54.5	0	0	0	0	07MAY 11MAY 08MAY 09MAY
HOWELL	7	40	41	30	43.3	56.8	53.4	51.2	0	0	0	0	09MAY 13MAY 08MAY 10MAY
COKER 9877	7	26	47	26	43.0	55.6	54.2	50.9	0	0	0	0	05MAY 10MAY 06MAY 07MAY
SCOTTY	6	33	64	34	37.5	37.5	37.5	37.5	0	0	0	0	03MAY 03MAY 03MAY 03MAY
EXCEL	6	33	64	34	50.0	53.6	53.6	52.4	0	0	0	0	04MAY 09MAY 06MAY 06MAY
CALDWELL	6	33	64	34	50.0	53.6	53.6	52.4	0	0	0	0	04MAY 09MAY 06MAY 06MAY
MEAN	12	37	55	30	45.4	55.9	54.8	50.5	0	0	0	0	02MAY 08MAY 05MAY 05MAY

CV = 18.3%
LSD(0.05) = 3.1 BU/A
Location: Carlisle County

Table 5. -- Wheat Performance Trials for Western Coal Field Region, 1989-1991.

VARIETY	-- YIELD (BU/AC) --		TEST WT (LB/BU)		--- PCT LODGED ---		PLANT HEIGHT (IN)		-- PCT SURVIVAL --		HEADING DATE												
	1991	1990	1991	1990	1991	1990	1991	1990	1991	1990	1991	1989	1989	1989	1989	1989	1989	1989	1989	1989	1989	1989	
MADISON	26	51	85	54	50.3	57.2	55.0	54.2	0	33	24	19	37	36	36	36	48	100	100	03MAY	07MAY	04MAY	05MAY
COKER 9733	26	52	68	49	55.1	61.8	57.9	58.3	0	33	46	26	42	41	41	42	51	100	100	04MAY	12MAY	06MAY	07MAY
MASSEY	22	45	67	45	52.0	58.0	54.6	54.9	0	21	44	22	40	40	39	40	41	100	100	05MAY	08MAY	04MAY	06MAY
WHEELER	22	53	78	51	51.9	59.7	56.9	56.2	0	0	31	10	42	40	42	41	38	100	100	06MAY	12MAY	07MAY	08MAY
VERNE	21	53	88	54	46.8	57.2	55.9	53.3	0	10	24	11	39	41	41	40	46	100	100	06MAY	10MAY	06MAY	07MAY
FFR 544W	21	48	91	53	49.0	57.6	54.8	53.8	0	5	6	4	35	38	38	37	44	100	100	03MAY	08MAY	06MAY	06MAY
FFR 568W	21	54	.	37	49.8	58.0	.	53.9	0	3	.	1	37	41	.	39	53	100	100	08MAY	12MAY	06MAY	10MAY
ARI 85-81	19	51	.	35	48.8	58.6	.	53.7	0	54	.	27	40	42	.	41	35	100	100	08MAY	12MAY	06MAY	10MAY
2555	19	52	.	36	47.9	57.2	.	52.5	0	15	.	8	37	37	.	37	40	100	100	05MAY	09MAY	07MAY	10MAY
TYLER	18	43	85	49	46.8	53.8	53.9	51.5	0	3	24	9	37	38	36	37	45	100	100	04MAY	06MAY	04MAY	05MAY
ARTHUR	17	54	81	50	45.4	58.2	54.5	52.7	0	19	0	6	40	43	42	42	49	100	100	09MAY	12MAY	09MAY	10MAY
2548	17	61	77	52	51.8	58.8	57.1	55.9	0	30	0	10	41	39	40	40	24	100	100	05MAY	08MAY	06MAY	06MAY
COKER 833	16	56	73	49	46.9	58.2	55.7	53.6	0	5	0	2	32	36	35	34	46	100	100	08MAY	10MAY	07MAY	08MAY
HOWELL	16	55	73	48	50.9	60.4	54.9	55.4	0	29	53	27	37	41	39	39	41	100	100	11MAY	15MAY	08MAY	11MAY
CLARK	16	52	80	49	47.8	55.2	54.9	52.6	0	0	0	0	39	43	41	41	33	96	98	11MAY	16MAY	14MAY	14MAY
FFR EXP 361	15	.	15	47.4	.	47.4	.	47.4	0	0	0	0	37	38	37	37	45	100	100	04MAY	05MAY	03MAY	04MAY
MALLARD	15	.	15	45.8	.	45.8	.	45.8	0	.	.	0	34	.	.	34	21	.	.	05MAY	05MAY	03MAY	05MAY
DOUBLECROP	15	38	70	41	51.1	58.0	58.0	55.7	0	50	0	17	38	38	38	38	20	96	100	07MAY	.	.	07MAY
DYNASTY	14	42	74	43	46.3	53.6	55.8	51.9	0	0	0	0	37	42	39	39	49	100	100	30APR	05MAY	01MAY	02MAY
COKER 916	13	47	68	43	47.9	56.8	55.7	53.5	0	21	28	16	34	34	35	34	40	98	78	08MAY	10MAY	10MAY	09MAY
FFR 555W	13	60	.	36	46.3	55.4	.	50.8	0	13	.	6	34	36	.	35	31	100	.	04MAY	07MAY	04MAY	05MAY
COKER 9803	12	47	.	29	50.9	60.6	.	55.7	0	80	.	40	34	36	.	35	31	100	.	06MAY	08MAY	.	07MAY
COMPTON	11	43	75	43	50.9	59.2	57.0	55.7	0	8	0	3	35	39	38	37	23	100	100	03MAY	05MAY	04MAY	04MAY
COKER 9543	11	.	11	47.7	.	47.7	.	47.7	0	.	.	0	34	.	.	34	28	.	.	11MAY	13MAY	09MAY	11MAY
BECKER	11	48	85	48	45.5	57.0	53.2	51.9	0	0	0	0	34	37	36	36	44	100	100	04MAY	.	.	04MAY
CARDINAL	11	50	73	45	43.8	57.6	56.7	52.7	0	0	0	0	38	41	40	40	29	100	100	08MAY	12MAY	09MAY	10MAY
WAKEFIELD	11	67	84	54	44.4	58.8	54.4	52.5	0	3	25	9	36	41	39	38	33	100	100	11MAY	14MAY	12MAY	12MAY
SCOTTY	10	49	75	45	48.4	58.2	56.8	54.5	0	20	3	8	36	39	38	38	29	100	99	11MAY	12MAY	07MAY	10MAY
CHEROKEE	10	39	.	25	45.4	54.4	.	49.9	0	3	.	1	38	40	.	39	26	100	.	09MAY	13MAY	07MAY	10MAY
ENCEL	9	.	9	39.5	.	39.5	.	39.5	0	0	.	0	36	.	.	36	30	.	.	02MAY	06MAY	.	04MAY
SALUDA	8	47	76	44	42.8	60.0	55.5	52.8	0	50	0	17	32	36	34	34	16	99	99	09MAY	.	.	09MAY
COKER 9877	8	58	74	47	46.2	58.4	55.4	53.3	0	3	30	11	35	41	39	38	30	100	99	10MAY	12MAY	06MAY	09MAY
CALDWELL	6	42	71	40	50.0	57.2	55.2	54.1	0	0	8	3	37	39	37	38	20	98	95	13MAY	16MAY	10MAY	13MAY
MEAN	15	50	76	40	46.7	57.9	55.8	51.3	0	17	14	9	36	39	38	37	34	100	99	07MAY	10MAY	07MAY	08MAY

CV = 20.04
 LSD(0.05) = 4.2 BU/A
 Location: Princeton, sandstone soil

Table 6. -- Wheat Performance Trials for Ohio Valley Region, 1989-1991.

VARIETY	-- YIELD (BU/AC) --		TEST WT (LB/BU)		--- PCT LODGED ---		PLANT HEIGHT (IN)		-- PCT SURVIVAL --		READING DATE											
	1991	1990	1991	1990	1991	1990	1991	1990	1991	1990	1991	1990	1989	1989	MEAN							
COKER 9733	40	48	67	52	57.4	60.0	56.3	57.9	0	0	45	15	41	38	47	42	84	100	100	95	30APR 09MAY 09MAY 06MAY	
VERNE	37	53	81	57	52.5	56.0	52.0	53.5	0	0	55	18	40	37	45	40	40	85	100	100	95	02MAY 09MAY 08MAY 06MAY
FFR 555W	36	50	43	53	53.5	55.6	54.5	54.5	0	0	0	0	36	31	33	33	75	100	100	88	01MAY 09MAY	
WHEELER	35	56	76	56	54.5	58.4	55.5	56.1	0	0	48	16	42	38	44	42	38	80	100	100	93	04MAY 10MAY 12MAY 07MAY
DOUBLECROP	35	46	71	51	56.9	54.4	53.8	55.0	0	0	34	11	39	36	44	39	61	100	100	87	25APR 02MAY 01MAY 29APR	
COKER 916	35	48	65	49	49.4	57.2	52.4	53.0	0	0	54	18	34	31	40	35	84	100	100	95	29APR 05MAY 05MAY 03MAY	
COKER 833	34	57	71	54	54.8	59.2	52.4	55.5	0	0	76	25	38	37	43	39	78	100	100	93	05MAY 14MAY 12MAY 10MAY	
COKER 9803	34	55	44	55	55.9	61.3	58.6	58.6	0	0	0	0	33	30	31	31	74	100	100	87	29APR 06MAY 03MAY	
MASSEY	33	47	56	45	55.0	58.0	51.9	55.0	0	0	75	25	39	36	42	39	71	100	100	90	03MAY 10MAY 08MAY 07MAY	
WAKEFIELD	32	64	65	54	52.6	56.4	54.2	54.4	0	0	48	16	40	37	43	40	83	100	100	94	04MAY 13MAY 10MAY 09MAY	
MADISON	32	57	88	59	52.0	55.0	53.9	53.6	0	0	50	17	36	35	41	37	79	100	100	94	30APR 07MAY 04MAY 04MAY	
COKER 9024	31	56	44	44	51.7	57.6	54.6	54.6	0	0	0	0	41	38	39	39	76	100	100	88	05MAY 13MAY 09MAY	
CLARK	31	39	79	50	50.3	52.0	51.7	51.3	0	0	68	23	36	33	42	37	83	100	100	94	29APR 05MAY 03MAY 02MAY	
SALUDA	31	49	73	51	50.0	56.0	52.4	52.8	0	0	65	22	35	31	39	35	73	100	100	91	02MAY 07MAY 12MAY 07MAY	
COKER 9543	31	47	58	46	55.1	59.0	55.0	56.4	0	0	8	3	41	37	45	41	81	100	100	81	29APR	
ARTHUR	31	47	58	46	55.1	59.0	55.0	56.4	0	0	8	3	41	37	45	41	74	100	100	91	02MAY 06MAY 09MAY 06MAY	
TYLER	30	56	59	48	50.5	56.8	52.2	53.2	0	0	20	7	41	39	45	41	79	100	100	93	05MAY 12MAY 12MAY 10MAY	
COMPTON	29	42	64	45	55.0	58.6	55.3	56.3	0	0	74	25	35	34	41	37	73	100	100	91	04MAY 10MAY 12MAY 09MAY	
FFR 568W	29	56	42	42	51.0	57.6	54.3	54.3	0	0	0	0	39	37	37	38	84	100	100	92	04MAY 11MAY 08MAY	
HOWELL	28	64	80	57	52.8	60.4	54.7	56.0	0	0	63	21	40	40	46	42	81	100	100	94	06MAY 11MAY 13MAY 10MAY	
2555	27	52	71	50	49.2	57.0	50.7	52.3	0	0	15	5	36	34	41	37	83	100	100	94	29APR 07MAY 08MAY 05MAY	
ABI 85-81	26	57	42	42	47.3	54.8	51.0	51.0	0	0	0	0	36	33	34	34	81	100	100	91	02MAY 06MAY 03MAY	
FFR 544W	26	42	80	49	52.0	53.6	50.9	52.2	0	0	36	12	34	34	42	37	88	100	100	96	01MAY 07MAY 09MAY 06MAY	
COKER 9877	26	51	70	49	51.6	57.6	51.4	53.5	0	0	45	15	37	37	43	39	71	100	100	90	06MAY 15MAY 13MAY 11MAY	
MALLARD	24	66	86	58	50.5	57.6	52.8	53.6	0	0	55	18	32	32	39	34	76	100	100	92	02MAY	
2548	23	66	86	58	50.5	57.6	52.8	53.6	0	0	55	18	32	32	39	34	76	100	100	92	03MAY 08MAY 10MAY 07MAY	
FFR EXP 361	23	66	86	58	50.5	57.6	52.8	53.6	0	0	55	18	32	32	39	34	76	100	100	92	03MAY 08MAY 10MAY 07MAY	
BECKER	22	47	67	45	49.3	57.2	49.2	51.9	0	0	28	9	34	32	41	35	54	100	100	93	01MAY	
CARDINAL	21	61	70	51	48.4	57.6	51.3	52.4	0	0	40	13	38	39	45	41	70	100	100	90	05MAY 11MAY 12MAY 09MAY	
DYNASTY	21	45	69	45	50.8	60.0	54.8	55.2	0	0	28	9	36	36	44	38	80	100	100	93	06MAY 11MAY 12MAY 10MAY	
CHEROKEE	20	46	33	33	49.5	55.4	52.4	52.4	0	0	0	0	38	37	37	37	64	100	100	82	04MAY 09MAY 09MAY 07MAY	
SCOTTY	20	48	72	47	50.3	58.9	55.2	54.8	0	0	45	15	37	35	42	38	65	100	100	88	29APR 07MAY	
CALDWELL	20	43	57	40	47.1	56.6	53.8	52.5	0	0	25	8	35	37	42	38	68	100	100	89	04MAY 11MAY 11MAY 09MAY	
EXCEL	12	48	57	40	47.1	56.6	53.8	52.5	0	0	25	8	35	37	42	38	68	100	100	89	05MAY 09MAY 12MAY 09MAY	
MEAN	28	52	71	45	51.7	57.2	53.1	53.6	0	0	46	10	37	35	43	37	76	100	100	88	02MAY 09MAY 09MAY 07MAY	

CV = 17.2%

LSD(0.05) = 6.8 BU/A

Location: Hancock County

Table 7. -- Wheat Performance Trials for Bluegrass Region, 1989-1991.

VARIETY	-- YIELD (BU/AC) --		TEST WT (LB/BU)		--- PCT LODGED ---		PLANT HEIGHT (IN)		-- PCT SURVIVAL --		READING DATE	
	1991	1990	1991	1990	1991	1990	1991	1990	1991	1990	1991	1990
FFR 555W	46	33	54.1	52.8	0	10	33	32	100	99	05MAY	17MAY
WAKEFIELD	42	50	54.6	56.6	0	55	34	38	99	95	07MAY	16MAY
2555	41	41	53.4	56.4	0	5	35	35	99	98	03MAY	17MAY
VERNE	41	42	54.8	59.2	0	20	35	37	100	99	04MAY	17MAY
COKER 9024	39	42	53.5	56.8	0	18	38	38	99	99	06MAY	19MAY
CLARK	39	34	53.8	54.4	0	23	35	35	100	99	02MAY	09MAY
2548	38	40	52.8	56.8	0	5	30	32	100	100	04MAY	12MAY
COKER 9803	37	44	57.0	61.6	0	13	31	32	100	99	03MAY	17MAY
COKER 833	37	36	55.8	59.2	0	24	35	37	100	99	08MAY	17MAY
COKER 9543	36	36	52.5	52.5	0	0	31	31	100	100	03MAY	17MAY
BECKER	36	31	50.6	52.8	0	1	33	36	100	99	06MAY	13MAY
MADISON	34	43	53.0	57.6	0	40	35	38	99	99	01MAY	12MAY
DYNASTY	34	30	50.7	52.0	0	26	33	35	100	96	07MAY	13MAY
EXCEL	34	34	47.8	47.8	0	0	33	33	100	100	07MAY	13MAY
MASSEY	33	35	54.8	56.8	0	48	38	36	100	96	04MAY	16MAY
HOWELL	33	35	56.8	58.8	0	9	37	38	99	100	09MAY	15MAY
COKER 916	33	34	51.8	56.4	0	28	33	33	100	84	01MAY	12MAY
FFR EXP 361	33	33	53.0	53.0	0	0	34	34	95	95	02MAY	12MAY
CARDINAL	32	35	51.1	54.0	0	50	35	37	99	100	08MAY	15MAY
MALLARD	32	32	51.4	51.4	0	0	32	32	100	100	06MAY	14MAY
COMPTON	31	35	56.9	55.2	5	56	32	34	100	95	06MAY	13MAY
COKER 9877	31	34	54.0	56.4	3	15	35	37	99	98	10MAY	19MAY
ABI 85-81	31	43	52.4	53.2	0	55	33	35	100	100	03MAY	10MAY
TYLER	30	36	53.6	56.8	0	31	35	39	100	99	08MAY	16MAY
WHEELER	30	39	56.5	60.0	3	15	35	39	100	94	06MAY	19MAY
CHEROKEE	30	34	52.4	53.6	0	14	36	37	99	96	04MAY	16MAY
SALUDA	29	38	54.4	59.0	0	36	30	32	100	98	05MAY	13MAY
CALDWELL	28	29	50.2	52.0	0	18	35	35	99	96	06MAY	10MAY
SCOTTY	23	36	54.6	54.2	0	16	34	36	99	99	05MAY	16MAY
FFR 568W	22	46	53.0	57.0	0	11	32	36	100	100	06MAY	17MAY
DOUBLECROP	21	29	53.2	58.2	0	24	35	35	96	98	30APR	12MAY
ARTHUR	21	32	53.2	57.0	0	33	36	36	99	98	07MAY	13MAY
COKER 9733	21	42	54.8	59.6	15	25	34	40	100	99	07MAY	20MAY
FFR 544W	17	25	54.5	51.2	0	6	30	32	99	100	07MAY	11MAY
MEAN	32	37	53.5	56.2	1	24	33	35	99	98	05MAY	15MAY

CV = 15.94

LSD(0.05) = 7.1 BU/A

Location: Lexington

Table 8. -- Wheat Performance Trials for Southern Tier Region, 1989-1991.

VARIETY	--- YIELD (BU/AC) ---		TEST WT (LB/BU)		--- PCT LOOSED ---		PLANT HEIGHT (IN)		--- PCT SURVIVAL ---		HEADING DATE																	
	1991	1990	1991	1990	1991	1990	1991	1990	1991	1990	1991	1990	1991	1990	1991	1990	1991	1990	1991	1990	1991	1990	1991	1990	1991	1990	1991	1990
VERNE	39	34	75	49	49.5	51.6	56.2	52.4	0	29	25	18	41	38	39	39	94	100	100	98	02MAY	09MAY	04MAY	05MAY				
MADISON	37	27	84	49	48.8	51.2	56.2	52.1	0	69	34	34	38	34	35	35	91	100	100	97	29APR	07MAY	01MAY	02MAY				
WHEELER	33	30	81	48	52.7	53.8	58.4	55.0	0	8	50	19	43	38	40	40	86	100	100	95	05MAY	11MAY	05MAY	07MAY				
COKER 9803	32	35	.	33	53.0	53.6	53.3	.	0	18	.	9	34	34	.	34	71	100	.	86	01MAY	08MAY	.	.				
FFR 568W	31	29	.	30	50.5	51.2	50.8	.	0	40	.	20	39	38	.	39	93	100	.	96	05MAY	10MAY	.	.				
CLARK	31	34	93	53	50.2	51.2	57.2	52.9	0	0	25	8	38	37	37	37	91	100	100	97	28APR	03MAY	01MAY	01MAY				
2555	31	30	85	49	47.6	48.0	56.8	50.8	0	61	44	35	37	35	36	36	95	100	100	98	29APR	06MAY	03MAY	03MAY				
ARTHUR	30	20	67	39	52.8	50.8	59.0	54.2	0	24	10	11	43	37	39	40	78	100	100	93	02MAY	06MAY	03MAY	04MAY				
DOUBLECROP	29	23	60	37	54.8	53.2	58.1	55.4	0	16	21	13	41	38	36	38	73	100	100	91	22APR	30APR	28APR	27APR				
MASSEY	29	23	68	40	52.6	50.8	56.9	53.4	0	40	28	23	41	37	36	38	88	100	100	96	02MAY	10MAY	01MAY	04MAY				
COKER 9543	29	.	.	29	51.5	.	51.5	.	0	.	.	0	33	.	.	33	93	.	.	93	29APR	.	.	.				
COKER 9733	27	31	65	41	53.2	52.4	58.7	54.8	0	68	25	31	42	38	38	39	83	100	100	93	04MAY	09MAY	03MAY	05MAY				
COMPTON	27	20	74	40	52.6	48.8	59.1	53.5	0	10	38	16	37	37	37	37	93	100	100	98	04MAY	12MAY	05MAY	07MAY				
ABI 83-81	26	27	.	27	48.6	46.8	47.7	.	0	63	.	31	38	36	.	37	90	100	.	95	03MAY	07MAY	.	.				
2548	26	37	81	48	48.1	49.2	57.8	51.7	0	3	20	8	35	36	32	34	88	100	100	96	05MAY	09MAY	04MAY	06MAY				
FFR EXP 361	26	.	26	26	45.2	.	45.2	.	0	.	.	0	35	.	.	35	71	.	.	71	01MAY	.	.	.				
SALUDA	25	26	71	41	48.5	54.4	57.5	53.5	0	56	31	29	35	34	33	34	80	100	100	93	05MAY	07MAY	05MAY	06MAY				
CHEROKEE	25	20	.	23	47.7	44.8	46.2	.	0	10	.	5	41	39	.	40	85	100	.	93	29APR	07MAY	.	.				
COKER 916	25	29	69	41	48.2	43.0	55.9	49.0	0	6	54	20	35	34	33	34	88	98	100	95	30APR	08MAY	01MAY	03MAY				
FFR 544W	25	25	75	41	50.8	48.0	56.1	51.6	0	21	20	14	36	37	37	37	91	100	100	97	02MAY	06MAY	04MAY	04MAY				
TYLER	24	19	77	40	47.6	49.6	56.7	51.3	0	28	25	18	42	40	40	41	93	100	100	98	05MAY	12MAY	06MAY	08MAY				
MALLARD	24	.	.	24	46.6	.	46.6	.	0	.	.	0	35	.	.	35	85	.	.	85	02MAY	.	.	.				
WAKEFIELD	24	43	78	48	49.2	54.8	57.5	53.8	0	33	28	20	38	38	36	37	80	100	100	93	06MAY	10MAY	04MAY	07MAY				
COKER 9024	24	28	.	26	50.0	55.2	52.6	.	0	68	.	34	41	40	.	40	84	100	.	92	05MAY	11MAY	.	.				
SCOTTY	24	21	75	40	50.0	44.0	58.0	50.7	0	38	45	28	38	36	37	37	75	100	100	92	05MAY	10MAY	04MAY	07MAY				
FFR 555W	23	25	.	24	46.3	46.4	46.3	.	0	19	.	9	36	32	.	34	85	100	.	93	04MAY	09MAY	.	.				
COKER 833	23	35	69	42	50.5	55.0	56.2	53.9	0	25	66	30	38	39	37	38	94	100	100	98	08MAY	15MAY	06MAY	07MAY				
HOWELL	22	39	76	46	53.2	56.0	61.2	56.8	0	0	25	8	41	42	40	41	89	100	100	98	08MAY	12MAY	09MAY	10MAY				
DYNASTY	21	21	85	42	48.6	46.4	58.0	51.0	0	18	15	11	39	39	40	39	95	100	100	98	03MAY	10MAY	05MAY	06MAY				
BECKER	17	21	92	43	41.7	50.0	55.4	49.0	0	3	46	16	35	36	34	35	95	100	100	98	06MAY	10MAY	05MAY	07MAY				
CARDINAL	17	30	91	46	46.2	50.8	57.3	51.4	0	6	0	2	39	40	41	40	78	100	100	93	07MAY	11MAY	05MAY	07MAY				
COKER 9877	16	35	60	37	47.0	53.2	56.6	52.9	0	4	61	22	36	40	37	38	78	100	100	89	12MAY	17MAY	10MAY	13MAY				
EXCEL	15	.	.	15	42.2	.	42.2	.	0	.	.	0	36	.	.	36	78	.	.	78	05MAY	.	.	.				
CALDWELL	14	25	71	37	40.5	45.6	56.1	47.4	0	4	13	5	37	40	38	38	69	100	100	90	07MAY	09MAY	05MAY	07MAY				
MEAN	25	28	76	37	48.8	50.3	57.4	50.9	0	26	31	16	38	37	37	37	83	100	100	91	06MAY	09MAY	04MAY	06MAY				

CV = 19.64
LSD(0.05) = 6.9 BU/A

Location: Princeton, limestone soil

Table 8A. -- Wheat Performance Trials for Southern Tier Region, 1989-1991.

VARIETY	--- YIELD (BU/AC) ---		TEST WT (LB/BU)		--- PCT LODGED ---		PLANT HEIGHT (IN)		-- PCT SURVIVAL --		HEADING DATE									
	1991	1990	1991	1990	1991	1990	1991	1990	1991	1990	1991	1990								
MADISON	54	71	70	65	51.3	56.9	54.6	54.3	0	3	0	1	40	34	29	34	75	100	100	25APR 28APR 29APR 27APR
COKER 9733	52	61	66	60	54.3	30.2	53.9	46.1	0	23	0	8	43	38	36	39	71	100	100	26APR 07MAY 01MAY 01MAY
COKER 9024	50	59		54	50.2	57.8		54.0	0	31		16	43	38		41	73	100	100	29APR 03MAY
COKER 9803	49	68		55	51.7	60.8		56.2	0	0		0	38	30		34	69	100		24APR 28APR
VERNE	47	61	83	64	48.4	57.8	55.5	53.9	0	9	0	3	42	35	36	38	80	100	100	27APR 01MAY 03MAY 27APR
FFR 568W	47	61		54	48.8	55.2		52.0	0	0		0	42	35		38	85	100	93	27APR 01MAY 29APR
CLARK	46	65	57	56	51.7	57.7	52.2	53.9	0	3	0	1	41	34	30	35	79	100	100	25APR 26APR 29APR 27APR
WHEELER	44	54	71	57	53.6	58.0	53.8	55.1	0	0		0	44	38	36	39	75	100	100	29APR 30APR 04MAY 01MAY
COKER 9543	44			44	52.2		52.2		0	0		0	37			37	73			25APR
2548	43	65	75	61	50.2	57.8	55.4	54.5	0	3	0	1	36	33	30	33	76	100	100	26APR 30APR 03MAY 30APR
MASSEY	42	51	62	52	50.0	56.8	53.7	53.5	0	18	0	6	42	35	33	36	69	100	100	26APR 29APR 29APR 28APR
WAKEFIELD	42	69	84	65	48.2	56.8	56.5	53.8	0	5	0	2	42	36	34	37	64	100	100	29APR 02MAY 04MAY 02MAY
DOUBLECROP	42	44	57	48	52.0	60.8	52.9	55.2	0	0	0	0	43	34	32	36	51	100	100	22APR 22APR 27APR 24APR
COKER 833	41	64	79	62	49.5	57.6	53.1	53.4	0	0	0	0	40	37	33	36	79	100	100	01MAY 08MAY 06MAY 05MAY
2555	38	58	77	58	46.7	56.2	52.0	51.6	0	0	0	0	41	33	32	35	81	100	100	24APR 27APR 01MAY 27APR
ABI 85-81	36	65		50	45.5	54.2		49.8	0	0		0	39	34		36	81	100	91	27APR 29APR
SCOTTY	35	61	53	50	49.6	57.2	55.8	54.2	0	0	0	0	40	35	31	35	76	100	100	28APR 02MAY 04MAY 01MAY
ARTHUR	35	55	51	47	51.8	59.2	52.4	54.5	0	5	0	2	44	36	33	38	60	100	100	27APR 29APR 02MAY 29APR
FFR EXP 361	35			35	49.5		49.5		0	0		0	39			39	63			25APR
FFR 544N	34	60	82	59	47.9	54.4	51.4	51.2	0	0	0	0	39	34	32	35	83	100	100	27APR 29APR 02MAY 29APR
COKER 916	34	59	55	49	46.6	56.2	55.1	52.6	0	3	0	1	38	31	29	32	63	100	100	23APR 27APR 29APR 26APR
SALUDA	33	59	67	53	48.4	57.4	53.4	53.1	0	0	0	0	37	31	29	32	68	100	100	27APR 30APR 03MAY 30APR
CHESTER	33	44		39	49.0	53.2		51.1	0	4		2	43	36		39	73	100		27APR 28APR
FFR 555W	33	62		48	45.3	54.2		49.7	0	0		0	37	31		34	75	100		27APR 29APR
MILLARD	33			33	46.4		46.4		0	0		0	38			38	76			28APR
COMPTON	32	53	66	50	49.0	58.0	56.5	54.5	0	0	0	0	39	32	31	34	75	100	100	27APR 01MAY 04MAY 01MAY
BOWELL	30	59	76	55	51.0	62.0	58.4	57.1	0	0	0	0	43	38	38	39	79	100	100	29APR 05MAY 08MAY 05MAY
CARDINAL	30	57	83	57	45.2	54.4	44.8	48.1	0	0	0	0	41	39	39	39	79	100	100	02MAY 06MAY 05MAY 04MAY
COKER 9877	30	56	77	54	47.0	58.2	51.1	52.1	0	0	0	0	42	36	35	38	70	100	100	03MAY 08MAY 06MAY 06MAY
TYLER	30	54	72	52	45.3	55.4	53.1	51.9	0	0	0	0	44	38	37	39	78	100	100	30APR 04MAY 05MAY 03MAY
DYNASTY	26	48	78	51	44.8	53.2	56.0	51.3	0	0	0	0	40	35	36	37	79	100	100	30APR 03MAY 04MAY 01MAY
BECKER	25	49	74	49	46.2	52.0	53.7	50.6	0	0	0	0	37	32	31	33	80	100	100	29APR 02MAY 04MAY 02MAY
EXCEL	25			25	44.2		44.2		0	0		0	37			37	59			30APR
CALDWELL	20	49	62	44	42.4	58.0	54.0	50.1	0	0	0	0	38	36	33	36	61	100	100	29APR 01MAY 04MAY 01MAY
MEAN	37	58	70	51	48.5	55.8	53.8	51.9	0	3	0	1	40	35	33	36	72	100	100	27APR 01MAY 03MAY 29APR

CV = 17.0%

LSD(0.05) = 9.0 BU/A

Location: Bowling Green

Table 9. -- Wheat Performance Trials for North Central Region, 1989-1991.

VARIETY	-- YIELD (BU/AC) --		TEST WT (LB/BU)		--- PCT LODGED ---		PLANT HEIGHT (IN)		-- PCT SURVIVAL --											
	1991	1990	1991	1990	1991	1990	1991	1990	1991	1990										
CLARK	32	41	77	50	48.0	48.8	54.5	50.4	0	0	8	3	36	35	39	36	73	100	100	91
COKER 9733	30	52	59	47	49.2	59.6	56.5	55.1	0	0	46	15	42	38	42	40	53	100	100	84
ABI 85-81	30	38	34	38	47.3	50.8	49.0	49.0	0	0	0	0	37	34	40	35	59	100	100	79
VENK	30	46	77	51	46.7	57.2	54.1	52.7	0	0	39	13	42	39	40	39	56	100	100	85
MADISON	29	51	75	52	47.1	56.4	55.6	53.0	0	0	0	0	39	34	38	37	60	100	100	87
WHEELER	28	44	59	44	50.9	59.2	54.8	55.0	0	0	31	10	44	35	41	40	59	100	100	86
DOUBLECROP	28	27	55	37	50.2	53.2	55.3	52.9	0	0	23	8	42	33	40	38	44	100	100	81
COKER 9803	27	50	39	39	51.7	58.8	55.2	55.2	0	0	0	0	35	31	33	35	35	100	100	68
COKER 916	27	41	63	44	47.3	54.4	54.3	52.0	0	0	3	1	36	31	37	35	50	100	100	83
MASKY	27	50	66	48	48.3	56.4	55.3	53.3	0	0	10	3	41	38	40	40	49	100	100	83
COKER 833	27	47	61	45	45.7	56.1	53.9	51.9	0	0	90	30	38	38	40	39	61	100	100	87
FFR 568W	27	49	38	38	47.8	54.4	51.1	51.1	0	0	0	0	40	36	38	38	61	100	100	81
CARDINAL	27	40	76	48	47.8	52.0	53.3	51.0	0	0	4	1	40	35	41	39	51	100	100	84
TYLER	25	37	68	43	45.2	55.6	54.0	51.6	0	0	0	0	41	36	41	39	44	100	100	81
WAKEFIELD	25	60	75	53	43.6	56.0	55.6	51.7	0	0	5	2	39	36	40	38	51	100	100	84
COKER 9543	25	25	25	25	46.7	46.7	46.7	46.7	0	0	0	0	34	34	34	34	48	48	48	48
COKER 9024	24	57	41	41	45.4	56.4	50.9	50.9	0	0	0	0	41	38	40	40	44	100	100	72
SCOTT	24	35	67	42	47.9	55.2	54.9	52.7	0	0	3	1	40	35	39	38	50	100	100	83
2555	24	39	81	48	44.9	52.4	52.1	49.8	0	0	5	2	37	33	36	35	53	100	100	84
2548	24	51	73	49	42.2	56.0	53.8	50.7	0	0	3	1	34	31	35	33	54	100	100	85
FFR 355W	24	41	32	32	46.4	52.4	49.4	49.4	0	0	0	0	38	33	35	35	43	100	100	71
DYNASTY	24	33	74	43	45.2	50.4	55.1	50.2	0	0	3	1	39	34	40	38	48	100	100	83
SALUDA	22	30	64	39	45.3	54.8	54.5	51.5	0	0	3	1	36	30	33	33	64	100	100	88
ARTHUR	22	37	62	41	50.1	57.2	54.1	53.8	0	0	16	5	40	34	42	39	44	100	100	81
COMPTON	22	29	57	36	50.1	56.0	54.9	53.7	0	0	28	9	38	33	37	36	53	100	100	84
HOWELL	22	37	70	43	48.9	57.6	57.0	54.5	0	0	0	0	41	37	42	40	51	100	100	84
MALLARD	22	22	22	22	44.6	44.6	44.6	44.6	0	0	0	0	36	36	36	36	54	54	54	54
FFR EXP 361	20	20	20	20	44.7	44.7	44.7	44.7	0	0	0	0	35	35	35	35	24	24	24	24
FFR 544W	20	32	83	45	47.1	50.4	53.5	50.3	0	0	0	0	37	34	38	36	55	100	100	85
BECKER	20	31	76	42	39.5	52.0	54.7	48.7	0	0	16	5	36	32	36	35	64	100	100	88
COKER 9877	18	45	63	42	44.9	56.2	57.0	52.7	0	0	65	22	38	38	40	39	41	100	100	80
CHEROKEE	18	30	24	24	45.1	54.4	49.7	49.7	0	0	0	0	41	35	38	38	38	100	100	69
CHALDWELL	18	32	62	37	45.3	52.0	53.8	50.4	0	0	0	0	39	33	39	37	45	100	100	82
EXCEL	14	14	14	14	38.2	38.2	38.2	38.2	0	0	0	0	36	36	36	36	49	49	49	49
MEAN	24	41	68	39	46.5	54.7	54.7	50.7	0	0	17	4	38	34	39	37	50	100	100	76

CV = 14.7%
LSD(0.05) = 5.0 BU/A
Location: Nelson County

Table 10. -- Disease Ratings of Wheat Varieties in 1991¹.

VARIETY	2		3		LEAF		GLUME		POWDERY		4	
	LEAF	RUST	LEAF	BLOTCH	LEAF	BLOTCH	BLOTCH	BLOTCH	MILDREW	WSSMV		
ARTHUR	S		VS		S		S		S		S	
DOUBLECROP	S		VS		MS		MS		VS		S	
ABI 85-81	MS		VS		MS		MS		MR			
CALDWELL	MR		VS		VS		VS		VS		S	
SCOTTY	MS		S		S		VS		VS		MS	
WHEELER	S		VS		VS		MS		S		S	
TYLER	VS		VS		VS		MS		S		MR	
COKER 916	MR		VS		VS		VS		MS		MS	
CHENOKEE	MS		VS		VS		VS		MS		MS	
MASSEY	VS		S		S		MS		MS			
COKER 833	MR		MS		MS		MR		MS		R	
SALUDA	S		VS		S		S		S		VS	
COMPTON	MR		S		VS		VS		S		MS	
CARDINAL	MS		VS		S		S		VS		MR	
DYNASTY	S		VS		S		S		VS			
MALLARD	MS		VS		VS		S		MS			
CLARK	MS		VS		VS		VS		S			
2595	MS		VS		VS		MS		VS			
COKER 9024	MR		MS		MS		MS		MS			
BECKER	VS		VS		VS		VS		VS		R	
COKER 9803	MR		S		MR		MR		MR			
COKER 9877	MR		S		MR		MR		S			
COKER 9733	MR		VS		VS		MS		MS			
COKER 983	S		S		S		S		MS			
COKER 9543	MR		VS		VS		S		MS			
2548	MS		VS		VS		MS		MS			
FTR EXP 361	MS		S		S		S		MS			
FTR 544W	MS		VS		VS		VS		S			
FTR 568W	MS		S		S		S		MR			
FTR 555W	S		VS		S		S		MS			
HOWELL	S		S		S		MS		S			
VENNE	MS		VS		VS		S		MS			
MADISON	MS		S		S		MS		MS			
WAKEFIELD	S		S		S		S		S			
EXCEL	S		VS		VS		VS		S			

1 VS-VERY SUSCEPTIBLE R-RESISTANT
 S-SUSCEPTIBLE MR-MODERATELY RESISTANT
 MS-MODERATELY SUSCEPTIBLE (---)INSUFFICIENT OPPORTUNITY TO RATE
 IN PRESENCE OF DISEASE

2 RATINGS OF NEWLY RELEASED VARIETIES BASED ON 1 YR. AND 1 LOCATION

3 BASED ON DISEASE PROGRESS AND FINAL DISEASE LEVEL

4 WHEAT SPINDLE STREAK MOSAIC VIRUS

Table 11. -- Characteristics of Barley Varieties Tested in 1991.

VARIETY	PROTECTED	SOURCE	RELEASE DATE	YIELD (BU/A)	TEST WEIGHT (LB/BU)	LODGING (%)	PLANT HEIGHT (IN.)	SURVIVAL (%)	HEADING DATE
WYSOR	NO	VIRGINIA	1985	56.1	39.4	40.9	36.7	75.3	30APR91
SCHOCHOR	NO	KENTUCKY	1989	38.8	41.0	51.3	35.0	80.3	28APR91
BARSOY	NO	KENTUCKY	1966	35.5	42.4	39.7	34.0	69.7	19APR91
PIKE	YES	INDIANA	1975	34.9	39.9	53.8	32.4	82.2	22APR91

Table 12. -- Barley Performance Trials for Western Coal Field Region, 1989-1991.

VARIETY	YIELD (BU/AC)		TEST WT (LB/BU)		PCT LODGED		PLANT HEIGHT (IN)		PCT SURVIVAL		HEADING DATE										
	1991	1990	1991	1990	1991	1990	1991	1990	1991	1990	1991	1990									
WYSOR	45	65	72	61	37.0	42.7	43.6	41.1	0	10	0	3	38	38	38	28	100	91	73	03MAY 07MAY 27APR 02MAY	
PIKE	33	35	85	51	36.0	39.8	45.2	40.3	8	60	13	27	31	33	34	33	53	100	100	84	21APR 27APR 22APR 23APR
SCHOCHOR	30	45	86	54	37.0	41.3	48.0	42.1	5	18	0	8	34	37	36	36	36	100	93	76	03MAY 05MAY 01MAY 03MAY
BARSOY	28	34	83	48	36.0	41.4	48.0	41.8	8	25	16	16	32	35	36	34	29	100	93	74	19APR 27APR 19APR 22APR
MEAN	34	45	82	53	36.5	41.3	46.2	41.3	5	28	7	13	34	36	36	35	36	100	94	77	26APR 01MAY 25APR 27APR

CV = 14.8%

LSD(0.05) = 7.12 BU/A

Location: Princeton, sandstone soil

Table 13. -- Barley Performance Trials for Bluegrass Region, 1989-1991.

VARIETY	YIELD (BU/AC)		TEST WT (LB/BU)		PCT LODGED		PLANT HEIGHT (IN)		PCT SURVIVAL		HEADING DATE										
	1991	1990	1991	1990	1991	1990	1991	1990	1991	1990	1991	1990									
WYSOR	69	82	100	84	40.7	39.4	42.0	40.7	96	45	71	37	38	42	39	95	100	98	98	28APR 01MAY 02MAY 30APR	
SCHOCHOR	48	57	84	63	44.9	39.7	43.0	42.5	65	85	75	35	36	38	36	36	90	100	100	97	20APR 02MAY 02MAY 01MAY
BARSOY	43	40	71	51	51.6	36.7	44.0	44.1	65	86	76	35	34	38	35	35	89	100	100	96	22APR 26APR 27APR 25APR
PIKE	30	49	71	50	42.6	35.8	44.0	40.8	96	95	96	31	34	36	33	86	100	99	95	28APR 27APR 29APR 28APR	
MEAN	48	57	81	62	44.9	37.9	43.3	42.0	81	78	79	35	35	38	36	90	100	99	96	27APR 29APR 30APR 29APR	

CV = 12.1%

LSD(0.05) = 8.1 BU/A

Location: Lexington

Table 14. -- Barley Performance Trials for Southern Tier Region, 1989-1991.

VARIETY	-- YIELD (BU/AC) --		TEST WT (LB/BU)		--- PCT LODGED ---		PLANT HEIGHT (IN)		-- PCT SURVIVAL --		HEADING DATE									
	1991	1990	1991	1990	1991	1990	1991	1990	1991	1990	1991	1989	1989	1989	MEAN					
WYBOR	61	50	133	81	38.0	42.5	43.8	41.4	33	33	0	22	40	37	38	85	100	100	95	01MAY 07MAY 22APR 29APR
SCHOCHOR	45	26	137	69	42.0	36.4	47.9	42.1	54	83	0	45	35	35	35	100	100	100	100	27APR 07MAY 23APR 29APR
PIKE	43	32	126	67	39.0	35.3	47.6	40.6	30	35	10	25	33	34	33	95	100	100	98	21APR 28APR 19APR 23APR
BARSOY	42	28	119	63	41.0	40.8	49.5	43.8	11	43	0	18	33	36	35	65	100	100	88	19APR 28APR 18APR 22APR
MEAN	48	34	129	70	40.0	38.7	47.2	42.0	32	48	3	27	35	35	35	86	100	100	95	24APR 02MAY 20APR 25APR

CV = 11.7%
 LSD(0.05) = 8.0 BU/A
 Location: Princeton, limestone soil

Table 14A. -- Barley Performance Trials for Southern Tier Region, 1989-1991.

VARIETY	-- YIELD (BU/AC) --		TEST WT (LB/BU)		--- PCT LODGED ---		PLANT HEIGHT (IN)		-- PCT SURVIVAL --		HEADING DATE										
	1991	1990	1991	1990	1991	1990	1991	1990	1991	1990	1991	1989	1989	1989	MEAN						
WYBOR	50	95	124	90	42.0	46.1	42.2	43.4	35	0	0	12	41	35	39	94	100	100	98	26APR 28APR 26APR 27APR	
PIKE	32	49	101	61	42.0	45.0	45.4	44.1	81	33	0	38	34	34	30	33	95	100	100	98	18APR 21APR 19APR 19APR
SCHOCHOR	32	63	124	73	40.0	45.7	47.3	44.3	81	15	0	32	37	38	34	36	95	100	100	98	26APR 28APR 24APR 26APR
BARSOY	29	56	113	66	41.0	48.2	44.9	44.7	75	3	0	26	36	36	34	35	96	100	100	99	16APR 20APR 14APR 17APR
MEAN	36	66	116	72	41.3	46.2	44.9	44.1	68	13	0	27	37	37	33	36	95	100	100	98	21APR 24APR 21APR 22APR

CV = 17.1%
 LSD(0.05) = 8.7 BU/A
 Location: Bowling Green