



Progress Report 266

*1982
Kentucky
Small Grain
Variety Trials*

*UNIVERSITY OF KENTUCKY
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1982 Kentucky Small Grain Variety Trials

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In 1982, Kentucky produced 26.4 million bushels of soft red winter wheat. The yield average of 39 bu/a was down somewhat from the 1981 record of 42 bu/a. Acres of barley harvested did not change from 1981, but there was a yield decrease. Oat acreage remained the same in 1982 with a 3 bu/a increase in yield average over 1981.

Table 1.—Small Grain Harvested Acreage and Yields in Kentucky 1980-1982*

Crop	1982		1981		1980	
	Harvest 1000 A	Yield Bu/A	Harvest 1000 A	Yield Bu/A	Harvest 1000 A	Yield Bu/A
Wheat	675	39	700	42	350	39
Barley	32	48	32	52	28	53
Oats	7	43	7	39	6	44
Rye	2	27	4	25	3	26

*July 12, 1982, Kentucky Crop and Livestock Reporting Service

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

Acknowledgement is made to William Green, Tom Curtsinger, Tom Amos, and Russell Lowe, county Extension agents for agriculture, for assistance in locating test sites and collecting data.

The objective of the Kentucky small grain variety trials is to evaluate varieties of barley, wheat, and oats that are commercially available or may soon be available to Kentucky farmers. New varieties are continually being developed by agricultural experiment

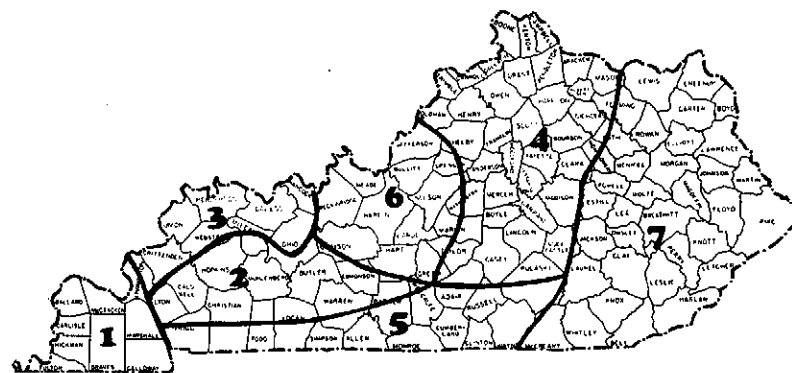


Figure 1.—Agro-climatic regions of Kentucky small grain variety trials.

Region	1982 Location	Cooperator	Crop Tested
1 Purchase	Mayfield	Mr. Paul Payne	Wheat
2 Western Coal Field	Princeton (Sandstone soil)	Research & Education Center—Princeton	Barley, Wheat
3 Ohio Valley	Owensboro	Miles Farm Supply	Wheat
4 Bluegrass	Lexington	Kentucky Agricultural Experiment Station	Barley, Winter Oats, Wheat, Spring oats
5 Southern Tier	Hopkinsville Princeton (Limestone soil)	Mr. Harry Young Research & Education Center—Princeton	Barley, Wheat Barley, Winter Oats, Wheat
6 North Central	Greensburg	Mr. William Henderson	Wheat

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. 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 four or 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 1980-82

Region	Location	Preceding Crop	Crop	Planting Date		
				1982	1981	1980
Purchase	Mayfield	Soybeans	Wheat	10/30	10/22	10/17
Western Coal Field	Princeton (Sandstone soil)	None	Barley	10/14	10/6	10/16
			Winter Oats	10/14	10/6	10/16
			Wheat	10/14	10/6	10/16
Ohio Valley	Henderson (1980-81)	Soybeans	Wheat	—	10/13	10/19
	Owensboro (1982)	Corn	Wheat	10/29	—	—
Bluegrass	Lexington	None	Barley	10/15	10/7	10/17
			Winter Oats	10/15	10/2	10/9
			Spring Oats	3/29	4/3	4/3
			Wheat	10/22	10/9	10/15
Southern Tier	Hopkinsville	Corn	Barley	10/15	10/10	10/18
			Wheat	10/15	10/10	10/18
	Princeton (Limestone soil)	None	Barley	10/6	10/7	10/11
			Wheat	10/6	10/7	10/11
North Central	Elizabethtown (1980-81)	Corn	Barley	—	10/15	10/18
	Greensburg (1982)	Soybeans	Wheat	10/21	—	—

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

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

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

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

Disease and insect data are reported as relative amounts that occurred on the varieties at the time the readings were made. Disease and insect problems are often different in different years.

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.

1982 TEST CONDITIONS

Seeding of the 1982 crop was completed on schedule at most locations. Mild fall conditions with adequate moisture allowed for good stand establishment and plant development in all tests.

Record low temperatures were observed across the state in January. In the absence of adequate snow cover, more winterkill than normal occurred. Winter oats were very severely damaged across the state, while winterkill of barley and wheat was considerably less.

A hard freeze occurred in April after wheat had begun to joint and barley was approaching the boot stage in the southern part of the state. While some injury to spikes resulted from this late freeze, damage was much less extensive than expected.

The cool, late spring provided favorable conditions for disease development. There were severe infestations of powdery mildew and leaf rust which began in the Purchase Area and the Southern Tier and moved north and east. As a result of this heavy disease pressure, yields and test weights of wheat were lower than those in 1981.

In addition, the disease conditions contributed to the variability in varietal performance across locations.

1981 TEST CONDITIONS

Favorable weather prevailed during the fall of 1980 and seeding of the 1981 crop was completed by a near normal date. The winter was unusually mild, and consequently little winterkill was observed. Early warming in the spring hastened the maturity of the small grain crops, and heading dates considerably earlier than usual were recorded. Little spring freeze damage occurred, however. Above average precipitation in June, followed by periods of strong winds, resulted in severe lodging in certain areas of the state. The harvest dates of the 1981 crop were earlier than usual, and the harvest was completed without undue delay.

Heavy infestation of the head scab fungus and *Septoria glume* blotch were responsible for lower test weights and overall reduction in seed quality. Powdery mildew was in evidence, as were tan spot and loose smut. Little yield loss was attributed to these diseases.

1980 TEST CONDITIONS

The 1980 crop was seeded at near normal times and conditions in the fall of 1979. The winter season was also near normal with very

little winter killing. Unseasonably warm temperatures did occur for several days in January and February, but the small grain plants maintained their winter-hardened condition and survived subsequent cold weather. Heading dates were earlier than normal, but spring freeze damage did not occur. Cooler than normal temperatures in May and June helped to alleviate below normal precipitation. Harvest was accomplished without unusual weather related delays.

Head scab disease caused considerable damage to late heading wheat. Scab was most severe in wheat planted in no-till corn fields where the above-ground corn residue served as a scab source. Barley yellow dwarf, wheat leaf rust, wheat spindle streak mosaic virus, wheat mildew, and barley scald were observed but caused minimal yield losses. Again this year, the cereal leaf beetle continued to expand its territory but caused little yield loss.

SMALL GRAIN VARIETIES FOR 1983

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 10.

Soft Red Winter Wheat Varieties

Kentucky's climate and soils are well suited for the production of high quality soft red winter wheat. No single variety has all the desirable characteristics, but each has certain advantages. Yielding ability, straw strength, height, earliness, grain quality, and disease resistance are important in choosing a variety. Varietal performance is presented in Tables 4-9. Arthur and Abe have long been the most widely grown varieties, although 1982 saw a marked increase in the acreage planted to Hart.

The susceptibility of Hart to powdery mildew lowered its yield and test weight in many areas of the state in 1982. Wheeler, a variety developed in Virginia, is well adapted to growing conditions in Kentucky and has performed well in two years of testing.

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 11-13A. Varieties now commonly grown are Barsoy and Volbar.

Winter Oat Varieties

Winter oats are the least winterhardy of the winter grains. Early seeding, good fertilization practices, and planting on well-drained soils are recommended to minimize winter killing. Winter oats are also excellent for grazing and silage. Performance of the winter oat varieties is presented in Tables 14-16. Varieties now commonly grown are Compact, Norline and Walken. The variety Kenoat, formerly tested as KY 67-695, was released by the University of Kentucky in 1981.

Spring Oat Varieties

The only small grain suitable for spring seeding by farmers in Kentucky is spring oats. Spring oats are used mainly for hay or silage, and as a companion crop for grasses and legumes. Grain and forage yields of spring oats are lower than those of the winter oat varieties when yields of winter oats are not severely reduced from winter killing or disease. Two spring oat varieties (Otee and Jaycee) are commonly grown because of their higher level of resistance to Barley Yellow Dwarf Virus (oat red leaf). Performance data are listed in Table 17.

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.

TABLES

Table 3.—Characteristics of Wheat Varieties Tested in 1982.

Variety	Protected ^{3/}	Source	Release Date	Average of 1982 Tests Over 7 Locations			Height	% Lodged	% Survival
				Bu/A	Lb/Bu	Heading Date			
VA 79-54-254	No	Virginia	1982	55	58.1	5/10	32	20	97
McNair 3271	Yes	Northrup King Seeds	----	53	54.6	5/09	35	8	98
Massey	No	Virginia	1981	53	56.8	5/10	34	22	94
Coker 80-33	---	Coker's Pedigreed Seeds	----	53	55.6	5/11	35	28	97
Pioneer S76	Yes	Pioneer Hi-Bred Int'l	1976	53	56.5	5/11	35	11	98
Wheeler	No	Virginia	1980	52	57.2	5/10	38	21	99
Pioneer 2550	Yes	Pioneer Hi-Bred Int'l	1982	52	54.3	5/10	34	13	99
Tyler	No	Virginia	1980	50	54.5	5/11	37	13	98
Feland	Yes	Southern States 79-34	1982	50	57.9	5/10	36	4	95
McNair 1003	Yes	Northrup King Seeds	1977	50	53.3	5/10	35	8	96
Coker 916	Yes	Coker's Pedigreed Seeds	1982	50	56.2	5/06	31	11	98
Caldwell	Yes	Indiana	1980	49	53.8	5/09	34	16	99
Hart	No	Missouri	1976	48	55.7	5/10	37	13	99
Scotty	---	Illinois	1982	48	56.2	5/11	34	8	96
Hunter	Yes	N. Am. Plant Breeders	1982	47	60.0	5/06	28	2	93
Fillmore	Yes	Indiana	1982	47	56.4	5/15	38	11	98
Roy	Yes	North Carolina	1979	47	52.4	5/10	36	5	98
Coker 747	Yes	Coker's Pedigreed Seeds	1977	47	57.8	5/10	32	18	99
Voris 7070	Yes	Voris Seeds	1982	46	53.9	5/08	38	25	98

Table 3.—Continued.

Variety	Protected ^{3/}	Source	Release Date	Average of 1982 Tests Over 7 Locations			Height	% Lodged	% Survival
				Bu/A	Lb/Bu	Heading Date			
Abe	Yes	Indiana	1972	45	55.3	5/09	36	21	98
Pike	Yes	Missouri	1980	45	54.5	5/10	35	19	97
HW 3006	---	Rohm & Haas	----	45	56.0	5/11	36	9	98
Voris 8088	Yes	Voris Seeds	1981	44	53.2	5/09	36	20	97
Auburn	Yes	Indiana	1980	44	57.2	5/14	36	8	99
Roland	No	Illinois	1977	43	54.6	5/11	34	9	95
Arthur	No	Indiana	1968	43	57.3	5/10	37	26	98
Rosen	No	Arkansas	1979	42	54.2	5/08	33	7	98
Sullivan	Yes	Indiana	1977	41	58.0	5/08	37	17	98
Arthur 71	Yes	Indiana	1971	40	56.5	5/09	36	24	98
HW 3005	---	Rohm & Haas	----	39	60.2	5/10	35	6	98
Southern Belle	Yes	N. Am. Plant Breeders	1980	39	58.3	5/04	28	9	97
Doublecrop	No	Arkansas Selection	1975	38	57.5	5/04	34	19	98

CV = 13.5%^{1/}

LSD = 3.4 Bu^{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 in yields 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, 1980-1982.

	Yield (Bu/A)				Test Weight (Lb/Bu)				Lodging (%)				Plant Height (In)				Survival (%)				Date Headed			
	1982	1981	1980	Mean	1982	1981	1980	Mean	1982	1981	1980	Mean	1982	1981	1980	Mean	1982	1981	1980	Mean	1982	1981	1980	Mean
Massey	68	--	--	--	60.2	--	--	--	0	--	--	--	36	--	--	--	100	--	--	--	5/04	--	--	--
Coker 80-33	68	--	--	--	59.8	--	--	--	0	--	--	--	34	--	--	--	100	--	--	--	5/09	--	--	--
Pioneer 2550	61	--	--	--	59.1	--	--	--	0	--	--	--	32	--	--	--	100	--	--	--	5/06	--	--	--
McNair 1003	61	60	65	62	58.1	54.6	58.5	57.1	0	16	0	5	34	37	40	37	100	100	100	100	5/06	4/27	5/08	5/04
Hunter	59	--	--	--	62.4	--	--	--	0	--	--	--	27	--	--	--	100	--	--	--	5/01	--	--	--
McNair 3271	57	--	--	--	56.4	--	--	--	0	--	--	--	34	--	--	--	100	--	--	--	5/06	--	--	--
Tyler	57	63	--	60	58.8	57.5	--	58.2	0	13	--	7	35	37	--	36	100	100	--	100	5/02	4/28	--	4/30
Roy	56	62	--	59	56.8	54.9	--	55.9	0	4	--	2	34	37	--	36	100	100	--	100	5/06	4/27	--	5/02
Coker 916	56	--	--	--	59.1	--	--	--	0	--	--	--	32	--	--	--	100	--	--	--	5/02	--	--	--
HW 3006	55	--	--	--	60.9	--	--	--	0	--	--	--	35	--	--	--	100	--	--	--	5/05	--	--	--
Feland	54	--	--	--	61.2	--	--	--	0	--	--	--	36	--	--	--	96	--	--	--	5/06	--	--	--
VA 79-54-254	54	--	--	--	61.0	--	--	--	0	--	--	--	31	--	--	--	100	--	--	--	5/06	--	--	--
Rosen	54	51	63	56	58.5	53.8	58.2	56.8	0	4	0	1	32	36	38	35	100	100	100	100	5/05	4/27	5/05	5/02
Hart	53	60	46	53	58.0	57.4	60.4	58.6	0	4	0	1	36	38	39	38	100	100	100	100	5/06	4/26	5/09	5/04
Wheeler	51	64	--	58	59.7	58.7	--	59.2	0	19	--	10	38	39	--	39	100	100	--	100	5/06	4/27	--	5/02
Pioneer S76	51	54	45	50	58.4	57.1	60.3	58.6	0	4	0	1	34	35	37	35	100	100	100	100	5/06	4/28	5/12	5/05
Coker 747	51	--	--	--	61.6	--	--	--	0	--	--	--	31	--	--	--	100	--	--	--	5/07	--	--	--

Table 4.—Continued.

	Yield (Bu/A)				Test Weight (Lb/Bu)				Lodging (%)				Plant Height (In)				Survival (%)				Date Headed			
	1982	1981	1980	Mean	1982	1981	1980	Mean	1982	1981	1980	Mean	1982	1981	1980	Mean	1982	1981	1980	Mean	1982	1981	1980	Mean
Roland	51	46	--	49	58.4	54.2	--	56.3	0	0	--	0	32	35	--	34	100	100	--	100	5/09	4/29	--	5/04
Pike	49	56	--	53	59.4	56.8	--	58.1	0	0	--	0	34	36	--	35	100	100	--	100	5/07	4/27	--	5/02
Abe	49	52	47	49	58.9	58.4	61.9	59.7	0	50	0	17	33	35	38	35	100	100	100	100	5/06	4/26	5/08	5/03
Voris 8088	49	54	76	60	57.8	53.7	59.5	57.0	0	16	0	5	34	37	41	37	100	100	100	100	5/06	4/27	5/05	5/03
Voris 7070	48	62	--	55	56.6	55.5	--	56.1	0	4	--	2	36	38	--	37	100	100	--	100	5/03	4/23	--	4/28
Scotty	48	--	--	--	59.7	--	--	--	0	--	--	--	33	--	--	--	98	--	--	--	5/08	--	--	--
Caldwell	47	59	--	53	57.7	57.6	--	57.7	0	24	--	12	33	36	--	35	100	100	--	100	5/07	4/27	--	5/02
Southern Belle	47	58	--	53	60.0	59.7	--	59.9	0	0	--	0	28	31	--	30	100	100	--	100	4/30	4/22	--	4/26
Arthur 71	42	51	50	48	60.2	57.9	61.7	59.9	0	71	0	24	34	37	40	37	100	100	100	100	5/06	4/27	5/08	5/04
Arthur	42	52	51	48	60.2	58.4	61.9	60.2	0	50	0	17	36	38	41	38	100	100	100	100	5/06	4/27	5/07	5/03
HW 3005	40	--	--	--	62.2	--	--	--	0	--	--	--	35	--	--	--	100	--	--	--	5/05	--	--	--
Sullivan	40	53	--	47	60.0	59.4	--	59.7	0	14	--	7	34	37	--	36	100	100	--	100	5/05	4/25	--	4/30
Doublecrop	38	58	61	52	59.3	59.2	62.0	60.2	0	14	0	5	35	37	43	38	100	100	100	100	4/29	4/19	5/02	4/27
Auburn	31	38	--	35	60.6	55.2	--	57.9	0	--	--	0	33	40	--	37	100	100	--	100	5/12	5/06	--	5/09
Fillmore	28	--	--	--	59.2	--	--	--	0	--	--	--	34	--	--	--	100	--	--	--	5/14	--	--	--

CV (1982) = 13%

LSD (1982) = 9.2 Bu

Table 5.—Wheat Performance Trials for Western Coal Field Region, 1980-1982.

	Yield (Bu/A)				Test Weight (Lb/Bu)				Lodging (%)				Plant Height (In)				Survival (%)				Date Headed			
	1982	1981	1980	Mean	1982	1981	1980	Mean	1982	1981	1980	Mean	1982	1981	1980	Mean	1982	1981	1980	Mean	1982	1981	1980	Mean
VA 79-54-254	62	--	--	--	58.8	--	--	--	25	--	--	--	34	--	--	--	100	--	--	--	5/05	--	--	--
Tyler	61	61	--	61	55.2	55.9	--	55.6	8	0	--	4	40	43	--	42	100	100	--	100	5/09	5/02	--	5/06
Pioneer 2550	57	--	--	--	55.2	--	--	--	0	--	--	--	37	--	--	--	100	--	--	--	5/08	--	--	--
McNair 1003	57	57	76	63	54.6	54.4	55.2	54.7	4	0	5	3	39	39	44	41	100	100	100	100	5/07	4/29	5/09	5/05
Pioneer S76	56	54	66	59	58.0	57.6	57.8	57.8	0	0	6	2	38	39	42	40	100	100	100	100	5/09	5/01	5/12	5/07
Wheeler	55	74	--	65	57.3	59.2	--	58.3	11	0	--	6	41	43	--	42	100	100	--	100	5/08	4/29	--	5/04
Massey	54	--	--	--	56.0	--	--	--	19	--	--	--	37	--	--	--	100	--	--	--	5/07	--	--	--
McNair 3271	53	--	--	--	54.8	--	--	--	9	--	--	--	39	--	--	--	100	--	--	--	5/06	--	--	--
Hart	53	62	67	61	56.2	56.4	58.7	57.1	0	0	24	8	38	42	45	42	100	100	100	100	5/08	4/30	5/10	5/06
Fillmore	53	--	--	--	58.3	--	--	--	0	--	--	--	41	--	--	--	100	--	--	--	5/06	--	--	--
Abe	52	59	50	54	57.6	57.9	58.3	57.9	10	0	59	23	39	39	44	41	100	100	100	100	5/07	4/29	5/09	5/05
Arthur	52	56	63	57	58.3	58.9	58.7	58.6	3	0	24	9	40	41	47	43	100	100	100	100	5/06	4/28	5/09	5/04
Auburn	51	45	--	48	57.5	57.0	--	57.3	1	0	--	0	39	41	--	40	100	100	--	100	5/13	5/09	--	5/11
Caldwell	51	67	--	59	53.2	57.4	--	55.3	0	0	--	0	36	38	--	37	100	100	--	100	5/06	4/28	--	5/02
Coker 80-33	51	--	--	--	54.3	--	--	--	88	--	--	--	36	--	--	--	100	--	--	--	5/10	--	--	--
Coker 747	50	69	68	62	58.2	58.6	54.1	57.0	43	0	0	14	34	38	47	40	100	100	100	100	5/07	4/29	5/13	5/06
Feland	49	--	--	--	58.3	--	--	--	0	--	--	--	37	--	--	--	100	--	--	--	5/05	--	--	--

Table 5.—Continued.

	Yield (Bu/A)				Test Weight (Lb/Bu)				Lodging (%)				Plant Height (In)				Survival (%)				Date Headed			
	1982	1981	1980	Mean	1982	1981	1980	Mean	1982	1981	1980	Mean	1982	1981	1980	Mean	1982	1981	1980	Mean	1982	1981	1980	Mean
Scotty	49	--	--	--	55.9	--	--	--	25	--	--	--	38	--	--	--	100	--	--	--	5/08	--	--	--
Pike	47	59	--	53	54.6	57.0	--	55.8	0	0	--	0	39	39	--	39	100	100	--	100	5/08	4/29	--	5/04
Voris 8088	47	65	65	59	53.1	54.4	53.0	53.5	10	0	21	10	37	42	44	41	100	100	100	100	5/07	4/29	5/08	5/05
Rosen	47	64	53	55	54.7	55.6	54.6	55.0	1	0	0	0	35	38	42	38	100	100	100	100	5/05	4/29	5/08	5/04
Sullivan	47	56	57	53	58.5	58.6	59.5	58.9	6	0	58	21	38	41	46	42	100	100	100	100	5/05	4/28	5/09	5/04
Roland	46	55	66	56	55.5	55.2	55.4	55.4	0	0	0	0	36	38	43	39	100	100	100	100	5/09	4/30	5/12	5/07
Voris 7070	46	59	--	53	53.4	54.5	--	54.0	24	0	--	12	38	41	--	40	100	100	--	100	5/05	4/29	--	5/02
Roy	45	62	67	58	51.2	54.5	51.8	52.5	8	0	13	7	38	41	45	41	100	100	100	100	5/07	4/30	5/10	5/06
Coker 916	44	--	--	--	53.9	--	--	--	10	--	--	--	33	--	--	--	100	--	--	--	4/30	--	--	--
Hunter	44	--	--	--	57.5	--	--	--	0	--	--	--	28	--	--	--	100	--	--	--	5/02	--	--	--
Arthur 71	42	56	61	53	57.6	58.6	59.2	58.5	26	0	33	20	40	41	47	43	100	100	100	100	5/07	4/28	5/10	5/05
Doublecrop	38	60	59	52	57.5	59.1	59.1	58.6	14	0	61	25	35	40	45	40	100	100	100	100	4/29	4/24	5/03	4/29
HW 3006	36	--	--	--	55.2	--	--	--	16	--	--	--	37	--	--	--	100	--	--	--	5/07	--	--	--
HW 3005	35	--	--	--	58.6	--	--	--	0	--	--	--	35	--	--	--	100	--	--	--	5/05	--	--	--
Southern Belle	31	69	--	50	61.8	58.9	--	60.4	0	0	--	0	30	34	--	32	100	100	--	100	4/30	4/26	--	4/28

CV (1982) = 9%

LSD (1982) = 6.6 Bu

Table 6.—Wheat Performance Trials for Ohio Valley Region, 1980-1982.

	Yield (Bu/A)				Test Weight (Lb/Bu)				Lodging (%)				Plant Height (In)				Survival (%)				Date Headed			
	1982	1981	1980	Mean	1982	1981	1980	Mean	1982	1981	1980	Mean	1982	1981	1980	Mean	1982	1981	1980	Mean	1982	1981	1980	Mean
Hunter	55	--	--	--	59.2	--	--	--	8	--	--	--	29	--	--	--	93	--	--	--	5/11	--	--	--
Coker 916	54	--	--	--	51.0	--	--	--	31	--	--	--	33	--	--	--	100	--	--	--	5/11	--	--	--
VA 79-54-254	52	--	--	--	51.0	--	--	--	55	--	--	--	33	--	--	--	100	--	--	--	5/14	--	--	--
Coker 80-33	52	--	--	--	53.2	--	--	--	10	--	--	--	38	--	--	--	100	--	--	--	5/17	--	--	--
Feland	49	--	--	--	53.2	--	--	--	15	--	--	--	36	--	--	--	90	--	--	--	5/15	--	--	--
HW 3005	49	--	--	--	60.0	--	--	--	14	--	--	--	35	--	--	--	100	--	--	--	5/12	--	--	--
Wheeler	49	58	--	54	57.0	57.7	--	57.4	31	61	--	46	38	39	--	39	100	100	--	100	5/14	4/28	--	5/06
Scotty	48	--	--	--	53.7	--	--	--	11	--	--	--	35	--	--	--	100	--	--	--	5/15	--	--	--
Coker 747	47	60	--	54	56.2	57.6	--	56.9	26	51	--	39	32	36	--	34	100	100	--	100	5/14	4/30	--	5/07
McNair 3271	47	--	--	--	48.3	--	--	--	26	--	--	--	36	--	--	--	100	--	--	--	5/14	--	--	--
McNair 1003	46	61	71	59	45.7	56.1	57.6	53.1	39	23	0	21	36	39	40	38	98	100	100	99	5/14	4/28	5/13	5/08
Massey	45	--	--	--	52.5	--	--	--	34	--	--	--	37	--	--	--	100	--	--	--	5/16	--	--	--
Southern Belle	44	60	--	52	56.6	60.2	--	58.4	35	13	--	24	30	33	--	32	100	100	--	100	5/09	4/23	--	5/01
Pioneer S76	43	61	69	58	51.0	57.5	60.5	56.3	44	18	0	21	36	38	39	38	100	100	100	100	5/14	5/01	5/12	5/09
Pike	42	50	--	46	48.4	56.4	--	52.4	33	13	--	23	37	40	--	39	100	100	--	100	5/15	5/01	--	5/08
Auburn	41	51	--	46	54.8	57.6	--	56.2	15	4	--	10	37	41	--	39	100	100	--	100	5/16	5/05	--	5/11
Roland	40	54	--	47	48.0	55.6	--	51.8	19	34	--	27	36	39	--	38	100	100	--	100	5/15	5/01	--	5/08

Table 6.—Continued.

	Yield (Bu/A)				Test Weight (Lb/Bu)				Lodging (%)				Plant Height (In)				Survival (%)				Date Headed			
	1982	1981	1980	Mean	1982	1981	1980	Mean	1982	1981	1980	Mean	1982	1981	1980	Mean	1982	1981	1980	Mean	1982	1981	1980	Mean
Fillmore	40	--	--	--	51.1	--	--	--	38	--	--	--	40	--	--	--	100	--	--	--	5/17	--	--	--
HW 3005	38	--	--	--	47.6	--	--	--	29	--	--	--	37	--	--	--	100	--	--	--	5/15	--	--	--
Roy	38	60	--	49	41.9	55.7	--	48.8	5	24	--	15	37	39	--	38	100	100	--	100	5/16	4/28	--	5/07
Voris 7070	37	54	--	46	59.0	55.4	--	52.2	69	29	--	49	41	40	--	41	100	100	--	100	5/13	4/24	--	5/04
Arthur	37	49	66	51	53.2	56.4	61.7	57.1	59	83	0	47	40	38	42	40	100	100	100	100	5/12	4/27	5/11	5/07
Caldwell	37	62	--	50	44.6	56.6	--	50.6	60	63	--	62	38	36	--	37	100	100	--	100	5/12	4/28	--	5/05
Pioneer 2550	36	--	--	--	46.2	--	--	--	35	--	--	--	34	--	--	--	100	--	--	--	5/14	--	--	--
Hart	36	65	68	56	50.2	57.0	60.7	56.0	25	48	0	24	39	39	41	40	100	100	100	100	5/15	4/26	5/11	5/07
Tyler	35	69	--	52	45.0	57.6	--	51.3	35	29	--	32	37	41	--	39	100	100	--	100	5/17	4/30	--	5/09
Abe	35	45	58	46	44.8	56.6	61.2	54.2	58	70	0	43	38	38	36	37	100	100	100	100	5/12	4/30	5/11	5/08
Voris 8088	35	49	77	54	45.6	53.2	58.5	52.4	38	69	0	36	39	39	41	40	100	100	100	100	5/14	4/28	5/11	5/08
Arthur 71	34	40	62	45	52.4	56.0	62.0	56.8	48	91	0	46	38	39	40	39	100	100	100	100	5/13	4/29	5/11	5/08
Doublecrop	31	48	58	46	56.0	56.0	62.9	58.3	34	53	0	29	37	37	41	38	100	100	100	100	5/07	4/22	5/04	5/01
Rosen	31	56	65	51	45.0	55.7	58.0	52.9	23	38	0	20	35	37	36	36	100	100	100	100	5/13	4/26	5/10	5/06
Sullivan	30	43	--	37	56.2	57.6	--	56.9	48	69	--	59	39	38	--	39	100	100	--	100	5/13	4/25	--	5/04

CV (1982) = 14%

LSD (1982) = 8.4 Bu

Table 7.—Wheat Performance Trials for Bluegrass Region, 1980-1982.

	Yield (Bu/A)				Test Weight (Lb/Bu)				Lodging (%)				Plant Height (In)				Survival (%)				Date Headed			
	1982	1981	1980	Mean	1982	1981	1980	Mean	1982	1981	1980	Mean	1982	1981	1980	Mean	1982	1981	1980	Mean	1982	1981	1980	Mean
Pioneer 2550	65	--	--	--	60.5	--	--	--	5	--	--	--	31	--	--	--	95	--	--	--	5/15	--	--	--
Wheeler	62	69	--	66	60.6	61.0	--	60.8	3	0	--	2	36	48	--	42	95	100	--	98	5/14	5/04	--	5/09
Caldwell	61	68	--	65	59.8	59.5	--	59.7	4	0	--	2	33	41	--	37	94	100	--	97	5/13	5/04	--	5/09
Voris 8088	61	61	65	62	58.9	53.3	55.2	55.8	6	0	0	2	34	45	42	40	95	100	98	98	5/14	5/03	5/17	5/11
Pioneer S76	59	61	70	63	59.6	57.9	59.1	58.9	6	0	0	2	33	44	38	38	93	100	96	96	5/15	5/10	5/18	5/14
Fillmore	58	--	--	--	60.5	--	--	--	6	--	--	--	34	--	--	--	89	--	--	--	5/18	--	--	--
VA 79-54-254	57	--	--	--	61.0	--	--	--	5	--	--	--	31	--	--	--	90	--	--	--	5/13	--	--	--
Abe	57	68	62	62	59.6	60.9	58.7	59.7	5	0	0	2	34	44	40	39	93	100	100	98	5/14	5/04	5/17	5/12
Pike	56	67	--	62	60.1	58.7	--	59.4	9	0	--	5	34	43	--	39	86	100	--	93	5/14	5/02	--	5/08
Auburn	55	52	--	54	61.4	56.2	--	58.8	0	0	--	0	33	42	--	38	94	100	--	97	5/16	5/10	--	5/13
Massey	54	--	--	--	60.0	--	--	--	6	--	--	--	33	--	--	--	91	--	--	--	5/14	--	--	--
Arthur 71	54	67	61	61	59.7	61.6	59.6	60.3	4	0	0	1	34	46	42	41	91	100	99	97	5/13	5/04	5/17	5/11
McNair 3271	53	--	--	--	58.6	--	--	--	5	--	--	--	31	--	--	--	93	--	--	--	5/15	--	--	--
HW 3006	52	--	--	--	61.7	--	--	--	6	--	--	--	33	--	--	--	94	--	--	--	5/14	--	--	--
Roy	52	77	62	64	59.8	54.9	56.9	57.2	5	0	0	2	35	45	40	40	91	100	96	96	5/14	5/06	5/17	5/12
Coker 80-33	52	--	--	--	59.2	--	--	--	4	--	--	--	31	--	--	--	93	--	--	--	5/17	--	--	--
Arthur	50	68	62	60	59.8	60.8	59.7	60.1	5	0	0	2	35	48	44	42	91	100	98	96	5/13	5/04	5/16	5/11
Hart	49	72	67	63	59.4	59.4	60.1	59.6	3	0	0	1	33	46	42	40	91	100	99	97	5/14	5/05	5/16	5/12

Table 7.—Continued.

	Yield (Bu/A)				Test Weight (Lb/Bu)				Lodging (%)				Plant Height (In)				Survival (%)				Date Headed			
	1982	1981	1980	Mean	1982	1981	1980	Mean	1982	1981	1980	Mean	1982	1981	1980	Mean	1982	1981	1980	Mean	1982	1981	1980	Mean
Voris 7070	49	59	--	54	47.2	55.6	--	56.4	6	0	--	3	34	46	--	41	89	100	--	95	5/13	5/02	--	5/08
Scotty	46	--	--	--	59.4	--	--	--	9	--	--	--	30	--	--	--	86	--	--	--	5/15	--	--	--
Sullivan	44	65	60	56	59.5	62.0	60.1	60.5	4	0	0	1	33	47	42	41	93	100	98	97	5/13	5/04	5/17	5/11
McNair 1003	43	76	82	67	58.4	57.2	57.0	57.5	5	0	0	2	32	45	41	39	88	100	95	94	5/15	5/06	5/17	5/13
Doublecrop	43	60	55	53	59.1	61.8	60.8	60.6	4	0	0	1	33	44	42	40	93	100	98	97	5/08	4/28	5/12	5/06
Roland	43	60	61	55	58.6	56.8	58.0	57.8	6	0	0	2	34	43	38	38	80	100	99	93	5/16	5/05	5/19	5/13
Coker 916	42	--	--	--	60.9	--	--	--	5	--	--	--	27	--	--	--	94	--	--	--	5/10	--	--	--
Coker 747	41	71	75	62	61.3	59.1	56.4	58.9	4	0	0	1	29	42	43	38	95	100	99	98	5/14	5/06	5/21	5/14
Hunter	40	--	--	--	62.0	--	--	--	4	--	--	--	25	--	--	--	91	--	--	--	5/11	--	--	--
HW 3005	38	--	--	--	61.6	--	--	--	5	--	--	--	31	--	--	--	96	--	--	--	5/13	--	--	--
Southern Belle	36	76	--	56	61.6	61.9	--	61.8	5	0	--	3	25	38	--	32	93	100	--	97	5/10	4/30	--	5/05
Tyler	36	78	--	57	60.3	58.9	--	59.6	3	0	--	2	33	46	--	40	94	100	--	97	5/15	5/07	--	5/11
Feland	35	--	--	--	61.8	--	--	--	4	--	--	--	32	--	--	--	93	--	--	--	5/13	--	--	--
Rosen	27	56	61	48	58.7	55.6	57.4	57.2	0	0	0	0	31	42	37	37	91	100	99	97	5/13	5/02	5/17	5/11

CV (1982) = 16%

LSD (1982) = 11.2 Bu

Table 8.—Wheat Performance Trials for Southern Tier Region, 1980-1982.¹

Variety	Yield (Bu/A)			Test Weight (Lb/Bu)			Lodging (%)			Plant Height (In)			Survival (%)			Date Headed		
	1982	1981	Mean	1982	1981	Mean	1982	1981	Mean	1982	1981	Mean	1982	1981	Mean	1982	1981	Mean
Feland	49	--	--	55.3	--	--	13	--	--	38	--	--	86	--	--	5/12	--	--
Pioneer S76	49	44	46	54.9	52.1	53.5	28	26	27	37	40	38	94	100	97	5/12	5/02	5/07
VA 79-54-254	43	--	--	56.6	--	--	48	--	--	32	--	--	88	--	--	5/12	--	--
Tyler	43	55	49	51.9	51.7	51.8	39	29	34	40	43	42	94	100	97	5/14	5/02	5/08
HW 3006	42	--	--	52.7	--	--	8	--	--	40	--	--	94	--	--	5/11	--	--
Coker 916	42	--	--	53.9	--	--	20	--	--	33	--	--	94	--	--	5/07	--	--
Hart	41	59	50	53.3	56.4	54.8	61	28	44	38	41	40	99	100	100	5/10	4/29	5/04
Hunter	41	--	--	58.3	--	--	0	--	--	30	--	--	79	--	--	5/10	--	--
McNair 3271	40	--	--	53.4	--	--	18	--	--	38	--	--	95	--	--	5/09	--	--
Coker 80-33	40	--	--	50.6	--	--	69	--	--	38	--	--	86	--	--	5/16	--	--
Voris 7070	38	53	46	51.5	52.4	51.9	66	15	40	40	41	40	94	100	97	5/08	4/26	5/02
McNair 1003	38	46	42	48.2	54.4	51.3	10	24	17	36	41	38	85	100	92	5/12	5/01	5/06
HW 3005	38	--	--	58.4	--	--	23	--	--	38	--	--	91	--	--	5/09	--	--
Abe	37	42	40	54.1	52.9	53.5	75	59	67	36	41	38	90	100	95	5/10	5/01	5/06
Wheeler	36	50	43	51.4	53.6	52.5	73	41	57	39	43	41	96	100	98	5/12	5/02	5/07
Roy	36	41	38	50.0	48.2	49.1	19	8	14	39	41	40	96	100	98	5/13	4/30	5/06
Caldwell	35	56	46	49.4	57.4	53.4	43	93	68	35	41	38	98	100	99	5/10	5/01	5/06
Fillmore	33	--	--	51.1	--	--	31	--	--	40	--	--	96	--	--	5/16	--	--

Table 8.—Continued.

Variety	Yield (Bu/A)			Test Weight (Lb/Bu)			Lodging (%)			Plant Height (In)			Survival (%)			Date Headed		
	1982	1981	Mean	1982	1981	Mean	1982	1981	Mean	1982	1981	Mean	1982	1981	Mean	1982	1981	Mean
Massey	33	--	--	53.1	--	--	85	--	--	37	--	--	94	--	--	5/12	--	--
Rosen	33	50	42	48.5	55.6	52.0	26	25	26	36	39	38	95	100	98	5/09	4/29	5/04
Coker 747	32	41	36	49.4	58.6	54.0	39	89	64	33	37	35	96	100	98	5/11	5/01	5/06
Sullivan	32	43	38	54.4	56.0	55.2	45	46	46	40	40	40	91	100	96	5/08	4/28	5/03
Scotty	32	--	--	51.2	--	--	13	--	--	36	--	--	89	--	--	5/12	--	--
Southern Belle	32	57	44	53.9	56.4	55.2	24	15	20	29	33	31	88	100	94	5/06	4/27	5/02
Roland	32	44	38	50.2	55.2	52.7	40	18	29	37	41	39	88	100	94	5/11	5/02	5/06
Doublecrop	32	57	44	54.6	59.1	56.8	69	30	50	35	41	38	96	100	98	5/13	4/23	5/03
Arthur	31	42	36	52.4	54.2	53.3	91	68	80	36	40	38	98	100	99	5/09	4/30	5/04
Auburn	30	43	36	51.7	57.0	54.4	38	18	28	37	43	40	96	100	98	5/16	5/09	5/12
Pike	29	50	40	48.0	57.0	52.5	89	31	60	36	40	38	99	100	100	5/12	5/01	5/06
Pioneer 2550	28	--	--	47.6	--	--	46	--	--	37	--	--	96	--	--	5/12	--	--
Voris 8088	27	38	32	47.7	48.4	48.0	60	59	60	38	43	40	89	100	94	5/10	5/01	5/06
Arthur 71	21	40	30	51.4	58.6	55.0	75	83	79	38	41	40	91	100	96	5/11	5/01	5/06

CV (1982) = 19%

LSD (1982) = 9.7 Bu

^{1/} Location was Princeton, limestone soil.

Table 8A.—Wheat Performance Trials for Southern Tier Region, 1980-1982.¹

Variety	Yield (Bu/A)				Test Weight (Lb/Bu)				Lodging (%)				Plant Height (In)				Survival (%)				Date Headed			
	1982	1981	1980	Mean	1982	1981	1980	Mean	1982	1981	1980	Mean	1982	1981	1980	Mean	1982	1981	1980	Mean	1982	1981	1980	Mean
Feland	52	--	--	--	56.1	--	--	--	0	--	--	--	37	--	--	--	100	--	--	--	5/06	--	--	--
Pioneer 876	61	53	76	63	54.9	57.1	60.3	57.4	0	0	3	1	36	40	44	40	100	100	100	100	5/07	4/29	5/11	5/06
VA 79-54-254	56	--	--	--	58.8	--	--	--	4	--	--	--	31	--	--	--	100	--	--	--	5/06	--	--	--
Tyler	61	59	--	60	54.2	55.2	--	54.7	0	0	--	0	38	44	--	41	100	100	--	100	5/07	4/29	--	5/03
HW 3006	54	--	--	--	57.4	--	--	--	0	--	--	--	36	--	--	--	100	--	--	--	5/05	--	--	--
Coker 916	53	--	--	--	56.2	--	--	--	4	--	--	--	32	--	--	--	100	--	--	--	5/01	--	--	--
Hart	57	55	68	60	54.4	57.6	--	56.0	0	0	5	2	38	43	47	43	100	100	100	100	5/06	4/27	5/11	5/05
Hunter	38	--	--	--	59.0	--	--	--	0	--	--	--	27	--	--	--	100	--	--	--	5/04	--	--	--
McNair 3271	56	--	--	--	53.3	--	--	--	0	--	--	--	36	--	--	--	100	--	--	--	5/04	--	--	--
Coker 80-33	46	--	--	--	53.8	--	--	--	29	--	--	--	35	--	--	--	100	--	--	--	5/08	--	--	--
Voris 7070	49	51	--	50	52.8	54.6	--	53.7	10	0	--	5	39	44	--	42	100	100	--	100	5/04	4/25	--	4/30
McNair 1003	48	55	75	59	53.4	53.7	58.3	55.1	0	0	0	0	35	41	43	40	100	100	100	100	5/06	4/27	5/11	5/05
HW 3005	43	--	--	--	59.8	--	--	--	0	--	--	--	36	--	--	--	100	--	--	--	5/05	--	--	--
Abe	41	46	57	48	53.2	56.2	61.6	57.0	0	0	10	3	35	40	44	40	100	100	100	100	5/05	4/27	5/11	5/04
Wheeler	59	58	--	58	56.4	58.6	--	57.5	0	8	--	4	38	43	--	40	100	100	--	100	5/07	4/29	--	5/03
Roy	52	55	--	54	53.3	54.0	--	53.6	0	0	--	0	35	41	--	38	100	100	--	100	5/06	4/29	--	5/02
Caldwell	54	53	--	55	54.9	56.2	--	55.6	0	0	--	0	32	39	--	36	100	100	--	100	5/05	4/27	--	5/01
Fillmore	57	--	--	--	56.2	--	--	--	0	--	--	--	40	--	--	--	100	--	--	--	5/12	--	--	--

Table 8A.—Continued.

Variety	Yield (Bu/A)				Test Weight (Lb/Bu)				Lodging (%)				Plant Height (In)				Survival (%)				Date Headed			
	1982	1981	1980	Mean	1982	1981	1980	Mean	1982	1981	1980	Mean	1982	1981	1980	Mean	1982	1981	1980	Mean	1982	1981	1980	Mean
Massey	54	--	--	--	57.1	--	--	--	10	--	--	--	35	--	--	--	100	--	--	--	5/05	--	--	--
Rosen	52	50	65	56	57.0	53.6	57.5	56.0	0	0	1	0	33	39	44	39	100	100	100	100	5/05	4/26	5/10	5/04
Coker 747	57	53	--	55	58.4	56.6	--	57.5	0	0	--	0	33	35	--	34	100	100	--	100	5/05	4/29	--	5/02
Sullivan	44	45	--	44	57.2	58.1	--	57.6	10	0	--	5	38	41	--	40	100	100	--	100	5/04	4/26	--	4/30
Scotty	54	--	--	--	55.9	--	--	--	0	--	--	--	34	--	--	--	100	--	--	--	5/07	--	--	--
Southern Belle	47	55	--	51	56.4	58.1	--	57.2	0	0	--	0	27	33	--	30	100	100	--	100	5/01	4/22	--	4/26
Roland	47	37	--	42	54.6	51.6	--	53.1	0	0	--	0	34	38	--	36	100	100	--	100	5/07	4/30	--	5/04
Doublecrop	42	49	--	46	57.5	59.4	62.0	59.6	5	8	18	10	32	41	45	39	100	100	100	100	4/29	4/21	5/06	4/29
Arthur	41	45	59	48	57.8	57.8	61.9	59.2	4	0	20	8	36	42	47	42	100	100	100	100	5/06	4/27	5/11	5/05
Auburn	51	33	--	42	56.8	58.8	--	57.8	0	0	--	0	39	39	--	39	100	100	--	100	5/13	5/03	--	5/08
Pike	45	46	--	46	54.7	56.3	--	55.5	3	0	--	2	34	38	--	36	100	100	--	100	5/08	4/28	--	5/03
Pioneer 2550	57	--	--	--	53.3	--	--	--	3	--	--	--	34	--	--	--	100	--	--	--	5/06	--	--	--
Voris 8088	46	45	63	51	53.9	52.5	58.0	54.8	0	0	27	9	35	41	45	40	100	100	100	100	5/05	4/27	5/10	5/04
Arthur 71	37	43	52	44	53.9	56.8	61.7	57.5	15	0	33	16	36	41	45	41	100	100	100	100	5/06	4/28	--	5/02

CV (1982) = 13%

LSD (1982) = 9.5 Bu

1/ Location was Hopkinsville.

Table 9.—Wheat Performance Trials for North Central Region, 1980-1982.¹

	Yield (Bu/A)			Test Weight (Lb/Bu)			Lodging (%)			Plant Height (In)			Survival (%)			Date Headed ^{2/}
	1982	1980	Mean	1982	1980	Mean	1982	1980	Mean	1982	1980	Mean	1982	1980	Mean	
Massey	65	--	--	58.9	--	--	0	--	--	25	--	--	75	--	--	--
Tyler	65	--	--	56.7	--	--	0	--	--	34	--	--	100	--	--	--
McNair 3271	65	--	--	57.4	--	--	0	--	--	33	--	--	100	--	--	--
VA 79-54-254	65	--	--	59.4	--	--	4	--	--	31	--	--	100	--	--	--
Caldwell	61	--	--	56.9	--	--	6	--	--	32	--	--	100	--	--	--
Fillmore	61	--	--	58.5	--	--	0	--	--	36	--	--	100	--	--	--
Scotty	61	--	--	57.5	--	--	0	--	--	32	--	--	98	--	--	--
Feland	60	--	--	59.1	--	--	0	--	--	34	--	--	98	--	--	--
Coker 80-33	59	--	--	57.5	--	--	0	--	--	32	--	--	99	--	--	--
Pioneer 2550	58	--	--	57.9	--	--	0	--	--	33	--	--	100	--	--	--
Coker 916	57	--	--	58.1	--	--	6	--	--	29	--	--	100	--	--	--
McNair 1003	56	50	53	55.1	55.4	55.2	0	0	0	35	34	34	99	100	100	5/17
Wheeler	56	--	--	58.3	--	--	30	--	--	37	--	--	100	--	--	--
Hunter	53	--	--	61.2	--	--	0	--	--	26	--	--	91	--	--	--
Coker 747	53	--	--	60.1	--	--	11	--	--	30	--	--	100	--	--	--
Voris 7070	52	--	--	56.6	--	--	0	--	--	37	--	--	100	--	--	--
Hart	50	48	49	58.6	56.4	57.5	0	0	0	35	34	34	100	100	100	5/16
Pioneer S76	49	55	52	58.3	56.8	57.6	0	0	0	33	33	33	100	100	100	5/17

Table 9.—Continued.

	Yield (Bu/A)			Test Weight (Lb/Bu)			Lodging (%)			Plant Height (In)			Survival (%)			Date Headed ^{2/}
	1982	1980	Mean	1982	1980	Mean	1982	1980	Mean	1982	1980	Mean	1982	1980	Mean	
Sullivan	49	--	--	60.0	--	--	8	--	--	35	--	--	100	--	--	--
Arthur	49	49	49	59.4	58.5	58.9	18	0	9	33	35	34	98	100	99	5/14
Pike	49	--	--	56.6	--	--	0	--	--	33	--	--	96	--	--	--
Arthur 71	49	35	42	60.0	58.6	59.3	0	0	0	35	33	34	100	100	100	5/15
Rosen	49	49	49	57.5	56.9	57.2	0	0	0	29	32	30	100	100	100	5/15
Abe	49	40	44	59.1	58.6	58.8	0	0	0	34	32	33	100	100	100	5/15
Auburn	48	--	--	57.3	--	--	1	--	--	33	--	--	100	--	--	--
Voris 8088	48	--	--	55.5	--	--	19	--	--	34	--	--	99	--	--	--
Roy	48	--	--	53.5	--	--	0	--	--	32	--	--	100	--	--	--
Roland	45	--	--	56.8	--	--	0	--	--	31	--	--	96	--	--	--
Doublecrop	41	34	38	59.9	57.9	58.9	5	0	2	32	32	32	100	100	100	5/10
HW 3006	37	--	--	56.8	--	--	0	--	--	33	--	--	100	--	--	--
Southern Belle	37	--	--	58.7	--	--	3	--	--	27	--	--	100	--	--	--
HW 3005	32	--	--	60.4	--	--	0	--	--	32	--	--	100	--	--	--

CV (1982) = 6%

LSD (1982) = 4.6 Bu

^{1/} Test was grown at Elizabethtown in 1980 and 1981. The 1981 test was discarded due to chemical damage.

^{2/} Heading data were not recorded in 1982.

Table 10.—Characteristics of Barley and Oat Varieties Tested in 1982.

Variety	Protected*	Origin	Release Date	Average of 1982 Tests Over All Locations		Heading Date	Height (In)	Lodged (%)	Survival (%)
				Bu/A	Lb/Bu				
<u>Winter Barley</u>									
Pike	Yes	Indiana	1975	81	46.7	4/27	35	30	96
Ferry	No	Missouri	1977	73	48.1	4/30	39	37	95
Surry	No	Virginia	1976	73	43.5	4/30	37	14	92
Barsoy	No	Kentucky	1966	72	48.0	4/26	34	7	80
Volbar	No	Tennessee	1974	70	45.4	5/04	42	1	47
<u>Winter Oats</u>									
Walken	No	Kentucky	1970	60	32.2	5/25	28	3	58
Norline	No	Indiana	1960	48	31.2	5/22	28	11	50
Compact	No	Kentucky	1969	45	32.6	5/22	20	0	53
Kenoat	No	Kentucky	1981	41	31.4	5/21	26	0	46
Coker 716	Yes	Coker Seed Co.	1971	34	33.4	5/14	22	30	44
Brooks	No	North Carolina	1979	33	33.1	5/14	23	19	50
Southern States 76-30	Yes	Southern States Coop	1980	24	33.6	5/14	22	0	48
<u>Spring Oats</u>									
Bates	No	Missouri	1976	102	34.4	5/29	28	4	100
Lang	Yes	Illinois	1976	86	34.5	5/28	25	4	100
Clintford	No	Indiana	1966	81	35.0	5/28	27	8	100
Otee	No	Illinois	1973	80	34.1	5/28	27	13	100
Andrew	No	Minnesota	1949	77	33.1	5/27	29	20	100

* "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 11.—Winter Barley Performance Trials for Western Coal Field Region, 1980-1982.

Variety	Yield (Bu/A)				Test Weight (Lb/Bu)				Lodging (%)				Plant Height (In)				Survival (%)				Date Headed			
	1982	1981	1980	Mean	1982	1981	1980	Mean	1982	1981	1980	Mean	1982	1981	1980	Mean	1982	1981	1980	Mean	1982	1981	1980	Mean
Volbar	94	69	49	71	43.7	43.3	44.0	43.6	0	0	0	0	45	41	36	41	78	98	69	82	4/28	4/27	5/07	5/01
Pike	84	47	13	48	45.8	45.1	48.8	46.6	11	0	0	4	36	28	21	28	100	100	68	89	4/24	4/19	5/06	4/26
Surry	77	46	18	47	42.6	41.9	47.1	43.9	0	0	0	0	38	33	26	32	94	100	61	85	4/26	4/22	5/09	4/29
Barsoy	72	57	41	57	46.4	43.6	51.9	47.3	5	0	0	2	34	35	28	32	86	100	85	90	4/24	4/13	4/25	4/21
Perry	65	72	24	54	47.8	45.4	50.1	47.8	9	0	0	3	39	37	27	34	98	100	82	93	4/27	4/21	5/09	4/29

CV (1982) = 8%

LSD (1982) = 9.5 Bu

Table 12.—Winter Barley Performance Trials for Bluegrass Region, 1980-1982.

Variety	Yield (Bu/A)				Test Weight (Lb/Bu)				Lodging (%)				Plant Height (In)				Survival (%)				Date Headed			
	1982	1981	1980	Mean	1982	1981	1980	Mean	1982	1981	1980	Mean	1982	1981	1980	Mean	1982	1981	1980	Mean	1982	1981	1980	Mean
Perry	76	97	36	70	51.4	51.7	53.2	52.1	41	12	0	18	36	39	29	35	84	100	100	95	5/05	4/26	5/06	5/02
Pike	65	97	42	68	49.6	48.2	50.6	49.5	50	48	0	33	33	34	26	31	88	100	100	96	5/02	4/26	5/04	5/01
Barsoy	63	106	42	70	50.6	48.6	52.7	50.6	15	42	0	19	32	35	30	32	81	100	100	94	4/30	4/20	4/28	4/26
Volbar	51	114	41	69	49.4	48.1	47.7	48.4	0	32	0	11	33	44	31	36	61	100	100	87	5/07	4/28	5/12	5/06
Surry	51	100	40	64	48.4	44.7	48.7	47.3	1	0	0	0	32	38	28	33	79	100	100	93	5/06	4/26	5/05	5/02

CV (1982) = 11%

LSD (1982) = 10.7 Bu

Table 13.—Winter Barley Performance Trials for Southern Tier Region, 1980-1982.¹

Variety	Yield (Bu/A)				Test Weight (Lb/Bu)				Lodging (%)				Plant Height (In)				Survival (%)				Date Headed			
	1982	1981	1980	Mean	1982	1981	1980	Mean	1982	1981	1980	Mean	1982	1981	1980	Mean	1982	1981	1980	Mean	1982	1981	1980	Mean
Pike	87	52	73	71	43.5	36.3	45.8	41.8	50	99	16	55	37	35	38	37	96	100	99	98	4/28	4/16	4/26	4/23
Barsoy	84	72	80	79	47.0	39.6	49.9	45.5	5	84	5	31	37	35	43	38	70	100	99	90	4/26	4/14	4/23	4/21
Perry	76	69	59	68	44.3	41.0	47.9	44.4	85	91	82	86	41	35	43	40	100	100	100	100	4/30	4/20	5/01	4/27
Surry	71	73	78	74	38.1	37.6	44.6	40.1	56	68	32	52	39	38	42	40	95	100	100	98	4/30	4/18	4/28	4/25
Volbar	66	89	98	84	43.5	41.1	44.7	43.1	4	15	99	39	44	37	49	43	12	100	99	70	5/06	4/25	5/02	5/01

CV (1982) = 10%

LSD (1982) = 12.8 Bu

^{1/} Location was Princeton, limestone soil.

Table 13A.—Winter Barley Performance Trials for Southern Tier Region, 1980-1982.¹

Variety	Yield (Bu/A)				Test Weight (Lb/Bu)				Lodging (%)				Plant Height (In)				Survival (%)				Date Headed			
	1982	1981	1980	Mean	1982	1981	1980	Mean	1982	1981	1980	Mean	1982	1981	1980	Mean	1982	1981	1980	Mean	1982	1981	1980	Mean
Pike	87	73	90	83	47.6	42.8	47.1	45.8	9	55	49	38	34	36	38	36	100	100	100	100	4/24	4/11	4/26	4/20
Barsoy	70	63	98	77	48.0	43.2	51.2	47.5	2	44	15	20	35	37	41	38	81	100	100	94	4/22	4/09	4/21	4/17
Perry	74	65	62	67	48.8	43.2	46.2	46.1	11	29	98	46	39	40	45	41	100	100	100	100	4/29	4/15	5/01	4/25
Surry	91	69	80	80	44.8	41.3	44.2	43.4	0	13	71	28	40	41	45	42	100	100	100	100	4/28	4/14	4/30	4/24
Volbar	68	71	93	77	44.9	40.7	46.1	43.9	0	22	75	32	44	45	49	46	35	100	100	78	5/04	4/18	5/03	4/28

CV (1982) = 14%

LSD (1982) = 16.4 Bu

^{1/} Location was Hopkinsville.

Table 14.—Winter Oat Performance Trials for Western Coal Field Region, 1980-1981.¹

	Yield (Bu/A)			Test Weight (Lb/Bu)			Lodging (%)			Plant Height (In)			Survival (%)			Date Headed		
	1981	1980	Mean	1981	1980	Mean	1981	1980	Mean	1981	1980	Mean	1981	1980	Mean	1981	1980	Mean
	Brooks	86	59	72	27.0	31.9	29.4	43	100	72	44	36	40	73	54	64	5/06	5/17
Coker 716	91	74	82	31.2	35.8	33.5	8	100	54	45	32	38	59	84	72	5/06	5/16	5/11
Compact	74	68	71	32.3	38.0	35.2	0	100	50	41	32	36	69	79	74	5/20	5/22	5/21
Kenoat	90	70	80	33.6	36.2	34.9	20	100	60	51	42	46	85	71	78	5/17	5/21	5/19
Norline	80	68	74	32.3	36.0	34.2	11	100	56	56	41	48	73	70	72	5/24	5/20	5/22
Southern States 76-30	94	69	82	33.8	35.6	34.7	10	100	55	47	36	42	70	75	72	5/06	5/15	5/10
Walken	74	72	73	30.9	36.9	33.9	0	100	50	48	40	44	75	74	74	5/28	5/26	5/27

^{1/} The 1982 trial was discarded due to winterkill.

Table 15.—Winter Oat Performance Trials for Bluegrass Region, 1980-1982.

Variety	Yield (Bu/A)				Test Weight (Lb/Bu)				Lodging (%)				Height (In)				Survival (%)				Date Headed			
	1982	1981	1980	Mean	1982	1981	1980	Mean	1982	1981	1980	Mean	1982	1981	1980	Mean	1982	1981	1980	Mean	1982	1981	1980	Mean
	Walken	60	90	69	73	32.2	36.3	36.8	35.1	3	0	0	1	28	40	29	32	58	100	100	86	5/25	5/27	5/26
Norline	48	93	62	68	31.2	36.6	35.9	34.6	11	12	0	8	28	48	30	35	50	100	100	83	5/22	5/24	5/23	5/23
Compact	45	66	65	59	32.6	37.4	35.5	35.2	0	0	0	0	20	32	26	26	53	100	100	84	5/22	5/22	5/22	5/22
Kenoat	41	77	66	61	31.4	37.4	37.8	35.5	0	5	0	2	26	42	30	33	46	98	100	81	5/21	5/18	5/24	5/21
Coker 716	34	110	85	76	33.4	36.2	35.2	34.9	30	2	0	11	22	38	31	30	44	98	100	81	5/14	5/11	5/16	5/14
Brooks	33	82	67	61	33.1	36.2	36.6	35.3	19	22	0	14	23	37	31	30	50	92	100	81	5/14	5/12	5/17	5/14
Southern States 76-30	24	88	72	61	33.6	37.0	35.0	35.2	0	10	0	3	22	41	34	32	48	98	100	82	5/14	5/08	5/14	5/12

CV (1982) = 20%

LSD (1982) = 13.0 Bu

Table 16.—Winter Oat Performance Trials for Southern Tier Region, 1980-1981.¹

Variety	Yield (Bu/A)			Test Weight (Lb/Bu)			Lodging (%)			Plant Height (In)			Survival (%)			Date Headed		
	1981	1980	Mean	1981	1980	Mean	1981	1980	Mean	1981	1980	Mean	1981	1980	Mean	1981	1980	Mean
Brooks	83	110	97	29.5	32.2	30.8	98	100	99	45	43	44	91	82	87	5/03	5/15	5/09
Coker 716	82	130	106	30.4	34.8	32.6	100	100	100	47	43	45	96	92	94	5/02	5/12	5/07
Compact	69	86	78	29.2	35.8	32.5	78	100	89	43	42	43	94	89	92	5/16	5/21	5/19
Kenoat	77	102	90	32.4	36.0	34.2	89	100	95	48	46	47	94	92	93	5/13	5/21	5/17
Norline	62	90	76	30.4	34.2	32.3	84	100	92	54	46	50	93	90	92	5/20	5/22	5/21
Southern States 76-30	91	123	107	34.6	36.6	35.6	98	100	99	50	47	49	89	88	89	5/01	5/12	5/07
Walken	90	111	101	31.6	35.0	33.3	40	100	70	49	47	48	98	94	96	5/27	5/26	5/27

^{1/} The 1982 trial was discarded due to winterkill.

Table 17.—Spring Oat Performance Trials for Bluegrass Region, 1980-1982.

Variety	Yield (Bu/A)				Test Weight (Lb/Bu)				Lodging (%)				Plant Height (In)				Survival (%)				Date Headed			
	1982	1981	1980	Mean	1982	1981	1980	Mean	1982	1981	1980	Mean	1982	1981	1980	Mean	1982	1981	1980	Mean	1982	1981	1980	Mean
Bates	102	122	49	84	34.4	33.4	35.6	34.5	4	40	0	15	28	47	26	34	100	100	100	100	5/29	5/31	6/01	5/31
Lang	86	141	53	88	34.5	33.2	33.3	33.7	4	50	0	18	25	45	24	31	100	100	100	100	5/28	5/28	6/01	5/29
Clintford	81	112	49	75	35.0	33.7	37.2	35.3	8	68	0	25	27	47	27	34	100	100	100	100	5/28	6/01	6/03	5/31
Otee	80	113	48	75	34.1	30.8	36.6	33.8	13	55	0	23	27	49	27	34	100	100	100	100	5/28	6/01	6/03	5/31
Andrew	77	114	55	77	33.1	31.9	35.4	33.5	20	60	0	27	29	54	32	38	100	100	100	100	5/27	6/01	6/03	5/31

CV (1982) = 14%

LSD (1982) = 16.5 Bu