

Table 18.—Spring Oat Performance Trials for All Regions of Kentucky, 1978-80¹.

Variety	Yield Bu/A				Test Weight Lbs/Bu				Date Headed June			
	1980	1979	1978	Avg	1980	1979	1978	Avg	1980	1979	1978	Avg
Andrew	55	74	76	68	35.4	38.5	36.5	36.8	3	2	5	3
Bates	49	75	91	72	35.6	38.0	35.4	36.3	1	1	5	2
Clintford	49	62	69	60	37.2	39.4	38.2	38.3	3	1	5	3
Lang	53	77	87	72	33.3	35.7	35.1	34.7	1	1	2	1
Otee	48	65	83	65	36.6	38.0	36.0	36.9	3	1	5	3

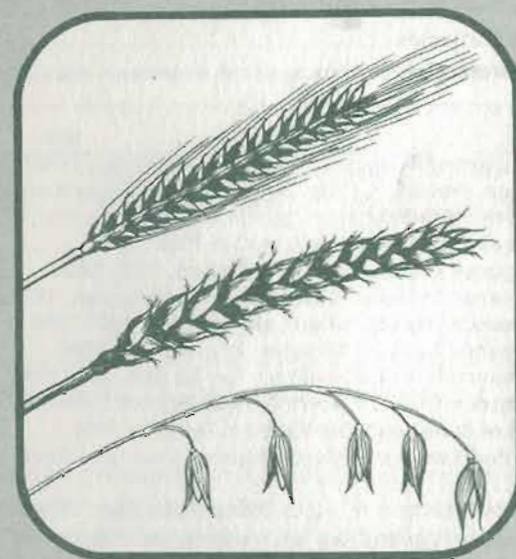
Variety	Height In.				Grams/1000 Seed			
	1980	1979	1978	Avg	1980	1979	1978	Avg
Andrew	32	45	42	40	26.0	30.9	29.0	28.6
Bates	26	38	36	33	26.3	29.7	29.8	28.6
Clintford	27	35	34	32	29.1	32.4	32.7	31.4
Lang	24	35	34	31	27.7	31.9	33.4	31.7
Otee	27	36	35	33	24.3	26.4	26.5	25.7

¹ Location was Lexington in 1978, 1979 and 1980. Lodging was zero in all years.

Kentucky Small Grain Variety Trials—1980

W.E. Vian, V.C. Finkner, C.R. Tutt,
W.H. Roberts, and K.M. Tichenor

Progress Report 250



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Kentucky Small Grain Variety Trials 1980

*W.E. Vian, V.C. Finkner, C.R. Tutt, W.H. Roberts,
and K.M. Tichenor*

In 1980 Kentucky produced more wheat (13.65 million bushels) than had been produced in Kentucky since 1900. In 1900 the record amount was produced (19.88 million bushels) on a near record acreage (1.42 million acres). Average yield in 1900 was 14 bu/a while the 1980 average yield was 39 bu/a. Record high average yields for Kentucky were produced in 1971 for wheat (40 bu/a) and barley (59 bu/a) and in 1970 for oats (47 bu/a).

Table 1.—Small Grain Harvested Acreage and Yields in Kentucky 1978-1980*

CROP	1980		1979		1978	
	Harvest 1,000A	Yield Bu/A	Harvest 1,000A	Yield Bu/A	Harvest 1,000A	Yield Bu/A
Wheat	350	39	290	38	195	35
Barley	28	53	25	50	23	43
Oats	6	44	8	41	7	42
Rye	3	26	4	24	4	27

*August 11, 1980 Crop Production, ESCS, USDA, Washington, D.C.

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, William Hendrick, Tom Amos, and Jack Snyder, county Extension agents for agriculture, for assistance in locating test sites and collecting data.



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

Region	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	Henderson	Mr. Walter Gooch	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	Elizabethtown	Mr. Allen Baugh	Barley, Wheat

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 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.

Table 2.—Region, Location, Preceding Crop and Planting Dates of Kentucky Small Grain Trials 1978-1980.

Region	Location	Preceding Crop	Crop	Planting Date					
				1980	1979	1978			
Purchase	Mayfield Murray	Soybeans	Wheat	10/17	—	—			
			Wheat	—	10/12	10/31			
		Soybeans	Barley	—	10/12	10/31			
			Winter Oats	—	10/12	10/31			
Western Coal Field	Princeton (Sandstone soil)	None	Barley	10/16	—	—			
			Winter Oats	10/16	—	—			
			Wheat	10/16	—	—			
Ohio Valley	Henderson	Soybeans	Wheat	10/19	10/16	—			
			Bluegrass	Lexington	None	Barley	10/17	10/18	10/18
						Winter Oats	10/9	10/6	10/20
						Spring Oats	4/3	3/22	3/30
Southern Tier	Hopkinsville	Corn	Wheat	10/15	10/10	10/25			
			Princeton (Limestone soil)	None	Barley	10/18	—	—	
					Wheat	10/18	—	—	
					Barley	10/11	10/10	10/17	
North Central	Elizabethtown	Corn	Winter Oats	10/11	10/4	10/17			
			Wheat	10/11	10/17	10/17			
			Wheat	Barley	10/18	10/20	—		
				Wheat	10/18	10/20	10/21		

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 most plots was taken by cutting all rows with a self-propelled combine. The grain yields for barley and oats at Lexington and barley at Elizabethtown were taken by cutting each plot and threshing grain with a Vogel type stationary plot thresher. 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.

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 winterhardiness 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.

Grams per thousand seeds is a measure of seed size and seed quality. Planting rates can be adjusted by knowing seed size. Poor quality grain is usually low in weight per thousand seeds.

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.

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.

1979 TEST CONDITIONS

In contrast to the 1977 fall seeding weather, the 1978 fall seeding weather was near ideal. The first half of October was wet, but the latter half of October and the first half of November were mostly warm and dry, allowing good development of the small grains. The second half of November was cooler and wetter than normal. December had mild temperatures with above normal precipitation causing floods. Only a trace of snow occurred in December. January was colder and wetter than normal, averaging almost 9 degrees below normal, making it the fifth coldest January on record. February was also colder and wetter than normal, with temperatures about 8 degrees below normal and one inch plus of precipitation above normal. December through February was the seventh coldest winter on record.

March was about 6 degrees above normal with three inches below normal precipitation. Cool wet conditions prevailed through April and May, causing the spring of 1979 to be the latest on record. Precipitation and temperature averaged above normal for the month of June. The greater than normal winter rainfall kept soils in a high moisture condition and resulted in more plant heaving damage than usual. This was true for all small grains, but was especially severe in barley. The plant heaving and colder than normal winter temperatures resulted in severe winter killing of barley and oats in some areas of the state. Winter killing of wheat was only slight (less than 5%) but the wet spring caused some localized water damage areas. Many wheat diseases occurred, but wheat spindle streak mosaic virus was the most severe infection recorded since 1974. Scab on wheat and barley was frequently observed in many fields.

The prevalence of the cereal leaf beetle continued to increase. Most plants in the spring oat test at Lexington had their flag leaves destroyed by beetle feeding.

1978 TEST CONDITIONS

The fall planting period was marked by rainy, wet soil conditions which reduced the acres planted by many small grain farmers. An early snowfall on Thanksgiving weekend stopped almost all fall small grain growth. The remainder of November and the rest of the winter months were cold. Below zero temperatures were reported in December and January with snow depths of 15 to 20 inches over most of the state. February was the coldest February on Weather Service records. Below seasonal temperatures were recorded in March and April.

Winter killing of fall seeded small grains was severe, resulting in the complete loss of some barley and oat fields. A similar winter killing occurred in our small grain breeding nursery at Lexington, with a nearly complete loss of barley and oats and even a 15% reduction in stand of the more winter-hardy varieties of wheat. The nurseries at other locations had winter killing, but it was not as severe as that at Lexington. The reported yield of the varieties closely correlates to winter survival.

Many small grain diseases were observed, but the severity was not any greater than normal except for Scab (*Fusarium* spp.) on wheat. The variety Doublecrop had the most severe infection. Cereal leaf beetle infestation in the Lexington nurseries was the heaviest ever observed.

SMALL GRAIN VARIETIES FOR 1981

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.

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 11-14. Varieties now commonly grown are Barsoy and Volbar.

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 are the two most widely grown varieties.

WINTER OAT VARIETIES

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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 18.

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 1980.

Variety	Protected ^{1/}	Source	Release Date	Average of 1980 Tests					
				Bu/A		Lbs/Bu		Days Later heading than Doublecrop	
				2loc.	6loc.	2loc.	6 loc.	2loc.	6loc.
Abe	Yes	Indiana	1972	56	52	58.5	59.9	5	6
Arthur	No	Indiana	1968	63	58	59.2	60.2	4	5
Arthur 71	Yes	Indiana	1971	61	53	59.4	60.4	6	6
Coker 762	Yes	Coker's Pedigreed Seeds	1979	63	57	51.8	54.6	8	8
Dancer	Yes	N. American Plant Breeders	1977	57	54	59.4	60.6	5	6
Doublecrop	No	Arkansas	1975	57	55	60.0	60.8	0	0
Hart	No	Missouri	1976	67	61	59.4	59.6	5	6
McNair 1003	Yes	Northrup King Seeds	1977	79	70	56.1	57.0	5	6
Oasis	Yes	Indiana	1973	59	56	59.0	60.5	6	6
Rosen	No	Arkansas	1979	57	59	56.0	57.1	4	5
S76	Yes	Pioneer Hi Bred Int'l	1976	68	63	58.4	59.1	7	8
S78	Yes	Pioneer Hi Bred Int'l	1978	65	61	56.8	58.3	8	9
Voris 8018	Yes	Voris Seeds		65	65	54.1	56.8	4	5
Benue	Yes	Indiana	1976	66	--	59.9	--	6	--
Centurk ^{2/}	Yes	Nebraska	1971	49	--	57.6	--	6	--
Coker 747	Yes	Coker's Pedigreed Seeds	1977	72	--	55.2	--	7	--
Downy	Yes	Indiana	1976	62	--	58.2	--	6	--
McNair 1813	Yes	Northrup King Seeds	1976	72	--	56.2	--	4	--
Roland	No	Illinois	1977	64	--	56.7	--	8	--
Roy	Yes	N. Carolina	1979	65	--	54.4	--	6	--
Ruler	Yes	Ohio	1975	55	--	55.2	--	9	--
Sullivan	Yes	Indiana	1977	59	--	59.8	--	5	--
Titan	Yes	Ohio	1978	68	--	54.8	--	10	--

^{1/} "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.

^{2/} Centurk is a hard red winter wheat.

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Doublecrop	No	Arkansas	1975	57	55	60.0	60.8	0	0
Hart	No	Missouri	1976	67	61	59.4	59.6	5	6
McNair	Yes	Northrup King Seeds	1977	79	70	56.1	57.0	5	6
1003									
Oasis	Yes	Indiana	1973	59	56	59.0	60.5	6	6
Rosen	No	Arkansas	1979	57	59	56.0	57.1	4	5
S76	Yes	Pioneer Hi Bred Int'l	1976	68	63	58.4	59.1	7	8
S78	Yes	Pioneer Hi Bred Int'l	1978	65	61	56.8	58.3	8	9
Voris 8018	Yes	Voris Seeds		65	65	54.1	56.8	4	5
Beau	Yes	Indiana	1976	66	--	59.9	--	6	--
Centurk ^{2/}	Yes	Nebraska	1971	49	--	57.6	--	6	--
Coker 747	Yes	Coker's Pedigreed Seeds	1977	72	--	55.2	--	7	--
Downy	Yes	Indiana	1976	62	--	58.2	--	6	--
McNair	Yes	Northrup King Seeds	1976	72	--	56.2	--	4	--
1813									
Roland	No	Illinois	1977	64	--	56.7	--	8	--
Roy	Yes	N. Carolina	1979	65	--	54.4	--	6	--
Ruler	Yes	Ohio	1975	55	--	55.2	--	9	--
Sullivan	Yes	Indiana	1977	59	--	59.8	--	5	--
Titan	Yes	Ohio	1978	68	--	54.8	--	10	--

^{1/} "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.

^{2/} Centurk is a hard red winter wheat.

Table 4.—Wheat Performance Trials for Purchase Region, 1978-80¹.

Variety	Yield				Test Weight				Lodging			
	bu/A				lb/bu				%			
	1980	1979	1978	mean	1980	1979	1978	mean	1980	1979	1978	mean
Abe	47	36	49	44	61.6	61.0	57.3	60.0	0	0	0	0
Arthur	51	25	41	39	61.9	59.9	57.8	60.0	0	0	0	0
Arthur 71 ^{2/}	50	22	26	33	61.7	59.6	57.5	59.6	0	0	0	0
Coker 762	66	26	36	43	58.3	55.0	54.2	55.8	0	0	0	0
Dancer	49	--	--	--	61.4	--	--	--	0	--	--	--
Doublecrop	61	26	40	42	62.0	61.4	57.0	60.1	0	0	0	0
Hart	46	--	--	--	60.4	--	--	--	0	--	--	--
McNair 1003	65	20	38	41	58.5	54.3	53.6	55.5	0	0	0	0
Oasis	52	30	39	40	62.1	60.6	58.6	60.4	0	0	0	0
Rosen	63	21	47	44	58.2	56.6	56.0	56.9	0	0	0	0
S76	45	16	32	31	60.3	57.3	57.4	58.3	0	0	0	0
S78	54	23	41	39	59.5	56.8	57.2	57.8	0	0	0	0
Voris 8018	76	--	--	--	59.5	--	--	--	0	0	0	0

Variety	Plant Height				Survival				Date Headed			
	in				%				May			
	1980	1979	1978	Mean	1980	1979	1978	Mean	1980	1979	1978	Mean
Abe	38	34	34	35	100	89	88	92	8	6	11	8
Arthur	41	35	36	37	100	84	75	86	7	7	10	8
Arthur 71 ^{2/}	40	31	34	35	100	83	20	68	8	10	17	12
Coker 762	38	27	31	32	100	86	33	73	7	11	22	13
Dancer	45	--	--	--	100	--	--	--	9	--	--	--
Doublecrop	43	36	35	38	100	86	63	83	2	1	7	3
Hart	39	--	--	--	100	--	--	--	9	--	--	--
McNair 1003	40	30	35	35	100	83	44	76	8	9	14	10
Oasis	41	34	36	37	100	81	51	77	9	10	14	11
Rosen	38	30	34	34	100	76	64	80	5	8	12	8
S76	37	30	31	33	100	81	49	77	12	14	13	14
S78	36	29	33	33	100	76	68	81	13	12	16	14
Voris 8018	41	--	--	--	100	--	--	--	5	--	--	--

^{1/} The locations where the trial was grown were 1978, Murray; 1979, Murray; 1980, Mayfield.

^{2/} The germination of the seed lot planted in 1978 was approximately 60%.

Table 5.—Wheat Performance Trials for Western Coal Field Region, 1978-80¹.

Variety	Yield				Test Weight				Lodging			
	bu/A				lb/bu				%			
	1980	1979	1978	mean	1980	1979	1978	mean	1980	1979	1978	mean
Abe	50	53	30	44	58.3	59.6	60.0	59.3	59	0	0	20
Arthur	63	42	27	44	58.7	60.2	60.7	59.9	24	0	0	8
Arthur 71 ^{2/}	61	44	9	38	59.2	60.3	56.0	58.5	33	24	0	19
Coker 762	45	46	27	39	49.2	54.8	56.1	54.1	79	5	0	28
Dancer	55	--	--	--	58.7	--	--	--	65	--	--	--
Doublecrop	59	40	27	42	59.1	59.9	59.9	59.6	61	3	0	21
Hart	67	--	--	--	58.7	--	--	--	24	--	--	--
McNair 1003	76	48	37	54	55.2	55.3	56.7	55.7	5	8	0	4
Oasis	53	45	19	39	58.9	59.9	56.9	58.6	41	34	0	25
Rosen	53	58	26	46	54.6	56.8	58.7	56.7	0	0	0	0
S76	66	56	33	52	57.8	59.8	60.2	59.3	6	0	0	2
S78	67	70	29	55	56.8	58.5	60.7	58.7	0	0	0	0
Beau	70	37	29	45	60.5	60.7	60.7	60.6	0	23	0	7
Centurk ^{3/}	37	51	33	40	56.2	58.4	61.1	58.6	70	36	0	35
Coker 747	68	54	25	49	54.1	58.6	60.3	57.7	0	48	0	16
Downy	62	--	--	--	57.9	--	--	--	68	--	--	--
McNair 1813	71	38	14	41	57.9	59.0	55.7	57.5	19	0	0	6
Roland	66	56	33	52	55.4	58.4	59.0	57.6	0	0	0	0
Roy	67	--	--	--	51.8	--	--	--	13	--	--	--
Ruler	48	40	35	41	53.5	55.0	57.4	55.3	3	23	0	9
Sullivan	57	47	19	41	59.5	59.9	57.7	59.0	58	18	0	25
Titan	63	--	--	--	54.6	--	--	--	5	--	--	--
Voris 8018	65	--	--	--	53.0	--	--	--	21	--	--	--

Variety	Plant Height				Survival				Date Headed			
	in				%				May			
	1980	1979	1978	Mean	1980	1979	1978	Mean	1980	1979	1978	Mean
Abe	44	36	29	36	100	86	84	90	9	10	14	11
Arthur	47	38	31	39	100	84	66	83	9	10	15	11
Arthur 71 ^{2/}	47	39	24	37	100	85	7	64	10	11	22	14
Coker 762	38	31	26	32	100	83	33	72	11	18	26	18
Dancer	47	--	--	--	100	--	--	--	9	--	--	--
Doublecrop	45	39	31	38	100	85	74	86	3	5	8	5
Hart	45	--	--	--	100	--	--	--	10	--	--	--
McNair 1003	44	35	33	37	100	76	55	77	9	13	19	14
Oasis	45	41	31	39	100	89	40	76	10	10	21	14
Rosen	42	36	30	36	100	84	61	82	8	11	16	12
S76	42	36	32	37	100	88	88	92	12	15	19	15
S78	40	35	29	35	100	93	65	86	13	16	21	17
Beau	45	37	31	38	100	86	66	84	10	13	16	13
Centurk ^{3/}	47	45	36	43	100	89	89	93	10	16	19	15
Coker 747	47	35	24	35	100	93	51	81	13	10	19	14
Downy	46	--	--	--	100	--	--	--	11	--	--	--
McNair 1813	47	37	28	37	100	60	29	63	8	13	19	13
Roland	43	34	29	35	100	89	79	89	12	12	18	14
Roy	45	--	--	--	100	--	--	--	10	--	--	--
Ruler	47	41	35	41	100	91	89	93	14	18	21	18
Sullivan	46	40	29	38	100	86	54	80	9	10	17	12
Titan	46	--	--	--	100	--	--	--	15	--	--	--
Voris 8018	44	--	--	--	100	--	--	--	8	--	--	--

^{1/} The locations where the trial was grown were 1978, Princeton; 1979, Princeton; 1980, Princeton.

^{2/} The germination of the seed lot planted in 1978 was approximately 60%.

^{3/} Hard Red Winter Wheat.

Table 6.—Wheat Performance Trials for Ohio Valley Region, 1978-80¹.

Variety	Yield				Test Weight				Lodging			
	bu/A				lb/bu				%			
	1980	1979	1978	mean	1980	1979	1978	mean	1980	1979	1978	mean
Abe	58	72	65	61.2	59.9	60.6	0	79	40			
Arthur	66	73	70	61.7	61.0	61.4	0	45	23			
Arthur 71 ^{2/}	62	67	65	62.0	60.3	61.2	0	49	25			
Coker 762	68	62	65	56.0	52.2	54.1	0	46	23			
Dancer	60	—	—	62.2	—	—	0	—	—			
Doublecrop	58	64	61	62.9	59.8	61.4	0	33	17			
Hart	68	—	—	60.7	—	—	0	—	—			
McNair 1003	71	74	73	57.6	58.0	57.8	0	33	17			
Oasis	67	68	68	61.8	60.4	61.1	0	49	25			
Rosen	65	76	71	58.0	57.0	57.5	0	44	22			
S76	69	81	75	60.5	59.8	60.2	0	10	5			
S78	68	77	73	59.7	58.6	59.2	0	28	14			
Voris 8018	77	—	—	58.5	—	—	0	—	—			

Variety	Plant Height				Survival				Date Headed			
	in				%				May			
	1980	1979	1978	Mean	1980	1979	1978	Mean	1980	1979	1978	Mean
Abe	36	40	38	38	100	100	100	100	11	10	11	11
Arthur	42	41	42	41	100	100	100	100	11	10	11	11
Arthur 71 ^{2/}	40	40	40	40	100	100	100	100	11	12	12	12
Coker 762	36	34	35	35	100	100	100	100	14	14	14	14
Dancer	45	—	—	—	100	—	—	—	11	—	—	—
Doublecrop	41	39	40	40	100	100	100	100	4	3	4	4
Hart	41	—	—	—	100	—	—	—	11	—	—	—
McNair 1003	40	39	40	39	100	100	100	100	13	12	13	13
Oasis	41	42	42	41	100	100	100	100	11	11	11	11
Rosen	36	37	37	37	100	100	100	100	10	9	10	10
S76	39	39	39	39	100	100	100	100	12	12	12	12
S78	36	38	37	37	100	100	100	100	13	14	14	14
Voris 8018	41	—	—	—	100	—	—	—	11	—	—	—

1/ The locations where the trial was grown were 1978, No test conducted; 1979, Henderson; 1980, Henderson.

2/ The germination of the seed lot planted in 1978 was approximately 60%.

Table 7.—Wheat Performance Trials for Bluegrass Region, 1978-80¹.

Variety	Yield				Test Weight				Lodging			
	bu/A				lb/bu				%			
	1980	1979	1978	mean	1980	1979	1978	mean	1980	1979	1978	mean
Abe	62	38	44	48	58.7	55.1	58.7	57.5	0	48	0	16
Arthur	62	37	43	47	59.7	56.2	58.9	58.3	0	62	1	21
Arthur 71 ^{2/}	61	26	31	39	59.6	52.7	57.5	56.6	0	71	0	24
Coker 762	82	50	44	59	54.3	49.5	54.7	52.8	0	43	0	14
Dancer	59	—	—	—	60.2	—	—	—	0	—	—	—
Doublecrop	55	39	40	45	60.8	60.7	60.3	60.6	0	18	0	6
Hart	67	—	—	—	60.1	—	—	—	0	—	—	—
McNair 1003	82	55	46	61	57.0	49.4	56.3	54.2	0	66	0	22
Oasis	64	35	38	46	59.2	54.2	58.6	57.3	0	71	0	24
Rosen	61	33	48	47	57.4	47.8	57.5	54.2	0	40	1	14
S76	70	37	46	51	59.1	52.0	58.7	56.6	0	6	0	2
S78	64	41	45	50	56.9	50.4	58.0	55.1	0	35	0	12
Beau	62	38	40	47	59.3	55.6	59.0	58.0	0	19	0	6
Centurk ^{3/}	62	26	59	49	58.9	46.4	60.1	55.1	15	91	9	38
Coker 747	75	29	40	48	56.4	49.8	59.2	55.1	0	60	0	20
Downy	62	—	—	—	58.5	—	—	—	0	—	—	—
McNair 1813	73	52	17	47	54.4	44.8	56.2	51.8	0	21	0	71
Roland	61	33	41	45	58.0	44.6	56.6	53.1	0	16	1	6
Roy	62	—	—	—	56.9	—	—	—	0	—	—	—
Ruler	62	32	59	51	56.9	44.8	58.9	53.5	0	9	1	3
Sullivan	60	36	36	44	60.1	54.9	59.1	58.0	0	52	0	17
Titan	72	—	—	—	54.9	—	—	—	0	—	—	—
Voris 8018	65	—	—	—	55.2	—	—	—	0	—	—	—

Variety	Plant Height				Survival				Date Headed			
	in				%				May			
	1980	1979	1978	Mean	1980	1979	1978	Mean	1980	1979	1978	Mean
Abe	40	41	37	39	100	100	90	97	17	13	22	17
Arthur	44	45	38	42	98	100	91	96	14	13	22	17
Arthur 71 ^{2/}	42	44	31	39	99	99	30	76	17	14	26	19
Coker 762	35	34	30	33	94	95	68	86	20	15	28	21
Dancer	43	—	—	—	95	—	—	—	17	—	—	—
Doublecrop	42	42	34	39	98	100	74	91	13	10	19	14
Hart	42	—	—	—	99	—	—	—	16	—	—	—
McNair 1003	41	42	33	39	95	99	75	90	17	12	24	18
Oasis	43	44	36	41	97	100	78	92	17	14	24	18
Rosen	37	38	34	36	99	100	80	93	17	12	23	17
S76	38	39	33	37	96	100	91	96	18	15	24	19
S78	36	35	32	34	99	99	83	94	20	16	25	20
Beau	39	42	37	39	96	100	93	96	18	15	23	19
Centurk ^{3/}	45	41	42	43	98	100	98	99	18	17	24	20
Coker 747	43	38	32	38	99	100	79	93	21	14	24	20
Downy	43	—	—	—	98	—	—	—	18	—	—	—
McNair 1813	42	41	32	38	96	90	13	66	16	12	26	18
Roland	38	39	33	37	99	99	33	57	19	15	24	19
Roy	40	—	—	—	96	—	—	—	17	—	—	—
Ruler	41	42	37	40	98	100	96	98	20	22	27	23
Sullivan	42	44	37	41	98	44	37	60	17	14	23	18
Titan	42	—	—	—	98	—	—	—	21	—	—	—
Voris 8018	42	—	—	—	98	—	—	—	17	—	—	—

1/ The locations where the trial was grown were 1978, Lexington; 1979, Lexington; 1980, Lexington.

2/ The germination of the seed lot planted in 1978 was approximately 60%.

3/ Hard Red Winter Wheat

Table 8.—Wheat Performance Trials for Southern Tier Region, 1978-80¹.

Variety	Yield				Test Weight				Lodging			
	bu/A				lb/bu				%			
	1980	1979	1978	mean	1980	1979	1978	mean	1980	1979	1978	mean
Abe	57	46	37	47	61.6	60.7	54.7	59.0	10	0	20	10
Arthur	59	49	44	51	61.9	60.9	56.1	59.6	20	0	6	9
Arthur 71 ^{2/}	52	43	42	46	61.7	60.7	55.2	59.2	33	0	8	14
Coker 762	55	43	34	44	55.7	54.0	51.6	53.8	41	0	0	14
Dancer	56	—	—	—	61.4	—	—	—	48	—	—	—
Doublecrop	59	45	26	43	62.0	61.7	54.1	59.3	18	0	0	6
Hart	68	—	—	—	61.1	—	—	—	5	—	—	—
McNair 1003	75	46	50	57	58.3	55.6	51.9	55.3	0	0	0	0
Oasis	56	49	40	48	62.1	60.7	53.7	58.8	25	0	28	18
Rosen	65	51	43	53	57.5	57.9	53.7	56.4	1	0	14	5
S76	76	46	46	56	60.3	59.8	54.9	58.3	3	0	0	1
S78	61	48	47	52	59.5	59.8	55.5	58.3	8	0	5	4
Voris 8018	63	—	—	—	58.0	—	—	—	27	0	0	0

Variety	Plant Height				Survival				Date Headed			
	in				%				May			
	1980	1979	1978	Mean	1980	1979	1978	Mean	1980	1979	1978	Mean
Abe	44	37	35	39	100	94	100	98	11	6	8	8
Arthur	47	39	38	41	100	93	99	97	11	6	8	8
Arthur 71 ^{2/}	45	38	38	40	100	88	66	85	11	8	10	10
Coker 762	39	32	30	34	100	85	25	70	14	12	20	15
Dancer	48	—	—	—	100	—	—	—	12	—	—	—
Doublecrop	45	39	38	41	100	91	96	96	6	2	3	4
Hart	47	—	—	—	100	—	—	—	11	—	—	—
McNair 1003	43	38	36	39	100	86	73	86	11	8	12	10
Oasis	46	39	38	41	100	89	95	95	11	9	9	10
Rosen	44	35	35	38	100	89	98	96	10	7	9	9
S76	44	35	35	38	100	91	95	95	11	10	14	12
S78	42	34	34	37	100	93	93	95	14	12	13	13
Voris 8018	45	—	—	—	100	—	—	—	10	—	—	—

^{1/} The locations where the trial was grown were 1978, Elkton; 1979, Elkton; 1980, Hopkinsville.

^{2/} The germination of the seed lot planted in 1978 was approximately 60%.

Table 9.—Wheat Performance Trials for North Central Region, 1978-80¹.

Variety	Yield				Test Weight				Lodging			
	bu/A				lb/bu				%			
	1980	1979	1978	mean	1980	1979	1978	mean	1980	1979	1978	mean
Abe	40	41	33	38	58.6	60.1	57.7	58.8	0	0	0	0
Arthur	49	40	29	39	58.5	60.6	58.4	59.2	0	0	0	0
Arthur 71 ^{2/}	35	36	14	28	58.6	60.6	53.5	57.6	0	0	0	0
Coker 762	39	44	22	35	53.8	56.8	50.2	53.6	0	0	0	0
Dancer	44	—	—	—	59.3	—	—	—	0	—	—	—
Doublecrop	34	38	27	33	57.9	60.7	60.0	59.5	0	0	0	0
Hart	48	—	—	—	56.4	—	—	—	0	—	—	—
McNair 1003	50	36	31	39	55.4	58.8	52.8	55.7	0	0	0	0
Oasis	42	44	25	37	59.2	60.7	56.3	58.7	0	0	0	0
Rosen	49	47	32	43	56.9	58.6	56.5	57.3	0	0	0	0
S76	55	39	42	45	56.8	59.7	58.9	58.5	0	0	0	0
S78	49	41	32	41	56.6	58.8	56.9	57.4	0	0	0	0
Voris 8018	45	—	—	—	56.5	—	—	—	0	—	—	—

Variety	Plant Height				Survival				Date Headed			
	in				%				May			
	1980	1979	1978	Mean	1980	1979	1978	Mean	1980	1979	1978	Mean
Abe	32	34	33	33	100	98	61	86	15	11	13	13
Arthur	35	34	35	35	100	88	84	91	14	12	13	13
Arthur 71 ^{2/}	33	35	34	34	100	97	60	86	15	11	13	13
Coker 762	29	30	30	30	100	95	59	85	19	15	17	17
Dancer	35	—	—	—	100	—	—	—	15	—	—	—
Doublecrop	32	36	34	34	100	92	80	91	10	6	8	8
Hart	34	—	—	—	100	—	—	—	16	—	—	—
McNair 1003	34	36	35	35	100	98	46	81	17	12	15	15
Oasis	35	37	36	36	100	99	71	90	14	12	13	13
Rosen	32	34	33	33	100	98	58	85	15	11	13	13
S76	33	32	33	33	100	98	66	88	17	12	15	15
S78	31	31	31	31	100	97	50	82	18	12	15	15
Voris 8018	34	—	—	—	100	—	—	—	15	—	—	—

^{1/} The locations where the trial was grown were 1978, Elizabethtown; 1979, Elizabethtown; 1980, Elizabethtown.

^{2/} The germination of the seed lot planted in 1978 was approximately 60%.

Table 10.—Characteristics of Barley and Oat Varieties Tested in 1980.

Variety	Protected ^{1/}	Origin	Release Date	Avg All 1980 Tests		
				Bu/A	Lbs/Bu	Days later heading than Barsoy
<u>Winter Barley</u>						
Barsoy	No	Kentucky	1966	64	51.1	00
Ky 1	No	Kentucky	1935	45	46.6	16
Maury	No	Virginia	1977	60	46.0	13
Monroe	No	Virginia	1976	57	45.0	14
Perry	No	Missouri	1977	48	49.3	10
Pike	Yes	Indiana	1975	55	48.0	06
Surry	No	Virginia	1976	55	46.0	08
Volbar	No	Tennessee	1974	71	45.6	11
<u>Winter Oats</u>						
Brooks	No	N. Carolina	1979	79	33.6	21
Coker 716	Yes	Coker Seed Co.	1971	96	35.3	19
Compact	No	Kentucky	1969	73	36.3	27
Ey67-695	Experimental	Kentucky	—	79	36.7	27
Norline	No	Indiana	1960	74	35.4	27
Fennvin	No	Pennsylvania	1973	76	34.7	29
Southern States, 76-30 ^{2/}	Yes	Southern States Coop	1980	88	35.7	19
Walken	No	Kentucky	1970	84	36.2	31
<u>Spring Oats</u>						
Andrew	No	Minnesota	1949	55	35.4	39
Bates	No	Missouri	1976	49	35.6	37
Clintford	No	Indiana	1966	49	37.3	39
Lang	Yes	Illinois	1976	53	33.3	37
Otee	No	Illinois	1973	48	36.6	39

^{1/} "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.

^{2/} Previously tested and listed as Coker 76-30.

Table 11.—Winter Barley Performance Trials for Western Coal Field Region, 1978-80^{1/}.

Variety	Yield Bu/A	Survival %	Test Weight Lbs/Bu	Heading Date	Height Inches	Lodging %	Seed Weight Grams/1000 seed
Barsoy	41	85	51.9	4/25	28	00	31.5
Ky 1	30	81	48.4	5/14	36	00	33.1
Maury	34	84	47.8	5/12	29	00	32.1
Monroe	23	74	44.9	5/15	26	00	29.5
Perry	24	82	50.1	5/9	27	00	31.7
Pike	13	68	48.8	5/6	21	00	28.5
Surry	18	61	47.1	5/9	26	00	28.5
Volbar	49	69	44.0	5/7	36	00	36.7

^{1/} The location in 1980 was Princeton sandstone soil. Tests were not grown in 1978 and 1979.

Table 12.—Winter Barley Performance Trials for Bluegrass Region, 1978-80.

Variety	Yield Bu/A				% Survival				Test Weight Lbs/Bu			
	1980	1979	1978	Avg.	1980	1979	1978	Avg.	1980	1979	1978	Avg.
Barsoy	42	21	11	25	100	28	08	45	52.7	49.2	50.8	50.9
Ky 1	46	56	40	47	100	65	52	72	50.7	46.9	52.4	50.0
Maury	39	54	33	42	100	58	25	61	48.8	45.7	47.6	47.4
Monroe	38	46	34	39	100	60	28	63	47.5	44.6	47.4	46.5
Perry	36	41	37	38	100	45	50	65	53.2	47.8	51.2	50.7
Pike	47	27	23	31	100	45	35	60	50.6	47.7	50.5	49.6
Surry	40	52	23	38	100	60	18	59	48.7	44.9	46.2	46.6
Volbar	41	53	00	31	100	52	00	51	47.7	45.4	—	—

Variety	Date Headed				Height Ins.				Grams/1000 Seed			
	1980	1979	1978	Avg.	1980	1979	1978	Avg.	1980	1979	1978	Avg.
Barsoy	4/28	5/6	5/18	5/7	30	29	24	28	30.2	35.0	35.6	33.6
Ky 1	5/12	5/14	5/28	5/18	36	41	39	39	30.7	38.0	38.4	35.7
Maury	5/11	5/11	5/28	5/17	26	36	30	31	30.6	37.1	38.4	35.4
Monroe	5/12	5/12	5/30	5/18	29	33	28	30	30.2	36.3	35.6	34.0
Perry	5/6	5/9	5/24	5/13	29	33	34	32	30.7	37.7	39.0	35.8
Pike	5/4	5/6	5/20	5/10	26	32	24	27	29.2	35.3	36.4	33.6
Surry	5/5	5/8	5/24	5/12	28	35	29	31	29.2	35.1	35.4	33.2
Volbar	5/12	5/10	—	—	31	36	—	—	35.6	41.8	—	—

^{1/} Tests were grown at Lexington each year. Lodging was zero each year.

Table 13.—Winter Barley Performance Trials for Southern Tier Region, 1978-80¹.

Variety	Yield Bu/A							% Survival						
	1980		1979		1978			1980		1979		1978		
	P	H	P	E	P	E	Avg	P	H	P	E	P	E	Avg
Barsoy	80	98	41	33	13	46	52	99	100	89	49	15	65	70
Ky 1	54	44	63	58	31	29	46	100	100	100	70	44	95	85
Maury	75	87	57	45	17	70	58	100	100	96	69	12	92	78
Monroe	73	96	51	40	11	77	58	100	100	96	66	15	90	78
Perry	59	62	69	44	27	54	52	100	100	99	66	46	92	84
Pike	73	90	43	31	20	53	52	99	100	95	61	36	86	80
Surry	78	80	47	46	07	80	56	100	100	96	64	08	58	71
Volbar	98	93	71	56	02	13	56	99	100	94	51	01	04	58

Variety	Test Weight Lbs/Bu							Date Headed						
	1980		1979		1978			1980		1979		1978		
	P	H	P	E	P	E	Avg	P	H	P	E	P	E	Avg
Barsoy	49.9	51.2	47.8	48.0	45.6	46.4	48.2	4/23	4/21	4/26	4/26	5/09	4/30	4/28
Ky 1	44.5	43.6	48.8	48.1	43.6	43.3	45.3	5/8	5/9	5/12	5/12	5/24	5/14	5/13
Maury	44.2	44.1	45.0	45.7	43.1	42.1	44.0	5/4	5/3	5/7	5/9	5/28	5/11	5/10
Monroe	44.3	44.5	43.9	44.7	40.4	41.5	43.2	5/4	5/4	5/11	5/11	5/28	5/13	5/12
Perry	47.9	46.2	50.1	49.0	46.7	46.0	47.6	5/1	5/1	5/4	5/6	5/18	5/8	5/6
Pike	45.8	47.1	46.6	47.1	44.8	43.6	45.8	4/26	4/26	4/29	5/1	5/10	5/3	5/1
Surry	44.6	44.2	44.1	44.2	44.6	42.3	44.0	4/28	4/30	5/4	5/6	5/21	5/14	5/7
Volbar	44.7	46.1	46.7	44.1	—	47.2	—	5/2	5/3	5/5	5/8	—	5/13	—

Variety	Height ins.							% Lodged						
	1980		1979		1978			1980		1979		1978		
	P	H	P	E	P	E	Avg	P	H	P	E	P	E	Avg
Barsoy	43	41	32	33	25	33	34	5	15	33	01	00	48	17
Ky 1	49	46	47	41	34	41	43	100	100	43	20	00	100	60
Maury	43	45	39	33	22	37	36	45	29	03	00	00	32	18
Monroe	44	45	37	31	22	38	36	59	68	01	00	00	39	28
Perry	43	45	37	34	27	37	37	82	98	00	00	00	55	39
Pike	38	38	32	30	23	34	32	16	49	53	00	00	75	32
Surry	42	45	37	36	23	41	37	32	71	05	00	00	12	20
Volbar	49	49	42	40	—	39	37	99	75	01	00	—	03	—

Variety	Grams/1000 Seed						
	1980		1979		1978		
	P	H	P	E	P	E	Avg
Barsoy	27.3	29.9	29.1	30.8	30.6	35.0	30.4
Ky 1	27.3	27.1	34.8	35.4	34.3	31.6	31.8
Maury	27.8	28.6	30.2	33.0	34.2	32.0	31.0
Monroe	27.6	29.5	30.5	31.9	30.9	31.1	30.2
Perry	28.6	28.5	33.6	32.5	33.8	33.6	31.8
Pike	29.4	26.2	28.4	29.3	31.3	32.2	29.5
Surry	27.9	27.1	29.9	29.5	30.9	35.1	30.1
Volbar	33.9	32.8	39.8	39.4	36.3	37.8	36.7

^{1/} Barley trials were grown at Princeton limestone soil (P) and Hopkinsville (H) in 1980 and Princeton limestone soil (P) and Elkton (E) in 1978 and 1979.

Table 14.—Winter Barley Performance Trials for North Central Region, 1978-80¹.

Variety	Yield Bu/A			% Survival			Test Weight Lbs/Bu		
	1980	1979	Ave.	1980	1979	Ave.	1980	1979	Ave.
	Barsoy	58	40	49	100	82	91	49.6	48.2
Ky 1	52	59	56	100	98	99	45.9	48.0	47.0
Maury	63	51	57	100	85	92	45.1	45.5	45.3
Monroe	54	50	52	100	85	92	44.0	43.0	43.5
Perry	57	50	54	100	85	92	49.2	48.9	49.0
Pike	58	38	48	100	90	95	47.5	46.6	47.0
Surry	57	47	52	100	82	91	45.2	45.2	45.2
Volbar	76	79	78	100	88	94	45.4	44.3	44.8

Variety	Date headed			Height ins.			% lodged		
	1980	1979	Ave.	1980	1979	Ave.	1980	1979	Ave.
	Barsoy	4/29	4/26	4/28	38	33	36	00	00
Ky 1	5/14	5/12	5/13	41	43	42	100	00	50
Maury	5/8	5/9	5/8	37	35	36	25	00	12
Monroe	5/9	5/11	5/10	35	36	36	00	00	00
Perry	5/6	5/6	5/6	36	35	36	00	00	00
Pike	5/1	5/1	5/1	32	31	32	00	00	00
Surry	5/3	5/6	5/4	37	35	36	00	00	00
Volbar	5/8	5/8	5/8	42	40	41	00	00	00

Variety	Grams/1000 seed		
	1980	1979	Ave.
	Barsoy	30.5	32.0
Ky 1	32.2	35.7	34.0
Maury	31.4	31.4	31.4
Monroe	31.4	32.1	31.8
Perry	32.7	32.8	32.8
Pike	30.5	31.2	30.8
Surry	30.6	31.1	30.8
Volbar	37.7	40.7	39.2

^{1/} The location was Elizabethtown in 1979 and 1980. No trial was grown in this region in 1978.

Table 15.—Winter Oat Performance Trials for Western Coal Field Region, 1978-80¹.

Variety	Yield Bu/A		Test Weight Lbs/Bu	Heading Date	Height Inches	Lodging %	Seed Weight Grams/1000 Seed
	1980	1979					
Brooks	59	54	31.9	5/17	36	100	29.9
Coker 716	74	84	35.8	5/16	32	100	26.6
Compact	68	79	38.0	5/22	32	100	25.6
Ky 67-695	70	71	36.2	5/21	42	100	27.5
Norline	68	70	36.0	5/20	41	100	30.7
Pennwin	76	70	36.4	5/23	38	100	29.2
Southern States 76-30	69	75	35.6	5/15	36	100	28.8
Walken	72	74	36.9	5/26	60	100	24.9

^{1/} The location in 1980 was Princeton sandstone soil. Tests were not grown in 1978 and 1979.

Table 16.—Winter Oat Performance Trials for Bluegrass Region, 1978-80¹.

Variety	Yield Bu/A				% Survival				Test Weight Lbs/Bu		
	1980	1979	1978	Avg	1980	1979	1978	Avg	1980	1979	Avg
Brooks	67	--	--	--	100	--	--	--	36.6	--	--
Coker 716	85	18	00	34	100	30	00	43	35.2	35.8	35.5
Compact	65	43	00	36	100	72	00	57	35.5	37.4	36.6
Ky 67-695	66	50	00	39	100	88	00	63	37.8	37.7	37.8
Norline	62	47	00	36	100	78	00	59	35.9	37.6	36.8
Pennwin	74	54	00	43	100	78	00	59	36.6	36.8	36.7
Southern States 76-30	72	32	00	35	100	48	00	49	35.0	37.3	36.2
Walken	69	60	00	43	100	85	00	62	36.8	37.4	37.1

Variety	Date Headed			Height Ins.			Grams/1000 Seed		
	1980	1979	Avg	1980	1979	Avg	1980	1979	Avg
Brooks	5/17	--	--	31	--	--	30.7	--	--
Coker 716	5/16	5/14	5/15	31	34	32	23.7	30.0	26.8
Compact	5/22	5/20	5/21	26	32	29	22.8	27.8	25.3
Ky 67-695	5/24	5/20	5/22	30	36	33	27.0	30.0	28.5
Norline	5/23	5/19	5/21	30	39	34	26.7	33.9	30.3
Pennwin	5/25	5/20	5/22	33	40	36	27.8	33.3	30.6
Southern States 76-30	5/14	5/12	5/13	34	38	36	24.6	31.6	28.1
Walken	5/26	5/25	5/26	29	36	32	28.2	27.5	27.8

^{1/} The location for all three years was Lexington. There was zero lodging in 1979 and 1980.

Table 17.—Winter Oat Performance Trials for Southern Tier Region, 1978-80¹.

Variety	Yield Bu/A						% Survival					
	1980		1979		1978		1980		1979		1978	
	P	E	P	E	P	E	P	E	P	E	P	E
Brooks	110	--	--	--	--	--	82	--	--	--	--	--
Coker 716	130	92	41	26	31	64	92	91	18	16	08	45
Compact	86	89	74	65	41	71	89	95	74	42	14	63
Ky 67-695	102	84	72	55	73	77	92	91	50	56	56	69
Norline	90	109	66	54	58	75	90	95	51	34	18	58
Pennwin	80	100	64	47	66	71	94	92	32	32	32	56
Southern States 76-30	123	90	56	38	26	67	88	90	22	29	15	49
Walken	111	104	55	44	56	74	94	99	42	35	13	57

Variety	Test Weight Lbs/Bu						Date Headed May					
	1980		1979		1978		1980		1979		1978	
	P	E	P	E	P	E	P	E	P	E	P	E
Brooks	32.2	--	--	--	--	--	15	--	--	--	--	--
Coker 716	34.8	35.8	36.2	31.1	33.2	34.2	12	12	15	27	22	18
Compact	35.8	37.0	37.9	33.2	32.5	35.3	21	20	17	28	24	22
Ky 67-695	36.0	37.2	37.2	31.2	33.8	35.1	21	19	19	24	22	21
Norline	34.2	36.3	36.2	32.4	33.0	34.4	22	19	18	28	27	23
Pennwin	31.0	36.8	35.7	31.0	33.3	33.6	24	20	21	28	29	24
Southern States 76-30	36.6	36.2	35.8	31.3	32.8	34.5	12	11	14	24	24	17
Walken	35.0	36.0	35.4	31.8	29.4	33.5	26	25	23	35	29	28

Variety	Height Ins.						% Lodged					
	1980		1979		1978		1980		1979		1978	
	P	E	P	E	P	E	P	E	P	E	P	E
Brooks	43	--	--	--	--	--	100	--	--	--	--	--
Coker 716	43	37	37	27	28	34	100	00	00	00	00	20
Compact	42	34	30	25	25	31	100	00	00	00	00	20
Ky 67-695	46	42	39	32	30	38	100	00	00	00	06	21
Norline	46	45	41	34	33	40	100	00	00	00	06	21
Pennwin	46	43	42	32	36	40	100	00	00	00	22	24
Southern States 76-30	47	41	39	30	27	37	100	00	00	00	00	20
Walken	47	40	38	32	30	37	100	00	00	00	00	20

Variety	Grams/1000 Seed					
	1980		1979		1978	
	P	E	P	E	P	E
Brooks	25.8	--	--	--	--	--
Coker 716	23.5	26.6	27.0	29.4	30.4	--
Compact	22.5	26.9	24.8	27.2	27.6	--
Ky 67-695	21.2	27.3	28.5	28.8	36.0	--
Norline	26.5	30.2	30.3	30.8	39.8	--
Pennwin	20.7	30.9	28.2	30.6	36.4	--
Southern States 76-30	24.7	29.4	28.5	31.7	31.7	--
Walken	22.4	26.0	22.7	26.0	35.6	--

^{1/} Winter oat trials were grown at Princeton limestone soil (P) in 1978, 1979 and 1980 and at Elkton (E) in 1978 and 1979.