AGRICULTURAL EXPERIMENT STATION
UNIVERSITY OF KENTUCKY • COLLEGE OF AGRICULTURE

1999 Kentucky Small Grain Variety Trials

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In 1999, Kentucky farmers harvested 25.8 million bushels of soft red winter wheat produced on 430,000 acres. The average yield of 60 bu/a was 13 bushels more than the 1998 yield. Barley yields were 86 bu/a, 23 bushels more than the 1998 yields.

Small grain performance tests were conducted in six of the seven agroclimatic regions of Kentucky (Figure 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 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 (Figure 1) in the state.

Experimental Methods

Beginning in 1998, varieties were evaluated under both conventional and no-till cultural practices. No-till tests were grown at two locations in addition to the conventional tests, which were grown at all locations.

Table 1. Small grain harvested acreage and yields in Kentucky, 1997-1999*

	1999		1998		1997	
Crop	Harvest 1000 A	Yield Bu/A	Harvest 1000 A	Yield Bu/A	Harvest 1000 A	Yield Bu/A
Wheat	430	60	550	47	500	54
Barley	8	86	8	63	14	25

* July 13, 1999, Kentucky Crop and Livestock Reporting Service.

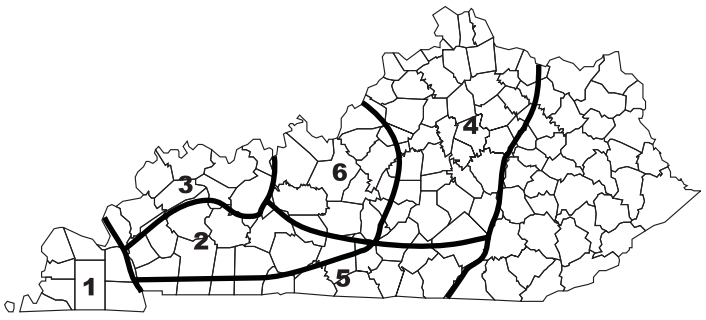

Figure 1. Agroclimatic regions of Kentucky small grain variety trials

Region	1999 Location	Cooperator	Crop Tested
1. Purchase	Hickman	Joe and Henry Sanger	Wheat
2. Western Coal Field	Princeton	Research and Education Center	Barley, Wheat
3. Ohio Valley	Henderson	David Alexander	Wheat
4. Bluegrass	Lexington	Kentucky Agricultural Experiment Station	Barley, Wheat
5. Southern Tier	Bowling Green Russellville	Western Kentucky University Farm Don Halcomb	Barley, Wheat Barley, Wheat
6. North Central	Shelbyville	Mike Ellis	Wheat

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The plots were planted with specifically built multi-row conventional and no-till cone seeders. Conventional test plots consisted of six rows to form a plot 4 feet wide and 15 feet long, which was later trimmed to 10 feet in length. No-till plots consisted of seven rows to form a plot 4.5 feet wide and 40 feet long, which was later trimmed to 20 feet in length. Each variety was grown in four replications, and the data presented are the average response from the four replications. Plots were harvested with a small plot combine. Planting dates of all trials for the past three years are listed in Table 2.

In some instances, uncontrollable factors—such as excessive rainfall, winterkilling, 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 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 three-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 outyields 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 downgraded because of a high percentage of lodging for a given year 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.

1999 Test Conditions

Favorable weather conditions during October allowed for timely seeding of the wheat and barley variety trials. November weather was dominated by very mild temperatures with above-normal rainfall. December temperatures were above normal, with slightly above-normal precipitation. January had above-normal temperatures and rainfall. February continued very mild, with above-normal precipitation. The trials came through the very mild winter with no winterkill. Mild weather continued

Table 2. Region, location, preceding crop and planting dates of Kentucky small grain trials, 1996-1999

			Preceding		Planting Date			
Region	**Location**		**Crop**	**Crop**	**1999**	**1998**	**1997**	**1996**
Purchase	Mayfield	1996	Corn	Wheat				11/21
	Hickman	1998-99	Corn	Wheat	10/23	10/10		
Ohio Valley	Henderson	1997-99	Corn	Wheat	10/16	10/16	10/17	
Bluegrass	Lexington		Corn	Barley	10/20	10/16	10/21	
				Wheat	10/20	10/15	10/17	
Southern Tier	Hopkinsville	1997		Barley			10/16	
			Corn	Wheat			10/16	
	Russellville	1998-99		Barley	10/13	10/8		
			Corn	Wheat				
				-Conv.	10/13	10/8	10/12	
				-No-till		10/8		
	Bowling Green	1997, 1999		Barley	10/15	10/15		
			Corn	Wheat	10/15	10/15	10/12	
Western Coal Field	Princeton		Fallow	Barley	10/14	10/17	10/8	
				Wheat		10/17	10/8	
				-Conv.	10/14			
				-No-till	10/9			
North Central	Shelbyville	1997-99	Corn	Wheat				
				-Conv.	10/12	10/2	10/15	
				-No-till	10/12	10/2		

through March and April, and the tests continued to develop very well.

Disease infestations overall were very light with the exception of two locations, which had a rather high incidence of barley yellow dwarf virus. Disease ratings were made for barley yellow dwarf, mildew, leaf rust, and speckled leaf blotch. These ratings are presented in Table 11. The Russellville, Shelbyville, and Princeton locations were treated with fungicides to control fungal diseases. All other tests were untreated so varieties could be rated for disease resistance.

Small Grain Varieties for 2000

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 wheat and barley varieties are summarized in Tables 3 and 12, respectively.

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 3-8. No-till varietal performance is presented in Tables 9 and 10.

Winter Barley Varieties

Winter barleys are less winter-hardy than winter wheat but more hardy than winter oats. The degree of winter-hardiness, straw strength, and maturity are important characteristics when choosing a variety. Varietal performance data are presented in Tables 12-14b.

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.

For updates, check the UK Wheat Science Web site at
http://www.ca.uky.edu/ukrec/welcome2.htm

TABLE 3 CHARACTERISTICS OF WHEAT VARIETIES TESTED IN 1999

VARIETY	PROTECTED	SOURCE	RELEASE DATE	YIELD (BU/AC)	TEST WEIGHT (LB/BU)	LODGING (%)	PLANT HEIGHT (IN)	SURVIVAL (%)	HEADING DATE
USG 3209	Yes	Unisouth Genetics	1999	90.4	58.8	4.3	30.7	100.0	28-Apr
2552	Yes	Pioneer Hi Bred Int'l	1994	90.1	59.8	0.0	35.6	100.0	02-May
COKER 9663	Yes	Novartis Seeds Inc.	1996	89.6	59.9	10.9	38.5	100.0	28-Apr
26R24	Yes	Pioneer Hi Bred Int'l	1999	88.5	58.2	15.4	35.9	100.0	28-Apr
2568	Yes	Pioneer Hi Bred Int'l	1995	87.9	57.9	0.9	35.3	100.0	29-Apr
25R26	Yes	Pioneer Hi Bred Int'l	1998	86.2	56.8	1.3	33.6	100.0	02-May
USG EXP. 97-41	Yes	Unisouth Genetics	—	85.8	58.1	1.4	36.9	100.0	29-Apr
ROANE	Yes	Virginia	1998	85.6	60.9	0.5	34.0	100.0	03-May
STINE 455	Yes	Stine Seeds	1999	85.3	56.2	6.8	37.1	100.0	29-Apr
AGRIPRO PATTON	Yes	Agripro Biosciences	1998	85.2	57.6	1.8	37.4	100.0	30-Apr
AGRIPRO MASON	Yes	Agripro Biosciences	1998	85.0	57.4	2.9	36.3	100.0	26-Apr
JACKSON	Yes	Virginia	1993	84.8	59.0	11.3	36.4	100.0	01-May
MADISON	Yes	Virginia	1990	83.9	57.1	2.5	34.3	100.0	26-Apr
FFR EXPT 2704	Yes	Southern States Coop	—	82.6	59.3	6.6	33.3	100.0	30-Apr
AGRIPRO ELKHART	Yes	Agripro Biosciences	1995	82.4	59.3	0.9	38.8	100.0	29-Apr
USG 3408	Yes	Unisouth Genetics	1999	82.2	59.1	1.8	35.3	100.0	01-May
GLORY	Yes	Ohio	1994	81.9	58.4	0.2	35.9	100.0	02-May
AGRIPRO FOSTER + GAUCHO	Yes	Agripro Biosciences	1998	81.5	57.7	0.9	36.4	100.0	01-May
TERRA SR 216	Yes	Terra Industries	1998	80.4	57.6	0.5	37.4	100.0	02-May
KY 86C-61-8	Yes	Kentucky	—	80.3	58.2	0.5	36.4	100.0	29-Apr
POCAHONTAS	Yes	Virginia	1996	80.2	58.3	4.1	34.4	100.0	28-Apr
FFR 522	Yes	Southerns States Coop	1998	80.1	59.4	10.0	35.1	100.0	30-Apr
KAS PATRIOT	Yes	Kentucky American Seeds	1994	79.5	57.4	5.4	36.5	100.0	01-May
KASKASKIA	Yes	Illinois	1999	78.7	60.3	0.2	39.3	100.0	04-May
BECK 103	Yes	Beck's Hybrids	1997	78.4	57.4	3.9	35.6	100.0	01-May
BECK 101	Yes	Beck's Hybrids	1999	78.0	57.2	0.0	35.2	100.0	30-Apr
FFR 555	Yes	Southern States Coop	1990	77.6	57.1	0.0	34.2	100.0	02-May
AGRIPRO FOSTER	Yes	Agripro Biosciences	1996	77.5	57.0	0.0	36.0	100.0	01-May
FFR 566	Yes	Southern States Coop	1999	77.4	58.1	0.0	35.8	100.0	02-May
FFR 558	Yes	Southern States Coop	1997	77.4	58.7	0.0	37.8	100.0	02-May
KAS REVERE	Yes	Kentucky American Seeds	1999	77.0	58.3	0.0	36.6	100.0	02-May
HYTEST W9850	Yes	Agribiotech Inc.	1998	77.0	58.3	0.0	38.4	100.0	03-May
TERRA SR 204	Yes	Terra Industries	1997	76.4	59.6	0.0	37.1	100.0	01-May
STINE 488	Yes	Stine Seed	1999	75.5	58.0	0.0	38.9	100.0	03-May
2540	Yes	Pioneer Hi Bred Int'l	1995	74.9	56.9	5.5	34.5	100.0	05-May
PATTERSON	Yes	Indiana	1994	74.6	58.1	1.1	37.8	100.0	01-May
KAS INDEPENDENCE	Yes	Kentucky American Seeds	1999	74.2	57.8	1.1	34.3	100.0	01-May
COKER 9474	Yes	Novartis Seeds Inc.	1994	73.8	60.6	0.0	35.4	100.0	29-Apr
KAS JUSTICE	Yes	Kentucky American Seeds	1995	72.5	57.7	1.8	38.1	100.0	05-May
KAS CONSTITUTION	Yes	Kentucky American Seeds	1999	70.6	58.7	0.0	37.1	100.0	30-Apr
CLARK	Yes	Indiana	1988	69.8	57.0	0.9	36.6	100.0	29-Apr
CALDWELL	Yes	Indiana	1980	62.1	57.6	0.4	36.6	100.0	04-May

MEAN = 80.1 BU/A
CV = 9.1
LSD(0.05) = 3.8

TABLE 3a AVERAGE PERFORMANCE OF WHEAT VARIETIES TESTED IN 1998-1999

VARIETY	YIELD (BU/AC)	TEST WEIGHT (LB/BU)	LODGING (%)	PLANT HEIGHT (IN)	SURVIVAL (%)	HEADING DATE
2552	74.7	57.5	2.6	35.5	100.0	02-May
COKER 9663	73.5	57.7	16.3	38.7	100.0	28-Apr
AGRIPRO PATTON	70.8	54.6	8.7	36.7	100.0	30-Apr
2568	69.8	53.8	6.1	34.6	100.0	29-Apr
25R26	69.7	53.7	4.1	33.6	100.0	02-May
GLORY	68.8	55.9	3.7	35.5	100.0	02-May
AGRIPRO ELKHART	67.4	57.4	4.9	37.8	100.0	29-Apr
ROANE	67.3	57.6	17.1	33.7	100.0	03-May
AGRIPRO MASON	67.0	55.0	7.7	35.9	100.0	26-Apr
HYTEST W9850	67.0	55.4	4.9	39.1	100.0	03-May
BECK 103	66.2	55.0	10.4	35.8	100.0	01-May
2540	66.2	54.6	17.0	35.0	100.0	05-May
MADISON	65.3	53.6	10.6	35.5	100.0	26-Apr
KAS PATRIOT	65.1	54.0	9.8	36.5	100.0	01-May
USG 3209	64.9	53.9	18.2	30.4	100.0	28-Apr
AGRIPRO FOSTER+GAUCHO	64.6	54.6	4.5	35.8	100.0	01-May
COKER 9474	63.2	58.5	7.0	35.3	100.0	29-Apr
PATTERSON	63.2	55.3	5.0	38.0	100.0	01-May
KAS JUSTICE	63.1	54.8	7.5	37.4	100.0	05-May
FFR 558	63.1	56.0	2.5	37.4	100.0	02-May
JACKSON	63.1	54.8	27.3	35.5	100.0	01-May
FFR 522	62.6	55.8	17.3	34.4	100.0	30-Apr
TERRA SR 204	62.3	56.3	8.7	37.3	100.0	01-May
KY 86C-61-8	61.5	54.7	12.6	36.2	100.0	29-Apr
AGRIPRO FOSTER	60.8	54.1	2.8	35.3	100.0	01-May
POCAHONTAS	59.3	53.2	17.4	33.5	100.0	28-Apr
FFR 555	57.2	51.3	7.5	34.3	100.0	02-May
CLARK	57.1	54.2	10.8	36.7	100.0	29-Apr
CALDWELL	51.0	53.3	10.1	36.9	100.0	04-May

TABLE 3b AVERAGE PERFORMANCE OF WHEAT VARIETIES TESTED IN 1997-1999

VARIETY	YIELD (BU/AC)	TEST WEIGHT (LB/BU)	LODGING (%)	PLANT HEIGHT (IN)	SURVIVAL (%)	HEADING DATE
2552	74.2	58.0	1.8	35.9	99.7	02-May
COKER 9663	71.5	57.5	12.1	39.6	99.3	28-Apr
25R26	67.9	53.8	3.0	34.1	100.0	02-May
2540	67.8	55.1	11.6	35.9	99.8	05-May
2568	67.8	54.2	4.1	35.0	100.0	29-Apr
GLORY	67.5	55.8	3.8	35.8	100.0	02-May
AGRIPRO ELKHART	65.3	57.6	3.5	38.1	99.3	29-Apr
MADISON	64.4	54.0	8.9	35.9	100.0	26-Apr
BECK 103	63.7	55.0	7.5	36.1	99.3	01-May
KAS PATRIOT	62.8	54.4	7.4	36.5	98.9	01-May
PATTERSON	62.6	55.9	3.4	38.3	98.3	01-May
KAS JUSTICE	62.1	54.8	5.1	37.6	99.7	05-May
JACKSON	61.6	55.0	19.1	35.8	98.4	01-May
FFR 558	61.2	56.3	1.7	37.8	99.6	02-May
KY 86C-61-8	60.8	55.1	8.9	36.4	99.7	29-Apr
AGRIPRO FOSTER	60.1	55.0	1.0	36.5	100.0	01-May
TERRA SR 204	60.0	56.7	6.8	37.8	99.3	01-May
POCAHONTAS	58.6	54.1	12.9	33.4	99.5	28-Apr
CLARK	58.1	54.6	7.4	36.9	100.0	29-Apr
FFR 555	56.1	51.9	5.1	34.6	98.8	02-May
CALDWELL	52.0	53.6	6.9	37.3	98.9	04-May

TABLE 4 WHEAT PERFORMANCE TRIALS FOR PURCHASE REGION*, 1996-1999

VARIETY	YIELD (BU/AC) 1999	1998	1996	MEAN	TEST WT (LB/BU) 1999	1998	1996	MEAN	PCT LODGED 1999	1998	1996	PCT SURVIVAL 1999	1998	1996	MEAN	PLANT HEIGHT (IN) 1999	HEADING DATE 1999
USG 3209	89	26		57	58.1	49.1		53.6	0	28	0	100	100		100	31	25-APR
COKER 9663	88	58	45	64	59.9	55.5	56.5	57.3	0	21	0	100	100	16	72	39	03-MAY
AGRIPRO ELKHART	82	50	53	62	59.0	55.4	56.8	57.1	0	33	0	100	100	15	72	40	01-MAY
AGRIPRO MASON	82	39	43	55	55.4	50.9	53.5	53.3	0	26	0	100	100	19	73	34	30-APR
FFR EXPT 2704	81			81	58.7			58.7	0	0	0	100			100	34	24-APR
26R24	80			80	55.3			55.3	0	0	0	100			100	35	24-APR
MADISON	79	38	49	55	55.8	51.1	55.0	54.0	0	20	0	100	100	21	74	35	01-MAY
USG EXP. 97-41	79			79	56.5			56.5	0	0	0	100			100	37	25-APR
2552	77	51	48	59	59.7	53.3	54.3	55.8	0	9	0	100	100	16	72	34	03-MAY
KAS PATRIOT	76	58	50	61	57.9	54.3	56.5	56.2	0	23	0	100	100	19	73	38	02-MAY
ROANE	76	34		55	61.3	51.6		56.5	0	53	0	100	100		100	33	26-APR
JACKSON	76	16	27	39	59.9	49.0	51.1	53.3	0	60	0	100	100	5	68	36	04-MAY
STINE 455	76			76	55.9			55.9	0	0	0	100			100	36	24-APR
25R26	76	46		61	56.4	53.2		54.8	0	5	0	100	100		100	34	26-APR
BECK 103	74	60		67	56.5	55.0		55.8	0	25	0	100	100		100	34	25-APR
TERRA SR 216	72			72	56.9			56.9	0	0	0	100			100	38	27-APR
USG 3408	72			72	58.7			58.7	0	0	0	100			100	35	26-APR
POCAHONTAS	72	25	38	45	56.5	47.3	52.5	52.1	0	20	0	100	100	10	70	34	02-MAY
2568	71	48	52	57	56.7	52.3	54.4	54.5	0	30	0	100	100	18	73	36	01-MAY
AGRIPRO PATTON	69	51		60	56.6	51.4		54.0	0	61	0	100	100		100	36	24-APR
KAS REVERE	69			69	58.2			58.2	0	0	0	100			100	37	30-APR
HYTEST W9850	68	68		68	56.3	55.2		55.8	0	9	0	100	100		100	37	27-APR
FFR 522	67	44		55	58.9	54.3		56.6	0	36	0	100	100		100	35	25-APR
KASKASKIA	67			67	60.7			60.7	0	0	0	100			100	38	30-APR
AGRIPRO FOSTER+GAUCHO	66	39		53	56.1	52.5		54.3	0	29	0	100	100		100	37	27-APR
FFR 555	66	15	28	36	57.7	44.8	52.0	51.5	0	59	0	100	100	10	70	35	04-MAY
KY 86C-61-8	66	19	40	42	57.6	50.3	53.7	53.9	0	68	0	100	100	11	70	36	01-MAY
GLORY	66	56	44	55	58.1	53.6	55.5	55.7	0	13	0	100	100	20	73	36	03-MAY
BECK 101	65			65	55.6			55.6	0	0	0	100			100	36	26-APR
FFR 566	65			65	56.5			56.5	0	0	0	100			100	35	28-APR
FFR 558	65	58		61	57.5	54.4		56.0	0	15	0	100	100		100	39	26-APR
STINE 488	64			64	58.2			58.2	0	0	0	100			100	39	29-APR
2540	63	61	55	60	57.9	55.6	56.0	56.5	0	60	0	100	100	30	77	33	03-MAY
KAS INDEPENDENCE	63			63	57.4			57.4	0	0	0	100			100	33	27-APR
KAS CONSTITUTION	62			62	59.0			59.0	0	0	0	100			100	38	25-APR
CLARK	62	35	44	47	55.7	52.3	54.1	54.0	0	66	0	100	100	16	72	36	29-APR
AGRIPRO FOSTER	61	33	40	45	57.6	52.8	52.2	54.2	0	26	0	100	100	18	73	37	03-MAY
COKER 9474	59	58		59	59.1	57.7		58.4	0	18	0	100	100		100	34	24-APR
KAS JUSTICE	59	65	55	60	58.1	55.7	55.7	56.5	0	19	0	100	100	30	77	37	03-MAY
TERRA SR 204	58	50		54	57.6	53.3		55.5	0	50	0	100	100		100	37	26-APR
PATTERSON	57	55	50	54	56.0	57.1	54.4	55.8	0	20	0	100	100	24	75	37	02-MAY
CALDWELL	51	54	34	46	57.2	53.3	53.7	54.7	0	11	0	100	100	9	70	37	04-MAY
MEAN	70	45	44	53	57.6	52.8	54.3	54.9	0	22	0	100	100	17	72	36	

CV = 7.6
LSD(0.05) = 6.2
* LOCATION: Fulton County

TABLE 5 WHEAT PERFORMANCE TRIALS FOR OHIO VALLEY REGION*, 1997-1999

VARIETY	---YIELD (BU/AC)--- 1999	1998	1997	MEAN	--TEST WT (LB/BU)-- 1999	1998	1997	MEAN	--PCT LODGED-- 1999	1998	1997	---PCT SURVIVAL---- 1999	1998	1997	MEAN	PLANT HEIGHT (IN) 1999	HEADING DATE 1999
COKER 9663	100	59	61	73	59.9	54.2	59.8	58.0	29	23	0	100	100	96	99	40	06-MAY
ROANE	98	47		73	61.0	50.8		55.9	4	20	0	100	100		100	36	02-MAY
STINE 455	95			95	56.0			56.0	0	0	0	100			100	41	30-APR
AGRIPRO PATTON	95	59		77	57.3	48.3		52.8	0	6	0	100	100		100	38	30-APR
FFR 522	94	45		70	59.8	48.4		54.1	10	25	0	100	100		100	36	30-APR
POCAHONTAS	93	47	60	67	58.1	47.9	60.4	55.5	0	29	0	100	100	100	100	38	05-MAY
USG 3408	93			93	58.5			58.5	3	0	0	100			100	38	30-APR
AGRIPRO ELKHART	92	61	51	68	59.4	54.6	60.7	58.2	0	8	0	100	100	90	97	42	05-MAY
USG 3209	92	38		65	58.1	44.4		51.3	0	21	0	100	100		100	31	30-APR
USG EXP. 97-41	92			92	57.1			57.1	3	0	0	100			100	40	30-APR
FFR 566	92			92	58.8			58.8	0	0	0	100			100	38	02-MAY
2552	91	64	69	75	57.6	55.5	60.3	57.8	0	5	0	100	100	100	100	37	07-MAY
26R24	91			91	57.3			57.3	20	0	0	100			100	38	27-APR
2568	90	49	61	66	55.7	48.0	57.5	53.7	0	9	0	100	100	100	100	36	05-MAY
MADISON	90	50	64	68	54.1	50.9	58.9	54.6	0	15	0	100	100	100	100	38	05-MAY
AGRIPRO MASON	88	56		72	55.6	49.7		52.7	0	0	0	100	100		100	39	04-MAY
25R26	87	56	62	68	57.1	47.3	55.1	53.2	0	5	0	100	100	100	100	35	05-MAY
FFR EXPT 2704	86			86	59.3			59.3	25	0	0	100			100	34	01-MAY
FFR 555	85	47	52	61	56.6	43.2	57.9	52.6	0	4	0	100	100	90	97	36	08-MAY
AGRIPRO FOSTER+GAUCHO	85	55		70	57.1	49.2		53.2	0	3	0	100	100		100	37	02-MAY
COKER 9474	85	56		70	60.5	55.2		57.9	0	1	0	100	100		100	37	29-APR
KASKASKIA	84			84	61.1			61.1	1	0	0	100			100	42	04-MAY
KAS PATRIOT	83	55	50	63	54.8	50.2	57.4	54.1	6	8	0	100	100	95	98	38	07-MAY
BECK 103	82	64	52	66	55.6	51.3	58.3	55.1	0	3	0	100	100	93	98	38	04-MAY
JACKSON	81	50	60	63	56.5	48.8	58.6	54.6	39	16	0	100	100	100	100	39	07-MAY
TERRA SR 216	81			81	55.4			55.4	4	0	0	100			100	39	02-MAY
KAS REVERE	80			80	55.9			55.9	0	0	0	100			100	38	02-MAY
KAS JUSTICE	79	57	47	61	56.9	51.5	56.0	54.8	0	23	0	100	100	96	99	40	08-MAY
GLORY	78	60	57	65	57.2	51.2	57.9	55.4	1	5	0	100	100	100	100	38	07-MAY
CLARK	77	52	59	63	54.9	50.2	57.6	54.2	4	15	0	100	100	100	100	40	04-MAY
KY 86C-61-8	77	44	52	58	56.0	48.4	58.2	54.2	0	16	0	100	100	100	100	39	06-MAY
KAS INDEPENDENCE	76			76	57.0			57.0	0	0	0	100			100	36	02-MAY
PATTERSON	75	60	52	62	57.5	52.3	59.2	56.3	8	3	0	100	100	88	96	40	05-MAY
FFR 558	74	50	51	58	57.0	52.9	58.3	56.1	0	0	0	100	100	93	98	39	05-MAY
KAS CONSTITUTION	71			71	57.0			57.0	0	0	0	100			100	39	02-MAY
TERRA SR 204	70	54	55	60	58.3	52.1	60.5	57.0	0	0	0	100	100	88	96	39	05-MAY
HYTEST W9850	70	60		65	55.3	51.9		53.6	0	3	0	100	100		100	40	04-MAY
STINE 488	70			70	55.6			55.6	0	0	0	100			100	39	04-MAY
AGRIPRO FOSTER	69	47	58	58	52.9	47.9	58.8	53.2	0	3	0	100	100	100	100	36	08-MAY
BECK 101	68			68	54.2			54.2	0	0	0	100			100	36	30-APR
2540	63	42	73	59	53.2	46.1	56.4	51.9	20	56	0	100	100	100	100	37	09-MAY
CALDWELL	63	40	40	48	55.6	48.4	56.9	53.6	3	0	0	100	100	93	98	39	10-MAY
MEAN	83	52	56	64	57.0	50.0	58.3	55.1	4	8	0	100	100	96	99	38	

CV = 10.7
LSD(0.05) = 10.2
* LOCATION: Henderson County

TABLE 6 WHEAT PERFORMANCE TRIALS FOR BLUEGRASS REGION*, 1997-1999

VARIETY	---YIELD (BU/AC)--- 1999	1998	1997	MEAN	--TEST WT (LB/BU)-- 1999	1998	1997	MEAN	--PCT LODGED— 1999	1998	1997	---PCT SURVIVAL---- 1999	1998	1997	MEAN	PLANT HEIGHT (IN) 1999	HEADING DATE 1999
BECK 101	88			88	60.4			60.4	0	0	0	100			100	34	07-MAY
2552	87	75	62	75	61.7	56.9	58.8	59.1	0	0	0	100	100	100	100	32	13-MAY
26R24	86			86	61.1			61.1	0	0	0	100			100	35	07-MAY
2568	85	61	53	66	61.0	50.5	56.9	56.1	0	0	0	100	100	100	100	33	12-MAY
USG 3209	85	48		66	61.3	46.4		53.9	0	55	0	100	100		100	30	06-MAY
GLORY	85	63	55	67	61.2	53.7	56.6	57.2	0	0	0	100	100	100	100	35	13-MAY
AGRIPRO PATTON	80	65		72	59.6	52.8		56.2	0	0	0	100	100		100	36	08-MAY
USG 3408	79			79	61.7			61.7	0	0	0	100			100	34	08-MAY
COKER 9663	79	67	53	66	61.1	56.0	56.6	57.9	0	0	0	100	100	100	100	38	14-MAY
KY 86C-61-8	79	65	53	65	60.9	53.5	57.5	57.3	0	0	0	100	100	100	100	34	12-MAY
STINE 455	78			78	59.0			59.0	0	0	0	100			100	35	07-MAY
TERRA SR 204	78	56	49	61	61.9	55.9	58.5	58.8	0	0	0	100	100	100	100	36	12-MAY
BECK 103	77	54	54	61	59.1	51.0	57.1	55.7	0	3	0	100	100	100	100	35	12-MAY
25R26	76	64	57	65	58.7	50.2	53.7	54.2	0	0	0	100	100	100	100	31	14-MAY
AGRIPRO FOSTER+GAUCHO	75	57		66	59.4	53.0		56.2	0	0	0	100	100		100	34	11-MAY
AGRIPRO MASON	75	55		65	60.0	53.4		56.7	0	19	0	100	100		100	35	11-MAY
ROANE	75	56		65	62.2	57.4		59.8	0	11	0	100	100		100	32	10-MAY
FFR EXPT 2704	74			74	61.6			61.6	0	0	0	100			100	32	08-MAY
MADISON	74	58	55	62	59.7	48.6	55.9	54.7	0	3	0	100	100	100	100	35	10-MAY
COKER 9474	74	58		66	63.0	57.4		60.2	0	3	0	100	100		100	35	12-MAY
KASKASKIA	74			74	59.3			59.3	0	0	0	100			100	37	11-MAY
USG EXP. 97-41	74			74	60.9			60.9	0	0	0	100			100	34	07-MAY
AGRIPRO FOSTER	74	56	51	60	59.1	50.4	56.5	55.3	0	0	0	100	100	100	100	34	15-MAY
FFR 522	74	51		62	60.4	50.2		55.3	0	0	0	100	100		100	34	07-MAY
JACKSON	73	54	44	57	60.7	51.5	58.1	56.8	0	63	0	100	100	100	100	33	14-MAY
PATTERSON	73	56	55	61	60.6	51.0	57.8	56.5	0	0	0	100	100	100	100	36	12-MAY
2540	72	70	63	68	57.2	53.4	57.3	56.0	0	0	0	100	100	100	100	33	15-MAY
AGRIPRO ELKHART	71	54	58	61	60.4	55.1	58.1	57.9	0	0	0	100	100	100	100	35	13-MAY
KAS JUSTICE	71	53	56	60	59.6	50.0	55.7	55.1	0	0	0	100	100	100	100	36	15-MAY
FFR 555	71	49	52	57	60.5	43.2	55.2	53.0	0	13	0	100	100	100	100	32	13-MAY
TERRA SR 216	71			71	59.8			59.8	0	0	0	100			100	35	09-MAY
KAS PATRIOT	69	54	48	57	60.0	49.4	57.0	55.5	0	0	0	100	100	100	100	34	12-MAY
KAS INDEPENDENCE	69			69	59.7			59.7	0	0	0	100			100	34	09-MAY
FFR 558	68	52	57	59	60.2	53.3	58.7	57.4	0	0	0	100	100	100	100	35	13-MAY
POCAHONTAS	67	42	49	53	61.1	48.3	56.8	55.4	0	18	0	100	100	100	100	31	13-MAY
HYTEST W9850	67	65		66	59.6	51.7		55.7	0	0	0	100	100		100	36	11-MAY
STINE 488	65			65	59.4			59.4	0	0	0	100			100	35	11-MAY
FFR 566	63			63	59.2			59.2	0	0	0	100			100	35	10-MAY
KAS REVERE	63			63	60.0			60.0	0	0	0	100			100	34	09-MAY
CLARK	62	53	41	52	58.8	53.8	55.0	55.9	0	0	0	100	100	100	100	34	09-MAY
KAS CONSTITUTION	61			61	60.2			60.2	0	0	0	100			100	35	08-MAY
CALDWELL	52	31	60	48	59.5	45.0	57.1	53.9	0	13	0	100	100	100	100	34	13-MAY
MEAN	73	57	54	61	60.3	51.8	56.9	56.3	0	5	0	100	100	100	100	34	

CV = 10.2
LSD(0.05) = 8.7
* LOCATION: Lexington, Spindletop farm

TABLE 7 WHEAT PERFORMANCE TRIALS FOR WESTERN COAL FIELD REGION*, 1997-1999

VARIETY	---YIELD (BU/AC)--- 1999	1998	1997	MEAN	--TEST WT (LB/BU)-- 1999	1998	1997	MEAN	--PCT LODGED-- 1999	1998	1997	---PCT SURVIVAL---- 1999	1998	1997	MEAN	PLANT HEIGHT (IN) 1999	HEADING DATE 1999
COKER 9663	104	44	78	75	58.5	56.2	57.5	57.4	6	3	0	100	100	100	100	38	05-MAY
JACKSON	100	32	62	65	57.8	50.8	56.3	55.0	10	19	0	100	100	100	100	37	06-MAY
2552	95	44	77	72	58.2	52.3	59.0	56.5	0	3	0	100	100	100	100	36	05-MAY
ROANE	95	46		70	59.5	55.5		57.5	0	0	0	100	100		100	35	29-APR
26R24	95			95	54.5			54.5	31	0	0	100			100	37	26-APR
KAS PATRIOT	94	37	62	64	55.1	48.4	55.7	53.1	0	0	0	100	100	100	100	36	06-MAY
USG 3408	93			93	57.1			57.1	3	0	0	100			100	37	27-APR
25R26	92	40	60	64	54.8	47.9	54.5	52.4	6	0	0	100	100	100	100	34	02-MAY
STINE 455	92			92	52.2			52.2	0	0	0	100			100	36	27-APR
USG 3209	91	25		58	56.3	49.7		53.0	0	0	0	100	100		100	30	28-APR
AGRIPRO ELKHART	91	47	64	67	58.1	55.1	59.0	57.4	0	0	0	100	100	100	100	40	04-MAY
MADISON	90	34	67	64	55.5	51.5	57.0	54.7	3	0	0	100	100	100	100	34	02-MAY
TERRA SR 216	90			90	56.5			56.5	0	0	0	100			100	38	29-APR
2568	89	38	73	67	55.3	48.5	56.2	53.3	6	0	0	100	100	100	100	36	03-MAY
AGRIPRO PATTON	89	34		61	53.9	49.9		51.9	0	0	0	100	100		100	37	29-APR
BECK 101	89			89	56.3			56.3	0	0	0	100			100	35	27-APR
AGRIPRO MASON	88	30		59	55.0	50.9		53.0	0	0	0	100	100		100	35	03-MAY
USG EXP. 97-41	88			88	56.4			56.4	8	0	0	100			100	37	27-APR
KASKASKIA	88			88	60.0			60.0	0	0	0	100			100	39	03-MAY
FFR 555	87	21	63	57	55.4	47.0	56.9	53.1	0	0	0	100	100	100	100	35	06-MAY
KY 86C-61-8	87	27	72	62	55.5	49.0	56.8	53.8	4	0	0	100	100	100	100	37	04-MAY
FFR 558	87	32	63	60	57.9	52.5	57.8	56.1	0	0	0	100	100	100	100	37	02-MAY
BECK 103	86	44	64	65	55.6	51.8	57.0	54.8	8	0	0	100	100	100	100	36	01-MAY
HYTEST W9850	86	33		59	58.9	48.5		53.7	0	0	0	100	100		100	38	02-MAY
KAS REVERE	86			86	57.1			57.1	0	0	0	100			100	37	01-MAY
FFR 522	85	31		58	58.4	52.7		55.6	0	0	0	100	100		100	34	27-APR
AGRIPRO FOSTER	84	29	46	53	56.1	48.9	42.6	49.2	0	0	0	100	100	75	92	36	07-MAY
STINE 488	84			84	56.0			56.0	0	0	0	100			100	39	01-MAY
GLORY	83	37	70	63	56.3	53.0	58.1	55.8	0	0	0	100	100	100	100	35	05-MAY
AGRIPRO FOSTER+GAUCHO	83	34		58	54.0	47.2		50.6	6	0	0	100	100		100	36	30-APR
FFR 566	83			83	56.3			56.3	0	0	0	100			100	36	29-APR
2540	82	43	75	67	57.1	50.3	57.4	54.9	11	3	0	100	100	100	100	35	07-MAY
COKER 9474	81	43		62	60.3	56.0		58.2	0	0	0	100	100		100	36	27-APR
FFR EXPT 2704	81			81	56.7			56.7	9	0	0	100			100	34	28-APR
KAS JUSTICE	80	36	64	60	54.5	48.7	56.4	53.2	0	0	0	100	100	100	100	38	08-MAY
PATTERSON	78	36	66	60	56.2	51.2	58.6	55.3	0	0	0	100	100	100	100	36	04-MAY
TERRA SR 204	76	33	49	53	58.9	48.2	58.1	55.1	0	0	0	100	100	100	100	37	02-MAY
KAS INDEPENDENCE	76			76	58.0			58.0	0	0	0	100			100	33	29-APR
POCAHONTAS	75	26	54	52	54.6	49.2	57.9	53.9	1	0	0	100	100	100	100	34	03-MAY
CALDWELL	72	30	57	53	55.8	48.0	55.1	53.0	0	0	0	100	100	100	100	36	07-MAY
KAS CONSTITUTION	70			70	57.1			57.1	0	0	0	100			100	37	28-APR
CLARK	68	30	68	55	54.5	52.2	55.7	54.1	0	0	0	100	100	100	100	36	02-MAY
MEAN	86	35	64	62	56.5	50.7	56.4	54.5	3	1	0	100	100	99	100	36	

CV = 7.9
LSD(0.05) = 7.8
* LOCATION: Princeton, limestone soil

TABLE 7a WHEAT PERFORMANCE TRIALS FOR SOUTHERN TIER REGION*, 1997-1999

VARIETY	---YIELD (BU/AC)--- 1999	1998	1997	MEAN	--TEST WT (LB/BU)-- 1999	1998	1997	MEAN	--PCT LODGED-- 1999	1998	1997	---PCT SURVIVAL---- 1999	1998	1997	MEAN	PLANT HEIGHT (IN) 1999	HEADING DATE 1999
2568	111	46	77	78	59.7	51.3	55.6	55.5	0	5	0	100	100	100	100	38	03-MAY
AGRIPRO FOSTER	102	40	76	73	59.3	51.5	57.4	56.1	0	1	0	100	100	100	100	40	05-MAY
25R26	101	40	88	76	57.7	51.3	55.3	54.8	3	23	0	100	100	100	100	36	02-MAY
GLORY	100	48	86	78	59.3	52.6	58.1	56.7	0	3	0	100	100	100	100	39	03-MAY
USG EXP. 97-41	100			100	59.5			59.5	0	0	0	100			100	41	27-APR
TERRA SR 204	99	35	71	68	61.0	51.4	58.2	56.9	0	20	0	100	100	100	100	40	01-MAY
HYTEST W9850	99	53		76	60.5	51.8		56.2	0	4	0	100	100		100	43	30-APR
STINE 455	99			99	57.1			57.1	48	0	0	100			100	41	26-APR
2552	99	41	84	75	61.0	54.0	59.7	58.2	0	3	0	100	100	100	100	41	05-MAY
FFR 558	98	43	73	71	60.7	53.4	58.7	57.6	0	0	0	100	100	100	100	43	02-MAY
POCAHONTAS	96	33	67	65	60.9	43.7	56.3	53.6	28	31	0	100	100	100	100	38	03-MAY
STINE 488	96			96	60.2			60.2	0	0	0	100			100	43	30-APR
2540	96	59	82	79	58.1	53.7	56.8	56.2	8	3	0	100	100	100	100	36	05-MAY
AGRIPRO FOSTER+GAUCHO	96	41		68	59.0	52.6		55.8	0	0	0	100	100		100	40	30-APR
COKER 9663	95	48	84	75	60.1	54.5	57.0	57.2	38	10	0	100	100	100	100	39	03-MAY
USG 3209	94	36		65	60.0	49.1		54.6	30	23	0	100	100		100	34	29-APR
MADISON	94	34	78	69	59.4	48.2	55.6	54.4	15	46	0	100	100	100	100	38	02-MAY
PATTERSON	94	44	72	70	60.4	50.9	58.2	56.5	0	3	0	100	100	100	100	41	30-APR
ROANE	94	45		69	61.6	51.6		56.6	0	64	0	100	100		100	37	30-APR
FFR EXPT 2704	94			94	61.5			61.5	13	0	0	100			100	35	29-APR
TERRA SR 216	94			94	59.5			59.5	0	0	0	100			100	40	01-MAY
AGRIPRO ELKHART	93	43	80	72	61.2	56.2	60.0	59.1	5	0	0	100	100	100	100	41	02-MAY
KAS REVERE	93			93	60.1			60.1	0	0	0	100			100	40	29-APR
AGRIPRO MASON	93	44		69	58.9	54.0		56.5	20	0	0	100	100		100	38	02-MAY
KAS INDEPENDENCE	93			93	59.6			59.6	0	0	0	100			100	37	29-APR
26R24	93			93	59.2			59.2	48	0	0	100			100	38	27-APR
KAS PATRIOT	92	40	80	71	59.3	48.8	57.3	55.1	30	10	0	100	100	100	100	39	02-MAY
JACKSON	92	34	80	68	60.7	48.8	56.9	55.5	30	21	0	100	100	100	100	39	06-MAY
FFR 522	92	36		64	60.1	51.6		55.9	43	10	0	100	100		100	40	30-APR
AGRIPRO PATTON	91	53		72	60.1	51.0		55.6	3	23	0	100	100		100	40	29-APR
KAS CONSTITUTION	90			90	61.4			61.4	0	0	0	100			100	39	27-APR
KASKASKIA	89			89	60.7			60.7	0	0	0	100			100	41	04-MAY
KY 86C-61-8	89	33	75	65	58.6	52.1	57.9	56.2	0	14	0	100	100	100	100	40	03-MAY
FFR 555	88	27	72	62	58.5	46.6	55.2	53.4	0	0	0	100	100	100	100	37	04-MAY
BECK 103	88	44	77	70	59.0	50.7	56.8	55.5	18	8	0	100	100	100	100	38	29-APR
BECK 101	86			86	58.3			58.3	0	0	0	100			100	37	28-APR
KAS JUSTICE	86	56	75	72	59.0	54.3	56.4	56.6	0	3	0	100	100	100	100	41	04-MAY
FFR 566	86			86	60.0			60.0	0	0	0	100			100	38	30-APR
USG 3408	86			86	59.5			59.5	8	0	0	100			100	38	30-APR
CALDWELL	85	41	69	65	58.8	47.3	55.8	54.0	0	10	0	100	100	100	100	39	04-MAY
CLARK	85	36	65	62	60.2	46.4	56.7	54.4	0	31	0	100	100	100	100	40	30-APR
COKER 9474	83	44		64	60.9	55.1		58.0	0	5	0	100	100		100	38	27-APR
MEAN	93	42	77	71	59.8	51.2	57.1	56.0	9	9	0	100	100	100	100	39	

CV = 10.8
LSD(0.05) = 11.8
* LOCATION: Logan County

TABLE 7b WHEAT PERFORMANCE TRIALS FOR SOUTHERN TIER REGION*, 1997, 1999

VARIETY	----YIELD (BU/AC)---- 1999	1998**	1997	MEAN	---TEST WT (LB/BU)--- 1999	1998**	1997	MEAN	---PCT LODGED--- 1999	1998**	1997	----PCT SURVIVAL----- 1999	1998**	1997	MEAN	PLANT HEIGHT (IN) 1999	HEADING DATE 1999
USG 3209	91		91		58.0		58.0		0	0		100		100		30	28-APR
JACKSON	88	53	70		57.6	53.0	55.3		0	3		100	100	100		36	02-MAY
26R24	88		88		58.1		58.1		0	0		100		100		34	30-APR
AGRIPRO FOSTER+GAUCHO	85		85		57.8		57.8		0	0		100		100		36	30-APR
25R26	85	68	76		53.0	54.3	53.7		0	0		100	100	100		32	04-MAY
2552	84	74	79		57.6	59.4	58.5		0	0		100	100	100		35	03-MAY
AGRIPRO MASON	84		84		56.2		56.2		0	0		100		100		35	26-APR
KY 86C-61-8	83	55	69		57.3	52.2	54.8		0	0		100	100	100		35	01-MAY
MADISON	82	60	71		56.8	52.5	54.7		0	4		100	100	100		34	28-APR
USG EXP. 97-41	81		81		56.4		56.4		0	0		100		100		34	29-APR
TERRA SR 216	81		81		55.9		55.9		0	0		100		100		37	02-MAY
ROANE	80		80		59.1		59.1		0	0		100		100		33	05-MAY
COKER 9663	80	75	77		57.4	57.7	57.6		0	3		100	100	100		38	30-APR
POCAHONTAS	80	62	71		56.8	55.1	56.0		0	0		100	100	100		33	30-APR
2568	79	64	71		54.8	52.9	53.9		0	0		100	100	100		34	01-MAY
FFR 566	79		79		56.2		56.2		0	0		100		100		34	01-MAY
AGRIPRO PATTON	79		79		54.2		54.2		0	0		100		100		36	29-APR
KAS PATRIOT	77	66	71		55.4	52.8	54.1		0	0		100	100	100		35	02-MAY
FFR 558	76	63	69		56.7	56.1	56.4		0	0		100	100	100		36	03-MAY
GLORY	75	67	71		56.6	53.2	54.9		0	0		100	100	100		34	03-MAY
FFR EXPT 2704	75		75		55.5		55.5		0	0		100		100		33	02-MAY
FFR 522	74		74		56.5		56.5		0	0		100		100		34	01-MAY
AGRIPRO FOSTER	73	67	70		53.2	56.5	54.9		0	0		100	100	100		35	03-MAY
STINE 455	73		73		53.1		53.1		0	0		100		100		36	30-APR
TERRA SR 204	72	65	68		58.0	59.1	58.6		0	0		100	100	100		35	03-MAY
PATTERSON	72	69	70		56.0	57.0	56.5		0	0		100	100	100		37	02-MAY
BECK 101	72		72		55.5		55.5		0	0		100		100		34	01-MAY
KASKASKIA	72		72		58.9		58.9		0	0		100		100		38	04-MAY
USG 3408	71		71		56.2		56.2		0	0		100		100		33	03-MAY
KAS INDEPENDENCE	70		70		53.9		53.9		0	0		100		100		33	30-APR
KAS REVERE	70		70		56.0		56.0		0	0		100		100		35	03-MAY
AGRIPRO ELKHART	70	72	71		55.4	58.4	56.9		0	0		100	100	100		36	01-MAY
STINE 488	69		69		55.5		55.5		0	0		100		100		38	03-MAY
BECK 103	68	63	65		56.4	52.8	54.6		0	0		100	100	100		34	03-MAY
KAS JUSTICE	68	60	64		55.4	53.0	54.2		0	0		100	100	100		37	05-MAY
HYTEST W9850	68		68		56.5		56.5		0	0		100		100		37	03-MAY
FFR 555	67	47	57		52.5	48.5	50.5		0	0		100	100	100		32	05-MAY
KAS CONSTITUTION	67		67		55.2		55.2		0	0		100		100		35	29-APR
COKER 9474	64		64		57.2		57.2		0	0		100		100		33	30-APR
2540	62	74	68		55.0	54.1	54.6		0	0		100	100	100		34	05-MAY
CLARK	60	58	59		56.4	52.5	54.5		0	0		100	100	100		33	30-APR
CALDWELL	51	60	55		57.4	52.1	54.8		0	0		100	100	100		35	05-MAY
MEAN	75	64	72		56.1	54.4	55.8		0	0		100	100	100		35	

CV = 9.8
LSD(0.05) = 8.5
* LOCATION: Warren County
**The 1998 test was destroyed by hail.

TABLE 8 WHEAT PERFORMANCE TRIALS FOR NORTH CENTRAL REGION*, 1997-1999

VARIETY	---YIELD (BU/AC)---				--TEST WT (LB/BU)--				--PCT LODGED--			---PCT SURVIVAL----				PLANT HEIGHT (IN)
	1999	1998	1997	MEAN	1999	1998	1997	MEAN	1999	1998	1997	1999	1998	1997	MEAN	1999
2552	98	65	73	79	62.6	57.5	57.4	59.2	0	15	0	100	100	95	98	36
AGRIPRO PATTON	95	62		79	61.3	54.0		57.7	10	10	0	100	100		100	39
USG 3209	91	39		65	59.9	49.9		54.9	0	80	0	100	100		100	31
2568	91	52	52	65	61.8	43.6	52.2	52.5	0	29	0	100	100	100	100	35
25R26	89	57	48	65	60.2	49.9	51.2	53.8	0	13	3	100	100	100	100	34
2540	87	62	61	70	59.9	52.6	54.4	55.6	0	61	0	100	100	96	99	35
GLORY	87	57	53	66	60.2	53.3	50.6	54.7	0	26	25	100	100	100	100	36
26R24	87			87	61.7			61.7	9	0	0	100			100	35
USG EXP. 97-41	87			87	60.0			60.0	0	0	0	100			100	37
FFR EXPT 2704	87			87	62.1			62.1	0	0	0	100			100	33
AGRIPRO MASON	87	53		70	60.9	54.3		57.6	0	35	0	100	100		100	37
STINE 455	85			85	60.4			60.4	0	0	0	100			100	36
KY 86C-61-8	84	49	49	61	61.2	50.7	53.2	55.0	0	63	5	100	100	95	98	35
JACKSON	84	41	51	59	59.7	50.9	50.2	53.6	0	98	5	100	100	69	90	36
COKER 9663	83	52	54	63	62.2	55.1	53.5	56.9	4	80	15	100	100	91	97	39
ROANE	82	49		65	61.5	55.4		58.5	0	71	0	100	100		100	33
USG 3408	82			82	61.7			61.7	0	0	0	100			100	34
TERRA SR 204	81	48	43	57	61.7	53.8	50.6	55.4	0	43	18	100	100	100	100	36
AGRIPRO FOSTER+GAUCHO	81	44		62	60.2	51.6		55.9	0	21	0	100	100		100	35
FFR 555	81	42	37	53	58.8	42.5	44.2	48.5	0	23	0	100	100	88	96	34
HYTEST W9850	81	54		67	61.1	52.6		56.9	0	49	0	100	100		100	39
STINE 488	81			81	61.4			61.4	0	0	0	100			100	39
KAS REVERE	80			80	60.9			60.9	0	0	0	100			100	37
AGRIPRO FOSTER	80	43	43	55	60.9	52.1	51.4	54.8	0	6	0	100	100	98	99	35
BECK 101	79			79	60.4			60.4	0	0	0	100			100	35
MADISON	79	48	52	60	58.6	47.2	49.0	51.6	0	36	28	100	100	100	100	27
AGRIPRO ELKHART	79	46	41	55	61.9	54.7	52.6	56.4	1	18	3	100	100	96	99	38
POCAHONTAS	78	38	49	55	60.0	47.1	50.1	52.4	0	**	19	100	100	90	97	33
KASKASKIA	78			78	61.5			61.5	0	0	0	100			100	40
CLARK	76	49	70	65	58.5	50.1	55.0	54.5	3	21	0	100	100	100	100	38
TERRA SR 216	76			76	59.3			59.3	0	0	0	100			100	36
FFR 522	76	46		61	61.9	52.0		57.0	18	84	0	100	100		100	34
PATTERSON	76	49	55	60	60.0	49.7	53.2	54.3	0	33	0	100	100	80	93	38
FFR 566	76			76	59.7			59.7	0	0	0	100			100	36
FFR 558	75	45	37	52	60.6	51.0	52.3	54.6	0	18	0	100	100	100	100	37
KAS CONSTITUTION	75			75	60.7			60.7	0	0	0	100			100	37
BECK 103	73	47	40	53	59.6	53.7	48.1	53.8	3	70	8	100	100	95	98	35
KAS INDEPENDENCE	73			73	59.2			59.2	8	0	0	100			100	34
COKER 9474	70	46		58	63.3	55.0		59.2	0	65	0	100	100		100	37
KAS JUSTICE	67	45	55	56	60.1	49.2	50.9	53.4	13	41	0	100	100	98	99	38
KAS PATRIOT	66	46	41	51	59.5	49.0	51.1	53.2	1	50	13	100	100	84	95	35
CALDWELL	61	34	37	44	59.1	47.6	48.3	51.7	0	95	0	100	100	88	96	37
MEAN	80	48	50	59	60.6	51.2	51.4	54.4	2	32	3	100	100	93	98	36

CV = 6.6
LSD(0.05) = 6.2
* LOCATION: Shelby County
** no heading date data for N.Central region

TABLE 9 NO TILL PERFORMANCE TRIAL FOR SOUTHERN TIER REGION 1998 - 1999

VARIETY	YIELD (BU/A)			TEST WT (LB/BU)			PCT LODGED			PCT SURVIVAL			HEIGHT	HEADING DATE
	1999.0	1998	MEAN	1999	1998	MEAN	1999	1998	MEAN	1999	1998	MEAN	1999	1999
AGRIPRO FOSTER + GAUCHO	100.3	29.7	65.0	56.3	50.7	53.5	0	0	0.0	100	100	100.0	37	29-Apr
ROANE	97.0		97.0	58.4		58.4	0		0.0	100		100.0	36	30-Apr
2552	96.8	41.8	69.3	59.1	55.5	57.3	0	0	0.0	100	100	100.0	36	29-Apr
BECK 103	96.8	36.3	66.6	55.8	49.1	52.5	0	37	18.5	100	100	100.0	37	29-Apr
USG 3408	92.5		92.5	56.5		56.5	3		3.0	100		100.0	38	29-Apr
26R24	90.5		90.5	55.4		55.4	0		0.0	100		100.0	36	26-Apr
JACKSON	89.8	30.7	60.3	57.0	51.8	54.4	0	8	4.0	100	100	100.0	37	28-Apr
KAS PATRIOT	89.5	30.3	59.9	56.1	52.8	54.5	0	10	5.0	100	100	100.0	38	29-Apr
FFR 555	89.3	21.6	55.5	55.8	43.3	49.6	0	0	0.0	100	100	100.0	35	30-Apr
COKER 9663	87.0	46.5	66.8	58.2	56.0	57.1	6	22	14.0	100	100	100.0	38	27-Apr
STINE 488	85.8		85.8	57.2		57.2	0		0.0	100		100.0	39	2-May
BECK 101	84.8		84.8	55.3		55.3	0		0.0	100		100.0	36	27-Apr
AGRIPRO ELKHART	84.5	34.5	59.5	59.4	53.0	56.2	0	0	0.0	100	100	100.0	39	27-Apr
POCAHONTAS	84.3	23.3	53.8	56.8	47.0	51.9	0	13	6.5	100	100	100.0	36	25-Apr
KASKASKIA	84.3		84.3	59.7		59.7	0		0.0	100		100.0	42	3-May
STINE 455	83.8		83.8	55.1		55.1	0		0.0	100		100.0	38	27-Apr
FFR EXPT 2704	82.3		82.3	56.6		56.6	0		0.0	100		100.0	33	27-Apr
HYTEST W9850	82.3	41.0	61.7	55.7	53.2	54.5	0	0	0.0	100	100	100.0	39	2-May
AGRIPRO FOSTER	81.8	26.2	54.0	55.7	48.1	51.9	0	3	1.5	100	100	100.0	37	29-Apr
USG 3209	81.0		81.0	55.7		55.7	0		0.0	100		100.0	30	26-Apr
AGRIPRO PATTON	80.8	35.8	58.3	55.8	51.3	53.6	0	0	0.0	100	100	100.0	37	28-Apr
KY 86C-61-8	80.3	25.3	52.8	55.6	49.6	52.6	0	5	2.5	100	100	100.0	38	28-Apr
TERRA SR 216	80.0		80.0	56.4		56.4	0		0.0	100		100.0	38	29-Apr
AGRIPRO MASON	79.8	40.0	59.9	56.4	52.0	54.2	0	0	0.0	100	100	100.0	35	23-Apr
BECKER	79.0	15.6	47.3	51.5	45.5	48.5	0	7	3.5	100	100	100.0	34	30-Apr
25R26	78.8	29.3	54.1	55.5	48.7	52.1	3	27	15.0	100	100	100.0	34	1-May
MADISON	78.3	31.2	54.8	54.5	49.4	52.0	0	45	22.5	100	100	100.0	33	26-Apr
GLORY	77.8	29.5	53.7	55.8	47.9	51.9	0	0	0.0	100	100	100.0	36	29-Apr
KAS REVERE	77.8		77.8	57.3		57.3	0		0.0	100		100.0	36	1-May
2568	76.5	34.5	55.5	55.4	51.0	53.2	1	0	0.5	100	100	100.0	36	28-Apr
FFR 558	76.5	28.3	52.4	57.2	51.2	54.2	0	3	1.5	100	100	100.0	38	29-Apr
USG EXP. 97-41	75.5		75.5	56.1		56.1	5		5.0	100		100.0	37	28-Apr
COKER 9474	74.5	39.4	57.0	59.2	56.0	57.6	0	0	0.0	100	100	100.0	36	28-Apr
2540	74.3	46.5	60.4	58.1	52.4	55.3	0	0	0.0	100	100	100.0	35	4-May
FFR 522	74.0	32.6	53.3	56.9	52.7	54.8	0	12	6.0	100	100	100.0	34	27-Apr
TERRA SR 204	72.0	28.7	50.4	57.1	54.1	55.6	0	7	3.5	100	100	100.0	37	29-Apr
KAS JUSTICE	71.5	38.3	54.9	55.9	52.9	54.4	0	0	0.0	100	100	100.0	38	5-May
PATTERSON	70.0	29.1	49.6	57.3	50.7	54.0	0	2	1.0	100	100	100.0	37	28-Apr
KAS INDEPENDENCE	70.0		70.0	57.6		57.6	0		0.0	100		100.0	34	30-Apr
CALDWELL	67.8	25.1	46.5	56.7	45.8	51.3	0	0	0.0	100	100	100.0	38	1-May
KAS CONSTITUTION	67.5		67.5	57.6		57.6	0		0.0	100		100.0	38	28-Apr
FFR 566	63.0		63.0	54.9		54.9	0		0.0	100		100.0	35	29-Apr
CLARK	60.5	25.4	43.0	55.1	48.6	51.9	0	13	6.5	100	100	100.0	36	26-Apr
MEAN	80.7	32.0	64.9	56.5	50.7	54.6	0.4	7.6	2.8	100.0	100.0	100.0	36.4	

CV = 9.6
LSD = 9.1

TABLE 10 NO TILL PERFORMANCE TRIAL FOR NORTH CENTRAL REGION 1998 - 1999

	YIELD (BU/A)			TEST WT (LB/BU)			PCT LODGED			PCT SURVIVAL			HEIGHT
Variety	1999	1998	MEAN	1999	1998	MEAN	1999	1998	MEAN	1999	1998	MEAN	1999
2552	100.4	64.2	82.3	61.0	56.2	58.6	0	0	0.0	100	100	100	33
AGRIPRO PATTON	99.5	59.0	79.3	59.4	55.4	57.4	3	0	1.5	100	100	100	37
COKER 9663	93.7	57.4	75.6	61.1	56.4	58.8	46	0	23.0	100	100	100	38
USG 3209	93.6		93.6	58.3		58.3	30		30.0	100		100	30
POCAHONTAS	92.8	35.1	64.0	58.4	49.2	53.8	15	0	7.5	100	100	100	31
26R24	90.2		90.2	58.5		58.5	33		33.0	100		100	34
MADISON	90.1	54.3	72.2	58.2	51.7	55.0	10	0	5.0	100	100	100	36
2568	89.9	55.7	72.8	58.8	50.1	54.5	0	0	0.0	100	100	100	34
ROAN	89.9		89.9	61.3		61.3	10		10.0	100		100	32
BECK 101	89.7		89.7	58.1		58.1	0		0.0	100		100	32
USG EXP. 97-41	89.4		89.4	55.8		55.8	0		0.0	100		100	35
25R26	89.3	56.0	72.7	59.2	52.1	55.7	0	0	0.0	100	100	100	31
FFR EXPT 2704	88.9		88.9	60.2		60.2	30		30.0	100		100	31
AGRIPRO ELKHART	87.6	44.5	66.1	60.0	55.4	57.7	4	0	2.0	100	100	100	37
STINE 455	87.4		87.4	57.6		57.6	43		43.0	100		100	35
JACKSON	87.2	42.6	64.9	58.7	53.3	56.0	49	0	24.5	100	100	100	34
GLORY	86.3	60.5	73.4	58.1	54.8	56.5	3	0	1.5	100	100	100	34
KY 86C-61-8	85.3	50.6	68.0	57.4	54.2	55.8	35	0	17.5	100	100	100	35
KASKASKIA	84.3		84.3	58.2		58.2	40		40.0	100		100	40
AGRIPRO MASON	84.0	49.6	66.8	58.3	55.2	56.8	5	0	2.5	100	100	100	34
USG 3408	83.8		83.8	58.5		58.5	38		38.0	100		100	32
PATTERSON	83.1	45.7	64.4	59.4	52.9	56.2	11	0	5.5	100	100	100	38
FFR 555	83.0	47.9	65.5	57.6	53.0	55.3	3	0	1.5	100	100	100	33
2540	82.9	63.5	73.2	58.5	54.8	56.7	41	0	20.5	100	100	100	35
CLARK	82.1	40.6	61.4	57.2	52.1	54.7	14	0	7.0	100	100	100	37
STINE 488	81.9		81.9	57.1		57.1	8		8.0	100		100	39
KAS PATRIOT	81.4	41.7	61.6	58.5	53.6	56.1	60	0	30.0	100	100	100	35
BECK 103	81.4	45.7	63.6	58.5	53.4	56.0	60	0	30.0	100	100	100	34
KAS REVERE	79.8		79.8	59.7		59.7	0		0.0	100		100	35
FFR 558	79.7	50.0	64.9	58.3	56.6	57.5	8	0	4.0	100	100	100	37
COKER 9474	79.6	41.1	60.4	61.6	57.7	59.7	0	0	0.0	100	100	100	34
HYTEST W9850	79.3	57.9	68.6	58.3	55.2	56.8	9	0	4.5	100	100	100	38
TERRA SR 204	79.2	46.2	62.7	60.0	53.4	56.7	36	0	18.0	100	100	100	36
BECKER	79.2	46.2	62.7	60.0	53.4	56.7	36	0	18.0	100	100	100	36
FFR 566	78.6		78.6	58.4		58.4	1		1.0	100		100	37
KAS INDEPENDENCE	78.0		78.0	57.6		57.6	4		4.0	100		100	33
AGRIPRO FOSTER + GAUCHO	77.6	50.7	64.2	56.3	55.1	55.7	3	0	1.5	100	100	100	33
TERRA SR 216	76.5		76.5	57.5		57.5	41		41.0	100		100	36
KAS CONSTITUTION	76.3		76.3	60.4		60.4	1		1.0	100		100	35
KAS JUSTICE	75.7	49.5	62.6	58.3	55.0	56.7	33	0	16.5	100	100	100	37
FFR 522	75.2	42.1	58.7	61.1	56.9	59.0	30	0	15.0	100	100	100	33
AGRIPRO FOSTER	72.7	46.7	59.7	55.7	52.2	54.0	1	0	0.5	100	100	100	33
CALDWELL	54.1	29.7	41.9	51.9	52.2	52.1	60	0	30.0	100	100	100	37
MEAN	83.7	49.1	72.6	58.5	54.0	57.0	19.9	0.0	13.2	100	100	100	

CV = 7.6
LSD = 7.4

TABLE 11 — DISEASE RATINGS OF WHEAT VARIETIES IN 1999*

VARIETY	LEAF RUST	SPECKLED LEAF BLOTCH	GLUME BLOTCH	POWDERY MILDEW	WSSMV	BYDV**
Agripro Elkhart	MS	VS	S	MR	S	20
Agripro Foster	S	VS	MR	MR	R	30
Agripro Foster + Gaucho	S	VS	—	—	-	30
Agripro Mason	-	VS	S	R	R	30
Agripro Patton	S	MS	S	R	R	40
Beck 101	R	VS	-	MS	-	40
Beck 103	MR	VS	-	Ms	-	25
Becker	S	VS	MS	VS	R	40
Caldwell	S	VS	VS	S	S	50
Clark	S	VS	VS	MS	R	45
KAS Constitution	R	MS	-	MS	-	45
FFR 522	R	S	S	MR	S	30
FFR 555	S	VS	MS	S	R	40
FFR 558	S	VS	MR	S	S	40
FFR 556	R	S	-	MR	-	30
Glory	S	VS	MR	MS	R	40
Hytest W9850	MS	S	R	MR	R	40
KAS Independence	S	MS	-	MR	-	20
Jackson	S	VS	S	R	S	20
Kaskaskia	MS	VS	-	MR	-	30
KAS Justice	S	VS	MR	MR	MS	45
KAS Patroit	S	VS	S	MR	S	30
KY 86C-61-8	S	VS	S	S	R	50
Madison	S	VS	S	R	R	35
Coker 9474	R	S	S	R	MS	20
Coker 9663	R	S	R	R	MS	10
Patterson	MS	VS	VS	MS	R	40
25R26	VS	VS	MS	R	R	35
2540	MS	VS	MR	R	R	15
2552	S	S	R	R	R	20
2568	MS	S	MR	R	R	25
26R24	MR	S	-	MR	VS	30
Pocahontas	-	VS	VS	R	S	45
KAS Revere	R	S	MR	-	-	30
Roane	MS	VS	S	R	S	20
Stine 455	S	VS	-	MR	-	50
Stine 448	MS	S	-	MR	-	40
Terra 204	S	VS	MR	MS	S	40
Terra 216	R	VS	-	MS	S	30
US6 3209	MS	VS	-	MR	-	20
US6 3408	MR	VS	-	Mr	-	35
US6 EXP 97-41	MS	VS	-	MS	-	20

VS= VERY SUSCEPTIBLE; R= RESISTANT; MR=MODERATELY RESISTANT;
S=SUSCEPTIBLE; MS=MODERATELY SUSCEPTIBLE; (—)-INSUFFICIENT OPPORTUNITY TO RATE IN PRESENCE OF DISEASE.
In general, varieties with a VS or S reaction to a given disease will not perform well if that disease becomes severe, while varieties rated R or MR will perform well in those situations. Varieties with an MS reaction will have an intermediate response.

** Data are insufficient to indicate a specific barley yellow dwarf (BYD) reaction (i.e., VS, R, etc), but varieties with the lowest percent BYD symptom expression are the most likely to perform acceptably if BYD is present.

TABLE 12 CHARACTERISTICS OF BARLEY VARIETIES TESTED IN 1999

VARIETY	PROTECTED	SOURCE	RELEASE DATE	YIELD (BU/AC)	TEST WEIGHT (LB/BU)	LODGING (%)	PLANT HEIGHT (IN)	SURVIVAL (%)	HEADING DATE
WYSOR	Yes	Virginia	1985	107.1	45.7	0.6	34.9	100.0	24-Apr
STARLING	Yes	Virginia	1993	103.6	45.5	13.1	34.8	100.0	25-Apr
PAMUNKEY	Yes	Virginia	1883	102.6	49.5	1.9	32.4	100.0	21-Apr
CALLAO	Yes	Virginia	1994	98.2	46.7	50.3	29.8	100.0	18-Apr

MEAN = 102.9 BU/A
CV = 11.9
LSD(0.05) = 6.8

TABLE 13 BARLEY PERFORMANCE TRIALS FOR BLUEGRASS REGION*, 1997-1999

VARIETY	---YIELD (BU/AC)---				--TEST WT (LB/BU)--				----PCT LODGED-----				---PCT SURVIVAL----				PLANT HEIGHT (IN)	HEADING DATE
	1999	1998	1997	MEAN	1999	1998	1997	MEAN	1999	1998	1997	MEAN	1999	1998	1997	MEAN	1999	1999
WYSOR	122	66	37	75	47.9	44.1	40.6	44.2	3	90	0	31	100	100	100	100	36	25-Apr
STARLING	119	80	21	73	46.3	36.2	42.8	41.8	0	88	0	29	100	100	100	100	35	26-Apr
CALLAO	108	37	46	63	49.3	41.4	47.5	46.1	71	84	0	52	100	100	100	100	30	20-Apr
PAMUNKEY	107	47	37	64	50.8	42.2	45.7	46.2	0	83	0	28	100	100	100	100	34	22-Apr
MEAN	114	57	35	69	48.6	41.0	44.2	44.6	18	86	0	35	100	100	100	100	33	

CV = 4.8
LSD(0.05) = 7.1
* LOCATION: Lexington, Spindletop farm

TABLE 14 BARLEY PERFORMANCE TRIALS FOR WESTERN COAL FIELD REGION*, 1997-1999

VARIETY	---YIELD (BU/AC)--- 1999	1998	1997	MEAN	--TEST WT (LB/BU)-- 1999	1998	1997	MEAN	----PCT LODGED----- 1999	1998	1997	MEAN	---PCT SURVIVAL---- 1999	1998	1997	MEAN	PLANT HEIGHT (IN) 1999	HEADING DATE 1999
PAMUNKEY	102	59	85	82	48.6	49.1	46.5	48.1	8	28	0	12	100	100	100	100	35	20-Apr
WYSOR	87	52	90	76	44.6	44.5	46.8	45.3	0	15	0	5	100	100	100	100	37	23-Apr
STARLING	81	50	88	73	44.7	43.7	44.4	44.3	18	45	0	21	100	100	100	100	38	23-Apr
CALLAO	79	40	97	72	44.5	50.8	48.2	47.8	23	83	0	35	100	100	100	100	32	19-Apr
MEAN	87	50	90	76	45.6	47.0	46.5	46.4	12	43	0	18	100	100	100	100	36	

CV = 7.1
LSD(0.05) = 8.1
* LOCATION: Princeton, limestone soil

TABLE 14a BARLEY PERFORMANCE TRIALS FOR SOUTHERN TIER REGION*, 1997-1999

VARIETY	---YIELD (BU/AC)--- 1999	1998	1997	MEAN	--TEST WT (LB/BU)-- 1999	1998	1997	MEAN	----PCT LODGED----- 1999	1998	1997	MEAN	---PCT SURVIVAL---- 1999	1998	1997	MEAN	PLANT HEIGHT (IN) 1999	HEADING DATE 1999
STARLING	123	62	109	98	44.0	43.1	41.5	42.9	20	21	25	22	100	100	100	100	34	12-Apr
WYSOR	115	52	101	89	44.2	45.4	44.6	44.7	0	4	0	1	100	100	100	100	34	10-Apr
CALLAO	107	59	103	90	48.1	42.2	46.3	45.5	19	80	18	39	100	100	100	100	30	07-Apr
PAMUNKEY	106	67	97	90	48.8	46.8	44.3	46.6	0	14	3	5	100	100	100	100	31	09-Apr
MEAN	112	60	102	92	46.3	44.4	44.2	44.9	10	30	11	17	100	100	100	100	32	

CV = 7.1
LSD(0.05) = 10.4
* LOCATION: Logan county

TABLE 14b BARLEY PERFORMANCE TRIALS FOR SOUTHERN TIER REGION*, 1997, 1999

VARIETY	--YIELD (BU/AC)-- 1999	1998**	1997	MEAN	-TEST WT (LB/BU)- 1999	1998**	1997	MEAN	---PCT LODGED--- 1999	1998**	1997	MEAN	--PCT SURVIVAL-- 1999	1998**	1997	MEAN	PLANT HEIGHT (IN) 1999	HEADING DATE 1999
WYSOR	105		35	70	46.0		39.9	43.0	0		40	13	100		100	100	33	24-Apr
CALLAO	99		40	70	45.0		44.6	44.8	89		85	58	100		100	100	28	19-Apr
PAMUNKEY	96		71	83	49.9		42.9	46.4	0		30	10	100		100	100	30	21-Apr
STARLING	91		43	67	47.0		40.8	43.9	15		23	13	100		100	100	32	25-Apr
MEAN	98		47	72.5	47.0		42.1	44.5	26		44	23	100		100	100	31	22-Apr

CV = 9.4
LSD(0.05) = 1.0
* LOCATION: Warren county
**The 1998 test was destroyed by hail.

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