RESULTS OF THE

Kentucky Small Grain Variety Trials–1969

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UNIVERSITY OF KENTUCKY • AGRICULTURAL EXPERIMENT STATION
Department of Agronomy • Lexington • Progress Report 186

TESTING LOCATIONS OF THE KENTUCKY SMALL GRAIN VARIETY TRIALS

Location	*Cooperator*
1. Murray	Murray State University Agriculture Department
2. Princeton	West Kentucky Substation
3. Bowling Green	Western Kentucky University Agriculture Department
4. Lexington	Kentucky Agricultural Experiment Station

Acknowledgment is made to John Byars, of the Department of Agronomy, and the University of Kentucky Computing Center, for assistance in summarizing the results reported in this progress report.

RESULTS OF THE KENTUCKY SMALL GRAIN VARIETY TRIALS IN 1969

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The purpose of the Kentucky small grain variety trials is to evaluate varieties of wheat, oats and barley which are commercially available or may soon be available to Kentucky farmers. New varieties are continually being developed by the Kentucky Agricultural Experiment Station and commercial firms. Continued testing and evaluation of small grain varieties and selections are essential if farmers, seedsmen and other agricultural workers are to be provided with information to help them select the varieties best adapted to their locality and individual requirements.

Average acre-yield of all small grain grown in Kentucky in 1969 was: wheat, 34 bushels; oats, 44 bushels; and barley 50 bushels per acre. Yields for all three grains were above the 1968 averages. New varieties and an improved growing season were important factors in increasing yields.

This year, the acreage devoted to small grain in Kentucky decreased again by 24,000 acres. However, the value of the crop increased $414,000 over that of the 1968 crop.

New, superior performing varieties, combined with new cropping innovations, should make small grains a more lucrative crop for many Kentucky farmers. Aerial seeding, double cropping and minimum tillage have all increased the potential for small grains in the state. Small grains should fill important gaps in greater usage of cropland and in the realization of maximum returns from each acre of cropland in Kentucky.

EXPERIMENTAL METHODS

The wheat, oat and barley variety trials were conducted at Murray, Princeton, Bowling Green and Lexington in 1969. The response of a variety in one area of the state may differ considerably from that in another, owing to different environmental conditions, soil types and cultural practices. For these reasons, trials are conducted in different areas so that results may be obtained for local conditions.

Data are also collected for a period of years at each location. Since results vary from year to year, two- and three-year results give a more accurate picture of varietal performance than do annual data.

The experimental areas at Lexington and Princeton received no fertilizer treatments and those at Murray and Bowling Green received a broadcast application of a complete fertilizer (N-P-K) in the spring before the plots were seeded in the fall. All areas were fallowed the previous year and a legume cover crop was plowed under prior to the fall seeding.

Each experimental plot consisted of 4 rows 1 foot apart and 13 feet long. Each variety was grown in 4 plots placed at random over the test area, and the results presented in the tables are the average response of the 4 plots. The plots were planted with a specially built 4-row seeder, and the data were taken from a 10-foot section of the 2 center rows of each plot.

Yield

Yields are taken by cutting a 10-foot section of each of the 2 center rows and threshing the grain through a stationary thresher. The weights of each plot are recorded in grams and then converted to bushels per acre.

Lodged

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

Plant Height

Plant height is recorded as the number of inches from the ground to the tip of the upright grain head.

Date Headed

Date headed is reported as the number of days after March 31 at which 50 percent of the heads have emerged from the plants in each plot.

Survival

Survival is recorded as the percentage of plants which are estimated to have survived the winter when fall planted. This is a measure of winter-hardiness and is an important factor to consider when selecting a small grain variety.

Test Weight

Test weight, or the weight of a bushel of grain, is a measure of the quality of grain. The higher the test weight, the higher the quality and the higher the market value, unless the grain has been down-graded because of another quality factor.

INTERPRETATION

It is important to consider characteristics other than yield before choosing a variety, such as—height of straw, lodging resistance, maturity date and grain quality.

Yields reported in these trials should not be considered the maximum potential for the varieties. High fertility was not used so that differential lodging data could be recorded. 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 and should be considered important.

Lodging data are quite 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 heavy wind and rain, may cause a variety to lodge much more than it normally does. It should also be emphasized that a variety reported to be 50 percent lodged does not imply that only 50 percent of the grain can be harvested. With good equipment, it may be expected that almost all of the grain could 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.

For any small grain variety, the ultimate test is how it performs on an individual's farm. Therefore, to make a sound decision, it is wise to plant a few acres of a new variety and then compare it with those presently being grown.

Kentucky Agricultural Experiment Station
1969-70 Recommended Small Grain Varieties

Barley

Barsoy	Harrison	Jefferson
Dayton		Knob

Wheat

Arthur	Blueboy	Monon
Ben Hur	Knox 62	Redcoat

Winter Oats

Compact Norline

Spring Oats

Brave

Certified Seed: Certified seed is seed which has been grown in such a way as to insure 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 diseases. The Experiment Station recommends that Kentucky certified seed be used whenever possible for growing commercial crops of small grains.

Table 1. Three-Year State Average Yields for Wheat, Barley and Oats in 1967-69.

Wheat		Barley		Oats	
Variety	Yield, Bu/A	Variety	Yield, Bu/A	Variety	Yield, Bu/A
Arthur	45.2	Barsoy	56.9	Compact	55.5
Benhur	35.4	Besbar	44.3	Norline	59.4
Blueboy	49.0	Dayton	47.0	Ky 64-9504	56.1
Clarkan	26.9	Harrison	58.4		
Dual	33.4	Jefferson	50.8	Average	57.0
Fulton	32.6	Kenbar	45.2		
Knox	33.4	Knob	50.8		
Knox 62	33.8	Pennrad	44.5		
Lewis	33.8	Rogers	44.7		
Monon	34.1	Schuyler	57.6		
Redcoat	37.4	Will	52.0		
Riley	32.1				
Riley 67	34.6	Average	50.2		
Stadler	34.4				
Triumph	34.8				
Trumbull	24.2				
Vermillion	31.9				
Vigo	31.2				
Average	34.3				

Table 2. Two-Year State Average Yields for Wheat, Barley and Oats in 1968-69.

Wheat		Barley		Oats	
Variety	Yield, Bu/A	Variety	Yield, Bu/A	Variety	Yield, Bu/A
Arthur	47.5	Barsoy	66.5	Compact	51.9
Benhur	38.0	Besbar	48.2	Norline	61.2
Blueboy	53.4	Dayton	56.1	Ky 64-9504	54.0
Clarkan	28.6	Harrison	60.4		
Dual	35.0	Jefferson	58.5	Average	55.7
Fulton	34.3	Kenbar	52.6		
Knox	36.3	Knob	60.0		
Knox 62	36.5	Ky 1	40.6		
Lewis	35.6	Lakeland	68.0		
Monon	39.0	Pennrad	48.8		
Redcoat	40.1	Rogers	45.7		
Riley	36.1	Schuyler	63.7		
Riley 67	37.1	Will	57.5		
Stadler	36.8				
Triumph	35.8	Average	55.9		
Trumbull	26.0				
Vermillion	35.0				
Vigo	33.1				
Average	36.9				

Table 3. Annual State Average Yields for Wheat, Barley and Oats in 1969.

Wheat		Barley		Oats	
Variety	Yield, Bu/A	Variety	Yield, Bu/A	Variety	Yield, Bu/A
Arthur	51.1	Barsoy	71.5	Compact	44.4
Benhur	39.1	Besbar	51.1	Dubois	42.6
Blueboy	52.1	Dayton	59.4	Norline	54.3
Clarkan	32.3	Hanover	67.5	Pennlan	55.1
Dual	38.7	Harrison	63.0	Ky 64-9504	43.1
Fulton	39.8	Jefferson	67.4		
Knox	40.0	Kenbar	55.5	Average	47.9
Knox 62	41.2	Knob	63.8		
Lewis	35.6	Ky 1	42.5		
Logan	46.2	Lakeland	73.6		
Monon	42.1	Pennrad	50.1		
Redcoat	41.6	Rogers	49.8		
Riley	38.4	Schuyler	67.0		
Riley 67	37.7	Will	60.4		
Stadler	39.3				
Timwin	36.5	Average	60.2		
Triumph	38.5				
Trumbull	32.0				
Vermillion	37.2				
Vigo	36.5				
Average	39.8				

Table 4. Three-Year Summary of Wheat Varieties Evaluated at Lexington in 1967-69.

Varieties	Yield, Bu/A	Lodged At Maturity, %	Ht., In.	Date Headed No. Days After March 31	Survival %	Test Wt., Lbs/Bu
Arthur	47.4	29.2	42.3	40.1	100.0	59.8
Benhur	36.0	14.2	39.5	38.4	100.0	59.6
Blueboy	61.2	1.7	38.7	42.9	100.0	55.5
Clarkan	29.7	40.0	50.7	49.4	100.0	58.2
Dual	33.3	35.0	46.8	49.6	100.0	58.1
Fulton	35.2	30.8	47.3	49.0	100.0	58.6
Knox	34.6	39.2	41.7	38.4	100.0	59.2
Knox 62	34.5	55.0	42.9	38.8	100.0	59.2
Lewis	37.3	24.2	40.4	39.7	100.0	57.4
Monon	36.3	42.5	40.6	38.1	100.0	59.0
Redcoat	38.6	20.8	45.8	47.4	100.0	59.5
Riley	36.5	25.8	41.6	42.1	100.0	58.9
Riley 67	36.9	34.2	42.8	41.2	100.0	58.7
Stadler	36.1	30.8	44.5	40.6	100.0	59.8
Triumph	37.4	46.7	40.3	37.9	100.0	59.4
Trumbull	29.4	38.3	48.6	49.7	100.0	57.9
Vermillion	34.1	31.7	44.4	40.3	100.0	59.6
Vigo	30.7	45.8	49.8	48.4	100.0	57.3
Average	37.0	32.5	43.8	42.9	100.0	58.7

Table 5. Three-Year Summary of Wheat Varieties Evaluated at Princeton in 1967-69.

Varieties	Yield, Bu/A	Lodged At Maturity, %	Ht., In.	Date Headed, No. Days After March 31	Survival, %	Test Wt., Lbs/Bu
Arthur	50.0	31.7	39.9	33.5	100.0	58.1
Benhur	40.4	35.0	41.6	32.2	100.0	57.0
Blueboy	48.0	20.0	40.3	37.4	100.0	51.9
Clarkan	25.9	62.5	49.1	43.0	100.0	54.0
Dual	35.5	43.3	46.6	43.3	100.0	56.0
Fulton	31.5	50.0	46.9	43.1	100.0	54.2
Knox	35.2	67.9	43.3	32.5	100.0	57.5
Knox 62	37.4	62.1	43.5	32.2	100.0	57.1
Lewis	34.7	58.3	40.8	33.8	100.0	55.7
Monon	35.3	56.3	42.0	32.9	100.0	56.0
Redcoat	42.0	16.7	47.0	42.2	100.0	56.1
Riley	32.9	57.9	42.2	36.0	100.0	55.0
Riley 67	34.5	60.0	41.8	35.7	100.0	55.5
Stadler	37.2	52.5	43.2	34.6	100.0	56.4
Triumph	35.3	71.7	40.4	31.5	100.0	57.1
Trumbull	23.3	60.0	46.5	44.0	100.0	54.0
Vermillion	34.3	62.1	44.5	35.3	100.0	56.1
Vigo	34.2	60.0	48.8	44.4	100.0	55.3
Average	36.0	51.6	43.8	37.1	100.0	55.7

Table 6. Three-Year Summary of Wheat Varieties Evaluated at Bowling Green in 1967-69.

Varieties	Yield Bu/A	Lodged At Maturity, %	Ht., In.	Survival, %	Test Wt., Lbs/Bu
Arthur	38.3	0.8	34.1	100.0	58.4
Benhur	29.7	5.8	35.8	100.0	57.5
Blueboy	37.8	0.4	36.3	100.0	53.7
Clarkan	25.1	14.6	47.0	100.0	54.4
Dual	31.4	0.0	43.2	100.0	55.1
Fulton	31.0	10.8	46.3	100.0	55.4
Knox	30.3	17.1	41.9	100.0	58.4
Knox 62	29.6	30.8	39.4	100.0	58.3
Lewis	29.6	15.0	36.7	100.0	54.7
Monon	30.8	6.7	37.2	100.0	56.3
Redcoat	31.7	0.8	41.5	100.0	55.4
Riley	26.7	33.3	38.6	100.0	55.6
Riley 67	32.2	19.6	37.8	100.0	56.5
Stadler	29.9	22.5	40.2	100.0	57.0
Triumph	31.7	18.8	37.5	100.0	58.4
Trumbull	19.8	11.7	43.8	100.0	54.3
Vermillion	27.2	17.5	40.8	100.0	57.2
Vigo	28.8	7.5	47.8	100.0	54.2
Average	30.0	13.0	40.3	100.0	56.2

Table 7. Three-Year Summary of Barley Varieties Evaluated at Lexington in 1967-69.

Varieties	Yield Bu/A	Lodged At Maturity, %	Ht., In.	Date Headed, No. Days After March 31	Survival, %	Test Wt., Lbs/Bu
Barsoy	66.5	3.8	33.7	26.2	100.0	48.7
Besbar	49.3	50.6	43.1	37.6	100.0	42.1
Dayton	44.8	71.3	38.5	31.2	91.9	42.1
Harrison	79.0	1.3	40.5	34.5	100.0	48.8
Jefferson	55.9	1.3	42.4	35.7	100.0	46.1
Kenbar	45.5	79.4	37.6	31.9	100.0	43.2
Knob	57.9	6.3	35.3	29.9	97.5	44.9
Pennrad	47.1	68.1	41.6	36.5	100.0	44.5
Rogers	55.3	62.5	38.7	39.5	94.4	45.8
Schuyler	81.1	40.0	36.4	41.7	100.0	45.5
Will	64.3	75.0	38.7	36.3	100.0	46.2
Average	58.8	41.8	38.8	34.6	98.5	45.3

Table 8. Three-Year Summary of Barley Varieties Evaluated at Princeton in 1967-69.

Varieties	Yield Bu/A	Lodged At Maturity, %	Ht., In.	Date Headed, No. Days After March 31	Survival, %	Test Wt., Lbs/Bu
Barsoy	58.7	15.0	31.6	20.7	100.0	47.3
Besbar	35.7	81.3	38.3	32.7	100.0	37.8
Dayton	42.7	79.2	37.2	25.7	100.0	39.1
Harrison	57.8	31.7	38.7	30.6	100.0	48.1
Jefferson	56.2	30.0	39.6	30.7	100.0	43.0
Kenbar	43.7	87.5	36.3	27.4	100.0	43.3
Knob	46.6	44.6	34.1	26.1	100.0	40.7
Pennrad	40.8	86.3	38.9	31.3	100.0	40.2
Rogers	39.4	85.4	36.7	34.0	100.0	42.6
Schuyler	53.5	34.6	32.9	35.9	100.0	40.2
Will	46.4	67.5	36.5	31.3	100.0	42.5
Average	47.5	58.4	36.4	29.7	100.0	42.3

Table 9. Three-Year Summary of Barley Varieties Evaluated at Murray in 1967-69.

Varieties	Yield Bu/A	Lodged At Maturity, %	Ht., In.	Date Headed, No. Days After March 31	Survival, %	Test Wt., Lbs/Bu
Barsoy	52.7	0.0	28.8	14.2	100.0	48.7
Besbar	48.5	5.8	39.6	28.7	100.0	43.2
Dayton	49.9	12.9	34.3	20.8	100.0	46.6
Harrison	51.3	0.0	35.8	27.2	100.0	48.8
Jefferson	46.4	0.0	37.5	26.5	100.0	45.7
Kenbar	46.1	22.1	34.2	22.1	100.0	45.3
Knob	51.0	1.7	31.5	22.8	100.0	44.4
Pennrad	48.6	10.0	36.8	27.4	100.0	46.1
Rogers	37.8	31.7	35.4	29.2	100.0	46.1
Schuyler	49.6	0.0	29.5	32.2	100.0	45.2
Will	46.9	38.8	34.9	28.1	100.0	47.4
Average	48.1	11.2	34.4	25.4	100.0	46.2

Table 10. Three-Year Summary of Barley Varieties Evaluated at Bowling Green in 1967-69.

Varieties	Yield, Bu/A	Lodged At Maturity, %	Ht., In.	Survival, %	Test Wt., Lbs/Bu
Barsoy	49.7	0.0	29.3	100.0	50.8
Besbar	43.9	27.9	38.8	100.0	41.2
Dayton	50.3	38.3	34.8	100.0	39.5
Harrison	45.3	7.9	35.1	100.0	45.1
Jefferson	44.7	0.0	35.9	100.0	44.9
Kenbar	45.3	18.3	31.9	100.0	45.0
Knob	47.9	13.3	31.9	100.0	43.1
Pennrad	41.5	14.6	37.1	100.0	43.1
Rogers	46.2	10.8	35.8	100.0	47.7
Schuyler	46.0	16.7	30.3	100.0	42.6
Will	50.4	12.5	35.4	100.0	46.0
Average	46.5	14.6	34.2	100.0	44.5

Table 11. Three-Year Summary of Oat Varieties Evaluated at Lexington in 1967-69.

Varieties	Yield, Bu/A	Lodged At Maturity, %	Ht., In.	Date Headed, No. Days After March 31	Survival, %	Test Wt., Lbs/Bu
Compact	58.4	0.0	31.4	39.1	55.0	32.0
Norline	73.6	8.8	46.1	34.0	60.8	34.8
Ky 64-9504	56.8	22.5	37.3	45.4	56.7	28.8
Average	62.9	10.4	38.3	39.5	57.5	31.9

Table 12. Three-Year Summary of Oat Varieties Evaluated at Princeton in 1967-69.

Varieties	Yield, Bu/A	Lodged At Maturity, %	Ht., In.	Date Headed, No. Days After March 31	Survival, %	Test Wt., Lbs/Bu
Compact	61.1	64.2	35.4	47.0	92.5	33.3
Norline	53.5	88.8	43.4	46.1	89.2	32.5
Ky 64-9504	57.3	60.4	40.6	52.1	95.8	30.3
Average	57.3	71.1	39.8	48.4	92.5	32.0

Table 13. Three-Year Summary of Oat Varieties Evaluated at Murray in 1967-69.

Varieties	Yield, Bu/A	Lodged At Maturity, %	Ht., In.	Date Headed, No. Days After March 31	Survival, %	Test Wt., Lbs/Bu
Compact	56.8	37.1	29.7	42.0	99.2	34.7
Norline	58.6	62.1	38.4	39.9	99.2	33.7
Ky 64-9504	62.6	31.3	37.2	48.4	99.2	34.0
Average	59.3	43.5	35.1	43.4	99.2	34.1

Table 14. Three-Year Summary of Oat Varieties Evaluated at Bowling Green in 1967-69.

Varieties	Yield, Bu/A	Lodged At Maturity, %	Ht., In.	Survival, %	Test Wt., Lbs/Bu
Compact	45.7	34.2	30.0	100.0	35.9
Norline	51.8	61.3	38.0	100.0	33.7
Ky 64-9504	47.6	43.3	35.2	100.0	33.4
Average	48.4	46.3	34.4	100.0	34.3

Table 15. Two-Year Summary of Wheat Varieties Evaluated at Lexington in 1968-69.

Varieties	Yield, Bu/A	Lodged At Maturity, %	Ht., In.	Date Headed, No. Days After March 31	Survival, %	Test Wt., Lbs/Bu
Arthur	58.0	43.8	43.9	42.3	100.0	59.7
Benhur	44.5	21.3	43.3	41.5	100.0	59.5
Blueboy	76.1	2.5	41.3	45.8	100.0	55.8
Clarkan	34.5	60.0	50.0	49.9	100.0	57.8
Dual	37.2	52.5	48.8	50.0	100.0	57.8
Fulton	40.0	46.3	50.0	49.4	100.0	58.5
Knox	41.3	58.8	44.5	42.0	100.0	59.0
Knox 62	38.9	82.5	44.4	42.8	100.0	58.8
Lewis	41.2	36.3	42.8	43.0	100.0	57.0
Monon	44.9	63.8	43.8	41.7	100.0	58.8
Redcoat	45.6	31.3	49.3	47.9	100.0	59.5
Riley	45.1	38.8	44.1	44.4	100.0	58.6
Riley 67	44.2	51.3	45.0	44.1	100.0	58.3
Stadler	43.7	46.3	47.1	43.8	100.0	59.9
Triumph	43.3	70.0	43.0	41.3	100.0	59.1
Trumbull	34.9	57.5	49.1	50.0	100.0	57.5
Vermillion	39.8	47.5	47.5	43.9	100.0	59.7
Vigo	35.5	68.8	53.1	50.0	100.0	56.9
Average	43.8	48.8	46.2	45.2	100.0	58.5

Table 16. Two-Year Summary of Wheat Varieties Evaluated at Princeton in 1968-69.

Varieties	Yield, Bu/A	Lodged At Maturity %	Ht., In.	Date Headed No. Days After March 31	Survival, %	Test Wt., Lbs/Bu
Arthur	50.5	47.5	44.0	36.9	100.0	58.2
Benhur	42.3	52.5	45.1	35.4	100.0	57.5
Blueboy	48.1	30.0	43.1	42.3	100.0	50.5
Clarkan	22.8	93.8	50.4	44.0	100.0	53.4
Dual	35.0	65.0	48.3	44.6	100.0	55.4
Fulton	27.5	75.0	48.8	44.6	100.0	53.5
Knox	34.5	94.4	45.4	36.1	100.0	57.5
Knox 62	37.4	84.4	46.3	35.6	100.0	57.4
Lewis	34.9	87.5	44.1	37.5	100.0	55.5
Monon	37.1	81.9	44.8	36.1	100.0	56.0
Redcoat	42.0	25.0	49.3	44.3	100.0	56.5
Riley	31.9	86.9	45.0	40.6	100.0	54.2
Riley 67	34.8	88.8	44.9	40.2	100.0	55.2
Stadler	39.9	76.3	46.6	39.1	100.0	56.4
Triumph	34.5	85.0	42.8	34.5	100.0	57.3
Trumbull	21.4	90.0	48.0	45.8	100.0	53.4
Vermillion	34.8	93.1	47.5	39.4	100.0	55.6
Vigo	32.6	90.0	50.3	46.4	100.0	54.5
Average	35.7	74.8	46.4	40.2	100.0	55.5

Table 17. Two-Year Summary of Wheat Varieties Evaluated at Murray in 1968-69.

Varieties	Yield, Bu/A	Lodged At Maturity, %	Ht., In.	Date Headed No. Days After March 31	Survival %	Test Wt., Lbs/Bu
Arthur	36.7	0.0	38.1	31.9	100.0	58.7
Benhur	31.0	0.6	39.3	31.5	100.0	58.9
Blueboy	42.9	0.0	37.0	34.5	100.0	55.8
Clarkan	24.9	27.5	49.3	42.1	100.0	56.3
Dual	29.2	15.6	46.8	43.1	100.0	55.4
Fulton	31.5	14.4	49.0	43.2	100.0	56.7
Knox	31.6	25.0	45.9	31.8	100.0	59.0
Knox 62	32.3	22.5	45.0	31.5	100.0	60.2
Lewis	29.2	6.3	39.8	34.0	100.0	57.8
Monon	34.6	6.3	42.3	31.5	100.0	58.4
Redcoat	37.6	0.0	44.1	40.6	100.0	57.9
Riley	31.8	17.5	42.4	34.6	100.0	57.5
Riley 67	31.2	18.8	41.3	34.6	100.0	57.5
Stadler	29.6	5.0	43.5	34.5	100.0	59.5
Triumph	32.6	15.0	40.4	32.1	100.0	59.4
Trumbull	23.2	33.1	45.5	43.0	100.0	54.7
Vermillion	32.7	10.0	46.3	34.6	100.0	58.7
Vigo	28.6	19.4	49.0	42.9	100.0	55.1
Average	31.7	13.2	43.6	36.2	100.0	57.6

Table 18. Two-Year Summary of Wheat Varieties Evaluated at Bowling Green in 1968-69.

Varieties	Yield, Bu/A	Lodged At Maturity, %	Ht., In.	Survival, %	Test Wt., Lbs/Bu
Arthur	44.7	0.0	37.9	100.0	59.2
Benhur	34.2	6.3	38.0	100.0	58.6
Blueboy	46.3	0.6	39.5	100.0	54.4
Clarkan	32.2	13.1	52.6	100.0	56.3
Dual	38.6	0.0	47.0	100.0	57.0
Fulton	38.0	16.3	51.0	100.0	56.3
Knox	37.9	10.6	46.1	100.0	59.8
Knox 62	37.2	23.8	42.6	100.0	59.7
Lewis	36.9	17.5	40.3	100.0	57.4
Monon	39.4	0.0	39.3	100.0	58.4
Redcoat	35.3	1.3	44.3	100.0	56.9
Riley	35.5	10.0	41.9	100.0	58.0
Riley 67	38.4	28.1	40.9	100.0	57.1
Stadler	34.0	22.5	43.8	100.0	57.9
Triumph	32.5	23.1	39.9	100.0	59.2
Trumbull	24.4	15.0	47.6	100.0	55.7
Vermillion	32.7	8.8	44.4	100.0	58.7
Vigo	35.6	7.5	52.3	100.0	55.7
Average	36.3	11.4	43.8	100.0	57.6

Table 19. Two-Year Summary of Barley Varieties Evaluated at Lexington in 1968-69.

Varieties	Yield, Bu/A	Lodged At Maturity, %	Ht., In.	Date Headed, No. Days After March 31	Survival, %	Tesl Wt., Lbs/Bu
Barsoy	75.2	0.0	33.8	30.7	100.0	48.7
Besbar	56.8	75.0	45.3	40.6	100.0	41.9
Dayton	54.3	85.0	39.1	34.9	91.9	42.3
Harrison	78.7	0.0	40.3	36.4	100.0	48.6
Jefferson	66.5	0.0	42.0	37.6	100.0	46.4
Kenbar	55.7	90.0	38.6	34.8	100.0	43.0
Knob	75.9	5.0	35.4	34.0	97.5	44.9
Ky 1	46.2	90.0	45.0	42.9	100.0	43.7
Lakeland	90.0	0.0	39.1	40.2	100.0	47.1
Pennrad	55.9	90.0	42.5	38.9	100.0	44.4
Rogers	47.5	87.5	38.9	41.5	94.4	45.5
Schuyler	82.1	62.5	36.8	42.6	100.0	45.9
Will	63.9	87.5	39.5	38.9	100.0	46.2
Average	65.3	51.7	39.7	38.0	98.8	45.3

Table 20. Two-Year Summary of Barley Varieties Evaluated at Princeton in 1968-69.

Varieties	Yield, Bu/A	Lodged At Maturity, %	Ht., In.	Date Headed, No. Days After March 31	Survival, %	Test Wt., Lbs/Bu
Barsoy	75.6	13.8	36.0	23.2	100.0	50.8
Besbar	39.3	90.6	43.0	34.6	100.0	39.1
Dayton	55.7	87.5	43.0	27.5	100.0	42.6
Harrison	63.7	41.3	43.8	32.5	100.0	49.6
Jefferson	65.6	42.5	45.5	32.9	100.0	43.9
Kenbar	51.4	97.5	41.6	30.0	100.0	45.9
Knob	57.8	43.1	38.9	29.1	100.0	43.7
Ky 1	33.9	99.4	44.0	35.6	100.0	43.8
Lakeland	69.6	24.4	42.0	35.4	100.0	46.5
Pennrad	46.1	88.1	43.3	34.0	100.0	42.0
Rogers	43.4	90.6	40.3	35.0	100.0	43.5
Schuyler	68.1	39.4	37.6	36.1	100.0	43.4
Will	56.6	77.5	41.0	33.3	100.0	45.1
Average	55.9	64.3	41.5	32.2	100.0	44.6

Table 21. Two-Year Summary of Barley Varieties Evaluated at Murray in 1968-69.

Varieties	Yield, Bu/A	Lodged At Maturity, %	Ht., In.	Date Headed, No. Days After March 31	Survival, %	Test Wt., Lbs/Bu
Barsoy	43.9	0.0	28.1	18.1	100.0	49.4
Besbar	43.3	7.5	39.5	31.1	100.0	44.0
Dayton	48.5	1.9	34.8	23.4	100.0	45.9
Harrison	44.5	0.0	35.4	30.5	100.0	50.0
Jefferson	43.6	0.0	37.8	28.8	100.0	46.9
Kenbar	46.5	10.0	33.9	24.9	100.0	46.6
Knob	43.7	0.0	31.3	25.9	100.0	45.0
Ky 1	34.5	13.8	40.1	33.0	100.0	50.1
Lakeland	43.0	0.0	32.0	31.0	100.0	48.8
Pennrad	43.0	0.0	36.5	29.9	100.0	47.6
Rogers	36.7	6.3	34.5	31.8	100.0	48.5
Schuyler	43.7	0.0	27.8	34.2	100.0	46.5
Will	44.1	11.9	33.8	30.7	100.0	48.1
Average	43.0	3.9	34.2	28.7	100.0	47.5

Table 22. Two-Year Summary of Barley Varieties Evaluated at Bowling-Green in 1968-69.

Varieties	Yield, Bu/A	Lodged At Maturity, %	Ht., In.	Survival, %	Test Wt., Lbs/Bu
Barsoy	71.1	0.0	34.4	100.0	50.8
Besbar	53.5	41.9	42.9	100.0	41.8
Dayton	65.7	45.0	39.5	100.0	43.9
Harrison	54.8	11.9	39.0	100.0	49.9
Jefferson	58.4	0.0	41.1	100.0	46.5
Kenbar	56.7	27.5	36.1	100.0	46.0
Knob	62.4	20.0	36.9	100.0	45.3
Ky 1	47.9	60.6	41.5	100.0	47.0
Lakeland	69.2	0.0	38.8	100.0	50.0
Pennrad	50.3	21.9	41.3	100.0	44.3
Schuyler	60.9	25.0	34.4	100.0	43.7
Will	65.5	18.8	40.9	100.0	46.3
Average	59.3	22.2	38.9	100.0	46.5

Table 23. Two-Year Summary of Oat Varieties Evaluated at Lexington in 1968-69.

Varieties	Yield, Bu/A	Lodged At Maturity, %	Ht., In.	Survival, %	Test Wt., Lbs/Bu
Compact	37.7	0.0	27.5	35.0	30.7
Norline	69.4	0.0	42.0	50.6	34.7
Ky 64-9504	43.9	0.0	34.8	38.8	28.3
Average	50.3	0.0	34.8	41.5	31.2

Table 24. Two-Year Summary of Oat Varieties Evaluated at Princeton in 1968-69

Varieties	Yield Bu/A	Lodged At Maturity, %	Ht., In.	Date Headed, No. Days After March 31	Survival, %	Test Wt. Lbs/Bu
Compact	57.0	85.0	37.9	50.8	97.5	31.2
Norline	53.0	94.4	45.1	49.3	96.3	30.5
Ky 64-9504	53.9	75.6	43.8	54.3	100.0	27.4
Average	54.6	85.0	42.3	51.5	97.9	29.7

Table 25. Two-Year Summary of Oat Varieties Evaluated at Murray in 1968-69.

Varieties	Yield, Bu/A	Lodged At Maturity, %	Ht., In.	Date Headed No. Days After March 31	Survival, %	Test Wt., Lbs/Bu
Compact	59.3	48.1	29.3	44.9	100.0	36.7
Norline	64.9	55.6	39.4	42.5	100.0	35.7
Ky 64-9504	58.5	45.6	35.4	48.8	100.0	34.9
Average	60.9	49.8	34.7	45.4	100.0	35.8

Table 26. Two-Year Summary of Oat Varieties Evaluated at Bowling Green in 1968-69.

Varieties	Yield, Bu/A	Lodged At Maturity, %	Ht., In.	Survival, %	Test Wt., Lbs/Bu
Compact	53.4	49.4	32.5	100.0	36.1
Norline	57.7	51.9	40.8	100.0	34.2
Ky 64-9504	59.7	43.8	38.4	100.0	34.2
Average	56.9	48.3	37.2	100.0	34.8

Table 27. Annual Summary of Wheat Varieties Evaluated at Lexington in 1969.

Varieties	Yield, Bu/A	Lodged At Maturity %	Ht., In.	Date Headed No. Days After March 31	Survival, %	Test Wt., Lbs/Bu
Arthur	63.0	17.5	39.8	44.5	100.0	59.7
Benhur	49.1	10.0	39.0	44.0	100.0	59.3
Blueboy	70.7	0.0	38.5	49.0	100.0	55.6
Clarkan	42.0	32.5	49.5	51.0	100.0	58.5
Dual	46.4	42.5	45.8	51.5	100.0	58.0
Fulton	53.9	12.5	48.3	51.0	100.0	59.8
Knox	49.3	32.5	41.8	44.5	100.0	59.2
Knox 62	44.4	75.0	40.5	45.5	100.0	58.8
Lewis	42.0	22.5	38.8	46.0	100.0	56.5
Logan	61.5	7.5	42.3	49.5	100.0	59.1
Monon	51.2	60.0	39.5	44.5	100.0	58.6
Redcoat	58.6	2.5	46.5	49.5	100.0	60.1
Riley	45.7	37.5	40.5	46.7	100.0	58.4
Riley 67	47.1	35.0	41.3	46.0	100.0	58.2
Stadler	46.9	45.0	43.5	46.0	100.0	59.5
Timwin	46.2	65.0	34.0	49.0	100.0	54.4
Triumph	45.6	50.0	38.3	43.5	100.0	59.1
Trumbull	43.7	27.5	47.5	51.0	100.0	58.1
Vermillion	46.5	40.0	43.0	46.0	100.0	59.5
Vigo	43.4	47.5	51.5	51.0	100.0	57.3
Average	49.9	33.1	41.0	47.5	100.0	58.4

Table 28. Annual Summary of Wheat Varieties Evaluated At Princeton in 1969.

Varieties	Yield, Bu/A	Lodged At Maturity %	Ht., In.	Date Headed, No. Days After March 31	Survival, %	Test Wt., Lbs/Bu
Arthur	63.9	23.8	44.5	36.5	100.0	58.7
Benhur	50.4	28.8	46.5	34.2	100.0	58.0
Blueboy	51.6	31.3	44.5	42.5	100.0	51.5
Clarkan	22.1	97.5	52.5	45.5	100.0	51.8
Dual	35.8	62.5	50.3	45.0	100.0	54.9
Fulton	26.3	87.5	50.0	45.0	100.0	51.6
Knox	39.6	100.0	46.8	36.3	100.0	57.4
Knox 62	45.9	98.8	46.8	35.7	100.0	57.5
Lewis	37.4	100.0	46.0	37.8	100.0	54.7
Logan	39.2	62.5	47.8	45.0	100.0	54.9
Monon	46.6	90.0	46.5	35.7	100.0	56.7
Redcoat	40.1	23.8	51.0	45.0	100.0	55.9
Riley	34.0	98.8	46.8	39.8	100.0	53.3
Riley 67	36.7	95.0	45.8	39.0	100.0	55.3
Stadler	44.9	81.3	47.8	39.3	100.0	55.8
Timwin	34.4	100.0	37.0	42.0	100.0	49.0
Triumph	42.7	97.5	44.3	34.0	100.0	57.6
Trumbull	22.2	100.0	48.8	46.0	100.0	52.6
Vermillion	38.4	98.8	49.0	39.0	100.0	54.7
Vigo	32.8	95.0	51.3	46.0	100.0	54.1
Average	39.3	78.6	47.2	40.5	100.0	54.8

Table 29. Annual Summary of Wheat Varieties Evaluated at Murray in 1969.

Varieties	Yield, Bu/A	Lodged At Maturity %	Ht., In.	Date Headed, No. Days After March 31	Survival, %	Test Wt., Lbs/Bu
Arthur	32.4	0.0	36.0	31.8	100.0	57.8
Benhur	24.9	0.0	34.0	31.0	100.0	57.8
Blueboy	41.1	0.0	35.5	36.0	100.0	55.7
Clarkan	29.5	0.0	47.3	45.0	100.0	56.3
Dual	32.7	0.0	44.5	43.2	100.0	55.6
Fulton	34.1	0.0	46.5	44.8	100.0	55.2
Knox	31.9	0.0	43.0	31.5	100.0	58.6
Knox 62	34.1	0.0	43.0	31.0	100.0	59.9
Lewis	25.4	0.0	34.5	35.5	100.0	56.9
Logan	33.1	0.0	35.0	41.7	100.0	55.7
Monon	32.1	0.0	39.3	31.0	100.0	57.7
Redcoat	32.0	0.0	38.5	40.8	100.0	56.3
Riley	37.5	0.0	39.8	34.8	100.0	57.2
Riley 67	29.4	0.0	37.0	35.2	100.0	56.7
Stadler	28.3	0.0	38.8	35.5	100.0	59.2
Timwin	27.5	0.0	32.0	38.7	100.0	55.9
Triumph	33.5	0.0	38.0	32.2	100.0	58.8
Trumbull	32.7	0.0	43.0	44.8	100.0	56.1
Vermillion	32.6	0.0	42.5	35.7	100.0	58.4
Vigo	31.1	0.0	47.8	43.2	100.0	55.1
Average	31.8	0.0	39.8	37.2	100.0	57.0

Table 30. Annual Summary of Wheat Varieties Evaluated at Bowling Green in 1969.

Varieties	Yield, Bu/A	Lodged At Maturity %	Ht. In.	Survival, %	Test Wt., Lbs/Bu
Arthur	45.0	0.0	35.3	100.0	58.6
Benhur	31.9	0.0	36.0	100.0	58.8
Blueboy	44.9	0.0	37.8	100.0	56.1
Clarkan	35.7	0.0	50.3	100.0	56.7
Dual	39.9	0.0	44.5	100.0	56.6
Fulton	44.8	0.0	48.8	100.0	56.7
Knox	39.1	0.0	43.0	100.0	59.9
Knox 62	40.6	0.0	42.0	100.0	59.7
Lewis	37.6	0.0	38.0	100.0	58.3
Logan	51.0	0.0	39.8	100.0	56.6
Monon	38.5	0.0	36.0	100.0	58.3
Redcoat	35.5	0.0	40.5	100.0	56.4
Riley	36.4	0.0	38.5	100.0	58.1
Riley 67	37.5	0.0	38.3	100.0	57.4
Stadler	37.2	0.0	39.8	100.0	58.7
Timwin	37.9	0.0	32.8	100.0	56.5
Triumph	32.1	0.0	37.3	100.0	59.1
Trumbull	29.3	0.0	47.3	100.0	56.3
Vermillion	31.5	0.0	38.5	100.0	58.3
Vigo	38.7	0.0	50.3	100.0	56.6
Average	38.3	0.0	40.7	100.0	57.7

Table 31. Annual Summary of Barley Varieties Evaluated at Lexington in 1969.

Varieties	Yield, Bu/A	Lodged At Maturity, %	Ht., In.	Date Headed, No. Days After March 31	Survival, %	Test Wt., Lbs/Bu
Barsoy	83.8	0.0	32.5	34.0	100.0	48.5
Besbar	56.1	75.0	42.5	46.0	100.0	41.6
Dayton	53.0	85.0	38.0	38.0	91.3	41.2
Hanover	71.9	12.5	37.0	38.7	80.0	44.4
Harrison	93.1	0.0	40.3	40.2	100.0	48.1
Jefferson	84.8	0.0	41.0	42.3	100.0	46.4
Kenbar	41.5	90.0	37.0	38.0	100.0	41.5
Knob	85.6	5.0	32.8	36.5	100.0	44.6
Ky 1	41.0	90.0	42.5	46.7	100.0	42.7
Lakeland	99.4	0.0	37.3	44.5	100.0	46.5
Pennrad	58.8	90.0	39.0	43.8	100.0	43.7
Rogers	45.7	87.5	38.5	45.2	100.0	44.8
Schuyler	77.5	62.5	36.3	46.0	100.0	45.0
Will	58.3	87.5	37.8	42.8	100.0	45.5
Average	67.9	48.9	38.0	41.6	97.9	44.6

Table 32. Annual Summary of Barley Varieties Evaluated at Princeton in 1969.

Varieties	Yield, Bu/A	Lodged At Maturity, %	Ht., In.	Date Headed, No. Days After March 31	Survival, %	Test Wt., Lbs/Bu
Barsoy	92.4	2.5	36.5	23.0	100.0	52.3
Besbar	47.1	95.0	43.3	35.2	100.0	40.3
Dayton	67.7	77.5	43.0	27.2	100.0	45.2
Hanover	95.3	56.3	42.5	29.5	100.0	45.6
Harrison	75.7	32.5	44.3	32.7	100.0	50.7
Jefferson	88.7	20.0	45.8	33.3	100.0	47.7
Kenbar	65.4	97.5	42.0	30.5	100.0	45.7
Knob	67.5	45.0	39.8	30.3	100.0	43.3
Ky 1	34.6	100.0	45.3	36.5	100.0	43.6
Lakeland	86.5	3.8	41.5	35.7	100.0	47.3
Pennrad	56.6	88.8	43.3	34.5	100.0	44.0
Rogers	53.1	95.0	41.0	34.8	100.0	44.5
Schuyler	81.5	26.3	37.8	36.0	100.0	45.3
Will	67.1	75.0	41.0	33.7	100.0	46.9
Average	69.9	58.2	41.9	32.4	100.0	45.9

Table 33. Annual Summary of Barley Varieties Evaluated at Murray in 1969.

Varieties	Yield, Bu/A	Lodged At Maturity, %	Ht., In.	Date Headed, No. Days After March 31	Survival, %	Test Wt., Lbs/Bu
Barsoy	36.0	0.0	23.3	18.2	100.0	48.7
Besbar	38.6	0.0	35.0	33.5	100.0	44.9
Dayton	45.1	0.0	27.5	24.2	100.0	47.8
Hanover	32.1	0.0	27.0	28.0	100.0	47.6
Harrison	26.2	0.0	28.3	34.0	100.0	49.9
Jefferson	34.3	0.0	33.3	31.0	100.0	47.3
Kenbar	47.6	0.0	29.3	26.2	100.0	46.9
Knob	38.5	0.0	26.8	28.0	100.0	46.0
Ky 1	37.6	0.0	34.0	35.2	100.0	49.2
Lakeland	32.1	0.0	27.8	33.5	100.0	48.0
Pennrad	31.9	0.0	30.8	32.7	100.0	48.5
Rogers	35.5	0.0	30.5	32.7	100.0	48.5
Schuyler	33.4	0.0	21.3	36.8	100.0	46.4
Will	38.7	0.0	30.3	33.0	100.0	47.1
Average	36.3	0.0	28.9	30.5	100.0	47.6

Table 34. Annual Summary of Barley Varieties Evaluated at Bowling Green in 1969.

Varieties	Yield, Bu/A	Lodged At Maturity, %	Ht., In.	Survival, %	Test Wt., Lbs/Bu
Barsoy	73.8	0.0	31.8	100.0	51.4
Besbar	62.5	15.0	40.8	100.0	43.8
Dayton	71.9	0.0	39.5	100.0	46.3
Hanover	70.6	8.8	36.8	100.0	45.6
Harrison	56.8	0.0	38.3	100.0	51.2
Jefferson	61.8	0.0	39.0	100.0	48.0
Kenbar	67.5	0.0	35.8	100.0	45.7
Knob	63.7	0.0	35.3	100.0	46.6
Ky 1	56.6	23.8	40.3	100.0	48.5
Lakeland	76.5	0.0	37.8	100.0	50.1
Pennrad	53.0	23.8	39.3	100.0	44.6
Rogers	64.8	0.0	38.3	100.0	49.7
Schuyler	75.5	0.0	34.0	100.0	44.0
Will	77.3	0.0	39.3	100.0	46.1
Average	66.6	5.1	37.6	100.0	47.3

Table 35. Annual Summary of Oat Varieties Evaluated at Lexington in 1969.

Varieties	Yield, Bu/A	Survival, %	Test Wt., Lbs/Bu
Compact	29.3	10.0	29.4
Dubois	9.5	7.5	32.0
Norline	73.5	32.5	33.9
Pennlan	80.9	36.3	34.7
Ky 64-9504	26.2	13.8	26.4
Average	43.9	20.0	31.3

Table 36. Annual Summary of Oat Varieties Evaluated at Princeton in 1969.

Varieties	Yield, Bu/A	Lodged At Maturity, %	Ht., In.	Date Headed, No. Days After March 31	Survival, %	Test Wt., Lbs/Bu
Compact	48.5	100.0	36.3	51.5	95.0	25.8
Dubois	55.0	100.0	44.0	48.2	95.0	32.8
Norline	44.0	100.0	44.3	49.7	92.5	27.2
Pennlan	34.2	100.0	42.0	47.3	97.5	25.2
Ky 64-9504	48.3	100.0	42.0	53.0	100.0	22.6
Average	46.0	100.0	41.7	49.9	96.0	26.7

Table 37. Annual Summary of Oat Varieties Evaluated at Murray in 1969.

Varieties	Yield, Bu/A	Lodged At Maturity, %	Ht., In.	Date Headed, No Days After March 31	Survival, %	Test Wt., Lbs/Bu
Compact	41.5	0.0	23.5	47.3	100.0	36.7
Dubois	51.6	2.5	32.5	43.2	100.0	36.2
Norline	47.5	13.8	33.8	45.0	100.0	36.7
Pennlan	47.2	78.8	30.0	43.0	100.0	34.6
Ky 64-9504	42.1	0.0	28.0	49.7	100.0	36.8
Average	46.0	19.0	29.6	45.6	100.0	36.2

Table 38. Annual Summary of Oat Varieties Evaluated at Bowling Green in 1969.

Varieties	Yield, Bu/A	Lodged At Maturity, %	Ht., In.	Survival, %	Test Wt., Lbs/Bu
Compact	58.3	0.0	27.0	100.0	37.4
Dubois	54.1	21.3	36.8	100.0	36.5
Norline	52.1	5.0	38.5	100.0	34.8
Pennlan	58.0	0.0	38.0	100.0	34.5
Ky 64-9504	55.9	0.0	34.3	100.0	35.7
Average	55.7	5.3	34.9	100.0	35.8

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