

RESULTS OF
BARLEY OAT AND WHEAT
VARIETAL TESTS
CONDUCTED IN VIRGINIA
IN 1959

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Results of Small Grain Varietal Tests Conducted
in Virginia in 1959^{1/}

Compiled by
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In 1959 Virginia farmers produced 6,600,000 bushels of wheat from 340,000 acres, giving an average yield of 24 bushels per acre. Oat production was 4,560,000 bushels from 127,000 acres, averaging 38 bushels per acre. The production of barley was 4,176,000 bushels from 98,000 acres for an average yield of 36 bushels per acre. The value of these crops, based on prices paid for grain on July 15, 1959, amounted to \$18,643,200.00. This does not include the value of straw or of crops cut for hay or silage.

As a part of the small grain breeding and improvement program conducted by the Virginia Agricultural Experiment Station, small grain performance tests are conducted at eight locations in the State to determine which of the varieties are most suitable for growing in the various regions of the State. Released varieties and experimental strains from breeding programs, both public and private, are included in these tests. Whereas an attempt is made to test all new varieties released in this area, there is no intention to imply that varieties or strains not included in these tests will not perform well in Virginia.

^{1/} The following individuals were responsible for growing the tests and collecting the data at the various test locations: Painter - John G. Rogers; Petersburg - M. T. Carter; Warsaw - H. M. Camper and W. L. Sisson; Charlotte Court House - R. D. Sears; Orange - G. D. Jones; McCormick - W. H. McClure; Emory - F. S. McClaugherty; Blacksburg - J. L. Tramel, T. M. Starling, A. M. Price and C. W. Roane. The data were analyzed under the supervision of Mr. C. Y. Kramer of the Virginia Polytechnic Institute Statistical Laboratory.

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A variety must be tested at several locations in the State for a minimum of two years before it is considered for recommendation to growers. The small grain varietal recommendations for 1960-61, as presented in this report, are based on the data presented herein, as well as data from tests conducted in previous years. The results of the 1959 tests and the two and three year averages for varieties tested for these periods are presented in this report.

Test Locations and Areas of Adaptation

Small grain varietal recommendations are made for three general areas of Virginia: (1) Eastern or Coastal Plain, which includes the test locations of Painter, Petersburg and Warsaw; (2) Middle or Piedmont, which includes the test locations of Charlotte Court House and Orange; (3) Western or West of the Blue Ridge, which includes the test locations of Blacksburg, Emory and McCormick.

The probability of winterkilling is an important factor in determining which varieties to recommend for the various regions of the State. Varieties which perform well in the Coastal Plain area may not have sufficient winter hardiness for the Piedmont and West of the Blue Ridge areas. It can be assumed, however, that varieties recommended for one region of the State will perform well in contiguous areas of other regions.

Growing Season and Other Factors

Moisture at planting time was ample at all locations for germination and establishment of the grains. The stands of some entries in the barley tests were poor, resulting from poor germination of seeds which had been cold water soaked for control of loose smut. Data from all such entries were discarded and are not included in this report.

There was very little winterkilling in the tests in the Coastal Plains. Some varieties or selections of oats and barley were severely winter-killed in tests in the Piedmont and West of the Blue Ridge.

The hot, dry weather which prevailed during the period from heading to maturity undoubtedly reduced yield and quality of some of the grains. The wheat and spring oat crops appeared to have been more severely damaged than the others. The stage of growth of the different varieties at the time of this hot, dry weather was an important factor affecting their relative yield performance.

Powdery mildew was fairly severe on some varieties of wheat and barley at some locations early in the season, but disappeared with the hot, dry weather. Mildew was more severe on oats at Warsaw and Blacksburg than in previous years. Red leaf also was severe on oats at most locations, but was very severe in the southern Piedmont and Coastal Plains. Soil borne mosaic affected some varieties of oats in the test at Charlotte Court House. This was the first time this disease had occurred in the oat tests in Virginia. Leaf rust of wheat and barley and crown rust of oats were very light or absent at all locations. Dry weather may have prevented the establishment of the rusts.

The midwinter planted oat test at Charlotte Court House was not harvested because birds damaged the stands by eating the grain when it was germinating.

The fall planted oat and barley tests at Orange lodged severely early in the season. This probably accounts for the low bushel test weight of most varieties in these tests.

Procedure

Small grain varieties and strains were compared in three-row plots replicated six times in simple randomized block designs. The rows were one foot apart and 20 feet long. A rod-long section of the center row of each plot was harvested to determine yield. The samples were threshed in nursery threshers and grain weights were recorded in grams or hundredths of a pound per plot and yields were converted to bushels per acre. Notes on growth characteristics and diseases were recorded at some locations and are included in this report.

Interpretation of the Data

The yield data presented in this report have been analyzed statistically and the least significant difference (L.S.D.), in terms of bushels per acre, is given at the bottom of each 1959 yield column. Unless the yield difference between two varieties is as great or greater than the L.S.D., the varieties should not be considered as having yielded differently from each other. The regional averages for yield are given where applicable. The data for factors others than yield are averages based on all tests conducted in each region and the number of tests used in computing the averages is indicated in parentheses at the top of each column.

Recommended Varieties

The data included in this report and data from other tests have been used to determine the small grain varietal recommendations for the various regions of Virginia for 1960.

COASTAL PLAIN

PIEDMONT

WEST OF BLUE RIDGE

Spring Oats

Spring Oats are not recommended for this area. If Spring Oats are planted, use one of varieties recommended for the Piedmont

Andrew
Clarion
Logan
Mo. 0-205
Newton

Andrew
Clarion
Logan
Mo. 0-205
Newton

Winter Oats

Arlington
Atlantic (1)
Fulwood (2)
Moregrain (2)
Lee (6)
Victorgrain 48-93 (2)
Woodgrain (2)
Fulgrain (1) (2)

Arlington
Atlantic
Bronco (3) (1) (3)
Forkeddeer (6)
Lee (6)
(Varieties recommended for late winter planting in Coastal Plain may also be used for this purpose in the Piedmont)

Arlington (5)
Atlantic
Bronco
Forkeddeer
Lee (6)

Barley

Davie (semi-bearded)
Dayton (Semi-smooth bearded)
Colonial 2 (semi-bearded)
Hudson (rough-bearded)
Kenbar (semi-smooth bearded)
Wong (semi-bearded)

Davie (4)
Dayton
Hudson
Kenbar
Wong

Dayton
Hudson
Kenbar
Kentucky #1 (rough bearded)
Wong

Wheat

Anderson (smooth)
Atlas 66 (smooth)
Coker 47-27 (smooth)
Seneca (smooth)
Tayland (smooth)
Taylor 49 (smooth)
Thorne (smooth)

Anderson (4)
Atlas 66 (4)
Coker 27-27 (4)
Seneca
Tayland
Taylor 49
Thorne

Dual
Pennoll (1) (smooth)
Seneca
Tayland
Taylor 49
Thorne

- (1) Will be dropped from recommended list after 1959-60.
- (2) Recommended also for late winter (February) planting in Coastal Plain and Piedmont.
- (3) Recommended North of James River only.
- (4) Recommended South of James River only.
- (5) Recommended in Lee County and low elevations of Scott County.
- (6) Formerly listed as Lee Cold Proof.

Table 1 Performance of Barley Varieties Tested in the Coastal Plain in 1959

Variety or Selection	Yield in bushels per acre					Weight per bushel lbs	Date 1/3 Headed	Lodged %	Height Inches
	Peters- burg	Painter	Warsaw	Avg.	Rank				
						(2)	(2)	(2)	(2)
Wong	52.4	70.6	98.1	73.7	1	43.1	4/21	7	45
Hudson	34.8	74.3	93.0	67.4	6	47.2	4/25	1	40
Wong x Bolivia G-38 ^a	41.8	72.3	91.7	68.6	3	41.9	4/20	15	45
Dayton	36.7	84.3	83.3	68.1	4	42.7	4/17	5	38
Marconee	42.0	68.1	93.2	67.8	5	39.8	4/18	26	43
Davie x Harbine 1487 ^a	51.4		85.6			42.0	4/22	4	39
Kenbar x Davie 392 ^a	43.7		95.4			44.7	4/23	3	38
Kenbar	39.5	70.6	83.0	64.4	7	44.0	4/20	4	39
Davie	45.0	77.9	94.1	72.3	2	40.9	4/22	4	43
L.S.D. (.05)	7.8	8.5	9.5						

(a) Experimental Varieties, not commercially available.

() Number in parentheses indicates the number of tests from which data were averaged.

Table 2 Performance of Barley Varieties Tested in the Piedmont in 1959

Variety or Selection	Yield in bushels per acre				Weight per bushel lbs	Date 1/3 Headed	Lodged %	Height Inches	Winter Survival %
	Charlotte C.H.	Orange	Avg.	Rank					
					(2)	(2)	(2)	(2)	(1)
Wong	58.5	45.0	51.8	6	39.0	4/24	52	43	100
Hudson	53.4	45.3	49.4	7	40.0	4/27	51	41	100
Wong x Bolivia G-38 ^a	53.5	51.5	52.5	5	38.0	4/22	28	43	100
Dayton	55.6	55.1	55.4	4	33.0	4/21	67	38	100
Marconee	66.0	46.4	56.2	3	35.0	4/20	56	41	100
Kenbar x Davie 392 ^a	68.8	77.1	73.0	1	40.5	4/25	36	38	100
Kenbar	47.5	49.1	48.3	8	36.5	4/22	45	38	100
Davie	66.6	61.7	64.2	2	38.5	4/26	47	41	98
					Data from Orange				
Davie x Harbine 1487 ^a		84.1			43	4/29	12	34	99
L.S.D. (.05)	7.3	12.6							

(a) Experimental Varieties, not commercially available.

() Number in parentheses indicates the number of tests from which data were averaged.

Table 3 Performance of Barley Varieties Tested West of the Blue Ridge in 1959

Variety or Selection	Yield in bushels per acre					Weight per bushel Lbs (3)	Date 1/3 Headed (2)	Lodged % (3)	Height Inches (3)	Winter Survival % (2)
	Blacksburg	Emory	McCormick	Avg.	Rank					
Wong	69.0	76.4	64.1	69.8	4	43.0	5/2	14	40	93
Ky. #1	71.2	64.6	62.4	66.1	7	42.0	5/1	33	40	95
Hudson	72.7	77.8	67.2	72.6	3	40.0	5/3	9	38	95
Wong x Bolivia G-38 ^a	65.9	81.0	59.9	68.9	5	42.0	5/1	2	43	85
Dayton	79.4	96.4	78.1	84.6	1	39.0	4/26	17	36	91
Marconee	67.5	79.4	55.3	67.4	6	39.5	4/29	22	38	89
Kenbar	77.2	70.1	71.4	72.9	2	38.0	4/30	23	35	94
Blacksburg data only										
Kenbar x Davie 392 ^a	80.0					47.0	5/2	10	37	88
Davie x Harbine 1487 ^a	66.5					45.0	5/1	5	33	89
Davie	67.9					43.0	5/1	8	39	91
L.S.D. (.05)	8.9	18.0	13.9							

(a) Experimental varieties, not commercially available.

() Number in parentheses indicates the number of tests from which data were averaged.

Table 4 Average Performance of Barley Varieties in 1958 and 1959

Variety or Selection	Yield in bushels per acre				Weight per bushel	Date 1/3 Headed	Lodged	Height
	Peters-		Coastal Plain		lbs		%	Inches
	Painter	burg	Warsaw	Avg.	(4)	(4)	(4)	(4)
Wong	51.6	47.7	78.9	59.5	44.0	4/25	14	41
Kenbar	55.9	41.1	80.3	59.1	43.1	4/24	12	36
Hudson	38.3	35.5	81.4	58.4	46.6	4/29	3	38
Davie	59.3	37.7	81.4	59.5	41.7	4/25	10	38
Marconee	52.8	36.2	82.4	57.2	41.7	4/22	30	39
Dayton	63.7	37.9	86.1	62.6	42.6	4/21	9	36
Wong x Bolivia G-38	54.9	39.3	82.3	58.9	43.2	4/26	20	41
	Charlotte		Piedmont		(4)	(4)	(4)	(4)
	C.H.	Orange	Avg.					
Wong	54.4	45.9	50.2	41.5	4/29	29	40	
Kenbar	47.2	56.4	51.8	38.5	4/26	24	35	
Hudson	46.9	54.1	50.5	43.0	5/1	26	38	
Davie	58.0	53.8	55.9	41.0	4/29	25	34	
Marconee	56.2	46.5	51.4	38.7	4/27	32	37	
Dayton	57.3	56.8	57.1	38.2	4/26	36	36	
Wong x Bolivia G-38	50.9	51.4	51.2	40.7	4/28	18	40	
	Blacks-		West of the Blue Ridge		(6)	(3)	(4)	(6)
	burg	Emory	McCor.	Avg.				
Wong	55.0	50.8	38.1	48.0	43.2	5/6	20	36
Kenbar	68.3	55.1	50.8	58.1	40.1	5/3	28	35
Hudson	64.3	61.4	50.6	58.8	43.5	5/7	10	37
Kentucky 1	61.8	46.3	44.5	50.9	43.5	5/7	34	37
Marconee	57.1	51.8	33.4	47.4	40.0	5/3	35	34
Dayton	71.7	64.6	55.4	63.9	41.1	4/30	28	35
Wong x Bolivia G-38	57.2	51.3	36.5	48.3	42.8	5/8	12	38

() Number in parentheses indicates the number of tests from which the data were averaged.

Table 5 Average Performance of Barley Varieties Tested in 1957, 1958 and 1959

Variety or Selection	Yield in bushels per acre				Weight per bushel	Date 1/3 Headed	Lodged %	Height Inches
	Painter	Petersburg	Marsaw	Coastal Plain Avg.	(6)	(6)	(6)	(6)
Wong	49.1	48.1	76.4	57.9	43.3	4/24	10	43
Kenbar	46.5	37.6	72.9	52.3	42.1	4/23	10	37
Hudson	36.3	32.9	77.4	48.9	45.1	4/29	2	38
Davie	57.4	37.4	79.9	58.2	41.0	4/24	7	39
Marconee	45.9	36.4	80.8	54.4	41.0	4/21	24	40
Dayton	56.2	37.5	86.2	60.0	41.8	4/20	7	38
Wong x Bolivia G-38	50.4	36.9	73.7	53.7	42.4	4/25	14	42
			Charlotte	Piedmont				
		Orange	C.H.	Avg.	(6)	(5)	(6)	(6)
Wong		47.3	58.3	52.8	42.0	4/28	23	41
Kenbar		53.4	54.1	53.8	38.5	4/26	17	37
Hudson		51.0	50.0	50.5	43.2	4/29	20	39
Davie		53.3	61.0	57.2	40.5	4/28	16	36
Marconee		45.7	59.8	52.8	39.9	4/26	25	39
Dayton		59.3	62.0	60.7	39.5	4/25	26	38
Wong x Bolivia G-38		50.0	56.4	53.2	40.9	4/27	14	42
				West of the Blue Ridge				
		Emory	McCormick	Avg.	(8)	(4)	(5)	(8)
Wong		45.0	33.1	39.1	41.3	5/5	16	33
Kenbar		50.2	45.1	47.7	39.3	5/2	22	32
Hudson		53.1	42.9	48.0	42.7	5/6	8	33
Marconee		48.6	31.2	39.9	38.6	5/3	28	31
Dayton		58.2	47.2	52.7	39.4	4/29	22	32
Wong x Bolivia G-38		45.5	33.4	39.5	40.8	5/4	9	35
Kentucky		43.5	40.8	42.2	42.3	5/6	27	33

() Number in parentheses indicates the number of tests from which data were averaged.

Table 6 Disease Reaction of Barley Varieties Tested in 1959

Variety or Selection	Scald (1-10)		Smut - 11ds/row				Mildew (1-10)
	Painter	Warsaw	Peters- burg	Warsaw	Blacks- burg	McCormick	Warsaw
Wong	6	1	1	0	0	1	0
Ky. #1					1	0	
Hudson	0	0	4	8	3	2	0
Wong x Bolivia G-38	3	1	0	0	0	0	0
Dayton	3	0	8	5	7	4	T
Marconce	5	0	14	18	11	8	T
Davie x Harbine 1487		0	1	T	1		1
Kenbar x Davie 392		0	4	6	4		T
Kenbar	2	0	3	T	0	0	T
Davie	2	T	0	0	0		0

Table 7 Performance of Fall Oat Varieties Tested in the Coastal Plain in 1959

Variety or Selection	Yield in bushels per acre				Rank	Weight per bushel lbs (2)	Date 1/3 Headed (2)	Lodged % (2)	Height Inches (2)
	Peters- burg	Painter	Warsaw	Avg.					
Bronco	52.2	77.7	63.0	64.3	4	33.7	5/9	6	38
Victorgrain 48-93	55.0	53.8	65.0	57.9	9	35.0	4/28	2	37
Arlington	55.4	56.3	66.0	59.2	7	34.0	5/2	3	44
Suregrain	46.8	62.8	57.6	55.7	11	36.0	4/30	3	31
Moregrain	60.6	60.4	65.4	62.1	5	36.5	4/25	1	33
Lee (Foundation) ^a	60.1	58.9	52.6	57.2	10	36.0	5/6	4	38
Fulwood	66.1	53.1	82.5	67.2	1	36.0	4/28	0	33
Woodgrain	61.6	62.9	75.4	66.6	3	34.5	5/1	1	32
Earlygrain	49.8	38.9	59.8	49.5	14	31.0	4/18	12	36
Fulgrain	42.9	31.1	49.9	41.3	15	35.5	4/26	1	32
Let. x C.L. ² S.Fe-64 ^a	59.6	79.8	60.4	66.6	3	33.5	5/3	6	35
58-34-42 ^a	64.4		66.9			35.0	5/6	14	40
Atlantic	55.4	55.0	64.8	58.4	8	33.5	5/1	7	44
58-32-18 ^a	53.6	42.0	63.0	52.9	12	33.0	4/27	1	36
58-32-28 ^a	51.7	43.0	63.0	52.6	13	34.5	4/28	2	37
Lee (Wood)	62.0	63.3	58.1	61.1	6	35.0	5/6	4	40
58-32-31 ^a	57.6		57.3			36.5	5/4	9	30
58-32-22 ^a	52.6		59.5			34.0	5/8	7	40
58-32-24 ^a	60.5		63.6			33.5	5/6	12	40
58-34-27 ^a	55.0		62.2			33.5	5/7	35	39
Lee (58-30-2) ^a			55.4			34.0	5/10	8	36
L.S.D. (.05)	8.7	11.7	7.9						

(a) Experimental Varieties, not commercially available.

() Number in parentheses indicates the number of tests from which data were averaged.

Table 8 Performance of Fall Oat Varieties Tested in the Piedmont in 1959

Variety or Selection	Yield in bushels per acre				Weight per bushel	Date 1/3 Headed	Lodged %	Height Inches	Winter Survival %
	Charlotte C.H.	Orange	Avg.	Rank					
					(2)	(2)	(2)	(2)	(1)
Bronco	57.5	70.3	63.9	6	29.5	5/11	49	37	100
Victorgrain 48-93	40.4	50.0	45.2	11	31.5	5/3	2	32	36
Arlington	71.5	75.1	73.3	2	31.5	5/6	25	42	92
Moregrain	57.2	25.4	41.3	12	32.5	5/15	7	29	7
Lee (Foundation)	60.5	65.4	62.9	8	32.5	5/9	22	36	96
Fulwood	63.3	73.5	68.4	4	32.5	5/3	5	30	98
58-34-42 ^a	41.0	70.4	55.7	10	31.0	5/9	52	34	99
Atlantic	63.5	71.2	67.3	5	30.5	5/8	29	40	99
58-32-18 ^a	48.9	31.3	40.1	13	31.0	5/3	3	32	9
58-32-28 ^a	44.6	33.6	39.1	14	30.5	5/2	5	33	35
Lee (wood)	60.0	62.4	61.2	9	30.0	5/10	32	35	95
58-32-22 ^a	59.1	77.8	68.4	4	30.5	5/9	33	39	97
58-32-24 ^a	65.7	82.3	74.0	1	30.0	5/8	35	39	96
58-34-27 ^a	58.6	68.4	63.5	7	30.0	5/8	47	38	99
						Charlotte C. H. Data only			
Suregrain	26.4				33.0	5/2	7	22	
Woodgrain	65.2				33.0	5/3	7	30	
Earlygrain	40.4				28.5	4/14	16	29	
Fulgrain	35.2				35.0	4/25	2	26	
Let. x cl. ² S.Fe-64 ^a	56.9				32.0	5/2	1	31	
58-32-31 ^a	47.6				32.0	5/2	13	29	
						Orange Data only			
Lee (58-30-2) ^a		74.7			30.0	5/13	67	39	100
Dubois		71.7			29.0	5/11	92	36	100
Forkedeer		79.0			30.0	5/11	100	39	100
L.S.D. (.05)	13.7	15.3							

(a) Experimental Varieties, not commercially available

() Number in parentheses indicates the number of tests from which data were averaged.

Table 9 Performance of Fall Oat Varieties Tested West of the Blue Ridge in 1959

Variety or Selection	Yield in bushels per acre					Weight per bushel lbs	Date 1/3 Headed	Lodged %	Height Inches	Winter Survival %	Fall Growth % of Lee
	Blacksburg	Emory	McCormick	Avg.	Rank						
						(3)	(2)	(2)	(3)	(2)	(1)
Bronco	68.3	94.6	38.1	67.0	2	32.8	5/18	4	41	86	88
Forkeddeer	60.6	92.2	39.3	64.0	3	32.4	5/17	36	42	84	85
Arlington	53.5	96.3	34.7	61.5	5	33.4	5/14	3	41	42	103
Lee (Foundation)	59.9	70.6	35.9	55.5	12	33.4	5/18	0	40	49	100
Dubois	52.3	89.3	37.7	59.8	7	32.4	5/17	2	38	80	74
Atlantic	61.6	103.0	39.8	68.1	1	32.4	5/13	26	42	68	103
C.I. 7128 ^a	62.3	82.1	29.6	58.0	9	30.2	5/14	0	33	58	93
Lee (wood)	53.3	82.6	49.7	61.9	4	32.9	5/18	4	42	48	100
C.I. 7129 ^a	64.5	81.8	36.2	60.8	6	31.3	5/17	2	42	73	83
C.I. 6904 ^a	63.2	67.0	39.9	56.7	11	30.7	5/20	3	37	71	84
Lee (S.S.)	61.5	70.7	38.9	57.0	10	34.1	5/18	1	42	55	100
C.I. 5106 x C.I. 6537 ^a	57.7	83.9	33.0	58.2	8	28.8	5/7	37	35	64	93
							Blacksburg Data only				
58-32-31 ^a	59.4					34.1	5/11	13	40	88	98
Lee (58-30-2) ^a	63.9					35.9	5/16	0	40	90	98
L.S.D. (.05)	N.S.D. ^b	N.S.D.	N.S.D.								

(a) Experimental Varieties, not commercially available

(b) No significant difference among yields of varieties.

() Number in parentheses indicates the number of tests from which data were averaged.

Table 10 Average Performance of Fall Oat Varieties Tested in the Coastal Plain in 1958 and 1959

Variety or Selection	Yield in bushels per acre				Weight per bushel lbs (4)	Date 1/3 Headed (4)	Lodged % (3)	Height Inches (4)
	Painter	Peters- burg	Warsaw	Avg.				
Lee	60.4	66.0	66.6	64.3	35.7	5/10	4	39
Atlantic	53.4	66.7	68.0	62.7	33.5	5/5	7	42
Arlington	54.4	64.5	73.8	64.2	33.8	5/6	3	42
Bronco	69.1	71.6	74.3	71.7	34.0	5/13	3	39
Victorgrain 48-93	53.8	62.5	71.2	62.5	33.7	5/3	2	36
Fulwood	46.2	64.4	77.5	62.7	35.2	5/2	21	32
Fulgrain	33.1	48.2	58.6	46.6	34.9	5/1	23	32
Suregrain	56.5	61.0	64.1	60.5	34.7	5/4	7	31
Moregrain	55.4	64.1	70.4	63.3	36.1	4/30	2	32
Woodgrain	54.1	63.1	71.7	63.0	34.2	5/6	3	32

Table 11 Average Performance of Fall Oat Varieties Tested in the Coastal Plain in 1957, 1958 & 1959

Variety or Selection	Yield in bushels per acre				Weight per bushel lbs (6)	Date 1/3 Headed (6)	Lodged % (5)	Height Inches (6)
	Peters- burg	Warsaw	Avg.					
Lee	57.4	71.7	64.6	64.6	34.0	5/8	3	38
Atlantic	59.7	76.2	67.9	67.9	33.1	5/3	7	41
Bronco	60.4	69.9	65.2	65.2	33.1	5/12	2	37
Victorgrain	54.2	72.8	63.5	63.5	32.8	5/2	2	34
Fulwood	59.8	81.6	70.7	70.7	34.6	5/1	18	31
Fulgrain	45.1	62.5	53.8	53.8	33.8	4/30	14	32
Suregrain	53.3	65.4	59.4	59.4	34.0	5/3	6	29
Woodgrain	59.5	76.2	67.8	67.8	33.6	5/4	4	31

() Number in parentheses indicates the number of tests from which data were averaged.

Table 12 Average Performance of Fall Oat Varieties Tested in the Piedmont in 1958 and 1959

Variety or Selection	Yield in bushels per acre			Weight Per bushel lbs (4)	Date 1/3		Height Inches (4)
	Charlotte C.H.	Orange	Avg.		Headed (3)	Lodged % (4)	
Arlington	61.3	81.5	71.4	31.7	5/10	33	43
Lee	53.0	74.9	63.9	33.0	5/12	30	39
Atlantic	53.0	72.8	62.9	31.5	5/11	37	41
Bronco	56.5	94.5	75.5	30.9	5/14	49	39
Fulwood	53.9	70.7	62.3	32.7	5/6	6	31
Moregrain	51.8	40.5	46.2	32.5	5/7	7	31
Victorgrain 48-93	36.1	52.3	44.2	31.5	5/6	2	35
Let. x cl. S.Fe 64	50.2						
Forkedeer		91.2					
Dubois		89.0					
Fulgrain	32.8						
Woodgrain	50.0						
Suregrain	25.0						

Table 13 Average Yield of Fall Oat Varieties Tested in the Piedmont in 1957, 1958 and 1959

Variety or Selection	Yield in bushels per acre			Weight Per bushel lbs (6)	Date 1/3		Height Inches (6)
	Charlotte C.H.	Orange	Avg.		Headed (5)	Lodged % (6)	
Lee	43.6	71.2	57.4	33.0	5/9	25	38
Atlantic	45.4	70.8	58.1	31.9	5/7	31	40
Bronco	45.0	83.4	64.2	30.9	5/11	35	37
Fulwood	46.0	67.7	56.9	33.0	5/3	16	32
Victorgrain 48-93	34.1	59.5	46.8	32.2	5/3	4	38
Forkedeer		74.1					
Dubois		71.0					
Fulgrain	29.0						
Woodgrain	43.7						
Suregrain	20.4						

() Number in parentheses indicates the number of tests from which data were averaged.

Table 14 Average Performance of Fall Oat Varieties Tested West of Blue Ridge - 1957, 1958 & 1959

Variety or Selection	Yield in bushels per acre				Weight per bushel lbs (6)	Date 1/3 Headed (4)	Lodged %	Height Inches (6)
	Blacks- burg 58 & 59	Emory 57&59	McCormick 57 & 59	Avg.				
Lee	49.9	74.3	38.5	54.2	33.3	5/20	1	36
Atlantic	48.0	88.0	39.7	58.6	31.8	5/17	14	36
Arlington	48.9							
Forkeddeer	59.1	89.1	44.3	64.2	33.5	5/18	24	37
Bronco	58.5	85.3	39.4	61.1	32.2	5/21	3	35
Dubois	48.4	76.1	34.1	52.9	32.7	5/19	1	32

() Number in parentheses indicates the number of tests from which data were averaged.

Table 15 Disease Reaction of Fall Oat Varieties Tested in 1959

	Red Leaf (1-10)			Mildew (1-10)
	Peters- burg	Warsaw	Charlotte C.H.	Warsaw
Bronco	3	6	1	7
Victorgrain 4893	3	6	3	T
Arlington	3	2	1	5
Suregrain	5	5	3	1
Moregrain	5	4	2	2
Lee (Foundation)	3	4	2	3
Fulwood	6	3	1	3
Woodgrain	2	4	1	4
Earlygrain	3	5	2	1
Fulgrain	2	3	2	3
Let. x cl. ² S.Fe 64	3	3	1	6
58-34-42	3	2	3	2
Atlantic	3	4	1	5
58-32-18	3	6	2	1
58-32-28	3	5	2	1
Lee (wood)	3	4	1	4
58-32-31	4	5	2	3
58-32-22	3	4	1	2
58-32-24	3	4	1	3
58-34-27	4	4	2	2
Lee (58-30-2)		4		4

Table 16 Performance of Midwinter Planted Oats Tested in 1959

Variety or Selection	Yield in bushels per acre					Avg. all Locations	Rank	Weight per bushel	Date 1/3 headed	Lodged %	Height Inches	Winter Survival %	
	Painter	Peters- burg	(Coastal Plain) Warsaw	Avg.	Rank								Piedmont Orange
								(3)	(3)	(3)	(3)	(1)	
Woodgrain	48.4	30.1	67.1	48.5	8	59.2	51.2	7	29.1	5/16	20	26	81
Moregrain	47.8	32.9	68.9	49.9	6	83.8	58.4	2	31.8	5/14	1	27	86
Fulgrain	46.1	27.0	60.6	44.6	9	43.7	44.4	10	29.7	5/13	3	28	53
Lee	37.8	38.0	55.7	43.8	10	61.8	48.3	9	28.9	5/22	22	33	91
Victorgrain 48-93	50.4	35.7	65.9	50.7	3	47.2	49.8	8	28.9	5/16	1	30	67
Fulwood	52.1	32.3	65.4	49.9	6	57.6	51.8	6	30.1	5/15	6	26	78
Suregrain	60.0	38.6	67.5	55.4	1	80.7	61.7	1	30.3	5/15	1	27	91
Andrew	57.7	30.7	67.9	52.1	2	55.5	52.9	5	30.1	5/16	10	37	64
Arlington	46.4	32.7	69.2	49.4	7	66.9	53.8	4	30.8	5/16	10	37	90
Mo. 0-205	51.0	33.0	67.8	50.6	4	69.6	55.3	3	30.5	5/17	1	38	81
L.S.D. (.05)	7.2	4.9	7.8			17.3							

() Number in parentheses indicates the number of tests from which data were averaged.

Table 17 Average Performance of Midwinter Planted Oats Tested in 1958 and 1959

Variety or Selection	Yield in bushels per acre					Avg. All Locations	Weight per bushel lbs	Date 1/3 Headed	Lodged %	Height Inches
	Coastal plain			Piedmont						
	Painter	Peters-burg	Warsaw	Avg.	Orange					
Moregrain	37.2	40.6	64.7	47.5	70.6	53.3	31.4	5/25	7	28
Fulgrain	32.6	30.9	58.9	40.8	37.9	40.1	28.5	5/24	9	30
Woodgrain	35.2	37.1	63.8	45.4	47.7	45.9	28.8	5/26	19	27
Lee	33.3	39.9	56.7	43.3	57.4	46.8	29.1	5/27	15	34
Victorgrain 48-93	35.0	43.5	56.3	44.9	43.9	44.7	29.3	5/26	12	30
Fulwood	37.2	37.8	63.2	46.1	48.3	46.6	30.3	5/26	10	27
Suregrain	42.7	41.3	64.5	49.5	70.7	54.8	30.0	5/26	6	28
Andrew	41.4	38.6	64.8	48.3	57.8	50.7	29.2	5/26	19	36
Arlington	35.9	43.7	64.8	48.1	55.6	50.0	30.6	5/26	24	36
Mo. 0-205	39.4	39.1	62.3	46.9	59.1	50.0	29.9	5/24	9	37

Table 18 Average Performance of Midwinter Planted Oats Tested in 1957, 1958 and 1959

Variety or Selection	Yield in bushels per acre					Avg. All Locations	Weight Per bushel lbs	Date 1/3 Headed	Lodged %	Height Inches
	Coastal Plain			Piedmont						
	Peters-burg	Warsaw	Avg.	Orange						
Fulgrain	23.9	42.9	33.4	35.7	34.2	28.5	5/22	13	27	
Woodgrain	27.7	44.7	36.2	41.9	38.1	29.0	5/23	19	24	
Lee	36.0	44.0	40.0	50.0	43.3	29.1	5/26	11	32	
Victorgrain 48-93	32.3	42.3	37.3	40.6	38.4	30.0	5/23	17	27	
Fulwood	28.0	44.7	36.4	42.9	38.5	30.4	5/24	15	25	
Suregrain	31.0	48.7	39.9	57.7	45.8	30.3	5/23	4	25	
Andrew	30.8	49.1	39.9	48.6	42.8	29.1	5/22	16	33	
Arlington	33.4	48.8	41.1	47.6	43.3	29.9	5/21	24	32	
Mo. 0-205	29.9	45.4	37.7	50.0	41.8	30.0	5/21	8	34	

() Number in parentheses indicates the number of tests from which data were averaged.

Table 19 Performance of Spring Oat Varieties Tested in 1959

Variety or Selection	Yield in Bushels per acre												
	Piedmont			West of Blue Ridge				Avg. All Locations	Rank	Weight per bushel lbs	Date 1/3 Headed	Lodged %	Height Inches
	Charlotte C.H.	Orange	Avg.	Blacksburg	Emory	McCormick	Avg.						
Andrew	38.5	60.1	49.3	62.5	73.2	34.2	56.6	53.7	6	29.6	5/26	6	39
Mo. 0-205	36.6	59.9	48.2	63.0	84.9	49.2	65.7	58.7	4	29.8	5/29	5	40
Newton	36.0	53.2	44.6	59.2	80.9	41.9	60.7	54.3	5	31.5	5/30	7	38
Clarion	26.1	54.2	40.1	53.6	57.5	39.2	50.1	46.1	9	30.8	5/31	6	39
Beedee	34.1	51.1	42.6	64.3	61.3	34.7	53.4	49.1	7	32.6	5/30	4	38
Putnam	34.1	55.9	45.0	69.7	89.9	44.6	68.1	58.9	3	30.4	5/24	4	37
Logan	42.1	57.6	49.8	62.4	89.8	46.4	66.2	59.6	2	30.1	5/28	3	39
Imp. Garry	27.5	45.5	36.5	58.3	71.0	38.7	56.0	48.2	8	26.9	6/3	6	39
Dupree	41.5	53.5	47.5	71.7	87.1	51.6	70.1	61.1	1	29.2	5/25	10	36
Clintland 60	27.2	51.9	39.5	44.9	60.7	31.6	45.7	43.2	10	29.2	5/31	3	36
Blacksburg and Orange Data													
Orange 7 ^a		53.2		67.8	79.4		73.6			28.7	5/28	6	40
58-70-1 ^a		51.8		53.2						29.8	5/26	0	37
58-70-4 ^a		54.0		58.6						28.3	5/27	0	38
58-70-6 ^a		56.1		67.9						33.5	5/25	0	35
58-71-2 ^a		52.8		62.8						32.4	5/29	3	40
58-71-5 ^a		56.3		59.2						30.7	5/28	0	35
58-71-10 ^a		48.1		57.5						32.0	5/31	2	39
58-71-13 ^a		59.0		66.2						30.0	5/27	0	35
58-71-17 ^a		50.8		62.1						31.4	5/25	0	36
58-71-21 ^a		57.8		61.0						32.1	5/28	2	40
58-71-22 ^a		58.7		70.1						32.0	5/26	0	34
58-71-28 ^a		54.2		58.1						32.1	5/28	0	37
58-71-29 ^a		59.7		54.8						31.4	5/28	9	42
58-71-32 ^a		57.4		60.6						29.7	5/29	3	37
58-71-1 ^a		60.8		57.3						31.8	5/27	8	40
L.S.O. (.05)	7.4	7.3		5.9	13.8	8.1							

(a) Experimental Varieties, not commercially available.

() Number in parentheses indicates the number of tests from which data were averaged.

Table 20 Average Performance of Spring Oats Tested in 1958 and 1959

Variety or Selection	Yield in bushels per acre							Avg. All Locations	Weight per bushel lbs	Date 1/3 Headed	Lodged %	Height Inches
	Piedmont			West of Blue Ridge								
	Charlotte C.H.	Orange	Avg.	Blacksburg	Emory	McCormick	Avg.					
Beedee	27.0	45.1	36.1	57.4	47.0	30.6	45.0	41.4	32.8	6/5	9	33
Mo. 0-205	30.2	48.4	39.3	56.3	57.3	39.1	50.9	46.3	30.8	6/3	4	34
Andrew	33.1	49.6	41.4	60.4	49.5	33.0	47.6	45.1	30.6	6/1	17	34
Newton	30.2	46.5	38.4	60.1	55.1	36.0	50.4	45.6	33.0	6/4	4	33
Putnam	27.2	45.8	36.5	61.9	57.0	36.3	51.7	45.6	30.7	5/30	3	33
Logan	34.8	50.5	42.6	61.1	63.0	39.2	54.4	49.7	30.4	6/3	4	35
Improved Garry	20.7	35.2	27.9	59.1	56.3	32.5	49.3	40.8	27.1	6/7	3	35
Clarion	26.2	46.6	36.4	50.5	45.3	34.6	43.5	40.6	31.2	6/6	3	35
Dupree	36.6	47.9	42.3	65.5	60.4	43.8	56.6	50.8	29.9	6/3	8	32
Clintland 60	21.5	41.5	31.5	45.5	42.3	31.4	39.7	36.4	30.3	6/5	2	32
Orange VII		46.2		61.0								

Table 21 Average Performance of Spring Oats Tested in 1957, 1958 and 1959

Variety or Selection	Yield in bushels per acre							Avg. All Locations	Weight Per bushel lbs	Date 1/3 Headed	Lodged %	Height Inches
	Piedmont			West of Blue Ridge								
	Charlotte C.H.	Orange	Avg.	Emory	McCormick	Avg.						
Beedee	26.5	39.6	33.1	43.8	29.1	36.5	34.8	32.0	32.0	6/2	9	31
Mo. 0-205	25.9	41.7	33.8	50.3	36.2	43.3	38.5	30.4	30.4	5/31	4	32
Andrew	30.2	42.0	36.1	43.1	32.2	37.7	36.9	29.9	29.9	5/31	15	32
Newton	25.2	39.3	32.3	45.8	34.6	41.9	37.1	30.9	30.9	6/1	5	30
Clarion	26.0	40.3	33.2	42.4	33.5	37.9	35.5	30.4	30.4	6/3	3	32
Orange VII		40.7										

() Number in parentheses indicates the number of tests from which data were averaged.

Table 22 Performance of Wheat Varieties Tested in the Coastal Plain in 1959

Variety or Selection	Yield in bushels per acre				Rank	Weight per bushel lbs	Date 1/3 Headed	Lodged %	Height Inches
	Painter	Peters- burg	Warsaw	Avg.					
Vahart	36.7	27.6	40.1	34.8	18	(2) 59.6	(2) 5/8	(2) 1	(2) 50
Seneca	39.9	29.8	36.4	35.4	15	(2) 58.2	(2) 5/10	(2) 0	(2) 48
Leapiand	39.5	30.1	40.9	36.8	14	(2) 58.6	(2) 5/8	(2) 1	(2) 50
Pennoll	38.1	26.0	33.4	32.5	19	(2) 58.5	(2) 5/13	(2) 0	(2) 50
Atlas 66	42.8	29.3	42.7	38.3	11	(2) 57.1	(2) 5/6	(2) 1	(2) 47
Anderson	36.7	29.4	38.5	34.9	17	(2) 57.9	(2) 5/8	(2) 1	(2) 51
Redhart	44.1	25.2	46.1	38.5	10	(2) 57.6	(2) 5/13	(2) 7	(2) 46
Coker 47-27	45.9	32.5	47.2	41.9	3	(2) 58.6	(2) 5/6	(2) 1	(2) 50
Coker 55-3	39.5	28.2	43.5	37.1	13	(2) 56.0	(2) 5/8	(2) 2	(2) 46
Taylor 49	47.1	31.6	43.5	40.7	5	(2) 57.3	(2) 5/7	(2) 2	(2) 46
Tayland	46.6	32.3	39.8	39.6	6	(2) 57.5	(2) 5/9	(2) 1	(2) 48
Vermillion	45.3	25.8	40.7	37.3	12	(2) 58.6	(2) 5/15	(2) 5	(2) 44
Dual	43.7	22.7	39.4	35.3	16	(2) 55.1	(2) 5/10	(2) 1	(2) 43
55-39-30 ^a	42.0	29.8	45.8	39.2	8	(2) 58.2	(2) 5/9	(2) 1	(2) 47
55-39-23 ^a	40.8	31.0	44.5	38.8	9	(2) 57.8	(2) 5/9	(2) 1	(2) 47
55-16-38 ^a	46.9	31.0	48.2	42.0	2	(2) 57.7	(2) 5/9	(2) 0	(2) 47
55-16-16 ^a	43.8	32.2	48.1	41.4	4	(2) 57.9	(2) 5/9	(2) 0	(2) 47
57-43-1 ^a	46.2	35.7	48.2	43.4	1	(2) 58.1	(2) 5/8	(2) 1	(2) 49
58-16-4 ^a	41.9	28.2	48.5	39.5	7	(2) 57.6	(2) 5/9	(2) 0	(2) 47
L.S.D. (.05)	4.2	3.6	4.2						

(a) Experimental Varieties, not commercially available.

() Number in parentheses indicates the number of tests from which data were averaged.

Table 23 Performance of Wheat Varieties Tested in the Piedmont in 1959

Variety or Selection	Yield in bushels per acre				Weight per bushel lbs	Date 1/3 Headed	Lodged %	Height Inches
	Charlotte C.H.	Orange	Avg.	Rank				
					(2)	(2)	(1)	(2)
Vahart	28.3	32.5	30.4	17	60.0	5/9	5	49
Seneca	30.7	39.3	35.0	7	59.0	5/11	0	49
Leapland	30.2	32.2	31.2	14	59.5	5/9	3	48
Pennoll	27.3	35.0	31.1	15	60.0	5/12	2	50
Atlas 66	30.5	30.8	30.6	16	58.0	5/8	6	45
Anderson	34.2	29.6	31.9	12	58.0	5/9	5	50
Redhart	25.1	30.7	27.9	18	59.0	5/3	78	45
Coker 47-27	33.3	35.7	34.5	8	59.5	5/7	5	48
Coker 55-3	20.8	30.2	25.5	19	57.0	5/9	8	45
Taylor 49	34.5	36.5	35.5	5	58.0	5/9	21	45
Tayland	30.5	38.6	34.5	8	58.0	5/10	3	48
Vermillion	25.2	39.5	32.3	11	60.0	5/4	33	43
Dual	25.2	37.0	31.1	13	58.0	5/11	0	44
55-39-30 ^a	32.1	38.8	35.4	6	59.0	5/10	0	45
55-39-23 ^a	32.7	38.8	35.7	4	59.0	5/9	1	48
55-16-38 ^a	33.6	38.3	35.9	3	59.0	5/10	1	45
55-16-16 ^a	34.3	38.3	36.3	2	59.0	5/10	1	47
57-43-1 ^a	37.1	38.7	37.9	1	60.0	5/8	2	48
58-16-4 ^a	31.5	36.7	34.1	10	59.0	5/10	1	46
L.S.D. (.05)	4.9	4.8						

(a) Experimental Varieties, not commercially available.

() Number in parentheses indicates the number of tests from which data were averaged.

Table 24 Performance of Wheat Varieties Tested West of the Blue Ridge in 1959

Variety or Selection	Yield in bushels per acre					Weight per bushel lbs	Date 1/3 Headed	Lodged %	Height Inches	Winter Survival %
	Blacks-burg	Emory	McCormick	Avg.	Rank					
						(3)	(2)	(2)	(3)	(1)
Vahart	47.7	21.3	31.2	33.4	15	59.0	5/17	7	50	93
Seneca	52.6	32.5	30.1	38.4	9	59.0	5/19	0	50	93
Leapland	55.4	27.7	32.5	38.5	8	59.0	5/17	21	51	94
Pennoll	48.8	17.8	26.4	31.0	16	59.0	5/21	10	52	88
Anderson	54.0	26.8	32.6	37.8	10	57.5	5/18	2	52	93
Redhart	50.5	29.7	32.1	37.4	11	58.5	5/11	42	48	93
Taylor 49	50.0	32.1	35.2	39.1	7	58.5	5/16	4	48	93
Tayland	48.7	30.8	29.4	36.3	13	58.5	5/18	3	50	92
Vermillion	41.7	37.6	25.6	35.0	14	58.0	5/13	44	46	90
Dual	49.3	28.8	32.8	37.0	12	57.5	5/19	7	47	93
55-39-30 ^a	50.9	31.6	43.1	41.9	4	59.0	5/17	1	50	93
55-39-23 ^a	52.4	26.1	45.3	41.3	5	58.5	5/18	2	49	94
55-16-38 ^a	52.7	31.6	44.0	42.8	3	59.5	5/19	1	50	93
55-16-16 ^a	55.0	27.8	45.5	42.8	3	57.5	5/18	1	50	93
57-43-1 ^a	51.2	33.4	38.3	41.0	6	59.0	5/17	9	49	93
58-16-4 ^a	54.6	29.0	46.6	43.4	1	59.0	5/19	1	50	93
L.S.D. (.05)	4.8	6.7	6.7							

(a) Experimental Varieties, not commercially available.

() Number in parentheses indicates the number of tests from which data were averaged.

Table 25 Average Performance of Wheat Varieties Tested in Coastal Plain in 1958 and 1959

Variety or Selection	Yield in bushels per acre				Weight per bushel lbs	Date 1/3 Headed	Lodged %	Height Inches
	Painter	Peters- burg	Warsaw	Avg.				
					(4)	(4)	(4)	(4)
Vahart	28.7	31.7	36.0	32.1	59.4	5/13	4	49
Seneca	32.2	34.9	33.9	33.7	58.2	5/15	3	47
Leapland	30.0	33.5	38.7	34.1	58.5	5/13	6	49
Pennoll	30.1	32.2	33.0	31.8	58.2	5/17	5	49
Anderson	28.9	32.7	34.9	32.2	57.8	5/12	8	50
Redhart	32.6	33.8	39.7	35.4	57.7	5/11	7	45
Taylor 49	33.9	35.9	37.8	35.9	57.6	5/12	2	44
55-39-30 ^a	34.4	33.9	38.5	35.6	57.9	5/14	2	46
55-39-23 ^a	33.3	34.5	37.8	35.2	57.3	5/14	2	46
Tayland	35.5	36.1	37.2	36.3	57.5	5/12	6	47
Vermillion	33.9	34.0	34.7	34.2	58.3	5/14	5	43
Dual	34.8	34.0	36.2	35.0	55.7	5/14	2	43
Coker 47-27	33.5	34.7	39.0	35.7	58.6	5/10	2	49
Coker 55-3 ^a	29.6	30.8	37.5	32.6	57.1	5/13	3	46
Atlas 66	31.1	31.6	36.4	33.0	56.8	5/10	6	45
57-43-1 ^a	35.5	37.6	38.5	37.2	57.9	5/13	2	47
55-39-38 ^a	35.5	32.5	41.2	36.4	58.0	5/14	1	45
55-39-16 ^a	33.5	34.3	40.3	36.0	58.0	5/14	1	46

(a) Experimental Varieties, not commercially available.

() Number in parentheses indicates the number of tests from which data were averaged.

Table 26 Average Performance of Wheat Varieties Tested in Piedmont in 1958 & 1959

Variety or Selection	Yield in bushels per acre			Weight per bushel lbs (4)	Date 1/3 Headed (3)	Lodged % (3)	Height Inches (4)
	Charlotte C.H.	Orange	Avg.				
Vahart	32.2	33.3	32.8	59.2	5/13	10	48
Seneca	32.3	38.4	35.4	59.1	5/14	13	48
Leapland	34.1	37.0	35.6	58.9	5/12	18	48
Pennoll	32.1	38.4	35.3	59.6	5/15	23	50
Atlas 66	32.8	28.0	30.4	57.0	5/12	9	43
Anderson	34.7	33.0	33.9	58.2	5/13	13	49
Redhart	29.9	26.9	28.4	58.7	5/8	43	44
Coker 47-27	37.7	29.1	33.4	58.7	5/11	6	46
Coker 55-3	25.8	31.9	28.9	57.5	5/13	7	45
Taylor 49 ^a	34.8	32.7	33.8	57.6	5/13	22	45
55-39-30 ^a	33.3	38.5	35.9	58.5	5/14	8	46
55-39-23 ^a	34.1	37.9	36.0	58.5	5/13	10	47
57-43-1 ^a	39.9	39.1	39.5	59.6	5/12	13	47
55-39-38 ^a	33.2	39.0	36.1	58.5	5/14	12	46
55-39-16 ^a	34.2	39.2	36.7	58.7	5/14	13	47
Tayland	34.1	37.8	36.0	57.5	5/14	12	47
Vermillion	27.8	38.1	33.0	59.3	5/8	22	42
Dual	31.0	37.8	34.4	57.3	5/14	7	44

(a) Experimental Varieties, not commercially available.

() Number in parentheses indicates the number of tests from which data were averaged.

Table 27 Average Performance of Wheat Varieties Tested West of the Blue Ridge in 1958 & 1959

Variety or Selection	Yield in bushels per acre				Weight per bushel lbs (6)	Date 1/3 Headed (4)	Lodged % (4)	Height Inches (6)
	Blacks- burg	Emory	McCormick	Avg.				
Vahart	43.2	25.4	22.9	30.5	58.9	5/22	5	49
Seneca	45.9	33.0	23.6	34.2	58.2	5/24	1	47
Leapland	52.0	29.1	23.7	34.9	58.7	5/22	12	49
Pennoll	46.8	21.7	22.4	30.3	58.4	5/25	5	50
Anderson	49.4	29.7	24.1	34.4	57.9	5/23	2	51
Redhart	42.8	20.7	22.5	28.7	58.5	5/17	23	46
Taylor 49	42.4	29.2	26.5	32.7	58.1	5/22	2	45
55-39-30 ^a	47.8	32.8	29.9	36.8	58.3	5/23	1	47
55-39-23 ^a	47.9	29.3	31.1	36.1	58.1	5/23	3	47
57-43-1 ^a	50.0							
55-39-38 ^a	51.2	31.5	31.0	37.9	58.7	5/23	1	47
55-39-16 ^a	51.9	27.2	32.5	37.2	57.8	5/22	1	47
Tayland	44.4	34.6	21.5	33.5	57.8	5/23	3	49
Vermillion	40.5	35.3	20.4	32.1	58.4	5/19	29	44
Dual	46.9	33.7	25.2	35.3	56.9	5/24	5	45

(a) Experimental Varieties, not commercially available.

() Number in parentheses indicates the number of tests from which data were averaged.

Table 29 Average Performance of Wheat Varieties Tested West of the Blue Ridge in 1957, 1958 & 1959

Variety or Selection	Yield in bushels per acre				Weight per bushel	Date 1/3 Headed	Lodged %	Height Inches
	Blacks- burg	Emory	McCor- mick	Avg.	(8) lbs	(5)	(6)	(8)
Seneca	39.7	29.5	24.6	31.3	57.6	5/22	1	43
Pennoll	39.9	20.7	22.5	27.7	57.7	5/24	5	44
Anderson	39.7	26.6	22.6	29.6	57.6	5/21	1	46
Taylor 49	37.8	28.9	29.2	32.0	57.8	5/20	2	42
55-39-30 ^a	42.2	28.4	33.8	34.8	58.2	5/21	1	43
55-39-23 ^a	40.8	25.0	33.0	32.9	58.1	5/21	1	43
Tayland	39.6	32.0	24.6	32.1	57.6	5/21	2	45
Vermillion	35.3	30.5	22.4	29.4	58.3	5/18	20	41
Dual	40.2	29.9	26.9	32.3	56.6	5/22	4	41

(a) Experimental Varieties, not commercially available.

() Number in parentheses indicates the number of tests from which data were averaged.

Table 30 Disease Reaction of Wheat Varieties Tested in 1959

Variety or Selection	Smut - Hds/row					Mildew (1-10)				Leaf Rust (1-10)
	Peters- burg	Warsaw	Painter	Blacks- burg	McCormick	Peters- burg	Warsaw	Charlotte C.H.	McCormick	Peters- burg
Vahart	2	1	1	2	0	1	2	2	3	T
Seneca	7	4	4	7	2	3	4	3	5	I
Leapland	0	1	1	1	1	2	3	3	4	T
Pennoll	3	0	1	0	1	2	3	5	6	I
Atlas 66	2	2	2			T	T	1		0
Anderson	0	0	0	1	0	1	1	2	3	T
Redhart	0	0	0	0	0	T	T	3	3	0
Coker 47-27	0	0	0			T	T	2		T
Coker 55-3	3	7	2			0	T	1		0
Taylor 49	0	0	0	0	0	3	3	4	5	T
Tayland	1	1	1	1	0	3	4	5	6	T
Vermillion	4	2	3	3	0	4	5	6	8	0
Dual	4	4	4	5	2	2	4	3	7	T
55-39-30	18	10	17	18	3	0	T	T	2	0
55-39-23	17	11	10	12	9	0	T	T	1	0
55-16-38	5	3	7	3	2	0	T	T	2	0
55-16-16	6	5	7	5	4	0	T	T	1	0
57-43-1	4	2	8	5	0	T	T	3	4	T
58-16-4	3	3	5	2	1	0	T	T	2	0

Parentage of Certain Experimental Varieties of Small Grain
Tested in Virginia in 1959

Barley

W x B G-38 - Wong x Bolivia

Fall Oats

Lee (58-30-2) - Selection from Lee
58-34-42 - Forkedeer x (S.Fe - Clinton
58-32-18 - Victorgrain x (Bonda-Hajira x S.Fe)
58-32-28 - " " "
58-32-31 - Tech x (Santa Fe - Clinton)
58-32-22 - Forkedeer x (S.Fe - Clinton)
58-32-24 - Atlantic x Forkedeer
58-34-27 - Forkedeer x (S.Fe - Clinton)
C. I. 7129 - Wintok x Traveler
C. I. 6904 - (Lee x Victoria) x Forkedeer²
C. I. 5106 x C.I. 6537 - Cimarron x C. I. 6537
C. I. 7128 - Cimarron x Traveler

Spring Oats

Orange 7 - Vanguard x (D-69 x Bond)
58-70-1 - C.I. 6625, Columbia x Marion
58-70-4 - C.I. 7154, (Markton - Rainbow) x (D69-Bond), Iowa 53-6899
58-70-6 - C.I. 7192, Early Clinton, Okla. 5111635
58-71-1 - (Sac - Hajira - Joannette, 4567) x (Anthony - Bond - Boone, 4089-5)
58-71-2 - (" " " ") x (Anthony - Bond - Boone)
58-71-5 - Clinton x (A.B.B.)
58-71-10 - (A.B.B.) x (S.H.J.)
58-71-13 - Landhafer x (S.H.J., 4330)
58-71-17 - (Clint. - A.B.B.) x (S.H.J. x S.Fe - Clint.)
58-71-21 - (S.H.J., 4567) x (A.B.B., 4089-5)
58-71-22 - (Clint. - A.B.B.) x (S.H.J. x S.Fe - Clint.)
58-71-28 - Clinton x (A.B.B.)
58-71-29 - (S.H.J., 4567) x (A.B.B.)
58-71-32 - Clinton x (A.B.B.)

Wheat

55-39-30 - (Supresa³ x Fultz) x Kawvale x (Fultz - Hungarian x Ill.-1 - Wabash) x
Trumbull³ x (Hope - Hussar)
55-39-23 - Same as above
55-16-16 - Same as above
58-16-4 -- Same as above
57-43-1 - Hardired x Taylor