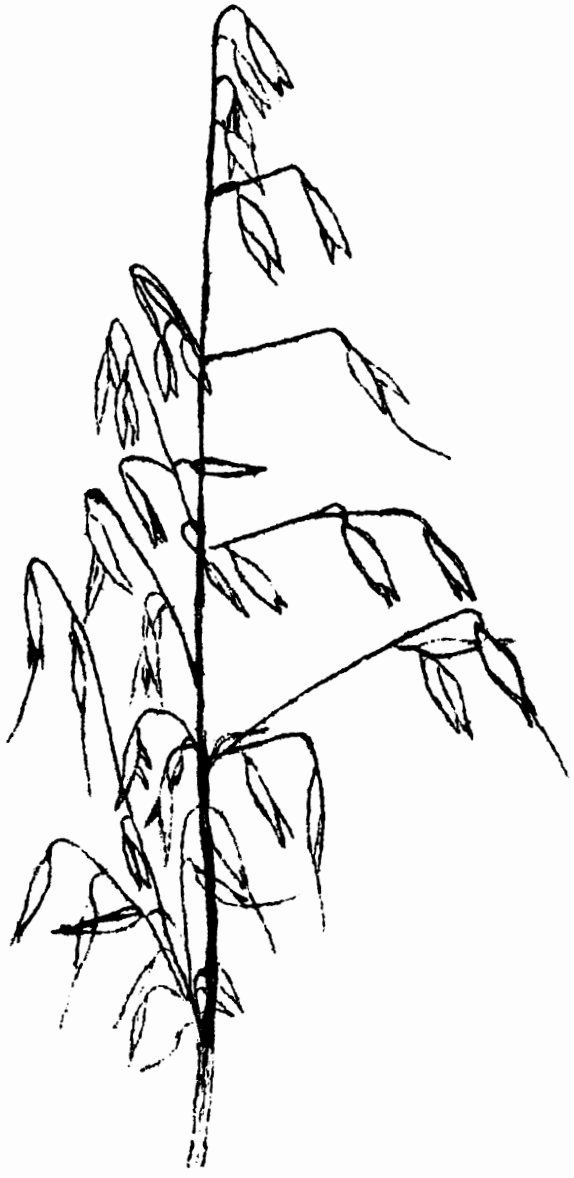
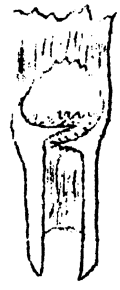
SMALL GRAIN VARIETAL TESTS
CONDUCTED IN VIRGINIA
1956



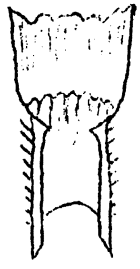
RESEARCH REPORT NO. 5
VIRGINIA AGRICULTURAL EXPERIMENT STATION
VIRGINIA POLYTECHNIC INSTITUTE
BLACKSBURG, VIRGINIA
JANUARY, 1957

A Distinguishing Character in Small Grains

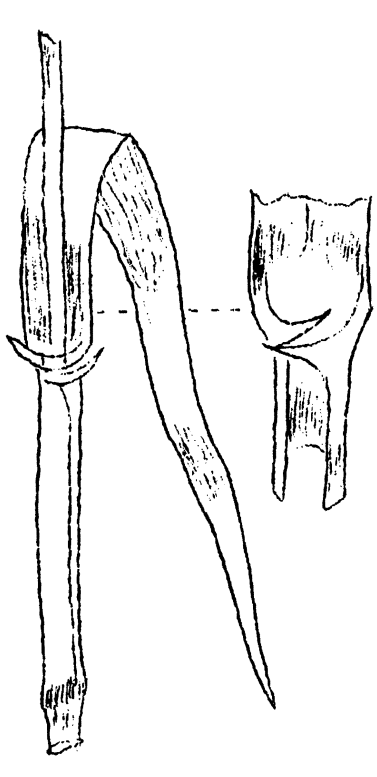


Wheat

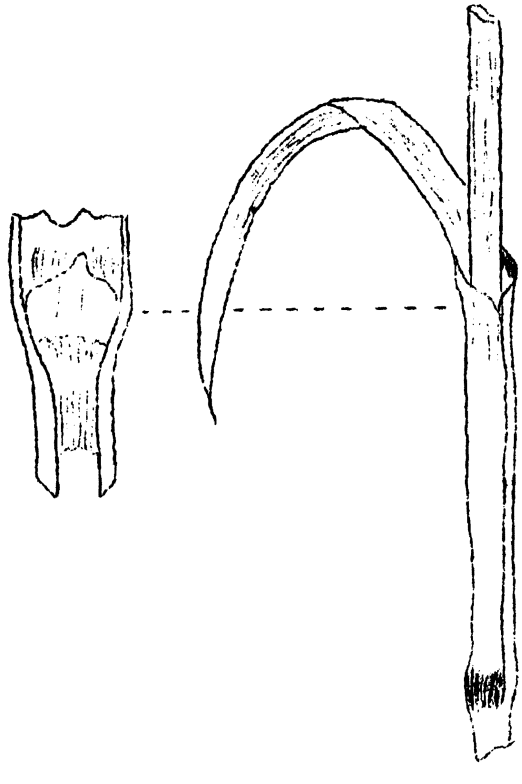
Barley has a very conspicuous auricle
Oat has none
Rye has a very small auricle and the coleoptiles are purple in color
Wheat auricles are indeterminate in size and are often bristly



Rye



Barley



Oat

Cover page by Professor M. S. Kipps

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Varietal Tests of Barley, Oats, and Wheat Conducted in Virginia in 1956 [1]

J. L. Tramel, Jr., T. M. Starling, and C. W. Roane [2]

Introduction

The results of the 1956 small grain varietal tests and the 1955-56 averages for varieties tested both years are presented in this report. The tests were conducted at several locations in the principal agricultural regions of the state and provide data for making the small grain varietal recommendations in Virginia. The recommendations for 1956-57 are based on the data presented herein as well as data from tests conducted in previous years. A variety must be tested at several locations for a minimum of two years before it is considered for recommendation. There is no intention to imply that varieties or strains not included in these tests will not perform well in Virginia.

Areas of Adaptation and Test Locations

For purposes of making varietal recommendations, the state is divided from east to west into three general areas: (1) eastern or Coastal Plains area, which is flat and near-sea-level; (2) the middle or Piedmont area, which extends from the Tidewater or Fall Line westward, becoming more rolling and gradually increasing in elevation until it reaches the Blue Ridge Mountains; and (3) the western or West of the Blue Ridge area with elevations up to 3,500 feet or more, where the principal farming areas are in the broad valleys between mountain ranges at elevations of 1,000 to 2,000 feet. The severity of winters and the dangers of winter-killing are important factors in determining varietal recommendations for the various sections. Winter varieties which may be recommended for the eastern section may winter-kill in the Piedmont or western area of the state. However, it is to be expected that varieties recommended for one section of the state will perform well in contiguous areas of other sections; therefore, recommendations must be considered as general and not absolute.

1/ The following individuals were responsible for growing the tests and collecting the data at the indicated locations: (1) Onley - J. G. Rogers; (2) Petersburg - M. T. Carter; (3) Warsaw - H. M. Camper; (4) Charlotte Court House - R. D. Sears; (5) Middleburg - H. T. Bryant and P. D. Reynolds; (6) Orange - G. D. Jones; (7) Staunton - P. T. Gish; (8) Blacksburg - J. L. Tramel, Jr.; and (9) Emory - F. S. McClaugherty. The data were analyzed by the Statistical Laboratory, V.P.I.

2/ Assistant Agronomist, Associate Agronomist, and Associate Plant Pathologist, respectively.

In 1956 tests were conducted at Onley, Petersburg, and Warsaw in the Coastal Plains area, at Charlotte Court House and Orange in the Piedmont area, and at Staunton, Blacksburg and Emory in the area west of the Blue Ridge. These locations and the adaptation areas are shown on the map on page four.

Since spring oats are not generally adapted for spring planting in the Coastal Plains, the varietal tests for this crop have been discontinued in that area. However, a few spring oat varieties are included in the mid-winter planted oat tests in this section and promising new spring oat varieties will continue to be tested in this manner.

The mid-winter planted oat test was grown at Orange for the first time in 1956. This test is now grown at all test locations in the Coastal Plains and Piedmont areas.

Small grain varietal tests as such were not conducted at Middleburg in 1956. Data from the 1955 tests at this station are included in the 1955-56 average for the Piedmont area. These varietal tests at Middleburg were replaced by tests to determine the forage production for grazing and effect of grazing at various periods of growth on grain production of certain of the recommended small grain varieties. However, the results of these tests are not included in this report.

Growing Season

The distribution of rainfall in Virginia during the fall of 1955 was very erratic and drought conditions prevailed at some test locations. This was particularly true of test locations in the western part of the state. At Blacksburg, the fall oats and barley were planted in dry soil and did not germinate until several weeks later when sufficient rain fell to moisten the soil slightly. However, it continued dry throughout most of the fall and the grain made very little fall growth.

At the Staunton station there was sufficient moisture for germination of the oats and barley at the time they were planted, but the wheat was planted under dry conditions and the stands obtained were so poor that the test was discarded.

Despite a relatively cold winter, there was very little winter-killing in the varietal tests. This may have been associated with the dry weather conditions which prevailed during the fall, causing the plants to go into the winter in a "hardened" condition.

The spring oat test at Emory was not planted because of unfavorable weather conditions during the planting season.

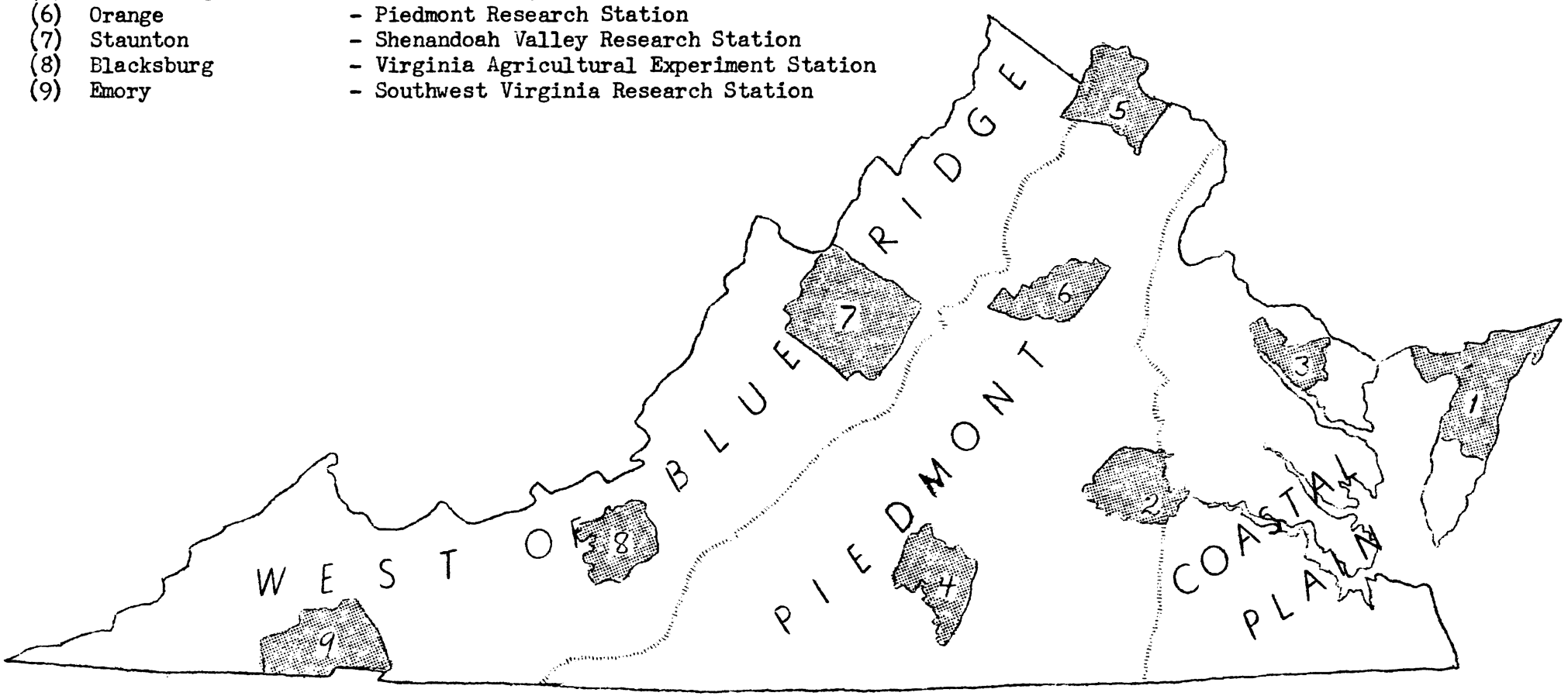
Procedure

Small grain varieties and strains were compared in three-row plots which were replicated six times in a simple randomized block design. The rows were one foot apart and 20 feet long. The yield data were taken from a rod-long section of the center row of each plot. The samples were threshed in nursery threshers and grain weights were recorded in grams or hundredths of a pound per plot and the yield was converted to bushels per acre. Notes on disease, growth characteristics, lodging, and height of straw were recorded at most locations, and are included herein.

Interpretation of the Data

The yield data presented in this report have been analyzed statistically and the least significant differences (L.S.D.) in terms of bushels per acre are given at the bottom of each yield table. Unless the yield difference between two varieties is as great or greater than this difference they should not be considered as having yielded differently from each other. The data for characters other than yield are averages of the six replications at each of the locations. The regional and state averages are given where applicable.

(1) Onley - Accomac County
(2) Petersburg - Virginia State College
(3) Warsaw - Eastern Virginia Research Station
(4) Charlotte Courthouse - Southside Virginia Research Station
(5) Middleburg - Northern Virginia Pasture Research Station
(6) Orange - Piedmont Research Station
(7) Staunton - Shenandoah Valley Research Station
(8) Blacksburg - Virginia Agricultural Experiment Station
(9) Emory - Southwest Virginia Research Station



LOCATION OF TESTS AND ADAPTATION AREAS

Small Grain Varietal Recommendations for 1957-1958

Spring Oats

Coastal Plains	Piedmont	West of Blue Ridge
Spring oats not generally recommended for this area; however, if conditions necessitate seeding, use Andrew, or Mo.0-205	Andrew Mo.0-205	Andrew Mo.0-205

Winter Oats

Coastal Plains	Piedmont	West of Blue Ridge
Arlington	Arlington	Arlington (3)
Atlantic	Atlantic	Atlantic
Lee Cold Proof	Lee Cold Proof	Forkedeer
Fulgrain (1)	Forkedeer (2)	Lee Cold Proof
Fulwood (1)	Bronco (2)	Bronco
Victorgrain 48-93 (1)		

Barley

Coastal Plains	Piedmont	West of Blue Ridge
Wong (Semi-bearded)	Wong	Wong
Kenbar (Semi-smooth bearded)	Kenbar	Kenbar
Hudson (Rough bearded)	Hudson	Hudson
		Ky #1 (Rough bearded)

Wheat

Coastal Plains	Piedmont	West of Blue Ridge
Vahart (Smooth)	Vahart	Vahart
Seneca (Smooth)	Seneca	Seneca
Thorne (Smooth)	Thorne	Thorne
Atlas 50 (Smooth) (4)	Leap (Smooth)	Leap
Atlas 66 (Smooth)	Nudel	V.P.I. 131 (Bearded)(4)
Nudel (Bearded)	Atlas 50 (4)(5)	Nudel
Anderson (Smooth)	Atlas 66 (5)	Pennoll (Smooth)
Coker 47-27 (Smooth)	Anderson	

(1) Recommended also for late winter (February) planting
(2) North of James River only
(3) Lee County and low elevations of Scott County
(4) Will be dropped from recommended list after 1957-1958
(5) Recommended South of James River

Brief Description of the Small Grain Varieties Recommended for Planting in Virginia in 1957-1958.

Winter Oats

Arlington - A selection from the cross of Lee-Victoria x Fulwin. It is a tall-growing, stiff-strawed, moderately early maturing, highly productive oat. It tillers vigorously and produces a considerable amount of growth for grazing. It has rather large spreading heads similar to those of the variety Lee, as well as large, plump, awnless kernels of good weight. The kernels are reddish yellow in color. Arlington is slightly less winter hardy than Lee. It is resistant to the orange leaf rust (crown rust) of oats, but is susceptible to smut and Victoria blight. However, the Victoria blight has not been a problem in fall oats seeded at a normal seeding date. Arlington should not be seeded for pasture earlier than the normal seeding date for grain production because of possible damage from this disease.

Atlantic - From the same cross as Arlington, and very similar to it in appearance and disease reaction. The kernels are more yellow than those of Arlington. Atlantic also is slightly more winter hardy than Arlington. It has not yielded as well as Arlington under conditions where winter killing was not a problem.

Forkedeer - This variety was selected from the old Winter Fulghum at the Tennessee Station. It is the most winter hardy oat recommended in Virginia. It is fairly high-yielding, is moderately tall, but is weak-strawed. It is susceptible to crown rust and smut, but is resistant to Victoria blight and may be planted early for fall grazing.

Lee - This is an old variety which has given satisfactory performance in Virginia for many years. It was selected by the U.S.D.A. from the cross Winter Turf x Aurora. It is shorter in height than Arlington, Atlantic or Forkedeer, and is moderately stiff-strawed. Lee produces a bright yellow kernel that is fairly plump. It is slightly less winter hardy than Forkedeer. Like Forkedeer, it is susceptible to crown rust and smut, but is resistant to Victoria blight.

Fulgrain - A winter to semi-winter type oat developed by the Coker Pedigreed Seed Company, Hartsville, South Carolina. It is early, short and stiff-strawed, but lacks sufficient winterhardiness for growing as a fall planted oat outside of the Coastal Plains section of Virginia. It is recommended for fall and late winter planting (late January and February) in the Coastal Plains section. Fulgrain strains 1 through 3 are from the cross of Norton x Navarro. These strains are susceptible to crown rust. Fulgrain strains 4 through 7 are from a cross of the old Fulgrain with Victoria. These

strains are similar to the old Fulgrain, but are resistant to crown rust and susceptible to smut and Victoria blight. The Victoria blight may be a problem if the variety is spring planted or if planted very early in the fall. Most Fulgrain being sold commercially at present is from the later strains.

Fulwood - Developed by T. W. Wood and Sons, Richmond, Virginia. It is similar to Fulgrain in appearance, maturity, winterhardiness, and disease reaction. Recommended for fall and late winter planting in Coastal Plains section of Virginia.

Victorgrain 48-93 - An early-maturing, medium height, stiff-strawed variety developed by the Coker Pedigreed Seed Company. Like Fulgrain and Fulwood, it does not have sufficient winterhardiness for fall planting outside of the Coastal Plains section of Virginia. Recommended for fall and late winter planting in the Coastal Plains. It is from the same cross as the Strains 4 through 7 of Fulgrain, but is a taller oat with more tolerance to Victoria blight. It is resistant to crown rust, but is susceptible to smut.

Bronco - This is a selection from the cross of Lee-Victoria x Fulwin. It was selected and released by the Texas Agricultural Experiment Station, and is of the same parentage as Arlington and Atlantic. However, it has considerably more winter-hardiness than these two varieties - being almost as winterhardy as Forkedeer. Bronco has yielded as well or slightly better than Forkedeer, and is considerably better in straw stiffness or standing ability. It is of approximately the same height as Forkedeer, but is a few inches shorter than Arlington and Atlantic. Bronco matures a few days later than the other recommended varieties. It is similar in disease reaction to Arlington and Atlantic.

Barley

Wong - The cross from which Wong was selected was made in China and the particular selection from which it developed was brought to New York in 1934 where it was reselected and released in 1941. It has a stiff straw and is moderately winter hardy. It is moderate in height and produces grain of slightly less than average bushel test weight. Wong is a semi-bearded variety, having short rough awns on only the central floret of each spikelet. Wong is resistant to mildew but is susceptible to leaf rust, loose smut and scald.

Kenbar - This variety was developed at the Kentucky Experiment Station. It is a selection from a composite cross involving many varieties. Kenbar is bearded and has rather short heads. The short heads are partly due to the spikelets being closer together and partly due to fewer kernels per head. The beards or awns of Kenbar are semi-rough, having fewer and less prominent barbs on the awns than Ky.#1, a rough-awned variety, but these barbs are not completely

absent as with Jackson #1, a smooth-awned variety. In general the heads of Kenbar stand more erect in the field at ripening time than do those of Ky.#1. It is approximately a week earlier in maturity than Ky.#1, about five inches shorter, and stands much better. It has relatively good resistance to mildew and scald but is susceptible to leaf rust and loose smut. It is not as winter hardy as Ky.#1.

Kentucky #1 - This variety was developed at the Kentucky Experiment Station. It originated as a head selection from a field of barley of the Tennessee Winter type, and is similar in many respects to this type. It is a six-rowed, rough-bearded variety, moderately tall, and relatively stiff-strawed. It is susceptible to loose smut, leaf rust, and mildew, but is more resistant to scald than Wong. It is the most winter hardy variety recommended in Virginia.

Hudson - A six-rowed, rough-awned, stiff-strawed, winter hardy variety of barley developed at the Cornell University Agricultural Experiment Station. It is a selection from a cross of Michigan Winter x Wong. It is similar to Wong in maturity date, straw stiffness, resistance to mildew and susceptibility to loose smut and leaf rust. Hudson is the only variety recommended in Virginia with high resistance to barley scald. Like most other bearded varieties, it has had a slightly higher bushel test weight than Wong. At most locations where tested in Virginia, it has outyielded Wong by several bushels per acre.

Wheat

Vahart - Selected from the original Redhart at the Virginia station and released in 1945. Vahart is a smooth-headed variety that is medium-tall, mid-season in maturity, white-chaffed and moderately stiff-strawed. It is moderately resistant to mosaic and mildew, is resistant to some races of loose smut, but is susceptible to leaf and stem rust.

Thorne - A selection from a cross between Portage and Fulcaster released from the Ohio station in 1922. It is a smooth-headed, brown-chaffed wheat that is mid-seasonal, medium-tall, and fairly stiff-strawed. It is resistant to mosaic and to some races of loose smut, but is highly susceptible to mildew, leaf rust, and stem rust.

Seneca - A selection from the same cross as Thorne. It is very similar to Thorne in all respects, but has a higher bushel test weight, a slightly higher yield, and a slightly stiffer straw.

Leap - Originated from a single plant selection from a field of Mediterranean made by a son of J. S. Leap, of Virginia. First distributed by T. W. Wood & Sons. This is a smooth-headed, early,

medium-tall to tall variety with yellowish-white chaff. The heads are long and lax, and are inclined to nodding. It is resistant to mosaic and loose smut, but is susceptible to leaf rust, stem rust, and mildew. (Synonyms for this variety: Hasting's Prolific, Leap's Prolific, Wood's Prolific.)

Nudel - A bearded, white-chaffed variety that resulted from a head selected from a field of Fulcaster wheat by the Delaware Experiment Station. It is very similar to Fulcaster except in being more uniform and in giving higher yields. It is very similar to V.P.I. 131, but has been slightly higher in yield and is resistant to the soil-borne mosaic to which V.P.I. 131 is susceptible. It is moderately susceptible to leaf rust and is susceptible to stem rust and powdery mildew.

V.P.I. 131 - This variety was selected from the old Fulcaster wheat, the selection being made at the Virginia Agricultural Experiment Station. It was first distributed in 1915. The variety is very similar to Fulcaster except that it is more uniform. It is a moderately tall, bearded variety, and because of its height is inclined to lodge on fertile soils. It is similar in appearance to Nudel, but is susceptible to mosaic, and is more susceptible to leaf rust than Nudel.

Pennoll - A medium tall to tall, white-chaffed, smooth-headed, relatively stiff-strawed variety developed from the cross of Valprize x Nittany at the Pennsylvania station. Slightly later in maturity than Thorne and slightly heavier in bushel test weight. This variety is susceptible to leaf rust, stem rust, powdery mildew, and is moderately susceptible to the soil-borne mosaic.

Atlas 50 - A selection from the cross of Frondoso x (Redhart^{3}-Noll 28), developed by the U.S.D.A. and the North Carolina Agricultural Experiment Station, released in North Carolina. This is a moderately early-maturing, medium-height, stiff-strawed, smooth-headed, white-chaffed variety. It has resistance to mildew and moderate resistance to leaf rust, but is susceptible to the soil-borne mosaic. It is characterized by a head that is slightly spreading toward the tip, giving it a square appearance. Atlas 50 is a semi-winter wheat, and because of its lack of winterhardiness, is recommended only in the Southern Piedmont and Eastern regions of Virginia.

Atlas 66 - Very similar to and from the same cross as Atlas 50. However, Atlas 66 has slightly more leaf rust resistance than Atlas 50, and slightly less mildew resistance.

Anderson - A selection from the cross of Leapland x Fronteira. The cross and preliminary selections were made by the U.S.D.A., and the final selection was made in South Carolina, where the variety was released. The variety is similar in many characteristics to

Leapland and Leap wheats. Like Leap, it is tall and has a long loose head which is slightly bronzed in color. It matures at approximately the same time as Leap, is somewhat more resistant to lodging, but has less winter hardiness. Anderson is resistant to leaf rust and is moderately resistant to powdery mildew. Like the Atlas wheats, and V.P.I. 131, it is susceptible to soil-borne mosaic and should not be planted in fields known to be infested with this virus.

Coker 47-27 - This selection was developed and released by the Coker Pedigreed Seed Company, Hartsville, South Carolina. It is a smooth headed wheat, medium tall in height. It is from two to three inches taller than Thorne, and is from three to four days earlier in maturity than Thorne. It is similar in disease reaction to leaf rust, moderately resistant to mildew and susceptible to soil-borne mosaic. Coker 47-27 has been from one to two pounds per bushel higher in test weight than Atlas 50 or 66. Like the Atlas wheats it is not winter hardy and should not be grown outside the Coastal Plains area.

Spring Oats

Andrew - A selection from the cross of Bond x Rainbow which was developed and released by the Minnesota Agricultural Experiment Station. This is an early-maturing, open-panicled, yellow-grained oat, of moderate height. It has a good weight per bushel, moderate standing ability and a low hull percentage. It does not stand as well as Clinton or Mo.0-205. It has wide adaptation and has been high yielding in all regions of Virginia where spring oats are adapted. It is resistant to Victoria blight and susceptible to crown rust (orange leaf rust) but has some tolerance to the latter disease.

Mo.0-205 - A selection from the cross of Columbia x (Victoria-Richland) made at the Missouri Agricultural Experiment Station. It is similar in appearance and height to Columbia, and the seed color is similar to the gray to brownish-gray of Columbia. However, it heads slightly earlier than Columbia, has a stiffer straw, a higher bushel test weight, and has been considerably higher in yield. The variety has a moderate amount of field resistance to crown rust and is resistant to Victoria blight. It is widely adapted.

Table 1 Yield in bushels per acre of barley varieties tested in 1956

Variety	Entry	Coastal Plains				Piedmont			West of Blue Ridge			
		Peters-burg	Onley	Warsaw	Avg.	Charlotte C.h.	Orange	Avg.	Blacks-burg	Emory	Staunton	Avg.
Wong	1	51.6	67.2	60.5	59.8	91.5	62.5	77.0	47.7	64.7	93.0	68.5
Kenbar	2	49.3	56.5	62.7	56.2	82.9	62.3	72.6	47.2	59.8	73.4	60.1
Ky.#1	3						62.0		42.9	53.2	72.7	56.3
Hudson	4	49.0	76.2	63.2	62.8	96.1	66.4	81.3	51.3	58.4	82.5	64.1
Col.#2	5	58.8	69.1	63.8	63.9	72.4	55.4	63.9	66.0	74.8	85.5	75.4
Davie	6	50.0	72.0	60.0	60.7	75.5						
W x B Y-2(1)	7	47.2	77.2	56.1	60.2	91.3	55.9	73.6	62.3			
W x B G-38(1)	8	48.8	57.9	62.7	56.5	87.3						
W x B G-36(1)	9	48.8	68.7	62.7	60.1	92.2	67.9	80.1	48.2			
W x B G-11(1)	10	50.8	77.2	63.2	63.7	87.3	65.6	76.5	53.2			
Marconee	11	49.2	71.0	74.8	65.0	86.4	60.3	73.4	35.5	62.9	78.1	58.8
Wataugua	12	54.9	60.6	56.6	57.4	73.0	63.1	68.1	63.7	48.7	86.0	66.1
W x B Y-36(1)	13	41.5	65.6	57.2	52.8	85.4	58.2	71.8	58.7			
W x B Y-12(1)	14	51.7	59.1	57.8	56.2	97.2	65.6	81.4	62.9			
W x B G-65(1)	15	48.9	55.4	59.4	54.6	79.6	67.3	73.5	51.0			
W x B Y-44(1)	16	46.1	66.9	59.4	57.5	93.5	63.6	78.6	46.4			
L.S.D. (.05)		5.8	NS(2)	4.2		17.5	NS		12.5	NS	NS	

(1) Experimental varieties, not commercially available.
(2) No significant difference among yields of varieties.

Table 2. Test weight in pounds per bushel of barley varieties tested in 1956

Variety	Entry	Coastal Plains			Piedmont	West of Blue Ridge				Avg. All Locations
		Petersburg	Warsaw	Avg.	Charlotte C. h.	Blacksburg	Emory	Staunton	Avg.	
Wong	1	45.0	47.1	46.1	50.5	38.4	43.7	45.0	42.4	45.0
Kenbar	2	45.0	44.7	44.9	47.0	35.3	42.5	44.4	40.7	43.2
Ky.#1	3					36.4	43.9	45.2	41.8	
Hudson	4	47.0	49.4	48.2	50.0	40.7	47.5	47.6	45.3	47.1
Col.#2	5	42.0	44.0	43.0	46.5	39.1	43.1	44.0	42.1	43.1
Davie	6	43.0	43.6	43.3	46.0					
W x B Y-2	7	44.0	46.7	45.4	49.0	41.2				
W x B G-38	8	44.0	48.9	46.5	47.5					
W x B G-36	9	46.0	48.1	47.1	48.0	41.1				
W x B G-11	10	46.0	47.4	46.7	49.0	40.5				
Marconee	11	41.0	46.1	43.6	46.0	33.0	42.7	43.8	39.8	42.1
Wataugua	12	43.0	45.5	44.3	45.5	38.2	43.5	44.2	42.0	43.3
W x B Y-56	13	44.0	46.8	45.4	48.0	40.3				
W x B Y-12	14	43.0	47.2	45.1	49.0	38.2				
W x B Y-65	15	43.0	47.1	45.1	46.0	39.4				
W x B Y-44	16	43.0	47.4	45.2	49.0	40.5				

Table 3. Date 1/3 headed of barley varieties tested in 1956

Variety	Entry	Coastal Plains			Piedmont	West of Blue Ridge			Avg. All
		Petersburg	Warsaw	Avg.	Orange	Blacksburg	Staunton	Avg.	Locations
Wong	1	4/27	4/30	4/28	5/3	5/10	5/5	5/7	5/2
Kenbar	2	4/21	4/27	4/24	5/2	5/7	5/6	5/7	4/31
Ky.#1	3				5/1	5/10	5/9	5/9	
Hudson	4	4/26	4/30	4/28	5/2	5/10	5/8	5/9	5/3
Col.#2	5	4/26	4/29	4/27	5/6	5/12	5/10	5/11	5/4
Davie	6	4/25	4/28	4/26					
W x B Y-2 (1)	7	4/26	4/29	4/27	5/4	5/10			
W x B G-38 (1)	8	4/24	4/28	4/26					
W x B G-36 (1)	9	4/24	4/29	4/26	5/3	5/10			
W x B G-11 (1)	10	4/26	4/29	4/27	5/4	5/10			
Marconee	11	4/16	4/23	4/19	4/28	5/4	5/5	5/4	4/27
Wataugua	12	4/26	4/30	4/28	5/6	5/14	5/10	5/12	5/4
W x B Y-56 (1)	13	4/26	4/29	4/27	5/4	5/11			
W x B Y-12 (1)	14	4/25	4/29	4/27	5/3	5/10			
W x B G-65 (1)	15	4/25	4/29	4/27	5/4	5/10			
W x B Y-44 (1)	16	4/26	4/29	4/27	5/3	5/10			

Table 4. Percent lodging of barley varieties tested in 1956

Variety	Entry	Coastal Plains			Piedmont			West of Blue Ridge			Avg. All Locations
		Petersburg	Warsaw	Avg.	Charlotte C.h.	Orange	Avg.	Blacksburg	Emory	Avg.	
Wong	1	0	3	1.5	3	3	3.0	70	4	37.0	13.8
Kenbar	2	0	0	0	33	0	16.5	65	9	37.0	17.8
Ky.#1	3					0		96	37	66.5	
Hudson	4	0	0	0	3	0	1.5	58	6	32.0	11.2
Col.#2	5	0	3	1.5	59	0	29.5	36	3	19.5	16.8
Davie	6	0	6	3.0	52						
W x B Y-2	7	0	0	0	4	0	2.0	53			
W x B G-38	8	0	2	1.0	9						
W x B G-36	9	0	0	0	7	0	3.5	66			
W x B G-11	10	0	0	0	19	0	9.5	57			
Marconee	11	2	2	2.0	22	0	11.0	87	18	52.5	21.8
Wataugua	12	0	0	0	23	2	12.5	46	4	25.0	12.5
W x B Y-56	13	0	0	0	15	0	7.5	51			
W x B Y-12	14	0	1	0.5	4	0	2.0	49			
W x B G-65	15	0	0	0	23	12	17.5	47			
W x B Y-44	16	0	1	0.5	16	8	12.0	47			

Table 5. Height in inches of barley varieties tested in 1956

Variety	Entry	Coastal Plains			Piedmont			West of Blue Ridge				Avg. All Locations
		Petersburg	Warsaw	Avg.	Charlotte C.h.	Orange	Avg.	Blacksburg	Emory	Staunton	Avg.	
Wong	1	41	41	41.0	45	41	43.0	48	42	32	40.7	41.4
Kenbar	2	31	35	33.0	40	35	37.5	44	32	30	35.3	35.3
Ky.#1	3					38		46	34	30	36.7	
Hudson	4	37	37	37.0	42	37	39.5	44	38	29	37.0	37.7
Col.#2	5	37	36	36.5	42	34	38.0	42	37	27	35.3	36.4
Davie	6	39	40	39.5	45							
W x B Y-2	7	42	42	42.0	46	42	44.0	49				
W x B G-38	8	42	44	43.0	45							
W x B G-36	9	41	43	42.0	45	43	44.0	47				
W x B G-11	10	42	40	41.0	44	42	43.0	48				
Marconee	11	36	39	37.5	41	39	40.0	43	40	31	38.0	38.4
Wataugua	12	37	40	38.0	42	38	40.0	45	39	30	38.0	38.6
W x B Y-56	13	42	43	42.5	46	44	45.0	47				
W x B Y-12	14	41	44	42.5	46	43	44.5	49				
W x B Y-65	15	42	44	43.0	45	45	45.0	47				
W x B Y-44	16	42	45	43.5	46	44	45.0	48				

Table 6. Disease reactions of certain barley varieties tested at Blacksburg, 1956

Variety	Leaf Rust(2)	Mildew(2)	Smut(3)	Net, Spot Blotch (2)	Scald(4)
Wong	13.3	0	6.5	19.2	65
Kenbar	6.0	0	41.7	26.7	50
Ky.#1	9.2	5	1.7	13.3	40
Hudson	8.5	0	2.8	26.7	T
Colonial 2	2.5	T	0	15.0	75
W x B Y-2 (1)	0.8	0	11.8	11.8	25
W x B G-36(1)	0.8	0	9.3	7.8	5
W x B G-11(1)	0.2	T	16.5	16.7	10
Marconee	23.3	0	4.5	6.7	50
Wataugua	11.7	10	5.7	9.2	--
W x B Y-56(1)	0.2	T	17.3	13.3	T
W x B Y-12(1)	0.2	0	6.5	17.5	20
W x B G-65(1)	0.8	0	12.5	10.2	1
W x B Y-44(1)	0.2	0	7.5	20.8	5

(1) Experimental varieties, not commercially available
(2) Estimated severity, percent
(3) Number smutted heads per rod row
(4) Estimated severity in disease nursery

Table 7. Average yield in bushels per acre of barley varieties tested in 1955 and 1956

Variety	Coastal Plains				Piedmont			West of Blue Ridge	
	Petersburg	Onley	Warsaw	Avg.	Charlotte C.h.	Orange	Avg.	Blacksburg	Avg.(1)
Wong	44.9	61.6	65.4	57.3	64.8	60.4	61.4	42.6	60.7
Kenbar	52.5	60.4	68.2	60.4	70.3	65.7	67.1	43.4	55.0
Ky #1						66.6		43.1	53.0
Hudson	51.6	66.8	76.0	64.8	75.6	73.6	73.1	47.6	59.0
Col.#2	56.0	63.7	60.3	60.0	53.0	59.6	58.9	54.4	67.2
Davie	46.5	72.0	69.5	63.3	64.8				
Marconee	49.2	58.5	74.4	60.7	60.6	66.5	63.9	40.6	55.5
Wataugua	52.5	62.2	65.9	60.2	57.8	62.1	59.6	40.3	53.8

(1) Data from 1956 tests at Emory and Staunton included in this average

Table 8. Average test weight in pounds per bushel of barley varieties tested in 1955 and 1956

Variety	Coastal Plains			Piedmont		West of Blue Ridge		Avg. All
	Petersburg	Warsaw	Avg.	Charlotte C.h.	Avg.(1)	Blacksburg	Avg.(2)	Locations
Wong	43.5	44.4	44.0	45.0	45.0	41.5	42.9	43.9
Kenbar	45.5	42.2	43.9	43.5	44.0	38.6	41.0	42.9
Ky #1						40.7	42.6	42.4
Hudson	47.5	46.6	47.1	44.0	46.0	44.1	44.8	46.3
Col.#2	42.5	39.7	41.1	40.8	41.5	41.1	41.6	41.6
Davie	42.0	42.3	42.2	42.5	43.0			
Marconee	41.5	41.5	41.5	41.0	41.7	37.8	40.5	41.2
Wataugua	44.0	42.5	43.3	41.8	42.8	41.1	42.5	42.9

(1) Data from 1955 test at Orange included in this average
(2) Data from 1956 test at Emory and Staunton included in this average

Table 9. Average date 1/3 headed of barley varieties tested in 1955 and 1956

Variety	Coastal Plains			Piedmont			West of Blue Ridge		Avg. All Locations
	Petersburg	Warsaw	Avg(1)	Charlotte C.h.	Orange	Avg.	Blacksburg	Avg.(2)	
Wong	4/22	4/30	4/24	4/23	5/2	4/28	5/13	5/11	5/1
Kenbar	4/17	4/25	4/21	4/21	4/29	4/25	5/9	5/8	4/28
Ky #1					4/29		5/10	5/10	
Hudson	4/23	4/29	4/26	4/25	5/1	4/28	5/12	5/11	5/2
Col.#2	4/22	4/27	4/23	4/25	5/2	4/28	5/12	5/12	5/1
Davie	4/20	4/25	4/22	4/24					
Marconee	4/15	4/23	4/18	4/19	4/28	4/23	5/7	5/7	4/26
Wataugua	4/21	4/29	4/25	4/25	5/5	4/30	5/16	5/14	5/3

(1) Data from 1955 test at Onley included in this average
(2) Data from 1955 test at Staunton included in this average

Table 10. Average height in inches of barley varieties tested in 1955 and 1956

Variety	Coastal Plains			Piedmont			West of Blue Ridge		Avg. All Locations
	Petersburg	Warsaw	Avg.	Charlotte C.h.	Orange	Avg.	Blacksburg	Avg. (1)	
Wong	39.0	40.0	39.5	42.0	41.0	41.5	38.5	37.8	39.6
Kenbar	32.0	36.5	34.3	37.0	35.5	36.3	37.0	33.0	34.5
Ky #1					39.5		37.0	34.5	
Hudson	36.0	39.0	37.5	40.0	38.0	39.0	35.5	34.5	37.0
Col. #2	35.5	36.5	36.0	35.5	34.0	34.8	32.5	32.8	34.5
Davie	38.0	38.5	38.3	39.5					
Marconee	36.0	39.5	37.8	38.5	38.5	38.5	37.0	36.0	37.4
Wataugua	37.5	40.0	38.8	40.0	38.5	39.3	36.5	35.5	37.9

(1) Data from 1956 tests at Emory and Staunton included in this average

Table 11. Average percent lodging in barley varieties tested in 1955 and 1956

Variety	Coastal Plains			Piedmont			West of Blue Ridge		Avg. All Locations
	Petersburg	Warsaw	Avg.	Charlotte C.h.	Orange	Avg.	Blacksburg	Avg.(1)	
Wong	2.5	40.5	21.5	30.0	23.0	26.5	37.0	19.5	22.5
Kenbar	0	25.5	12.8	39.0	0	19.5	39.0	21.8	18.0
Ky #1					1.0		58.0	38.3	
Hudson	0.5	19.0	9.8	27.0	2.5	14.8	30.5	16.8	13.8
Col. #2	0	43.0	21.5	78.5	27.5	53.0	18.5	10.0	28.2
Davie	0	44.5	22.3	49.0					
Marconee	9	51.0	30.0	50.0	13.0	31.5	49.5	29.3	30.3
Wataugua	0	34.0	17.0	43.0	23.5	33.3	31.0	16.5	22.3

(1) Data from 1956 tests at Emory and Staunton included in this average

Table 12. Yield in bushels per acre of fall oat varieties tested in 1956

Variety	Entry	Coastal Plains				Piedmont			West of Blue Ridge			
		Petersburg	Onley	Warsaw	Avg.	Charlotte C.h.	Orange	Avg.	Blacksburg	Emory	Staunton	Avg.
Lee	1	75.9	83.5	80.9	80.1	97.6	93.5	95.6	72.8	103.5	89.9	88.7
Atlantic	2	72.5	92.7	85.0	83.4	99.8	93.0	96.4	69.3	100.7	93.3	87.8
Arlington	3	76.2	117.8	89.1	94.4	120.5	93.4	107.0	85.7	110.5	78.6	91.6
Bronco	4	64.8	92.2	92.4	83.1	102.9	101.8	102.4	61.4	114.8	73.7	83.3
Dubois	6	56.1	79.2	80.0	71.8	94.1	91.6	92.9	60.8	119.8	86.7	89.1
Forkedeer	5						94.1		71.6	112.5	94.2	92.8
Coker 55-5(1)	7	73.9	100.5	93.2	89.2	111.1	85.3	98.2				
Coker 55-6(1)	8	65.1	109.1	85.8	86.7	108.3	86.1	97.2				
Fulgrain	9	57.8	95.5	75.1	76.1	98.6	85.3	92.0				
Victorgrain	10	71.2	110.8	92.4	91.5	120.2	97.3	108.8				
Fulwood	11	63.5	98.7	85.0	82.4	118.2	100.7	109.5				
Cimarron	12	69.7	109.0	102.3	93.7	86.6	101.2	93.9	69.6	109.4	79.3	86.1
55-31-22(1)	13	53.9	85,3	73.4	70.9	102.3						
55-31-25(1)	14	75.0	104.5	83.3	87.6	99.6						
55-31-36(1)	15	66.7	91.4	78.4	78.8	95.7						
55-31-37(1)	16	64.8	91.1	80.9	78.9	108.9						
55-31-38(1)	17	66.0	92.4	85.1	81.2	105.6						
55-31-41(1)	18	65.7	101.3	83.3	83.4	106.7						
Woodgrain	19	61.5	92.7	87.4	80.5	105.6	93.0	99.3				
L.S.D. (.05)		9.7	11.5	12.0		14.7	11.6		13.1	NS(2)	12.0	

55-31-36 - In test last year as C.I.6602-3
55-31-38 - In test last year as 54-31-10
55-31-41 - In test last year as 54-31-12

(1) Experimental varieties, not commercially available
(2) No significant difference among yields of varieties

Table 13. Test weight in pounds per bushel of fall oat varieties tested in 1956

Variety	Entry	Coastal Plains			Piedmont			West of Blue Ridge				Avg. All Locations
		Petersburg	Warsaw	Avg.	Charlotte C.h.	Orange	Avg.	Blacksburg	Emory	Staunton	Avg.	
Lee	1	36.0	34.7	35.4	37.5	34.0	35.8	33.1	31.4	36.0	33.5	34.7
Atlantic	2	33.0	34.5	33.8	35.0	32.0	33.5	33.4	33.0	35.2	33.9	33.8
Arlington	3	31.0	33.9	32.5	37.0	34.0	35.5	34.3	33.5	36.4	34.7	34.3
Bronco	4	34.0	34.9	34.5	39.0	33.0	36.0	33.1	33.6	36.9	34.5	34.9
Forkedeer	5					33.0		34.3	34.5	35.9	34.9	
Dubois	6	33.0	35.9	34.5	36.0	33.0	34.5	35.0	34.4	35.0	34.8	
Coker 55-5	7	36.0	35.3	35.7	34.0	32.0	33.0					
Coker 55-6	8	36.0	36.0	36.0	37.0	32.0	34.5					
Fulgrain	9	36.0	36.7	36.4	37.0	33.0	35.0					
Victorgrain	10	34.0	35.5	34.8	37.0	33.0	35.0					
Fulwood	11	36.0	37.6	36.8	38.5	34.0	36.3					
Cimarron	12	35.0	33.6	34.3	33.0	30.0	31.5	29.4	31.2	34.9	31.8	32.4
55-31-22	13	30.0	32.1	31.1	35.0							
55-31-25	14	32.0	34.5	33.3	38.0							
55-31-36	15	29.0	33.0	31.0	38.0							
55-31-37	16	31.0	32.7	31.9	35.0							
55-31-38	17	34.0	33.8	33.9	37.0							
55-31-41	18	36.0	35.0	35.5	38.0							
Woodgrain	19	36.0	35.5	35.8	36.0	33.0	34.5					

Table 14. Date 1/3 headed of fall oat varieties tested in 1956

Variety	Entry	Coastal Plains			Piedmont			West of Blue Ridge			Avg. All Locations
		Petersburg	Warsaw	Avg.	Charlotte C.h.	Orange	Avg.	Blacksburg	Staunton	Avg.	
Lee	1	5/7	5/8	5/7	5/7	5/11	5/9	5/22	5/14	5/18	5/11
Atlantic	2	5/2	5/4	5/3	5/3	5/9	5/6	5/21	5/12	5/16	5/8
Arlington	3	5/3	5/4	5/3	5/3	5/11	5/7	5/21	5/9	5/15	5/8
Broncho	4	5/9	5/12	5/10	5/7	5/15	5/11	5/26	5/17	5/21	5/14
Dubois	6	5/6	5/11	5/8	5/7	5/12	5/9	5/23	5/15	5/19	5/12
Forkedeer	5					5/13		5/24	5/16	5/20	
Coker 55-5	7	5/3	5/7	5/5	5/3	5/10	5/6				
Coker 55-6	8	5/2	5/5	5/3	5/3	5/9	5/6				
Fulgrain	9	4/26	4/30	4/28	4/23	5/5	4/29				
Victorgrain	10	5/1	5/4	5/2	4/28	5/6	5/2				
Fulwood	11	5/1	5/2	5/1	4/28	5/7	5/2				
Cimarron	12	4/30	5/4	5/2	4/28	5/7	5/2	5/14	5/8	5/11	5/5
55-31-22	13	5/8	5/11	5/9	5/7						
55-31-25	14	5/2	5/5	5/3	5/3						
55-31-36	15	5/8	5/12	5/10	5/7						
55-31-37	16	5/7	5/10	5/8	5/7						
55-31-38	17	5/6	5/9	5/7	5/3						
55-31-41	18	5/6	5/10	5/8	5/7	5/9	5/8				
Woodgrain	19	5/3	5/5	5/4	5/7						

Table 15. Percent lodging of fall oat varieties tested in 1956

Variety	Entry	Coastal Plains			Piedmont			West of Blue Ridge				Avg. All Locations
		Petersburg	Warsaw	Avg.	Charlotte C.h.	Orange	Avg.	Blacksburg	Emory	Staunton	Avg.	
Lee	1	2	0	1.0	34	0	17.0	4	22	0	8.7	13.2
Atlantic	2	7	0	3.5	8	0	4.0	18	1	0	6.3	4.8
Arlington	3	3	0	1.5	6	0	3.0	4	5	0	3.0	2.6
Bronco	4	0	0	0	10	0	5.0	5	0	0	1.7	2.2
Forkedeer	5		0			67		31	6	0	12.3	
Dubois	6	1	0	0.5	14	0	7.0	2	5	0	2.3	3.1
Coker 55-5	7	4	0	2.0	5	0	2.5					
Coker 55-6	8	22	0	11.0	7	0	3.5					
Fulgrain	9	8	0	4.0	14	0	7.0					
Victorgrain	10	4	0	2.0	4	0	2.0					
Fulwood	11	2	0	1.0	16	0	8.0					
Cimarron	12	60	0	30.0	40	17	28.5	13	0	0	4.3	18.6
55-31-22	13	0	0	0	2							
55-31-25	14	9	0	4.5	0							
55-31-36	15	2	0	1.0	1							
55-31-37	16	2	0	1.0	1							
55-31-38	17	1	0	0.5	18							
55-31-41	18	0	0	0	7							
Woodgrain	19	1	0	0.5	21	0	10.5					

Table 16. Height in inches of fall oat varieties tested in 1956

Variety	Entry	Coastal Plains			Piedmont			West of Blue Ridge				Avg. All Locations
		Petersburg	Warsaw	Avg.	Charlotte C.h.	Orange	Avg.	Blacksburg	Emory	Staunton	Avg.	
Lee	1	35	36	35.5	45	32	38.5	42	47	27	38.7	37.7
Atlantic	2	38	39	38.5	47	35	41.0	46	47	29	40.7	40.2
Arlington	3	39	39	39.0	47	34	40.5	45	49	28	40.7	40.2
Bronco	4	35	36	35.5	44	32	38.0	43	46	27	38.7	37.6
Forkedeer	5					34		45	47	28	40.0	
Dubois	6	31	34	32.5	40	30	35.0	39	44	26	36.3	34.8
Coker 55-5	7	28	29	28.5	37	25	31.0					
Coker 55-6	8	27	29	28.0	34	24	29.0					
Fulgrain	9	30	29	29.5	35	26	30.5					
Victorgrain	10	35	34	34.5	41	29	35.0					
Fulwood	11	31	29	30.0	37	26	31.5					
Cimarron	12	31	33	32.0	40	27	33.5					
55-31-22	13	33	36	34.5	45							
55-31-25	14	40	39	39.5	46							
55-31-36	15	36	38	37.0	48							
55-31-37	16	33	34	33.5	45							
55-31-38	17	36	37	36.5	47							
55-31-41	18	35	37	36.0	45							
Woodgrain	19	29	30	29.5	40	25	32.5	37	36	25	32.7	31.7

Table 17. Average yield in bushels per acre of fall oat varieties tested in 1955 and 1956

Variety	Coastal Plains				Piedmont			West of Blue Ridge			
	Petersburg	Onley	Warsaw	Avg.	Charlotte C.h.	Orange	Avg(1)	lacksburg	Emory	Staunton	Avg.
Lee	83.2	72.0	89.3	81.5	87.4	80.6	87.3	68.7	84.6	99.8	84.4
Arlington	88.0	106.1	100.9	98.4	100.0	72.2	89.0	66.4	98.4	77.4	80.7
Bronco	76.1	82.1	101.8	86.6	91.5	84.4	87.4	63.4	102.0	93.2	86.2
Forkedeer						83.9		69.3	87.8	95.4	84.2
Dubois	72.8	75.6	88.3	79.5	76.0	75.9	77.9	57.1	99.0	88.7	81.6
Fulgrain	77.1	105.8	73.5	85.5	82.9						
Victorgrain 48-93	84.8	107.3	94.5	95.5	95.4						
Fulwood	76.7	105.3	87.7	89.9	85.9						
Cimarron	80.5	98.1	99.9	92.9	62.1	76.5	75.2	67.2	85.4	82.6	78.4

(1) Date from 1955 test at Middleburg included in this average

Table 18. Average test weight in pounds per bushel of fall oat varieties tested in 1955 and 1956

Variety	Coastal Plains			Piedmont			West of Blue Ridge			Avg. All Locations
	Petersburg	Warsaw	Avg.	Charlotte C.h.	Orange	Avg.	Blacksburg	Emory	Avg(1)	
Lee	35.8	34.5	35.2	37.0	33.0	35.0	34.2	33.7	33.2	34.4
Arlington	32.0	34.0	33.0	35.5	33.5	34.5	35.2	34.2	35.0	34.2
Bronco	34.3	34.0	34.2	37.0	32.5	34.8	35.1	35.7	35.7	35.3
Forkedeer					32.5		35.3	34.9	35.3	
Dubois				36.0	32.5	34.3	36.1	35.5	35.6	
Fulgrain	36.0	34.8	35.4	35.8						
Victorgrain 48-93	33.3	33.9	33.6	35.5						
Fulwood	35.0	36.2	35.6	36.5						
Cimarron	33.5	32.9	33.2	32.5	30.0	31.3	30.4	31.2	31.6	32.0

(1) Data from 1956 test at Staunton included in this average

Table 19. Average date 1/3 headed of fall oat varieties tested in 1955 and 1956

Variety	Coastal Plains			Piedmont			West of Blue Ridge			Avg. All Locations
	Petersburg	Warsaw	Avg.	Charlotte C.h.	Orange	Avg.	Blacksburg	Staunton	Avg.	
Lee	5/3	5/6	5/4	5/4	5/10	5/7	5/22	5/17	5/19	5/10
Arlington	4/29	5/3	5/1	4/30	5/9	5/4	5/21	5/12	5/16	5/7
Bronco	5/6	5/9	5/4	5/6	5/12	5/9	5/24	5/18	5/21	5/11
Forkedeer					5/10		5/22	5/16	5/19	
Dubois	5/4	5/8	5/6	5/5	5/11	5/8	5/22	5/15	5/18	5/11
Fulgrain	4/24	4/30	4/27	4/24						
Victorgrain 48-93	4/27	5/2	4/29	4/27						
Fulwood	4/26	4/28	4/27	4/28						
Cimarron	4/26	5/1	4/28	4/26	5/5	4/30	5/13	5/12	5/12	5/3

Table 20. Average percent lodging of fall oat varieties tested in 1955 and 1956

Variety	Coastal Plains			Piedmont			West of Blue Ridge		Avg. All
	Petersburg	Warsaw	Avg.	Charlotte C.h.	Orange	Avg.(1)	Blacksburg	Avg.(2)	Locations
Lee	25.5	44.0	34.8	32.5	24.0	28.3	5.0	8.0	23.7
Arlington	17.5	38.5	28.0	37.5	24.0	30.8	4.0	3.3	20.7
Bronco	35.0	36.5	35.8	15.5	11.3	13.4	5.0	2.5	17.2
Forkedeer					66.5		32.5	17.8	
Dubois	26.0	32.5	29.3	11.5	11.5	11.5	9.5	6.0	15.6
Fulgrain	16.0	11.5	13.8	43.5	11.5	27.5			
Victorgrain 48-93	13.5	14.5	14.0	22.0	11.5	16.8			
Fulwood	22.5	5.5	14.0	31.0	13.0	22.0			
Cimarron	62.0	34.0	48.0	44.4	8.5	26.5	10.5	5.3	26.6

(1) Data from 1955 test at Middleburg included in this average
(2) Data from 1956 tests at Emory and Staunton included in this average

Table 21. Average height (inches) of fall oat varieties tested in 1955 and 1956

Variety	Coastal Plains			Piedmont			West of Blue Ridge				Avg. All
	Petersburg	Warsaw	Avg.	Charlotte C.h.	Orange	Avg.	Blacksburg	Emory	Staunton	Avg.	Locations
Lee	38.5	39.0	38.8	45.0	35.5	40.3	37.0	45.0	32.5	38.2	39.0
Arlington	40.5	41.5	41.0	46.0	37.5	41.6	40.0	46.5	33.5	40.0	40.7
Bronco	36.5	37.5	37.0	43.0	35.0	39.0	37.0	44.5	31.0	37.5	37.8
Forkedeer					36.0		38.5	44.5	33.5	38.8	
Dubois	34.5	36.0	35.3	39.0	33.0	36.0	35.0	42.0	30.0	35.7	35.7
Fulgrain	31.5	29.5	30.5	34.5							
Victorgrain 48-93	37.5	34.0	35.8	40.0							
Fulwood	32.0	28.0	30.0	34.5							
Cimarron	33.5	33.5	33.5	37.5	29.5	33.5	34.5	37.0	29.5	33.7	33.6

Table 22. Yield in bushels per acre of midwinter planted oats tested in 1956

		Coastal Plains				Piedmont		
Variety	Entry	Petersburg	Onely	Warsaw	Avg.	Charlotte C.h.	Orange	Avg.
Arlington	1	39.6	76.3	42.9	52.9	73.7	74.8	74.3
Lee	2	40.9	77.4	45.1	54.5	61.6	75.9	68.8
Andrew	3	33.2	77.1	36.5	48.9	71.8	63.8	67.8
Woodgrain	4	29.3	80.8	43.3	51.1	71.5	80.1	75.8
Fulwood	5	32.5	85.3	41.7	53.1	79.8	74.3	77.1
Fulgrain	6	33.7	77.0	46.4	52.4	79.0	74.3	76.7
Victorgrain 48-93	7	37.0	80.9	43.5	53.8	76.2	66.8	71.5
Mo. 0-205	8	33.6	83.6	44.8	54.0	79.2	73.7	76.5
Coker 55-5	9	31.9	82.0	56.9	56.9	67.1	80.6	73.9
Coker 55-6	10	33.3	87.2	52.0	57.5	80.0	83.4	81.7
LSD (.05)		6.3	N.S.	7.2		9.0	8.9	

Table 23. Test weight in pounds per bushel of midwinter planted oats tested in 1956

Variety	Entry	Coastal Plains			Piedmont			Avg. All Locations
		Petersburg	Warsaw	Avg.	Charlotte C.h.	Orange	Avg.	
Arlington	1	32.0	35.7	33.9	31.0	31.0	31.0	32.5
Lee	2	32.0	34.0	33.0	30.5	31.0	30.8	31.9
Andrew	3	31.0	32.9	32.0	30.0	29.0	29.5	30.8
Woodgrain	4	32.0	33.8	32.9	29.0	31.0	30.0	31.5
Fulwood	5	32.0	35.0	33.5	32.0	32.0	32.0	32.8
Fulgrain	6	32.0	33.7	32.9	31.0	30.0	30.5	31.7
Victorgrain	7	33.0	34.3	33.7	30.0	31.0	30.5	32.1
Mo. 0-205	8	32.0	33.8	32.9	31.5	31.0	31.3	32.1
Coker 55-5	9	31.0	33.9	32.5	30.5	30.0	30.3	31.4
Coker 55-6	10	33.0	34.8	33.9	31.0	32.0	31.5	32.7

Table 24. Date 1/3 headed of midwinter planted oats tested in 1956

Variety	Entry	Coastal Plains			Piedmont	Avg. All Locations
		Petersburg	Warsaw	Avg.	Orange	
Arlington	1	5/21	5/22	5/21	5/23	5/22
Lee	2	5/26	5/26	5/26	5/25	5/26
Andrew	3	5/20	5/20	5/20	5/23	5/21
Woodgrain	4	5/21	5/22	5/21	5/22	5/21
Fulwood	5	5/21	5/20	5/20	5/21	5/20
Fulgrain	6	5/21	5/20	5/20	5/23	5/21
Victorgrain	7	5/21	5/20	5/20	5/23	5/21
Mo. 0-205	8	5/20	5/21	5/20	5/23	5/21
Coker 55-5	9	5/23	5/24	5/23	5/24	5/23
Coker 55-6	10	5/20	5/22	5/21	5/23	5/22

Table 25. Percent lodging of midwinter planted oats tested in 1956

Variety	Entry	Coastal Plains	Piedmont			Avg. All Locations
		Petersburg	Charlotte C.h.	Orange	Avg.	
Arlington	1	0	7	7	7.0	4.6
Lee	2	0	14	11	12.5	8.4
Andrew	3	0	6	3	4.5	3.0
Woodgrain	4	0	4	0	2.0	1.3
Fulwood	5	0	6	0	3.0	2.0
Fulgrain	6	0	6	0	3.0	2.0
Victorgrain	7	0	6	1	3.5	2.3
Mo. 0-205	8	0	5	0	2.5	1.7
Coker 55-5	9	0	4	0	2.0	2.7
Coker 55-6	10	0	8	0	4.0	5.3

Table 26. Height in inches of midwinter planted oats tested in 1956

Variety	Entry	Coastal Plains			Piedmont			Avg. All Locations
		Petersburg	Warsaw	Avg.	Charlotte C.h.	Orange	Avg.	
Arlington	1	31	36	33.5	37	36	36.5	35.0
Lee	2	31	35	33.0	36	34	35.0	34.0
Andrew	3	32	37	34.5	38	34	36.0	35.3
Woodgrain	4	21	28	24.5	27	25	26.0	25.3
Fulwood	5	22	26	24.0	26	24	25.0	24.5
Fulgrain	6	23	29	26.0	27	25	26.0	26.0
Victorgrain	7	26	30	28.0	32	29	30.5	29.3
Mo. 0-205	8	30	38	34.0	37	36	36.5	35.3
Coker 55-5	9	23	30	26.5	29	25	27.0	26.8
Coker 55-6	10	23	29	26.0	28	25	26.5	26.3

Table 27. Average yield, bushel test weight, height, date 1/3 headed, and percent lodged of mid-winter planted oats tested in 1955 and 1956

Variety	Yield (bu/acre)					Weight/Bushel (lbs)			
	Petersburg	Warsaw	Avg.	Charlotte C.h.	Avg. (1)	Petersburg	Warsaw	Charlotte C.h.	Avg. (1)
Arlington	45.8	72.2	59.0	57.1	63.0	32.0	35.4	32.3	32.9
Lee	47.9	78.7	63.3	54.9	61.9	31.0	33.6	31.5	31.9
Andrew	44.1	74.2	59.2	55.9	58.5	31.5	33.2	31.0	31.5
Woodgrain	43.1	75.1	59.1	53.0	62.0	31.5	32.5	29.8	31.2
Fulwood	43.0	73.7	58.4	54.1	60.8	32.8	35.1	31.5	33.0
Fulgrain	41.5	71.7	56.6	58.4	63.7	31.8	33.0	31.3	31.7
Victorgrain 48-93	47.8	78.9	63.4	59.9	50.7	32.8	33.6	30.8	32.2
Mo. 0-205	46.1	80.6	63.4	62.2	66.0	32.5	34.7	32.0	32.8

Variety	Height (inches)				Date 1/3 headed			Percent lodged		
	Petersburg	Warsaw	Charlotte C.h.	Avg. (1)	Petersburg	Warsaw	Avg. (1)	Petersburg	Charlotte C.h.	Avg. (2)
Arlington	32.0	35.0	41.5	36.1	5/16	5/17	5/18	5.0	24.0	16.0
Lee	30.5	33.5	39.5	34.4	5/23	5/23	5/23	0	37.5	7.7
Andrew	32.0	36.0	42.0	36.3	5/15	5/15	5/17	5.0	18.5	13.2
Woodgrain	23.0	27.5	30.0	26.6	5/17	5/17	5/18	0	18.5	9.8
Fulwood	23.0	26.5	30.0	26.1	5/16	5/15	5/17	0	27.0	10.3
Fulgrain	24.5	28.5	28.5	26.9	5/17	5/16	5/18	0	17.5	5.8
Victorgrain 48-93	26.5	30.0	37.0	30.9	5/16	5/15	5/17	5.0	23.0	12.5
Mo. 0-205	31.5	36.0	42.0	36.4	5/16	5/16	5/17	0	20.5	10.2

(1) Data from 1956 test at Orange included in these averages
(2) Data from 1956 test at Orange and data from 1955 test at Warsaw included in this average

Table 28. Yield in bushels per acre of spring oat varieties tested in 1956

Variety	Entry	Piedmont			West of Blue Ridge		
		Charlotte C.h.	Orange	Avg.	Blacksburg	Staunton	Avg.
Andrew	1	39.6	77.8	58.7	48.2	30.7	39.5
Mo.0-205	2	47.6	82.0	64.8	46.6	28.7	37.7
Southland	3	49.5	78.7	64.1	48.1	29.3	38.7
Bentland	4	35.5	71.4	53.5	42.3	26.4	34.4
Sauk	5	41.3	81.7	61.5	53.9	34.2	44.1
Midland	6	42.7	72.9	57.8	47.3	30.9	39.1
Newton	7	42.9	79.5	61.2	48.0	30.4	39.2
Clairon	8	43.7	83.6	63.7	52.5	32.8	42.7
C.I. 6913(1)	9	45.4	67.4	56.4	48.3	33.3	40.8
54-21-23(1)	10	47.9	72.3	60.1	45.0	28.3	36.7
C.I.6623(1)	11	46.0	80.1	63.1	45.9	33.3	39.6
C.I.6621(1)	12	43.7	77.1	60.4	49.8	28.8	39.3
Garry	13	31.6	78.1	54.9	56.7	30.9	43.8
0-1(1)	14		78.4		53.6		
0-2(1)	15		78.9		53.0		
0-3(1)	16		74.3		37.8		
0-4(1)	17		67.7		38.8		
0-5(1)	18		69.6				
0-6(1)	19		72.6		39.9		
0-7(1)	20		78.4		54.6		
L.S.D. (.05)		5.9	7.7		6.2	N.S.(2)	

(1) Experimental varieties, not commercially available
(2) No significant difference among yields of varieties

Table 29. Test weight in pounds per bushel of spring oat varieties tested in 1956

Variety	Entry	Piedmont			West of Blue Ridge			Avg. All Locations
		Charlotte C.h.	Orange	Avg.	Blacksburg	Staunton	Avg.	
Andrew	1	29.0	30.0	29.5	32.3	33.0	32.7	31.1
Mo.0-205	2	29.0	31.0	30.0	34.0	32.2	33.1	31.6
Southland	3	26.5	28.0	27.3	32.4	32.0	32.2	29.8
Bentland	4	26.5	29.0	27.8	33.7	31.9	32.8	30.3
Sauk	5	26.5	29.0	27.8	32.2	31.5	31.9	29.9
Midland	6	22.0	25.0	23.5	29.5	32.1	30.8	27.2
Newton	7	28.0	31.0	29.5	35.3	32.5	33.9	31.7
Clairon	8	29.0	30.0	29.5	33.7	31.2	32.5	31.0
C.I. 6913	9	27.5	30.0	28.8	35.1	31.5	33.3	31.1
54-21-23	10	30.5	31.0	30.8	35.4	32.0	33.7	32.3
C.I. 6623	11	28.5	29.0	28.8	33.4	29.7	31.6	30.2
C.I. 6621	12	29.0	29.0	29.0	33.3	30.2	31.8	30.4
Garry	13	20.0	27.0	23.5	32.0	31.4	31.7	27.6
0-1	14		28.0		32.5			
0-2	15		29.0		32.7			
0-3	16		28.0		33.5			
0-4	17		29.0		31.8			
0-5	18		28.0					
0-6	19		30.0		33.9			
0-7	20		28.0		32.5			

Table 30. Date 1/3 headed of spring oat varieties tested in 1956

Variety	Entry	Piedmont	West of Blue Ridge			Avg. All
		Orange	Blacksburg	Staunton	Avg.	Locations
Andrew	1	5/29	6/6	5/26	5/31	5/30
Mo.0-205	2	5/30	6/8	5/30	6/3	6/2
Southland	3	5/30	6/9	6/1	6/5	6/3
Bentland	4	5/31	6/11	6/2	6/6	6/4
Sauk	5	6/4	6/11	6/6	6/8	6/7
Minland	6	5/29	6/5	5/30	6/2	6/1
Newton	7	5/31	6/9	6/1	6/5	6/3
Clairon	8	6/1	6/9	6/1	6/5	6/2
C.I. 6913	9	5/30	6/8	6/2	6/5	6/3
54-21-23	10	5/28	6/4	5/30	6/1	5/31
C.I. 6623	11	5/27	6/5	5/30	6/2	5/31
C.I. 6621	12	5/27	6/8	5/26	6/1	5/30
Garry	13	6/8	6/13	6/3	6/8	6/8
0-1	14	5/31	6/9			
0-2	15	5/31	6/7			
0-3	16	5/31	6/10			
0-4	17	5/27	6/5			
0-5	18	5/28				
0-6	19	5/31	6/9			
0-7	20	5/30	6/9			

Table 31. Percent lodging of spring oat varieties tested in 1956

Variety	Entry	Piedmont			West of Blue Ridge			Avg. All Locations
		Charlotte C.h.	Orange	Avg.	Blacksburg	Staunton	Avg.	
Andrew	1	6	0	3.0	11	0	5.5	4.3
Mo.0-205	2	6	0	3.0	10	0	5.0	4.0
Southland	3	16	0	8.0	4	0	2.0	5.0
Lentland	4	6	0	3.0	3	0	1.5	2.3
Sauk	5	5	0	2.5	7	0	3.5	3.0
Minland	6	9	0	4.5	11	0	5.5	5.0
Newton	7	5	0	2.5	2	0	1.0	1.8
Clairon	8	7	0	3.5	1	0	0.5	2.0
C.I. 6913	9	9	0	4.5	13	0	6.5	5.5
54-21-23	10	8	0	4.0	19	0	9.5	6.8
C.I.6623	11	7	0	3.5	13	0	6.5	5.0
C.I.6621	12	7	0	3.5	14	0	7.0	5.3
Garry	13	5	0	2.5	14	0	7.0	4.8
0-1	14		0		15			
0-2	15		0		6			
0-3	16		0		7			
0-4	17		0		6			
0-5	18		0					
0-6	19		0		8			
0-7	20		0		14			

Table 32. Height in inches of spring oat varieties tested in 1956

Variety	Entry	Piedmont			West of Blue Ridge			Avg. All Locations
		Charlotte C.h.	Orange	Avg.	Blacksburg	Staunton	Avg.	
Andrew	1	32	33	32.5	30	20	25.0	28.6
Mo. 0-205	2	34	36	35.0	31	20	25.5	30.3
Southland	3	28	29	28.5	25	15	20.0	24.3
Bentland	4	35	34	34.5	31	20	25.5	30.0
Sauk	5	35	36	35.5	31	20	25.5	30.5
Minland	6	34	34	34.0	30	20	25.0	29.5
Newton	7	34	32	33.0	27	19	23.0	28.0
Clairon	8	35	33	34.0	29	19	24.0	29.0
C.I. 6913	9	35	33	34.0	32	20	26.0	30.0
54-21-23	10	33	33	33.0	28	17	22.5	27.8
C.I. 6623	11	33	33	33.0	30	20	25.0	29.0
C.I. 6621	12	34	32	33.0	31	20	25.5	29.3
Garry	13	36	36	36.0	33	21	27.0	31.5
0-1	14		40		35			
0-2	15		33		28			
0-3	16		36		33			
0-4	17		30		26			
0-5	18		33					
0-6	19		32		30			
0-7	20		34		30			

Table 33. Average yield, and height of spring oat varieties tested in 1955 and 1956

	Yield (bu/acre)					
	Piedmont			West of Blue Ridge		
Variety	Charlotte C.h.	Orange	Avg.(1)	Blacksburg	Staunton	Avg.(2)
Andrew	54.8	74.0	64.9	49.6	53.6	50.1
Mo. 0-205	58.3	72.4	66.0	47.2	49.7	46.2
Southland	55.9	71.4	63.7	48.4	47.8	49.5
54-21-23				43.0		
C.I. 6621		65.4		51.0	52.8	48.8

	Height (inches)						
	Piedmont			West of Blue Ridge			Avg. All
Variety	Charlotte C.h.	Orange	Avg.(3)	Blacksburg	Staunton	Avg.	Locations
Andrew	38.6	33.9	36.4	29.5	25.4	27.5	32.4
Mo. 0-205	39.5	35.9	38.0	29.6	26.5	28.1	33.6
Southland	32.4	28.4	29.9	24.8	20.5	22.7	26.7
54-21-23				29.4			
C.I. 6621		35.6		29.6	25.3	27.2	

(1) Data from 1955 test at Middleburg included in this average
(2) Data from 1955 test at Emory included in this average
(3) Data from 1955 test at Middleburg included in this average

Table 34. Average weight per bushel, lodging, and date 1/3 headed of spring oat varieties tested in 1955 and 1956

Weight per bushel (lbs.)

Variety	Piedmont			West of Blue Ridge			Avg. All Locations
	Charlotte C.h.	Orange	Avg.	Blacksburg	Staunton	Avg.	
Andrew	30.8	30.0	30.4	32.5	32.6	32.6	31.5
Mo. C-205	29.5	30.0	29.8	32.7	31.2	32.0	30.9
Southland	28.8	28.0	28.4	31.0	32.3	31.7	30.4
54-21-23				32.9			
C. I. 6621				32.3			

Lodging (percent)

Variety	Piedmont			West of Blue Ridge			Avg. All Locations
	Charlotte C.h.	Orange	Avg.	Blacksburg	Staunton	Avg.	
Andrew	13.0	2.0	7.5	5.5	0	2.8	4.2
Mo.0-205	11.5	1.0	6.3	5.0	0	2.5	3.8
Southland	20.5	1.5	11.0	2.0	0	1.0	1.5
54-21-23				9.5			
C.I. 6621		4.5		7.0			

Date 1/3 headed

Variety	Piedmont	West of Blue Ridge			Avg. All Locations
	Orange	Blacksburg	Staunton	Avg.	
Andrew	5/24	6/1	6/1	6/1	5/29
Mo. C-205	5/26	6/4	6/3	6/3	5/31
Southland	5/26	6/5	6/5	6/5	6/2
54-21-23		6/2			
C.I. 6621	5/24	6/3	6/1	6/2	5/30

Table 35. Yield in bushels per acre of wheat varieties tested in 1956

Variety	Entry	Coastal Plains				Piedmont			West of Blue Ridge		
		Warsaw	Petersburg	Onley	Avg.	Charlotte C.h.	Orange	Avg.	Blacksburg	Emory	Avg.
Vahart	1	51.8	34.9	46.6	44.4	52.8	30.7	41.6	40.9	48.6	44.8
Thorne	2	48.9	35.1	44.5	42.8	51.9	29.2	40.6	36.3	41.9	39.1
Seneca	3	53.1	41.8	43.4	46.1	57.3	28.0	42.7	45.9	45.8	45.8
Leap	4	50.5	34.5	46.3	43.8	50.3	29.2	39.8	44.2	48.0	46.1
Nudel	5	47.6	31.2	38.1	40.1	46.6	30.5	38.6	37.7	42.8	40.3
Taylor 49	6	51.6	30.7	46.5	42.9	56.8	32.3	44.6	47.2		
Knox	7	52.7	33.7	51.2	45.9	50.2	27.7	39.0	45.2	41.6	43.4
Anderson	8	41.9	32.8	44.4	39.7	54.6	24.5	39.6	44.4		
55-39-5 (1)	9	52.5	29.8	50.2	44.2	53.5	26.0	39.8			
Coker 47-27	10	55.6	38.9	56.2	50.2	47.2					
VPI 131	11								37.4	36.5	37.0
Butler	12	47.5	30.7	44.7	41.0	47.2	26.8	37.0	42.7	44.0	43.4
Pennoll	13	47.4	32.7	45.7	41.9	53.2	26.0	39.6	43.2	35.7	39.5
Vigo	14	44.1	31.8	36.7	37.5	37.7	32.7	35.2	43.3	34.0	38.7
Tayland	15	51.1	34.3	47.9	44.4	56.2	30.5	43.4			
Atlas 50	16	49.1	32.6	50.0	43.9	55.1					
Atlas 66 (1)	17	49.9	32.6	49.9	44.1	53.2					
C.I. 13110 (1)	18	55.4	31.8	52.2	46.5	52.6	32.6	42.6	39.2	28.8	34.0
55-39-11 (1)	19	50.6	35.3	50.3	45.4	54.3	26.5	40.4			
55-39-22 (1)	20	48.5	31.0	44.8	41.4	50.2	24.8	37.5			
55-39-43 (1)	21	47.0	33.5	47.3	42.6	49.7	23.9	36.8			
55-39-16 (1)	22						31.4		48.8	33.8	41.3
55-39-23 (1)	23						34.6		51.9	41.3	46.6
55-39-30 (1)	24						29.6		50.6	44.1	47.4
55-39-38 (1)	25						32.4		50.3	43.9	47.1
55-39-44 (1)	26						28.1		48.0		
L.S.D. (.05)		5.5	4.8	6.3		6.3	5.6		6.5	7.7	

(1) Experimental varieties, not commercially available.

Table 36. Test weight in pounds per bushel of wheat varieties tested in 1956

Variety	Entry	Coastal Plains			Piedmont			West of Blue Ridge			Avg. All Locations
		Petersburg	Warsaw	Avg.	Charlotte C.h.	Orange	Avg.	Blacksburg	Emory	Avg.	
Vahart	1	61.0	59.4	60.2	62.0	61.0	61.5	57.4	59.4	58.4	60.0
Thorne	2	60.0	58.0	59.0	62.0	60.0	61.0	56.5	56.9	56.7	58.9
Seneca	3	62.0	58.3	60.2	61.5	61.0	61.3	58.2	58.9	58.6	60.0
Leap	4	62.0	58.4	60.2	61.5	59.0	60.3	55.7	58.4	57.1	59.2
Nudel	5	62.0	58.8	60.4	61.5	60.0	60.8	56.5	60.0	58.3	59.8
Taylor 49	6	60.0	58.1	59.1	61.0	59.0	60.0	56.0			
Knox	7	62.0	59.5	60.8	63.0	60.0	61.5	59.9	58.5	59.2	60.5
Anderson	8	62.0	58.0	60.0	61.5	59.0	60.3	57.7			
55-39-5	9	61.0	58.9	60.0	61.5	60.0	60.8				
Coker 47-27	10	62.0	59.6	60.8	62.0						
VPI 131	11							57.5	60.5	59.0	
Butler	12	60.0	59.3	59.7	61.5	60.0	60.8	58.0	59.5	58.8	59.8
Pennoll	13	62.0	59.5	60.8	62.0	61.0	61.5	57.5	57.7	57.6	60.0
Vigo	14	61.0	59.6	60.3	61.0	60.0	60.5	57.9	58.0	58.0	59.6
Tayland	15	61.0	58.3	59.7	61.0	60.0	60.5				
Atlas 50	16	61.0	58.1	59.6	62.0						
Atlas 66	17	61.0	58.6	59.8	61.5						
C.I. 13110	18	60.0	56.6	58.3	60.0	58.0	59.0	53.5	54.7	54.1	57.1
55-39-11	19	59.0	57.9	58.5	61.5	59.0	60.3				
55-39-22	20	60.0	60.6	60.3	61.5	60.0	60.8				
55-39-43	21	64.0	59.8		63.5	61.0	62.3				
55-39-16	22					60.0		58.0	58.0	58.0	
55-39-23	23					60.0		58.1	57.5		
55-39-30	24					60.0		58.2	58.0	58.1	
55-39-38	25					60.0		58.4	58.0	58.2	
55-39-44	26					60.0		58.2			

Table 37. Date 1/3 headed of wheat varieties tested in 1956

Variety	Entry	Coastal Plains			Piedmont			West of Blue Ridge	Avg. All
		Petersburg	Warsaw	Avg.	Charlotte C.h.	Orange	Avg.	Blacksburg	Locations
Vahart	1	5/8	5/12	5/10	5/9	5/19	5/14	5/29	5/15
Thorne	2	5/10	5/14	5/12	5/10	5/20	5/15	5/31	5/17
Seneca	3	5/9	5/14	5/11	5/10	5/19	5/14	5/30	5/16
Leap	4	5/7	5/13	5/10	5/7	5/19	5/13	5/29	5/15
Nudel	5	5/9	5/14	5/11	5/10	5/20	5/15	5/29	5/16
Taylor 49	6	5/7	5/12	5/9	5/8	5/19	5/13	5/29	5/15
Knox	7	5/1	5/4	5/2	5/7	5/17	5/12	5/22	5/10
Anderson	8	5/7	5/15	5/11	5/7	5/20	5/13	5/31	5/16
55-39-5	9	5/5	5/8	5/6	5/7	5/19	5/13		
Coker 47-27	10	5/4	5/7	5/5	5/7				
VPI 131								5/29	
Butler	12	5/11	5/14	5/12	5/10	5/20	5/15	5/29	5/17
Pennoll	13	5/12	5/16	5/14	5/10	5/21	5/15	6/1	5/18
Vigo	14	5/11	5/14	5/12	5/10	5/19	5/14	5/30	5/16
Tayland	15	5/6	5/12	5/9	5/7	5/20	5/13		
Atlas 50	16	5/5	5/11	5/8	5/7				
Atlas 66	17	5/5	5/11	5/8	5/7				
C.I. 13110	18	5/11	5/15	5/13	5/10	5/20	5/15	6/1	5/18
55-39-11	19	5/6	5/11	5/8	5/7	5/20	5/13		
55-39-22	20	5/8	5/13	5/10	5/7	5/19	5/13		
55-39-43	21	5/8	5/13	5/10	5/7	5/20	5/13		
55-39-16	22					5/19		5/28	
55-39-23	23					5/19		5/28	
55-39-30	24					5/19		5/29	
55-39-38	25					5/19		5/28	
55-39-44	26					5/19		5/29	

Table 33. Percent lodging of wheat varieties tested in 1956

Variety	Entry	Coastal Plains			Piedmont			West of Blue Ridge			Avg. All Locations
		Petersburg	Warsaw	Avg.	Charlotte C.h.	Orange	Avg.	Blacksburg	Emory	Avg.	
Vahart	1	0	3	1.5	14	0	7.0	4	2	3.0	4.8
Thorne	2	0	6	3.0	6	0	3.0	1	10	5.5	4.8
Seneca	3	0	1	0.5	9	0	4.5	0	4	2.0	2.3
Leap	4	0	8	4.0	6	0	3.0	5	9	7.0	4.7
Nudel	5	0	8	4.0	7	0	3.5	23	3	13.0	6.8
Taylor 49	6	0	1	0.5	5	0	2.5	3			
Knox	7	0	0	0	26	0	13.0	0	1	0.5	4.5
Anderson	8	0	9	4.5	6	0	3.0	1			
55-39-5	9	0	2	1.0	14	0	7.0				
Coker 47-27	10	0	1	0.5	23						
VPI 131	11							8	10	9.0	
Butler	12	0	5	2.5	2	0	1.0	3	2	2.5	2.0
Pennoll	13	0	10	5.0	5	0	2.5	2	13	7.5	5.0
Vigo	14	0	0	0	2	0	1.0	3	8	5.5	2.2
Tayland	15	0	2	1.0	5	0	2.5				
Atlas 50	16	0	8	4.0	9						
Atlas 66	17	0	3	1.5	8						
C.I. 13110	18	0	0	0	2	0	1.0	15	3	9.0	3.3
55-39-11	19	0	8	4.0	14	0	7.0				
55-39-22	20	0	24	12.0	11	0	5.5				
55-39-43	21	0	24	12.0	8	0	4.0				
55-39-16	22					0		3	4	3.5	
55-39-23	23					0		0	4	2.0	
55-39-30	24					0		0	3	1.5	
55-39-38	25					0		0	3	1.5	
55-39-44	26					0		0			

Table 39. Height in inches of wheat varieties tested in 1956

Variety	Entry	Coastal Plains			Piedmont			West of Blue Ridge			Avg. All Locations
		Petersburg	Warsaw	Avg.	Charlotte C.h.	Orange	Avg.	Blacksburg	Emory	Avg.	
Vahart	1	44	46	45.0	48	38	43.0	54	50	52.0	46.7
Thorne	2	42	42	42.0	46	34	40.0	50	43	46.5	42.8
Seneca	3	43	43	43.0	48	32	40.0	52	42	47.0	43.3
Leap	4	42	44	43.0	48	35	41.5	54	48	51.0	45.2
Nudel	5	45	47	46.0	51	38	44.5	57	49	53.0	47.8
Taylor 49	6	41	43	42.0	47	36	41.5	53			
Knox	7	37	40	38.5	45	30	37.5	46	36	41.0	39.0
Anderson	8	45	46	45.5	49	37	43.0	57			
55-39-5	9	41	44	42.5	49	33	41.0				
Coker 47-27	10	46	45	45.5	48						
VPI 131	11							57	50	53.5	
Butler	12	41	42	41.5	48	34	41.0	51	43	47.0	43.2
Pennoll	13	44	46	45.0	49	36	42.5	56	47	51.5	46.3
Vigo	14	42	45	43.5	48	39	43.5	55	47	51.0	46.0
Tayland	15	43	44	43.5	47	35	41.0				
Atlas 50	16	42	43	42.5	48						
Atlas 66	17	41	43	42.0	47						
C.I. 13110	18	38	43	40.5	46	35	40.5	51	41	46.0	42.3
55-39-11	19	46	46	46.0	49	36	42.5				
55-39-22	20	46	47	46.5	50	36	43.0				
55-39-43	21	41	43	42.0	46	35	40.5				
55-39-16	22					35		50	40	45.0	
55-39-23	23					36		51	41	46.0	
55-39-30	24					33		51	42	46.5	
55-39-38	25					32		50	43	46.5	
55-39-44	26					34		51			

Table 40. Disease reaction of wheat varieties tested at several locations in 1956

Variety	Powdery Mildew				Leaf Rust(2)	Loose Smut(4)
	Onley(2)	Petersburg(3)	Charlotte C.h.(2)	Blacksburg(2)	Blacksburg	Blacksburg
Vahart	24	1	20	1	31	3.0
Thorne	50	2	32	21	44	0
Seneca	45	1	36	6	49	3.1
Leaps	36	2	45	7	42	0
Nudel	34	2	24	11	3	1.1
Taylor 49	41	2	45	39	1	0
Knox	18	1	9	0	0	0.5
Anderson	18	1	13	8	0	0
55-39-5(1)	3	0	8	-	-	-
Coker	7	1	28	-	-	-
V.P.I. 131	-	-	-	2	39	2.5
Butler	51	3	66	13	53	0
Pennoll	33	1	45	2	30	0.1
Vigo	50	2	53	19	7	0
Tayland	42	3	40	-	-	-
Atlas 50	1	0	9	-	-	-
Atlas 66	2	T	18	-	-	-
C. I. 13110	6	0	9	0	5	0
55-39-11 (1)	3	0	5	-	-	-
55-39-22 (1)	18	T	13	-	-	-
55-39-43 (1)	18	T	33	-	-	-
55-39-16 (1)	-	-	-	0	0	0.7
55-39-23 (1)	-	-	-	0	0	0.2
55-39-30 (1)	-	-	-	0	0	0.8
55-39-38 (1)	-	-	-	2	0	0.8
55-39-44 (1)	-	-	-	T	1	0.7

(1) Experimental varieties not commercially available
(2) Percent severity
(3) Scale of 0-5
(4) Smutted heads per rod row

Table 41. Average yield in bushels per acre of wheat varieties tested in 1955 and 1956

Variety	Coastal Plains				Piedmont			West of Blue Ridge		
	Petersburg	Onley	Warsaw	Avg.	Charlotte C.h.	Orange	Avg.(1)	Blacksburg	Emory	Avg.
Vahart	32.7	35.8	51.4	40.0	46.8	34.8	39.6	38.0	39.1	38.6
Thorne	32.9	35.5	48.9	39.1	46.1	34.1	38.8	38.3	38.2	38.3
Seneca	37.0	36.1	50.1	41.1	49.7	32.8	39.6	40.7	35.5	38.1
Leap	33.2	36.5	50.5	40.1	44.3	35.1	39.1	39.1	38.9	39.0
Knox	34.4	42.6	51.1	42.7	41.3	33.7	34.3	42.6	32.5	37.6
Anderson	33.8	35.2	49.4	39.5	47.3	34.4	40.2	37.8		
Coker 47-27	35.7	41.0	55.1	43.9	45.6					
Butler	28.3	37.3	47.7	37.8	41.9	32.2	36.8	41.7	39.7	40.7
Pennoll	33.3	35.8	48.4	39.2	48.1	33.1	40.2	39.8	33.9	36.9
Vigo	31.2	31.4	44.8	35.8	36.4	36.0	35.2	40.5	32.7	36.6
Tayland	34.2	35.4	54.6	41.4	46.8	37.4	40.9		27.6	
Atlas 66	29.8	38.6	50.9	39.8	44.9					
VPI 131								34.9	34.1	34.5

(1) Data from Middleburg for 1955 included in this average

Table 42. Average test weight in pounds per bushel of wheat varieties tested in 1955 and 1956

Variety	Coastal Plains			Piedmont			West of Blue Ridge			Avg. All Locations
	Petersburg	Warsaw	Avg.	Charlotte C.h.	Orange	Avg.	Blacksburg	Emory	Avg.	
Vahart	60.5	58.3	59.4	60.8	59.5	60.2	59.8	58.5	59.2	59.6
Thorne	59.5	57.0	58.3	60.8	59.0	59.9	58.6	55.8	57.2	58.5
Seneca	61.0	56.8	58.9	60.8	60.0	60.4	59.9	56.8	58.4	59.2
Leap	60.5	56.5	58.5	59.8	58.5	59.2	58.4	57.4	57.9	58.5
Knox	59.5	57.3	58.4	60.3	59.0	59.7	60.3	57.6	59.0	59.0
Anderson	61.0	57.6	59.3	60.3	59.0	59.7	59.7			
Coker 47-27	60.5	59.3	59.9	61.0						
Butler	60.0	58.8	59.4	60.8	59.5	60.2	59.9	56.5	58.2	59.3
Pennoll	61.3	59.4	60.4	61.0	59.5	60.3	59.8	55.7	57.8	59.5
Vigo	60.5	58.7	59.6	60.3	59.5	59.9	59.8	57.5	58.7	59.4
Tayland	59.5	57.1	58.3	59.5	58.5	59.0				
Atlas 66	60.0	56.9	58.5	59.3						
VPI 131							59.8	58.9	59.4	

Table 43. Average date 1/3 headed of wheat varieties tested in 1955 and 1956

Variety	Coastal Plains			Piedmont			West of Blue Ridge		Avg. All Locations
	Petersburg	Warsaw	Avg.	Charlotte C.h.	Orange	Avg.	Blacksburg	Avg.(1)	
Vahart	5/5	5/11	5/8	5/7	5/15	5/11	5/25	5/23	5/13
Thorne	5/7	5/13	5/10	5/9	5/18	5/13	5/27	5/26	5/15
Seneca	5/7	5/13	5/10	5/9	5/17	5/13	5/26	5/25	5/15
Leap	5/4	5/11	5/7	5/6	5/15	5/10	5/25	5/24	5/13
Knox	4/27	5/3	~~5/15~~ 4/30	5/5	5/10	5/7	5/19	5/16	~~5/12~~ 5/8
Anderson	5/3	5/12	5/7	5/6	5/14	5/10	5/27	5/24	5/13
Coker 47-27	5/1	5/7	5/4	5/6					
Butler	5/8	5/13	5/10	5/9	5/16	5/12	5/25	5/24	5/13
Pennoll	5/9	5/15	5/12	5/9	5/18	5/13	5/27	5/26	5/15
Vigo	5/8	5/13	5/10	5/9	5/16	5/12	5/26	5/24	5/13
Tayland	5/4	5/11	5/7	5/7	5/16	5/11			
Atlas 66	5/1	5/9	5/5	5/6					
VPI 131							5/26	5/24	

(1) Data from Staunton for 1955 included in this average

Table 44. Average percent lodged of wheat varieties tested 1955 and 1956

Variety	Coastal Plains			Piedmont			West of Blue Ridge			Avg. All Locations
	Petersburg	Warsaw	Avg.	Charlotte C.h.	Orange	Avg.	Blacksburg	Emory	Avg.	
Vahart	0	18.0	9.0	15.5	24.5	20.0	3.5	1.0	2.3	10.4
Thorne	0	21.5	10.8	14.0	39.5	26.8	1.0	5.0	3.0	13.5
Seneca	0	21.5	10.8	13.5	34.0	23.8	0	2.0	1.0	11.9
Leap	0	31.0	15.5	25.5	34.5	30.0	10.0	5.5	7.8	17.8
Knox	0	7.0	3.5	56.0	2.0	29.0	1.5	1.0	1.3	11.3
Anderson	0	26.5	13.3	14.0	10.0	12.0	1.5			
Coker 47-27	0	23.0	11.5	27.0						
Butler	0	24.5	12.3	8.0	13.0	10.5	2.0	2.5	2.3	8.4
Pennoll	0	25.5	12.8	18.0	43.0	30.5	1.5	7.0	4.3	15.9
Vigo	0	15.0	7.5	14.0	12.5	13.3	3.5	6.0	4.8	8.5
Tayland	0	17.5	8.8	8.0	32.5	20.3				
Atlas 66	0	30.0	15.0	21.5						
VPI 131							8.5	8.5	8.5	

Table 45. Average height in inches of wheat varieties tested in 1955 and 1956

Variety	Coastal Plains			Piedmont			West of Blue Ridge			Avg. All Locations
	Petersburg	Warsaw	Avg.	Charlotte C.h.	Orange	Avg.	Blacksburg	Emory	Avg.	
Vahart	44.0	50.0	47.0	47.5	46.5	47.0	46.5	49.0	47.8	47.3
Thorne	41.5	45.5	43.5	46.0	41.0	43.5	44.5	43.5	44.0	43.7
Seneca	42.5	46.0	44.3	47.5	40.0	43.8	44.5	42.0	43.3	43.8
Leap	43.0	48.5	45.8	46.5	44.0	45.3	46.5	47.5	47.0	46.0
Knox	37.0	46.5	41.8	44.0	35.5	39.8	41.5	36.0	38.8	40.1
Anderson	44.5	50.0	47.3	48.5	40.5	44.5	48.0			
Coker 47-27	45.5	48.0	46.8	47.5						
Butler	41.0	46.5	43.8	47.0	41.5	44.3	44.0	43.5	43.8	44.0
Pennoll	45.0	49.0	47.0	49.5	44.5	47.0	47.5	46.0	46.8	46.9
Vigo	43.0	48.5	45.8	47.5	47.0	47.3	48.0	47.5	47.8	47.0
Tayland	42.5	48.5	45.5	46.0	43.0	44.5				
Atlas 66	41.0	45.5	43.3	48.0						
VPI 131							49.5	48.5	49.0	

Parentage of certain experimental varieties of small grains tested in Virginia in 1956

Barley

W x B Y-2	Selection from Wong x Bolivia
W x B G-38	" " " " "
W x B G-36	" " " " "
W x B G-11	" " " " "
W x B Y-36	" " " " "
W x B Y-12	" " " " "
W x B G-65	" " " " "
W x B Y-44	" " " " "

Fall Oats

55-31-22	Atlantic x (Clinton^2 - Santa Fe)
55-31-25	Letoria x (Clinton^2 - Santa Fe)
55-31-36	Letoria x (Clinton^2 - Santa Fe)
55-31-37	Atlantic x (Clinton^2 - Santa Fe)
55-31-38	C.I.4658 x (Clinton^2 - Santa Fe)
55-31-41	C.I.4658 x (Clinton^2 - Santa Fe)

Spring Oats

C.I. 6913	(Bond-Rainbow x Hajira-Joanette) x Landhafer
54-21-23	(Sac-Hajira-Joanette)x(Anthony-Bond-Boone)
C.I. 6623	Andrew x Landhafer
C.I. 6621	Andrew x Landhafer
O-1	(Bond x D.C.A., C.I.3648) x Marion
O-2	(Hajira x Joanette) x Marion
O-3	(Hajira x Joanette) x (D-69 x Bond 1228-2)
O-4	(Han. x (M.B.), C.I. 3972) x Marion
O-5	(Bond x D.C.A.) x Marion
O-6	(D-69 x Bond) x (Bond x D.C.A.)
O-7	Vanguard x (D-69 x Bond)

Wheat

55-39-5	Atlas 66 x Vahart
55-39-11	Atlas 66 x Vahart
C.I. 13110	Kawvale-W38-Fultz Sel.-Hungarian-Wabash-Fairfield-Trumbull^3-(Hope-Hussar)
55-39-22	Atlas 50 x Vahart
55-39-43	Atlas 50 x Vahart
55-39-16	(Supresa x Fultz) x [Kawvale x (Fultz-Hungarian x Ill. 1-Wabash) x Trumbull^3 x Hope - Hussar]7
55-39-23	Same as 55-39-16
55-39-30	" " "
55-39-38	" " "
55-39-44	" " "