This information is presented under authority granted the North Carolina Agricultural Research Service to conduct performance tests, including interpretation of data to the public, and does not imply endorsement or recommendation by North Carolina State University. Any use of data or information presented in this bulletin must be accompanied by conspicuous disclaimer which states, "endorsement or recommendation by North Carolina State University is not implied."

Research Report No. 125
July, 1990

Measured Crop Performance

Small Grain

1990

D. T. BOWMAN, Associate Professor
In Charge of Variety Testing

DEPARTMENT OF CROP SCIENCE
NORTH CAROLINA STATE UNIVERSITY
RALEIGH, N.C. 27695-8604

TABLE OF CONTENTS

INTRODUCTION 1

COMPARING VARIETIES 2

EXPERIMENTAL PROCEDURE 6

- Entries 6
- Field Plot Design 6
- Crop Management 6
- Map - Locations of Official Variety Tests 8
- Contact Person and Agencies Sponsoring Entries 11
- Cooperators and Extension Personnel 12

SEASONAL CONDITIONS 13

DATA 14

RESULTS AND DISCUSSION 15

- Barley 15
- Oats 15
- Wheat 16

TABLES

1. Characteristics of barley varieties 4
2. Characteristics of oat varieties 4
3. Characteristics of wheat varieties 5
4. Cultural practices for small grain tests, 1989-90..... 9
5. Soil test results from test sites, 1990 10
6. Summary of barley performance trials across the state, 1990 17
7. Two-year average barley performance across the state (1989-90) 18
8. Three-year average barley performance across the state (1988-90) 18
9. Summary of barley performance trials in the Piedmont... 19

TABLE OF CONTENTS

10. Summary of barley performance trials in the Coastal Plain 20

11. Average barley performance across years in Granville County 21

12. Average barley performance across years at four locations in the Coastal Plain 22

13. Summary of oat performance trials across the state (1990) 24

14. Two-year average oat performance across the state (1989-90)..... 25

15. Three-year average oat performance across the state (1988-90) 25

16. Summary of oat performance trials in the Coastal Plain 26

17. Average oat performance across years at four locations in the Coastal Plain 27

18. Summary of wheat performance trials across the state (1990) 29

19. Two-year average wheat performance across the state (1989-90) 30

20. Three-year average wheat performance across the state (1988-90) 30

21. Summary of wheat performance trials in the Piedmont ... 31

22. Summary of wheat performance trials in the Coastal Plain 32

23. Average wheat performance across years at three locations in the Piedmont 33

24. Average wheat performance across years at four locations in the Coastal Plain 35

1990

PERFORMANCE OF SMALL GRAIN VARIETIES IN NORTH CAROLINA

INTRODUCTION

Across the state of North Carolina during the fall of 1989, growers planted 50,000 acres of barley, 90,000 acres of oats, and 600,000 acres of wheat. Favorable planting conditions were experienced in the fall.

With the large number of commercially available and prospective varieties of barley, oats, and wheat, it becomes difficult for growers to select a superior variety suited for their particular area of the state. To make this decision, the grower needs up-to-date, unbiased, reliable information. The Official Variety Testing Program, through this report, seeks to provide that type of information.

Information on varietal performance is presented from seven test locations in the state.[1] Also included are multiple-year performance data on a selected number of varieties.

---

[1]Research technicians, Ken Barnes, Ronnie Jeffreys, Mark Langdon, and Dwight Parrish assisted in conducting these tests. Carey Parsons prepared the text and tables for this bulletin.

COMPARING VARIETIES

Performance of a variety cannot be determined with absolute precision. Even though the tests are conducted in a uniform manner, as much as possible, uncontrollable variability exists among experimental plots due to soil, fertility, moisture, insects, diseases, and other sources of variation. Because this variability exists, statistics are used as a tool to determine differences among varieties. The size of difference among varieties which may have been due to chance variation is listed in each table as the B.L.S.D. (least significant difference). Those varieties which do not differ by more than the B.L.S.D. are not statistically different.

Varietal performance may appear inconsistent among locations within an area or among years at a particular location, thus it is important for the reader to examine results from more than one location within an area or more than one year at a particular location, to obtain a more accurate picture of relative varietal performance. An effort has been made to facilitate comparisons among locations and years in this report.

The varieties which do not yield significantly less than the highest yielding variety are denoted by an asterisk (*) next to their yields. The relative performance of a variety across locations within an area can be easily evaluated by going across the table; those varieties which are most frequently marked by an asterisk would be highly desirable. Other agronomic characteristics may be as equally important as yield. All available data regarding pathologic and agronomic characteristics of the varieties

are found in Tables 1, 2, and 3 for barley, oats, and wheat, respectively.[2]

It is suggested that the grower plant a small number of acres in a new variety when first determining if it is adapted to his farm.

---

[2]Special acknowledgment is due Drs. Paul Murphy, Steve Leath and Ron Jarrett for their assistance in describing the characteristics of the varieties.

Table 1. Characteristics of barley varieties.*

Brand-Variety or Variety	Mildew resist-ance	Rust resist-ance	Scald resist-ance	Lodging resist-ance	Winter hardi-ness	Maturity	Test Weight lb/bu	Length of awns
Anson	Poor	Good	Poor	Good	Good	Med-Late	Fair	Awnless
Boone	Poor	Good	Fair	Fair	Good	Medium	Fair	Short
Wysor	Good	Good	Good	Fair	Good	Early	Good	Short
Venus	Good	Fair	Fair	Poor	Good	Very Early	Good	Short

Table 2. Characteristics of oat varieties.*

Brand-Variety or Variety	Crown Rust resist-ance	Leaf Rust resist-ance	Smut resist-ance	Mosaic resist-ance	Maturity	Winter hardi-ness	Lodging resist-ance	Test Weight lb/bu
Brooks	Poor	Poor	Good	Fair	Med-Early	Fair	Fair	Fair
NK-Coker 716	Poor	Good	Good	Good	Medium	Good	Fair	Good
Simpson	Poor	Fair		Excellent	Medium	Good	Fair	Good
SS 76-30	Poor	Good	Poor	Good	Med-Early	Excellent	Fair	Excellent
833	Fair	Good		Good	Medium	Good	Good	Excellent
Bob	Fair				Med-Early		Fair	Excellent
Ozark	Fair				Med-Early	Excellent	Fair	Excellent

*These characteristics based upon all available observations.

Table 3. Characteristics of wheat varieties.*

Brand-Variety or Variety	Leaf rust resist-ance	Mildew resist-ance	Mosaic resist-ance	Maturity	Winter Hardi-ness	Lodging resist-ance	Test Weight lb/bu	Soft Wheat Milling Quality
NK-Coker 916	Poor	Fair	Good	Med-Early	Good	Good	Good	Good
NK-Coker 983	Poor	Good	Good	Med-Early	Good	Good	Good	Good
NK-Coker 9227	Fair	Fair	Good	Early	Fair	Good	Good	Fair
NK-Coker 9766	Good	Fair		Med-Early	Good	Good	Fair	Fair
NK-Coker 9733	Good	Poor		Medium	Good	Good	Fair	Good
Florida 301-H	Fair	Poor	Poor	Medium	Fair	Poor	Good	Fair
Florida 302	Fair	Poor	Poor	Late	Good	Good	Fair	Good
Florida 303	Good	Fair	Poor	Late	Fair	Good	Fair	Good
Pioneer 2548	Fair	Poor	Fair	Medium	Good	Good	Good	Good
Pioneer 2550	Poor	Fair	Good	Medium	Good	Good	Fair	Good
Pioneer 2555	Fair	Fair	Excellent	Medium	Good	Good	Fair	Good
FFR 544	Poor	Fair	Fair	Medium	Good	Good	Good	Good
FFR 568	Poor	Fair	Fair	Med-Late	Good	Good	Good	Good
Saluda	Poor	Poor	Fair	Medium	Good	Good	Fair	Good
Traveler	Fair	Poor	Poor	Early	Good	Good	Fair	
GA-Andy	Poor	Fair		Medium	Good	Good	Good	Good
Tyler	Poor	Poor	Good	Late	Good	Good	Good	Good
Williams	Poor	Fair		Medium		Good	Fair	
GA-Gore	Fair	Fair		Medium	Good	Good	Fair	Good
Bayles	Fair	Good		Medium	Good	Good	Good	Good
GA 100	Fair	Fair		Medium	Good	Good	Good	Good

*These characteristics based upon all available observations.

EXPERIMENTAL PROCEDURE

The state is divided into physiographic regions and tests were located in the Piedmont and Coastal Plain (Figure 1). Tests were located on private farms and on research stations.[3]

Entries: Commercial varieties and experimental lines developed by public and private agencies are included in these tests. Any individual or firm may make application for having entries included by writing Official Variety Testing Program, Department of Crop Science, North Carolina State University, Raleigh, N.C. 27695-8604. A fee is charged on an entry basis for all private entries. Entries of specific interest to North Carolina seedsmen may have been included on a no-fee basis. A total of 7, 11, and 30 commercial varieties and experimental lines of barley, oats, and wheat, respectively, were evaluated in the 1989-90 season.

Field Plot Design: A randomized, complete block design with four or five replications was used at each location.[4] Each plot consisted of eight rows, 7.5 inches apart, 19 feet long with 2.5 feet between each plot.

Crop Management: Cultural practices, such as seed bed preparation, date of planting, fertilization and topdressing were in accord with good farming practices and were uniform for all entries at a given location (Table 4). Prior to planting each test, soil samples were

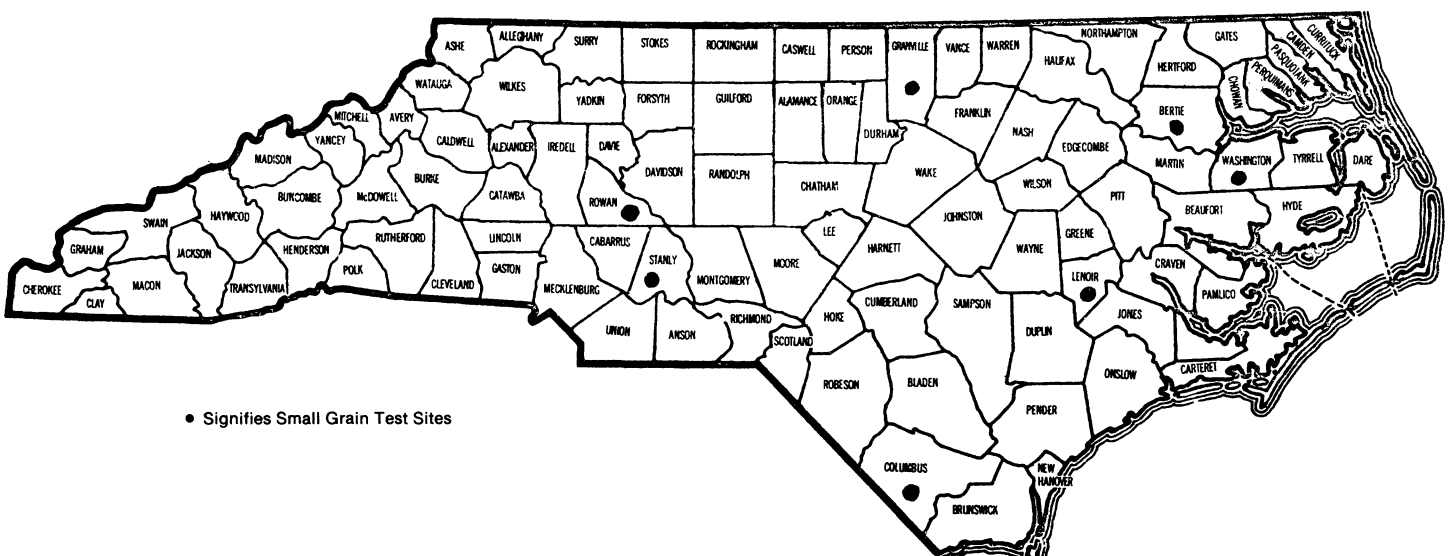
---

[3]The cooperative spirit and civic-minded service rendered by the farmers who provide the land and the necessary cultural practices for these trials and the cooperation of the county extension agents are gratefully acknowledged.

[4]Statistical analyses were made in the statistical laboratory under the supervision of Dr. J. O. Rawlings and Mmes. Joy Smith and Sandra Donaghy. This assistance is gratefully acknowledged.

obtained from the test field and fertilizer and lime applications were made accordingly (Table 5).

Figure 1. Location of Official Variety Test
North Carolina Agricultural
Research Service



• Signifies Small Grain Test Sites

Table 4. Cultural practices for small grain tests, 1989-90.

County	Fertilizer lbs/A and Grade	Topdress lbs/A 33.5% N	Soil Type	Planting Date	Harvest Date
Piedmont Area					
Granville	400 lbs. 10-10-20 100 lbs. 0-46-0	160	Appling Sandy Loam	October 17	June 7
Rowan	220 lbs. 10-20-20 250 lbs. 18-46-0	75	Hiwassee Clay Loam	October 27	June 12
Stanly	250 lbs. 12-30-20	110	Georgeville Silt Loam	October 27	June 12
Coastal Plain Area					
Columbus	250 lbs. 10-20-20	240	Norfolk Fine Sandy Loam	October 24	May 31
Lenoir	325 lbs. 10-10-20	210	Goldsboro and Norfolk Loamy Sand	October 23	June 1
Bertie	250 lbs. 10-10-10	200	Norfolk Loamy Sand	November 1	June 5
Washington	270 lbs. 10-15-30	200	Portsmouth Fine Sandy Loam	October 26	June 6

Table 5. Soil test results from test sites, 1989-90.

County	HM %	W-V	CEC	BS %	Ac	pH	P-I	K-I	Ca %	Mg %	Mn-I	Zn-I	Cu-I
Piedmont Area													
Granville	0.2	1.04	4.1	85	0.6	6.0	21	55	49.4	29.3	625	53	48
Rowan	0.1	1.04	6.6	76	1.6	5.8	15	48	51.7	20.4	625	61	20
Stanly	0.5	0.88	5.9	80	1.2	6.0	87	88	52.2	20.2	206	52	38
Coastal Plain Area													
Columbus	0.3	1.16	2.5	76	0.6	5.6	67	37	48.6	20.2	50	64	54
Lenoir	1.2	1.10	4.5	74	1.2	5.8	80	76	52.9	12.3	38	50	46
Bertie						5.7	78	38					
Washington	7.2	0.81	9.4	66	3.2	5.0	50	70	45.6	16.8	18	72	36

Contact Person and Agencies Sponsoring Entries	Entries
Arkansas County Seed Company, Inc. John Butler P. O. Box 43 Stuttgart, Arkansas 72160	833
AgriPro Seeds Dr. Koy E. Miskin RR #2 Brookston, Indiana 47923 (317) 563-3111	Traveler ABI*1
Florida Agricultural Experiment Station Dr. Ron Barnett Route 3, Box 4370 Quincy, Florida 32351 (904) 627-9236	Florida 301H Florida 302 Florida 303
Jacob Hartz Seed Company, Inc. Curtis Williams P. O. Box 946 Stuttgart, Arkansas 72160	Hartz HX 2229 Hartz HX 2326
North Carolina Agric. Experiment Station Dr. Paul Murphy Crop Science Department Box 7620 Raleigh, N.C. 27695-7620	Anson, Boone, Brooks N.C. experimentals
Northrup King Company Carroll Oakes Box 249 Grifton, N.C 28530 (919) 524-5809	NK-Coker 86-22 NK-Coker 86-35 NK-Coker 716 NK-Coker 916 NK-Coker 983 NK-Coker 9227 NK-Coker 9733 NK-Coker 9766
Pioneer Hi-Bred International, Inc. Paul Rodgers 1000 W. Jefferson Street Tipton, Indiana 46072 (317) 675-2101	Pioneer 2548 Pioneer 2550 Pioneer 2555
South Carolina Agric. Experiment Station Dr. Doyce Graham Agronomy & Soils Department Clemson University Clemson, S.C. 29634 (803) 656-3507	Simpson Williams

Southern States Coop. Howard Tabor P. O. Box 26234 Richmond, VA 23260	SS 76-30 FFR Exp. 374 FFR 544 FFR 568
Virginia Agricultural Experiment Station Dr. Carl A. Griffey Agronomy Department VPI Blacksburg, Virginia 24061 (703) 961-6483	Tyler Wysor Saluda Va. Exp.
University of Arkansas Dr. Robert Bacon Dept. of Agronomy 115 Plant Science Building Fayetteville, Arkansas 72701 (501) 575-2354	Bob Ozark
University of Georgia Dr. Jerry Johnson Griffin, Georgia 30212 (404) 228-7321	Bayles Venus GA 100 GA-Gore GA-Andy

COOPERATORS AND EXTENSION PERSONNEL

Bertie County: J. S. Barnes, Superintendent,
Peanut Belt Research Station, Lewiston, N.C.
Agricultural Extension Agent, James Peele.

Columbus County: Ty Marshall, Superintendent,
Border Belt Tobacco Research Station (NCDA) Whiteville, N.C.
Agricultural Extension Agent, Michael Shaw.

Granville County: William C. Clements, Superintendent
Oxford Tobacco Research Station, Oxford, N.C.
Agricultural Extension Agent, Tommy Brooks.

Lenoir County: Sandy Barnes, Superintendent, Lower Coastal Plain
Tobacco Research Station, Kinston, N.C.
County Extension Director, Johnnie Jones.

Rowan County: Raymond Coltrain, Superintendent, Piedmont Research
Station, Salisbury, N.C.
Agricultural Extension Agent, Kevin Fisher.

Stanly County: Ronnie and Dennis Burleson, Route 2, Box 136, Richfield, N.C.
Agricultural Extension Agent, Jim Monroe.

Washington County: John Smith, Superintendent, Tidewater Research Station, Plymouth, N.C.
Agricultural Extension Agent, Michael Webb.

SEASONAL CONDITIONS

The 1989-90 small grain growing season was characterized by normal rainfall in the fall which allowed planting to be on time (Table 4). Temperatures were below normal for most of December. Above-normal temperatures in January and February created some problems with vernalization. Low temperatures in April resulted in partial freeze damage at several locations. Rainfall data at six locations are shown below:

Monthly Rainfall Totals (Inches)

Location	November	December	January	February	March	April	May
Bertie	3.19	4.90	2.27	3.45	4.34	2.33	5.41
Columbus	2.35	4.07	1.69	2.12	3.38	1.35	6.59
Granville	3.61	3.78	3.33	3.64	4.29	4.11	4.94
Lenoir	2.67	3.76	2.53	2.63	4.49	2.07	9.93
Rowan	3.01	3.05	4.71	4.57	3.45	5.10	7.62
Washington	4.14	3.76	2.63	2.24	5.45	2.96	9.74

Powdery mildew and crown rust were evident to the point where valid ratings could be made. Barley yellow dwarf virus and soil borne mosaic was seen at nearly all locations. Cereal leaf beetle was evident at several locations requiring insecticide applications at Granville and Rowan counties. Glume blotch occurred at several locations in the Coastal Plain.

Yields, in general, were fair to good. Lodging was severe at Rowan in the barley and oats and both had to be discarded; this was due in part to a slight excess of nitrogen (Table 4). The oats at Granville were severely lodged and had to be discarded; at this location the lodging was caused by both excessive nitrogen and deer damage. Deer at Granville selectively ate two wheat varieties, GA-Gore and Saluda, out of every replication and those varieties had to be discarded.

DATA

Yield is reported in bushels per acre by location, area and across all locations within the state as well as across years by location and area. Test weights in pounds per bushel were reported averaged across the state. Lodging was reported in percentage averaged across all locations within the state; the lodging data are for lodging prior to harvest.

Disease ratings are reported in the state-wide averages although they may have only been taken at one or more locations.

Yield data were analyzed. The average yield of each test was indicated on the bottom of the tables. The B.L.S.D. K-50 is equivalent to the Fisher's L.S.D. at the 10% level. The standard error of the mean (s.e.) is an indicator of the precision of that test; the smaller the s.e., the more precise the estimate of yield is for any particular variety. The s.e. of the mean is equal to the standard deviation divided by the square root of N; N is normally the number of replications in the trials.

In calculating averages, equal weight was given to each location, therefore, two and three-year averages may not appear to

equal the average between years when the number of locations varies from year to year.

RESULTS AND DISCUSSION

Barley

Yields across the state averaged 70 bushels per acre (Table 6). Test weights were good to fair and lodging was typical for barley. As evident by the date 50% headed, Venus is an extremely early variety; however, it performed well across the state. Growers are cautioned to keep in mind that the last two growing seasons have not been typical.

Two and three-year data are shown in Tables 7 and 8. These data more accurately reflect relative performance among the varieties. Growers are cautioned against examining only one year's data for any trait.

Individual location data, area data, and multiple year data are shown in Tables 9, 10, 11, and 12.

Oats

Oat yields were fair to good statewide (Table 13). Crown rust ratings were taken at Columbus and Washington. Test weights were good to excellent.

Two and three-year data across the state are reported in Tables 14 and 15. Individual location data, area data, and multiple year data are shown in Tables 16 and 17. No data are reported for the Piedmont due to loss of both tests in 1990. Bird damage was noted at Bertie County but yields were good and varietal differences for bird damage could not be detected.

WHEAT

Yield and test weights were good to fair across the state (Table 18). A more accurate measure of true milling quality is 1000 kernel weight which is shown in Table 18. Powdery mildew ratings were taken at three of the locations and averaged. Tyler and VA Exp. 85-52-24 were not included in the Coastal Plain and their heading dates were April 27 and April 22, respectively. Williams, NK-Coker 9227, NK-Coker 9733, Hartz HX 2229, Hartz HX2326, and NK-Coker 9766 were not included in the Piedmont and their powdery mildew ratings were MR, MR, S, S, MR, and MR, respectively.

Two and three-year averages are shown in Tables 19 and 20.

Individual location data, area data, and multiple year averages are shown in Tables 21, 22, 23, and 24. Late spring freezes apparently affected some varieties more so than others and the freeze damage appeared to be associated with time of flowering. This was evident in the pattern of damage on the heads within a particular variety. Growers are again cautioned not to examine only one location or one year's data.

Table 6. Summary of barley performance trials across the state (1990).

Brand-Variety or Variety	Yield bu/A	Test Weight lb/bu	Lodging %	Date 50% Headed	Plant Height Inches
Anson	79**	44.9	32	4-23	45
Venus	77*	47.7	66	4-6	38
Wysor	73*	46.5	32	4-22	41
Boone	68	44.6	56	4-24	42
+NC 81-6	67	45.1	65	4-24	40
+NC 83-18	65	45.7	41	4-24	40
+NC 86-3	62	44.8	21	4-27	38
Mean	70				
C.V. (%)	8.6				
B.L.S.D. (K-50)	7				
s.e.	1.7				
Error d.f.	24				

+Experimental. **Highest yielder.
*Not significantly different from highest yielder.

Table 7. Two-year average barley performance across the state (1989-90).†

Brand-Variety or Variety	Yield bu/A	Test Weight lb/bu	Lodging %	Date 50% Headed	Plant Height Inches
Anson	67**	44.0	47	4-28	42
Wysor	61*	45.0	45	4-26	39
+NC 81-6	61*	44.4	73	4-29	38
Boone	61*	43.8	72	4-28	39
Venus	60*	44.5	74	4-15	37
+NC 83-18	57*	44.3	52	4-27	38
Mean	61				
C.V. (%)	14.5				
B.L.S.D. (K-50)	N.S.				
s.e.	1.8				
Error d.f.	45				

†Ten locations. **Highest yielder.
*Not significantly different from highest yielder.
+Experimental.

Table 8. Three-year average barley performance across the state (1988-90).†

Brand-Variety or Variety	Yield bu/A	Test Weight lb/bu	Lodging %	Plant Height Inches
Anson	71**	45.1	38	45
+NC 81-6	66	45.6	69	40
Boone	66	45.4	62	40
Wysor	65	45.7	40	40
+NC 83-18	60	45.6	50	39
Mean	66			
C.V. (%)	11.2			
B.L.S.D. (K-50)	5			
s.e.	1.3			
Error d.f.	48			

†Fourteen locations. **Highest yielder.
+Experimental.

Table 9. Summary of barley performance trials in the Piedmont.

Brand-Variety or Variety	Granville County 1990 Yield bu/A	Granville County 1990 Test Wt. lb/bu	1989-90 Average Yield bu/A	1989-90 Average Test Wt. lb/bu	1988-90 Average Yield bu/A	1988-90 Average Test Wt. lb/bu
Anson	99**	44.0	62*	42.7	71*	45.6
+NC 81-6	99**	43.2	65**	42.5	72**	45.3
Wysor	93*	45.8	62*	43.2	67*	45.3
Venus	91*	47.6	62*	42.2		
+NC 83-18	86*	45.2	56*	42.2	62	45.5
+NC 86-8	84*	44.7				
Boone	84*	43.8	53*	42.7	64	44.7
Mean	91		60		67	
C.V. (%)	9.4		8.5		8.8	
B.L.S.D. (K-50)	NS		NS		8	
s.e.	4.3		1.8		1.7	
Error d.f.	17		10		16	

+Experimental
**Highest yielder.
*Not significantly different from highest yielder.

Table 10. Summary of barley performance trials in the Coastal Plain (1990).

Brand-Variety or Variety	Washington County bu/A	Lenoir County bu/A	Bertie County bu/A	Columbus County bu/A	1990 Yield bu/A	1990 Test Wt. lb/bu	1989-90 Average Yield bu/A	1989-90 Average Test Wt. lb/bu	1988-90 Average Yield bu/A	1988-90 Average Test Wt. lb/bu
Anson	65*	84**	68*	81*	74**	45.1	70**	44.5	70**	44.8
Venus	69**	76*	73**	76*	73*	47.7	59*	45.5		
Wysor	53	78*	60	82**	68*	46.7	60*	45.7	63*	46.0
Boone	48	78*	54	76*	64	44.7	64*	45.1	66*	45.7
+NC 83-18	51	62	48	81*	60	45.9	58*	45.2	59*	45.6
+NC 81-6	43	60	53	78*	59	45.6	59*	45.2	63*	45.7
+NC 86-3	41	64	54	69*	57	44.8				
Mean	53	72	59	76	65		62		64	
C.V. (%)	13.2	8.8	10.7	8.6	9.1		15.7		12.5	
B.L.S.D. (K-50)	10	10	10	NS	8		NS		NS	
s.e.	3.5	3.2	3.2	3.3	1.9		2.3		1.8	
Error d.f.	18	13	13	13	18		30		28	

+Experimental.
**Highest yielder.
*Not significantly different from highest yielder.

Table 11. Average barley performance across years at Granville County.

Brand-Variety or Variety	1990 Yield bu/A	1990 Test Wt. lbs/bu	2 Years (1989-90) Yield bu/A	2 Years (1989-90) Test Wt. lbs/bu	3 Years (1988-90) Yield bu/A	3 Years (1988-90) Test Wt. lbs/bu	4 Years (1987-90) Yield bu/A	4 Years (1987-90) Test Wt. lbs/bu
				Granville County				
Anson	99	44.0	58	42.6	66	45.2	66	44.6
Boone	84	43.8	50	40.5	58	44.1	54	44.6
+NC 81-6	99	43.2	59	42.7	65	45.3		
+NC 83-18	86	45.2	52	42.7	54	45.5		
Venus	91	47.6	53	42.4				
Wysor	93	45.8	54	43.6	57	45.6	54	45.0

+Experimental.

Table 12. Average barley performance across years at four locations in the Coastal Plain.

Brand-Variety or Variety	1990 Yield bu/A	1990 Test Wt. lbs/bu	2 Years (1989-90) Yield bu/A	2 Years (1989-90) Test Wt. lbs/bu
		Bertie County		
Anson	68	48.3	68	45.4
Boone	54	48.6	56	47.5
+NC 81-6	53	49.5	49	47.2
+NC 83-18	48	48.9	52	46.9
Venus	73	50.8	60	47.9
Wysor	60	48.2	57	46.4
		Columbus County		
			(1987 and 1990)	
Anson	81	45.6	93	46.1
Boone	76	45.0	88	45.6
+NC 81-6	78	45.1		
+NC 83-18	81	46.5		
Venus	76	48.2		
Wysor	82	47.4	96	47.2

Table 12. (Continued). Average barley performance across years at four locations in the Coastal Plain.

Brand-Variety or Variety	1990 Yield bu/A	1990 Test Wt. lbs/bu	2 Years (1989-90) Yield bu/A	2 Years (1989-90) Test Wt. lbs/bu	3 Years (1988-90) Yield bu/A	3 Years (1988-90) Test Wt. lbs/bu	4 Years (1987-90) Yield bu/A	4 Years (1987-90) Test Wt. lbs/bu
Lenoir County								
Anson	84	44.7	70	43.8	71	44.9	78	44.1
Boone	78	45.4	73	44.1	77	46.2	78	45.0
+NC 81-6	60	45.4	66	43.5	74	45.5		
+NC 83-18	62	46.5	54	45.0	60	46.2		
Venus	76	47.1	55	44.3				
Wysor	78	46.4	58	45.2	68	46.1	70	45.5
Washington County								
					(1987, 89, 90)			
Anson	65	41.7	66	43.7	72	44.1		
Boone	48	40.0	56	43.7	64	44.5		
+NC 81-6	43	42.3	52	44.8				
+NC 83-18	51	41.6	55	43.1				
Venus	69	44.7	53	43.0				
Wysor	53	44.7	54	44.6	62	45.1		

+Experimental.

Table 13. Summary of oat performance trials across the state (1990).

Brand-Variety or Variety	Yield bu/A	Test Weight lbs/bu	Lodging %	Plant Height Inches	Date 50% Headed	Crown Rust Ratings
+NC 86-6	111**	36.4	49	41	5-4	MR
833	106*	37.5	28	44		MR
Ozark	103*	38.8	47	44	5-3	MR
Bob	102*	37.3	36	41	5-3	MR
+NC 86-175	96*	37.7	13	37	5-4	R
SS 76-30	89	36.3	50	51	5-2	S
Simpson	86	32.0	47	46	5-3	S
Brooks	86	30.4	67	47	5-3	S
+NC 86-23	81	32.3	46	44	5-4	S
+NC 85-129	80	33.2	48	44	5-5	S
NK-Coker 716	80	33.3	59	45	5-3	S
Mean	93					
C.V. (%)	13.6					
B.L.S.D. (K-50)	17					
s.e.	4.0					
Error d.f.	30					

+Experimental. **Highest yielder.
*Not significantly different from highest yielder.
S - Susceptible, MS - Moderately Susceptible, MR - Moderately Resistant, R - Resistant

Table 14. Two-year average oat performance across the state (1989-90).†

Brand-Variety or Variety	Yield bu/A	Test Weight lb/bu	Lodging %	Plant Height Inches	Date 50% Headed
SS 7630	87**	36.5	56	48	4-30
Brooks	83*	32.8	69	45	5-4
Simpson	83*	33.8	57	44	5-4
NK-Coker 716	79*	33.3	54	43	5-4
+NC 85-129	78*	34.5	57	42	5-6
Mean	82				
C.V. (%)	10.6				
B.L.S.D. (K-50)	NS				
s.e.	1.4				
Error d.f.	32				

+Experimental. †Nine locations.
**Highest yielder.
*Not significantly different from highest yielder.

Table 15. Three-year average oat performance across the state (1988-90).†

Brand-Variety or Variety	Yield bu/A	Test Weight lb/bu	Lodging %	Plant Height Inches	Date 50% Headed
SS 7630	87**	37.9	45	48	4-30
Simpson	86*	35.4	47	46	5-3
NK-Coker 716	85*	35.1	45	44	5-4
Brooks	82*	34.6	56	45	5-2
Mean	85				
C.V. (%)	13.4				
B.L.S.D. (K-50)	NS				
s.e.	1.4				
Error d.f.	33				

†Thirteen locations.
**Highest yielder.
*Not significantly different from highest yielder.

Table 16. Summary of oat performance trials in the Coastal Plain (1990).

Brand-Variety or Variety	Washington County bu/A	Lenoir County bu/A	Bertie County bu/A	Columbus County bu/A	1990 Yield bu/A	1990 Test Wt. lb/bu	1989-90 Average Yield bu/A	1989-90 Average Test Wt. lb/bu	1988-90 Average Yield bu/A	1988-90 Average Test Wt. lb/bu
+NC 86-6	97	134**	110*	103*	111**	36.4				
833	114**	109	94	106*	106*	37.5	98**	36.9		
Ozark	99	119	105*	88	103*	37.3				
Bob	104*	112	96	94	102*	38.8				
+NC 86-175	98	97	81	107**	96*	37.7				
SS 76-30	84	113	82	77	89	36.3	87	36.5	86*	37.2
Simpson	66	106	112**	62	86	32.0	84	33.5	88**	34.2
Brooks	71	108	86	78	86	30.4	85	32.3	82*	33.1
+NC 86-23	58	113	84	69	81	33.3				
+NC 85-129	75	86	82	78	80	33.2	78	34.1		
NK-Coker 716	56	104	102*	58	80	32.3	78	32.6	84*	33.6
Mean	84	109	94	84	93		85		85	
C.V. (%)	11.6	7.2	10.1	10.3	13.6		13.9		15.9	
B.L.S.D. (K-50)	13	11	14	12	17		5		NS	
s.e.	4.9	3.9	4.8	4.3	4.0		1.8		1.7	
Error d.f.	25	25	26	26	30		30		21	

+Experimental.
**Highest yielder.
*Not significantly different from highest yielder.

Table 17. Average oat performance across years at four locations in the Coastal Plain.

Brand-Variety or Variety	1990 Yield bu/A	1990 Test Wt. lbs/bu	2 Years (1989-90) Yield bu/A	2 Years (1989-90) Test Wt. lbs/bu
Bertie County				
Brooks	86	36.1	84	35.9
+NC 85-129	82	38.2	80	37.2
NK Coker 716	102	39.0	91	36.2
Simpson	112	38.3	101	36.5
SS 76-30	82	41.4	85	38.6
833	94	39.3	81	36.8
Columbus County				
			(1987 and 1990)	
Brooks	78	27.1	100	27.3
+NC 85-129	78	31.5		
NK Coker 716	58	29.2	95	30.8
Simpson	62	28.7	94	31.4
SS 76-30	77	34.2		
833	106	37.0		

Table 17. (Continued). Average oat performance across years at four locations in the Coastal Plain.

Brand-Variety or Variety	1990 Yield bu/A	1990 Test Wt. lbs/bu	2 Years (1989-90) Yield bu/A	2 Years (1989-90) Test Wt. lbs/bu	3 Years (1988-90) Yield bu/A	3 Years (1988-90) Test Wt. lbs/bu	4 Years (1987-90) Yield bu/A	4 Years (1987-90) Test Wt. lbs/bu
LENOIR COUNTY								
Brooks	108	34.6	94	34.8	83	36.2	84	35.1
+NC 85-129	86	34.6	74	34.5				
NK Coker 716	104	36.5	90	35.1	100	36.8	102	36.1
Simpson	106	36.1	92	36.1	98	37.2	103	35.9
SS 76-30	113	38.9	100	38.5	93	39.8		
833	109	37.0	102	35.9				
WASHINGTON COUNTY								
					(1987, 89, 90)			
Brooks	71	23.8	79	28.8	97	30.0		
+NC 85-129	75	28.7	81	31.8				
NK Coker 716	56	24.4	65	28.3	92	31.3		
Simpson	66	25.0	70	30.1	97	32.4		
SS 76-30	84	30.9	81	33.6				
833	114	36.6	109	37.8				

+Experimental.

Table 18. Summary of wheat performance trials across the state (1990).

Brand-Variety Variety	Yield bu/A	Test Weight lb/bu	1000 Kernel Weight gm	Lodging %	Plant Height Inches	Date 50% Headed	Powdery Mildew
+FFR Exp. 374	55**	56.5	26.1	2	35	4-25	MR
Pioneer 2548	55**	57.1	26.0	2	35	4-25	S
+NK-Coker 86-22	54*	56.3	26.2	17	36	4-27	S
+NK-Coker 86-35	52*	56.8	25.6	3	32	4-26	MR
Pioneer 2555	51*	55.9	27.9	3	38	4-23	MR
+NC 84-93	51*	56.7	22.0	1	34	4-27	MR
+VA 85-52-34	50*	56.6	29.0	5	39	4-27	S
NK-Coker 983	50*	58.4	24.7	2	33	4-26	R
Bayles	49	57.0	25.6	3	36	4-25	R
NK-Coker 916	47	57.2	26.6	2	35	4-22	MR
GA-Andy	47	57.4	26.4	1	35	4-26	MR
FFR 568	47	57.5	25.7	2	37	4-27	MR
Florida 302	47	55.6	27.3	8	39	4-26	S
FFR 544	45	57.1	27.6	1	37	4-26	MR
GA 100	44	56.1	26.1	5	34	4-26	MR
Pioneer 2550	44	56.0	24.2	8	37	4-27	MR
GA-Gore	42	55.9	26.0	6	35	4-22	MR
Florida 303	40	56.2	23.6	7	36	4-25	MR
Traveler	39	55.3	25.8	2	36	4-23	S
Florida 301-H	34	56.8	22.2	26	40	4-25	S
+ABI 85*1	33	55.3	24.3	12	39	4-25	MR
Mean	47						
C.V. (%)	13.8						
B.L.S.D. (K-50)	6						
s.e.	1.7						
Error d.f.	114						

+Experimental. **Highest yielder. *Not significantly different from highest yielder.
S - Susceptible, MS - Moderately Susceptible, MR - Moderately Resistant, R - Resistant

Table 19. Two-year average wheat performance across the state (1989-90).†

Brand-Variety or Variety	Yield bu/A	Test Weight lb/bu	Lodging %	Plant Height Inches	Date 50% Headed
+VA 85-52-34	46**	55.3	7	40	4-30
+NC 84-93	44*	55.2	2	34	4-30
Pioneer 2548	44*	54.9	2	34	5-1
NK-Coker 916	44*	56.0	2	35	4-26
Pioneer 2555	43*	54.0	5	38	4-28
NK-Coker 983	42*	57.1	6	33	4-29
FFR 544	41	55.5	1	37	4-30
Florida 302	40	54.3	9	38	4-29
Pioneer 2550	40	54.9	10	38	5-3
Florida 303	36	54.5	5	36	4-25
Traveler	33	53.1	2	36	4-26
Florida 301-H	31	54.3	23	40	4-26
Mean	40				
C.V. (%)	18.3				
B.L.S.D. (K-50)	5				
s.e.	0.9				
Error d.f.	155				

+Experimental. †Fourteen locations. **Highest yielder.
*Not significantly different from highest yielder.

Table 20. Three-year average wheat performance across the state (1988-90).†

Brand-Variety or Variety	Yield bu/A	Test Weight lb/bu	Lodging %	Plant Height Inches	Date 50% Headed
Pioneer 2555	51**	54.3	4	39	4-27
NK-Coker 983	51**	57.1	4	34	4-26
+NC 84-93	51**	55.3	2	36	4-27
Florida 302	50*	54.5	6	40	4-27
NK-Coker 916	49*	56.3	2	36	4-24
Florida 303	43	55.1	4	38	4-23
Traveler	42	54.1	1	37	4-24
Flordia 301-H	38	55.5	17	42	4-23
Mean	47				
C.V. (%)	13.2				
B.L.S.D. (K-50)	3				
s.e.	0.6				
Error d.f.	151				

+Experimental. †Twenty locations. **Highest yielder.
*Not significantly different from highest yielder.

Table 21. Summary of wheat performance trials in the Piedmont (1990).

Brand-Variety or Variety	Granville County bu/A	Rowan County bu/A	Stanly County bu/A	1990 Yield bu/A	1990 Test Wt. lb/bu	1989-90 Average Yield bu/A	1989-90 Average Test Wt. lb/bu	1988-90 Average Yield bu/A	1988-90 Average Test Wt. lb/bu
+FFR Exp. 374	77*	62*	46**	62**	57.1				
Pioneer 2548	81**	57	42*	60*	58.4	39*	54.5		
NK-Coker 983	74*	65*	36	58*	58.6	44*	57.2	49**	56.6
Pioneer 2555	67	66*	41*	58*	58.7	42*	54.4	48*	54.5
+NC 84-93	75*	64*	36	58*	58.1	44*	55.5	48*	55.9
+NK-Coker 86-35	59	69**	35	54*	57.5				
FFR 568	74*	58	30	54*	58.6				
+NK-Coker 86-22	70	48	42*	54*	55.3				
+VA Exp. 85-52-34	59	57	41*	52*	57.8	40*	55.6		
NK-Coker 916	73*	50	34	52*	59.0	45**	56.3	48*	56.2
Tyler	72*	48	37	52*	58.1	39*	55.0	43*	54.7
Pioneer 2550	68	46	41*	52*	57.3	36*	55.4		
Florida 302	73*	43	39	52*	56.3	39*	53.9	46*	54.5
Bayles	70	51	33	51	58.3				
GA-Andy	60	58	34	51	58.5				
GA 100	63	58	30	50	58.0				
+VA Exp. 85-52-24	64	51	34	49	57.2	41*	54.4		
Traveler	59	50	33	47	58.0	36*	53.2	41	53.3
Saluda	--	51	39	45	58.0	35	54.5	42	55.6
Florida 303	61	42	32	45	57.3	38*	54.3	42	54.4
GA-Gore	--	54	33	44	57.8				
FFR 544	55	49	25	43	58.8	34	55.7		
Florida 301-H	45	28	35	36	57.9	32	54.2	38	55.4
+ABI 85*1	61	23	23	36	57.5				
Mean	66	52	35	50		39		44	
C.V. (%)	10.5	15.0	15.1	13.8		18.5		16.2	
B.L.S.D. (K-50)	10	11	7	11		10		7	
s.e.	3.4	3.9	2.4	2.8		1.4		1.1	
Error d.f.	58	64	88	42		69		62	

+Experimental. **Highest yielder. *Not significantly different from highest yielder.

Table 22. Summary of wheat performance trials in the Coastal Plain (1990).

Brand-Variety or Variety	Bertie County bu/A	Lenoir County bu/A	Columbus County bu/A	Washington County bu/A	1990 Yield bu/A	1990 Test Wt. lb/bu	1989-90 Average Yield bu/A	1989-90 Average Test Wt. lb/bu	1988-90 Average Yield bu/A	1988-90 Average Test Wt. lb/bu
+NK-Coker 86-22	48**	59*	43	66	54**	57.1				
NK-Coker 9766	45*	55*	46	57	51*	56.3				
Pioneer 2548	32	53	46	71**	50*	56.2	48*	55.2		
+FFR Exp. 374	42*	60**	43	56	50*	56.0				
+Hartz HX 2229	39	52	56**	52	50*	58.4				
+NK-Coker 86-35	40	54	42	62	49*	56.2				
Bayles	41	45	50	55	48*	56.0				
+VA Exp. 85-52-34	38	50	34	69*	48*	55.6	50**	55.0		
FFR 544	40	47	41	57	46	55.7	47*	55.4		
Pioneer 2555	34	44	48	59	46	53.8	44	53.7	53**	54.2
+Hartz HX2326	37	52	47	47	46	57.7				
+NC 84-93	37	49	45	51	46	55.7	44	55.0	52*	54.9
GA-Andy	38	45	42	54	45	56.6				
Williams	36	46	45	50	44	55.4	44	54.8	50*	54.7
NK-Coker 916	33	53	42	47	44	55.8	42	55.7	50*	56.4
NK-Coker 983	38	49	40	45	43	58.3	41	57.0	52*	57.5
Florida 302	27	46	40	58	43	55.0	41	54.5	53**	54.5
FFR 568	36	48	31	55	42	56.6				
GA-Gore	25	49	46	46	42	55.0				
GA 100	38	45	29	48	40	54.7				
NK-Coker 9227	30	44	34	45	38	58.0	35	56.6	45	56.9
Pioneer 2550	36	47	23	46	38	55.0	42	54.6		
Saluda	32	42	28	48	38	56.1	40	56.6	47	56.7
Florida 303	18	39	37	49	36	55.3	34	54.7	44	55.6
Traveler	30	34	28	38	32	53.2	30	53.0	42	54.5
NK-Coker 9733	26	33	22	48	32	56.2	34	56.2	45	56.9
Florida 301-H	21	33	37	35	32	56.0	30	54.3	39	55.6
ABI 85*1	21	34	20	52	32	53.6				
Mean	34	47	39	52	43		40		48	
C.V. (%)	16.9	10.8	12.8	8.8	13.0		15.4		12.3	
B.L.S.D. (K-50)	7	6	6	5	7		5		4	
s.e.	2.6	2.3	2.2	2.0	1.8		1.0		0.8	
Error d.f.	104	104	106	106	81		105		121	

+Experimental. **Highest yielder. *Not significantly different from highest yielder.

Table 23. Average wheat performance across years at three locations in the Piedmont.

Brand-Variety or Variety	1990 Yield bu/A	1990 Test Wt. lbs/bu	2 Years (1989-90) Yield bu/A	2 Years (1989-90) Test Wt. lbs/bu	3 Years (1988-90) Yield bu/A	3 Years (1988-90) Test Wt. lbs/bu	4 Years (1987-90) Yield bu/A	4 Years (1987-90) Test Wt. lbs/bu
Granville County								
FFR 544	55	58.4	37	54.3				
Florida 301-H	45	59.6	35	56.1	37	56.7		
Florida 302	73	52.4	46	51.1	52	52.3		
Florida 303	61	56.0	43	52.1	41	53.9		
+NC 84-93	75	54.6	49	52.9	47	54.0		
NK-Coker 916	73	58.6	46	55.9	42	55.1		
NK-Coker 983	74	54.6	49	55.1	52	54.7		
Pioneer 2548	81	57.3	52	54.6				
Pioneer 2550	68	54.2	44	53.7				
Pioneer 2555	67	58.3	47	54.8	49	54.1		
Traveler	59	55.8	38	50.9	38	50.2		
Tyler	72	58.1	48	54.3	46	53.9		
+VA Exp. 85-52-24	64	57.2	43	54.3				
+VA Exp. 85-52-34	59	54.2	38	53.7				
Rowan County								
FFR 544	49	58.2	39	55.3				
Florida 301H	28	55.6	28	53.5	43	55.7		
Florida 302	43	56.9	37	55.0	48	55.9	40	53.5
Florida 303	42	57.9	40	56.1	49	54.6		
+NC 84-93	64	59.7	51	56.5	59	57.0		
NK-Coker 916	50	58.2	52	56.7	60	57.2	53	54.7
NK-Coker 983	65	59.6	48	57.6	56	56.9	46	53.7
Pioneer 2548	57	57.1	38	53.8				
Pioneer 2550	46	55.9	38	55.5				
Pioneer 2555	66	57.8	49	54.8	58	55.5	51	53.7
Saluda	51	59.1	46	56.1	57	57.2	49	55.0
Traveler	50	58.7	42	54.6	52	55.9		
Tyler	48	55.7	40	53.5	48	54.0	42	53.2
+VA Exp. 85-52-24	51	54.9	45	53.3				
+VA Exp. 85-52-34	57	58.4	47	55.7				

Table 23. (Continued). Average wheat performance across years at three locations in the Piedmont.

Brand-Variety or Variety	1990 Yield bu/A	1990 Test Wt. lbs/bu	2 Years (1989-90) Yield bu/A	2 Years (1989-90) Test Wt. lbs/bu	3 Years (1987-89-90) Yield bu/A	3 Years (1987-89-90) Test Wt. lbs/bu
Stanly County						
FFR 544	25	59.8	25	57.5		
Florida 301-H	35	58.6	33	52.9		
Florida 302	39	59.6	34	55.6	49	53.7
Florida 303	32	58.1	31	54.6		
+NC 84-93	36	60.1	33	57.1		
NK-Coker 916	34	60.2	38	56.2	50	55.9
NK-Coker 983	36	61.5	35	58.9	51	58.0
Pioneer 2548	42	60.9	26	55.0		
Pioneer 2550	41	61.8	28	56.9		
Pioneer 2555	41	60.0	31	53.6	50	54.6
Saluda	39	56.9	32	54.1	47	55.5
Traveler	33	59.6	29	54.1		
Tyler	37	60.5	28	57.1	40	56.4
+VA Exp. 85-52-24	34	59.5	35	55.5		
+VA Exp. 85-52-34	41	60.9	37	57.3		

+Experimental.

Table 24. Average wheat performance across years at four locations in the Coastal Plain.

Brand-Variety or Variety	1990 Yield bu/A	1990 Test Wt. lbs/bu	2 Years (1989-90) Yield bu/A	2 Years (1989-90) Test Wt. lbs/bu	3 Years (1988-90) Yield bu/A	3 Years (1988-90) Test Wt. lbs/bu	4 Years (1987-90) Yield bu/A	4 Years (1987-90) Test Wt. lbs/bu
				‡ **Bertie County**				
FFR 544	40	57.7	45	55.4				
Florida 301-H	21	56.3	36	55.2	43	56.2		
Florida 302	27	56.5	38	54.9	51	55.3	55	55.9
Florida 303	18	55.2	31	54.3	40	55.5		
+NC 84-93	37	57.4	44	55.8	51	54.7		
NK-Coker 916	33	57.1	42	56.9	47	57.1	52	56.2
NK-Coker 983	38	59.8	44	58.4	51	58.8	54	59.2
NK-Coker 9227	30	57.9	33	57.7	41	58.0		
NK-Coker 9733	26	56.8	32	56.5	41	57.7	46	57.5
Pioneer 2548	32	57.1	35	53.7				
Pioneer 2550	36	58.2	42	55.4				
Pioneer 2555	34	55.6	39	54.5	51	54.6	54	55.8
Saluda	32	58.5	36	56.8	44	56.7	48	57.7
Traveler	30	57.1	37	55.0	43	56.2		
+VA Exp. 85-52-34	38	57.1	47	55.8				
Williams	36	57.0	42	55.8	48	56.0	50	56.2
				Columbus County				
FFR 544	41	51.4	42	54.1				
Florida 301-H	37	54.4	31	54.8	38	56.0		
Florida 302	40	52.3	37	53.3	47	53.0	52	53.2
Florida 303	37	52.4	33	54.3	42	55.2		
+NC 84-93	45	52.9	41	53.8	49	54.7		
NK-Coker 916	42	53.3	41	53.8	48	55.5	53	55.7
NK-Coker 983	40	56.4	37	57.0	48	57.6	52	57.8
NK-Coker 9227	34	56.1	32	55.6	40	54.2		
NK-Coker 9733	22	51.4	31	53.9	41	55.4	49	56.2
Pioneer 2548	46	52.2	42	54.5				
Pioneer 2550	23	47.8	30	52.9				
Pioneer 2555	48	50.5	42	53.3	51	54.8	53	55.2
Saluda	28	51.8	32	55.5	42	56.4	46	56.8
Traveler	28	46.6	24	50.8	37	52.6		
+VA Exp. 85-52-34	34	51.2	36	52.9				
Williams	45	53.5	41	53.8	48	54.5	50	55.0

Table 24. (Continued). Average wheat performance across years at four locations in the Coastal Plain.

Brand-Variety or Variety	1990 Yield bu/A	1990 Test Wt. lbs/bu	2 Years (1989-90) Yield bu/A	2 Years (1989-90) Test Wt. lbs/bu	3 Years (1988-90) Yield bu/A	3 Years (1988-90) Test Wt. lbs/bu	4 Years (1987-90) Yield bu/A	4 Years (1987-90) Test Wt. lbs/bu
Lenoir County								
FFR 544	47	54.7	47	54.8				
Florida 301-H	33	55.4	25	53.7	33	55.2		
Florida 302	46	53.3	37	53.4	48	53.7	55	54.4
Florida 303	39	54.0	32	53.1	42	54.8		
+NC 84-93	49	54.5	43	54.6	51	55.3		
NK-Coker 916	53	55.5	40	55.1	48	55.6	53	55.3
NK-Coker 983	49	56.7	40	57.4	49	57.3	55	57.5
NK-Coker 9227	44	57.5	33	56.3	43	57.1		
NK-Coker 9733	33	56.5	28	56.1	37	55.6	45	56.4
Pioneer 2548	53	56.1	50	55.8				
Pioneer 2550	47	55.7	49	55.5				
Pioneer 2555	44	51.4	38	50.7	46	52.0	49	52.9
Saluda	42	55.0	43	55.7	46	56.4	49	57.2
Traveler	34	53.6	24	54.3	37	55.3		
+VA Exp. 85-52-34	50	54.9	53	54.5				
Williams	46	53.3	43	53.9	47	53.9	52	54.6
Washington County								
FFR 544	57	59.2	53	57.1				
Florida 301-H	35	57.8	28	53.4	42	54.8		
Florida 302	58	58.1	53	56.4	66	56.1	65	56.3
Florida 303	49	59.6	41	56.9	54	57.0		
+NC 84-93	51	58.0	51	55.7	59	54.8		
NK-Coker 916	47	57.2	45	56.8	56	57.3	56	56.8
NK-Coker 983	45	60.4	43	54.9	60	56.1	56	56.7
NK-Coker 9227	45	60.6	40	57.0	57	58.2		
NK-Coker 9733	48	60.1	46	58.3	60	58.9	59	58.4
Pioneer 2548	71	59.3	63	56.6				
Pioneer 2550	46	58.5	47	54.4				
Pioneer 2555	59	57.9	55	56.2	64	55.4	62	55.0
Saluda	48	59.3	48	58.2	56	57.3	55	57.1
Traveler	38	55.4	35	51.9	51	54.1		
+VA Exp. 85-52-34	69	59.4	65	56.8				
Williams	50	57.7	51	55.6	55	54.4	54	54.2

+Experimental. ‡Perquimans County in 1988 and 1987.