No. 9000018

THE UNITED STATES OF AMERICA

TO ALL TO WHOM THESE PRESENTS SHALL COME:

Florida Agricultural Experiment Station

Whereas, THERE HAS BEEN PRESENTED TO THE

Secretary of Agriculture

AN APPLICATION REQUESTING A CERTIFICATE OF PROTECTION FOR AN ALLEGED NOVEL VARIETY OF SEXUALLY REPRODUCED PLANT, THE NAME AND DESCRIPTION OF WHICH ARE CONTAINED IN THE APPLICATION AND EXHIBITS, A COPY OF WHICH IS HEREUNTO ANNEXED AND MADE A PART HEREOF, AND THE VARIOUS REQUIREMENTS OF LAW IN SUCH CASES MADE AND PROVIDED HAVE BEEN COMPLIED WITH, AND THE TITLE THERETO IS, FROM THE RECORDS OF THE PLANT VARIETY PROTECTION OFFICE, IN THE APPLICANT(S) INDICATED IN THE SAID COPY, AND WHEREAS, UPON DUE EXAMINATION MADE, THE SAID APPLICANT(S) IS (ARE) ADJUDGED TO BE ENTITLED TO A CERTIFICATE OF PLANT VARIETY PROTECTION UNDER THE LAW.

NOW, THEREFORE, THIS CERTIFICATE OF PLANT VARIETY PROTECTION IS TO GRANT UNTO THE SAID APPLICANT(S) AND THE SUCCESSORS, HEIRS OR ASSIGNS OF THE SAID APPLICANT(S) FOR THE TERM OF eighteen YEARS FROM THE DATE OF THIS GRANT, SUBJECT TO THE PAYMENT OF THE REQUIRED FEES AND PERIODIC REPLENISHMENT OF VIABLE BASIC SEED OF THE VARIETY IN A PUBLIC REPOSITORY AS PROVIDED BY LAW, THE RIGHT TO EXCLUDE OTHERS FROM SELLING THE VARIETY, OR OFFERING IT FOR SALE, OR REPRODUCING IT, OR IMPORTING IT, OR EXPORTING IT, OR USING IT IN PRODUCING A HYBRID OR DIFFERENT VARIETY THEREFROM, TO THE EXTENT PROVIDED BY THE PLANT VARIETY PROTECTION ACT. UNITED STATES SEED OF THIS VARIETY (1) SHALL BE SOLD BY VARIETY NAME ONLY AS PART OF CERTIFIED SEED AND (2) SHALL CONFORM TO THE NUMBER OF GENERATIONS ALLOWED BY THE OWNER OF THE RIGHTS. (84 STAT. 1542, AS AMENDED, 7 U.S.C. 2321 ET SEQ.)

WHEAT

'Florida 303'

In Testimony Whereof, *I have hereunto set my hand and caused the seal of the* Plant Variety Protection Office *to be affixed at the City of* Washington, D.C. *this* 30th *day of* November *in the year of our Lord one thousand nine hundred and* ninety-three.

Attest:

Kenneth A. Evans

Commissioner
Plant Variety Protection Office
Agricultural Marketing Service

Mike Espy

Secretary of Agriculture

Public reporting burden for this collection of information is estimated to average 30 minutes per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to Department of Agriculture, Clearance Office, OIRM, Room 404-W, Washington, D.C. 20250; and to the Office of Management and Budget, Paperwork Reduction Project (OMB #0581-0055), Washington, 20250.

FORM APPROVED: OMB 0581-0055, Expires 1/31/91

U.S. DEPARTMENT OF AGRICULTURE
AGRICULTURAL MARKETING SERVICE

APPLICATION FOR PLANT VARIETY PROTECTION CERTIFICATE

(Instructions on reverse)

Application is required in order to determine if a plant variety protection certificate is to be issued (7 U.S.C. 2421). Information is held confidential until certificate is issued (7 U.S.C. 2426).

1. NAME OF APPLICANT(S) *(as it is to appear on the Certificate)*
Florida Agricultural Experiment Station
University of Florida - IFAS

2. TEMPORARY DESIGNATION OR EXPERIMENTAL NO.
FL7927-G21

3. VARIETY NAME
Florida 303

4. ADDRESS *(street and no. or R.F.D. no., city, state, and ZIP)*
Dean for Research
1022 McCarty Hall - University of Florida
Gainesville, Florida 32611

5. PHONE *(Include area code)*
904/392-1784

FOR OFFICIAL USE ONLY
PVPO NUMBER
9000018

FILING: Date Nov. 3, 1989 Time 1:30 ☐ A.M. ☑ P.M.

FEES RECEIVED: Filing and Examination Fee: $2150.— Date Nov. 3 1989
Certificate Fee: $250.00 Date Nov. 16, 1993

6. GENUS AND SPECIES NAME
Triticum aestivum

7. FAMILY NAME *(Botanical)*
Gramineae

8. CROP KIND NAME *(Common Name)*
Wheat, common

9. DATE OF DETERMINATION
~~1. 1985~~ May 1985
~~2. 1988~~ ~~MAY~~ 18 Aug 1993

10. IF THE APPLICANT NAMED IS NOT A "PERSON," GIVE FORM OF ORGANIZATION *(Corporation, partnership, association, etc.)*

11. IF INCORPORATED, GIVE STATE OF INCORPORATION

12. DATE OF INCORPORATION

13. NAME AND ADDRESS OF APPLICANT REPRESENTATIVE(S), IF ANY, TO SERVE IN THIS APPLICATION AND RECEIVE ALL PAPERS
R. D. Barnett, Rt. 3 Box 4370, Quincy, Florida 32351, 904/627-9236

PHONE *(Include area code)*:

14. CHECK APPROPRIATE BOX FOR EACH ATTACHMENT SUBMITTED *(Follow INSTRUCTIONS on reverse)*
- a. [X] Exhibit A, Origin and Breeding History of the Variety.
- b. [X] Exhibit B, Novelty Statement.
- c. [X] Exhibit C, Objective Description of Variety.
- d. [X] Exhibit D, Additional Description of Variety.
- e. [X] Exhibit E, Statement of the Basis of Applicant's Ownership.
- f. [X] Seed Sample (2,500 viable untreated seeds). Date Seed Sample mailed to Plant Variety Protection Office 10/27/89
- g. [X] Filing and Examination Fee ($2,150) made payable to "Treasurer of the United States."

15. DOES THE APPLICANT(S) SPECIFY THAT SEED OF THIS VARIETY BE SOLD BY VARIETY NAME ONLY AS A CLASS OF CERTIFIED SEED? *(See section 83(a) of the Plant Variety Protection Act.)*
[X] YES *(If "YES," answer items 16 and 17 below)* ☐ NO *(If "NO," skip to item 18 below)*

16. DOES THE APPLICANT(S) SPECIFY THAT THIS VARIETY BE LIMITED AS TO NUMBER OF GENERATIONS?
[X] YES ☐ NO

17. IF "YES" TO ITEM 16, WHICH CLASSES OF PRODUCTION BEYOND BREEDER SEED?
[X] FOUNDATION [X] REGISTERED [X] CERTIFIED

18. DID THE APPLICANT(S) PREVIOUSLY FILE FOR PROTECTION OF THE VARIETY IN THE U.S.?
☐ YES *(If "YES," through* ☐ Plant Variety Protection Act ☐ Patent Act. Give date _____ .)
[X] NO

19. HAS THE VARIETY BEEN RELEASED, USED, OFFERED FOR SALE, OR MARKETED IN THE U.S. OR OTHER COUNTRIES?
☐ YES (If "YES," give names of countries and dates)
[X] NO

20. The applicant(s) declare(s) that a viable sample of basic seeds of this variety will be furnished with the application and will be replenished upon request in accordance with such regulations as may be applicable.

The undersigned applicant(s) is (are) the owner(s) of this sexually reproduced novel plant variety, and believe(s) that the variety is distinct, uniform, and stable as required in section 41, and is entitled to protection under the provisions of section 42 of the Plant Variety Protection Act.

Applicant(s) is (are) informed that false representation herein can jeopardize protection and result in penalties.

SIGNATURE OF APPLICANT *(Owner(s))*	CAPACITY OR TITLE	DATE
Ronald D. Barnett	Professor of Agronomy	10/27/89
SIGNATURE OF APPLICANT *(Owner(s))*	CAPACITY OR TITLE	DATE
J. M. Davidson	Dean for Research	10/30/89

FORM CSSD-470 (5-89) Edition of FORM LS-470, 3-86, is obsolete.

EXHIBIT A

Origin and Breeding History of Florida 303

Pedigree: Florida 302 Sib/Coker 797

Date of Cross: 1979

Breeding History:

'Florida 303' (FL7927-G21) was selected from a cross made at Quincy, Florida between a bronze chaffed sister line of Florida 302 and Coker 797. Florida 303 originated from a single plant selected in the F_3 generation. It was grown as an F_4 plant row and appeared to be uniform and stable. It was selected from survivors of leaf rust screening made in the greenhouse during the F_3 generation. Yield performance evaluation began in the F_5 generation. The line performed well in yield trials between 1984 and 1986. It was included in the Uniform Southern Soft Red Winter Wheat Nursery in 1980 through 1989. It was included in state variety trials in Georgia and South Carolina in 1987 and practically all southern states in 1988 and 1989. Foundation seed was distributed to Florida seed growers during the fall of 1988.

Florida 303 is uniform and stable. Less than 1% of the plants were rogued from the foundation field in 1988. It does contain several offtype plants. An occasional awnless and an occasional bronzed chaffed plant may be found. Also an occasional taller plant may occur. But these offtype plants have occurred at less than 1% in subsequent generations.

EXHIBIT B

NOVELTY STATEMENT

Florida 303 is most similar to the soft red winter wheat Coker 797. However, it can be easily distinguished since it is awned and Coker 797 is awnleted.

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FROM:NFREC QUINCY TO: 1 301 504 5518 JUL 29, 1993 9:10AM P.02

(Wheat)

...STOCK, MEAT, GRAIN AND SEED DIVISION
BELTSVILLE, MARYLAND 20705

OBJECTIVE DESCRIPTION OF VARIETY

WHEAT (*TRITICUM SPP.*)

INSTRUCTIONS: *See Reverse.*

NAME OF APPLICANT(S)
Florida Agricultural Experiment Station
University of Florida-IFAS

ADDRESS (*Street and No. or R.F.D. No., City, State, and ZIP Code*)
Dean for Research-University of Florida
1022 McCarty Hall
Gainesville, FL 32611

FOR OFFICIAL USE ONLY

PVPO NUMBER

VARIETY NAME OR TEMPORARY DESIGNATION
Florida 303

Place the appropriate number that describes the varietal character of this variety in the boxes below. Place a zero in first box (e.g. [0][8][9] or [0][9]) when number is either 99 or less or 9 or less.

1. KIND:
[1] 1 = COMMON 2 = DURUM 3 = EMMER 4 = SPELT 5 = POLISH 6 = POULARD 7 = CLUB

2. TYPE:
[2] 1 = SPRING 2 = WINTER 3 = OTHER (*Specify*) _____ [1] [2] 1 = SOFT 2 = HARD 3 = OTHER (*Specify*) _____
[2] 1 = WHITE 2 = RED 3 = OTHER (*Specify*) _____

3. SEASON - NUMBER OF DAYS FROM EMERGENCE TO:
[1][3][2] FIRST FLOWERING [1][3][7] LAST FLOWERING

4. MATURITY (*50% Flowering*):
[0][8] NO. OF DAYS *EARLIER* THAN ..... [7] 1 = ARTHUR 2 = SCOUT 3 = CHRIS
[ ][ ] NO. OF DAYS *LATER* THAN ..... [ ] 4 = LEMHI 5 = NUGAINES 6 = LEEDS
7 = Florida 302

5. PLANT HEIGHT (*From soil level to top of head*):
[0][8][8] CM. HIGH
[ ][ ] CM. TALLER THAN ..... [ ]
[0][8] CM. SHORTER THAN ..... [7] 1 = ARTHUR 2 = SCOUT 3 = CHRIS 4 = LEMHI 5 = NUGAINES 6 = LEEDS 7=Florida 302

6. PLANT COLOR AT BOOTING (*See reverse*):
[2] 1 = YELLOW GREEN 2 = GREEN 3 = BLUE GREEN

7. ANTHER COLOR:
[1] 1 = YELLOW 2 = PURPLE

8. STEM:
[1] Anthocyanin: 1 = ABSENT 2 = PRESENT
[2] Waxy bloom: 1 = ABSENT 2 = PRESENT
[1] Hairiness of last internode of rachis: 1 = ABSENT 2 = PRESENT
[1] Internodes: 1 = HOLLOW 2 = SOLID
[0][4] NO. OF NODES (*Originating from node above ground*)
[1][6] CM. INTERNODE LENGTH BETWEEN FLAG LEAF AND LEAF BELOW

9. AURICLES:
[1] Anthocyanin: 1 = ABSENT 2 = PRESENT
[1] Hairiness: 1 = ABSENT 2 = PRESENT

10. LEAF:
[2] Flag leaf at booting stage: 1 = ERECT 2 = RECURVED 3 = OTHER (*Specify*): _____
[1] Flag leaf: 1 = NOT TWISTED 2 = TWISTED
[1] Hairs of first leaf sheath: 1 = ABSENT 2 = PRESENT
[2] Waxy bloom of flag leaf sheath: 1 = ABSENT 2 = PRESENT
[ ][ ] MM. LEAF WIDTH (*First leaf below flag leaf*)
[ ][ ] CM. LEAF LENGTH (*First leaf below flag leaf*)

FORM LMGS 470-6 (6-82) (Formerly Form LPGS 470-6 (3-79), which may be used)

4

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[1] 4 = OTHER (Specify) ____ 5 = STRAP 3 = CLAVATE

[4] Awnedness: 1 = AWNLESS 2 = APICALLY AWNLETED 3 = AWNLETED 4 = AWNED

[1] Color at maturity: 1 = WHITE 2 = YELLOW 3 = PINK 4 = RED 5 = BROWN 6 = BLACK 7 = OTHER (Specify): ____

[0 9] CM. LENGTH [1 0] MM. WIDTH

12. GLUMES AT MATURITY:

[3] Length: 1 = SHORT (CA. 7 mm.) 2 = MEDIUM (CA. 8 mm.) 3 = LONG (CA. 9 mm.)

[1] Width: 1 = NARROW (CA. 3 mm.) 2 = MEDIUM (CA. 3.5 mm.) 3 = WIDE (CA. 4 mm.)

[2] Shoulder shape: 1 = WANTING 2 = OBLIQUE 3 = ROUNDED 4 = SQUARE 5 = ELEVATED 6 = APICULATE

[3] Beak: 1 = OBTUSE 2 = ACUTE 3 = ACUMINATE

13. COLEOPTILE COLOR:

[1] 1 = WHITE 2 = RED 3 = PURPLE

14. SEEDLING ANTHOCYANIN:

[1] 1 = ABSENT 2 = PRESENT

15. JUVENILE PLANT GROWTH HABIT:

[2] 1 = PROSTRATE 2 = SEMI-ERECT 3 = ERECT

16. SEED:

[1] Shape: 1 = OVATE 2 = OVAL 3 = ELLIPTICAL

[1] Cheek: 1 = ROUNDED 2 = ANGULAR

[3] Brush: 1 = SHORT 2 = MEDIUM 3 = LONG

[1] Brush: 1 = NOT COLLARED 2 = COLLARED

[ ] Phenol reaction (See instructions): 1 = IVORY 2 = FAWN 3 = LT. BROWN 4 = BROWN 5 = BLACK

[3] Color: 1 = WHITE 2 = AMBER 3 = RED 4 = PURPLE 5 = OTHER (Specify) ____

[0 7] MM. LENGTH [0 3] MM. WIDTH [3 5] GM. PER 1000 SEEDS

17. SEED CREASE:

[1] Width: 1 = 60% OR LESS OF KERNEL 'WINOKA' 2 = 80% OR LESS OF KERNEL 'CHRIS' 3 = NEARLY AS WIDE AS KERNEL 'LEMHI'

[3] Depth: 1 = 20% OR LESS OF KERNEL 'SCOUT' 2 = 35% OR LESS OF KERNEL 'CHRIS' 3 = 50% OR LESS OF KERNEL 'LEMHI'

18. DISEASE: (0 = Not Tested, 1 = Susceptible, 2 = Resistant)

[1] STEM RUST (Races) ____ [2] LEAF RUST (Races) ____ [0] STRIPE RUST (Races) ____ [0] LOOSE SMUT

[1] POWDERY MILDEW [0] BUNT [ ] OTHER (Specify) ____

19. INSECT: (0 = Not Tested, 1 = Susceptible, 2 = Resistant)

[0] SAWFLY [0] APHID (Bydv.) [ ] GREEN BUG [ ] CEREAL LEAF BEETLE

[ ] OTHER (Specify) ____

HESSIAN FLY RACES: [1] GP [1] A [1] B [1] C [1] D [1] E [1] F [1] G

20. INDICATE WHICH VARIETY MOST CLOSELY RESEMBLES THAT SUBMITTED:

CHARACTER	NAME OF VARIETY	CHARACTER	NAME OF VARIETY
Plant tillering	Coker 797	Seed size	Coker 797
Leaf size	Coker 797	Seed shape	Coker 797
Leaf color	Coker 797	Coleoptile elongation	Coker 797
Leaf carriage	Coker 797	Seedling pigmentation	Coker 797

INSTRUCTIONS

GENERAL: The following publications may be used as a reference aid for the standardization of terms and procedures for completing this form:

(a) L.F. Briggle and L. P. Reitz, 1963, Classification of Triticum Species and Wheat Varieties Grown in the United States. Technical Bulletin 1278, United States Department of Agriculture.

(b) W.E. Walls, 1965, A Standardized Phenol Method for Testing Wheat Seeds for Varietal Purity, contribution No. 28 to the handbook of seed testing prepared by the Association of Official Seed Analysts. (See attachment.)

LEAF COLOR: Nickerson's or any recognized color fan should be used to determine the leaf color of the described variety.

FORM LMGS 470-6 (6-82) (Reverse)

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EXHIBIT D

ADDITIONAL DESCRIPTION OF FLORIDA 303

Florida 303 is a common soft red winter wheat, Triticum aestivum L. bred and developed by the University of Florida, Institute of Food and Agricultural Sciences at the North Florida Research and Education Center at Quincy, Florida.

Florida 303 resembles the Coker 797 parent in maturity, plant height, and general appearance but is higher yielding and has better disease resistance. It is bearded with white glumes similar to Florida 302. It is earlier maturing, has a better test weight, and has superior leaf rust resistance than Florida 302. Florida 303 is short in height and has excellent lodging resistance. It is resistant to powdery mildew but has the same susceptibility to septoria glume blotch and hessian fly as Florida 302. It does have a low vernalization requirement similar to Florida 301 so it performs well in late plantings and in double cropping systems. It is widely adapted to the southern soft red winter wheat growing area but probably will not be as widely grown as Florida 302 because it has less winterhardiness than Florida 302.

Table 1 . Performance of selected entries in the 1985 Advanced Wheat Test grown at the North Florida Research and Education Center, Quincy, Florida.

Entry	Grain yield	Test wt.	Lodging	Plant ht.	Heading date	Powdery mildew	Leaf rust
	bu/a	lbs/bu	%	in.		%	
Florida 301	56	54	2	37	3-30	30	0
Hunter	53	57	0	28	4-1	10	40S
FL7927-G29	50	56	1	33	4-6	T	0
FL7927-G21	49	55	0	30	4-3	0	0
FL&927-G26	46	56	1	30	3-30	30	0
Florida 302	45	55	3	32	4-16	0	0
Coker 797	43	55	1	28	4-1	10	0
Coker 983	42	56	0	30	4-12	5	20MS
Coker 762	41	51	11	30	4-12	40	0
Coker 916	34	54	0	29	4-17	t	0

Table 2. 1986 Advanced Wheat Performance Trial.

Entry	Grain Yield				Test wt[1/]	Plant ht.[2/]	Heading date[3/]	Leaf rust[1/]
	Quincy	Marianna	Quincy late	Weighed average				
	bu/A				lbs/bu	in		
FL7927-G29	71	25	15	44	56	33	4-2	0
FL7927-G26	67	25	19	43	55	28	4-1	0
Florida 301	60	30	20	42	55	40	4-2	10S
FL7927-G21	60	25	15	39	56	31	4-2	0
Traveler	60	24	11	39	55	31	3-31	5S
Florida 302	48	20	9	31	52	32	4-8	ts

1/ Three test average.
2/ Average of Quincy early planted and Marianna.
3/ Quincy early planted.

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Table 3 . Performance of selected entries in the 1987 Florida State Variety Test.

Entry	Grain Yield Quincy	Grain Yield Jay	Grain Yield 2 loc. avg.	Test wt.[1/]	Leaf rust[1/]	Plant height[2/]
	---------bu/A--------			lbs/bu		in
FL7927-G21	64	82	73	58	0	34
FL7927-G29	61	84	72	58	0	36
Coker 797	58	80	69	59	5MS	34
Hunter	58	78	68	59	30S	31
FL7927-G26	52	78	65	57	0	34
Traveler	58	73	65	57	5S	34
Florida 301	57	73	65	57	5MR	40
Florida 302	55	74	65	56	ts	38
Coker 9323	56	73	64	57	50S	34
Coker 9733	51	76	64	59	0	38
Coker 762	52	73	63	55	10S	34
Coker 9766	53	67	60	57	5MS	36
Coker 9227	47	73	60	59	5S	35
Florida 301H6	52	67	59	57	ts	38
Coker 916	50	67	59	56	ts	30
Williams	49	60	54	55	30S	32
Coker 983	51	58	54	58	30S	35
Coker 747	42	65	54	59	30S	26
Saluda	45	62	53	57	10S	30
Stacy	41	58	50	58	30S	34
Caldwell	26	29	28	53	5MS	31
Tyler	20	36	28	51	60S	26
Mean	48	67	58			
CV%	13	11				

1/ Average of Quincy and Jay locations.

2/ Quincy location.

Table 4 . Performance of selected entries in the 1987 Florida Uniform Southern Wheat Test.

Entry	Grain Yield Quincy	Grain Yield Jay	Grain Yield 2 loc. avg.	Test wt.[1/]	Leaf rust[1/]	Plant height[2/]
	--------Bu/A---------			lbs/bu		in.
FL7927-G21	62	87	74	59	0	31
FL7927-G29	68	73	70	58	0	35
Florida 302	65	72	69	57	ts	36
Traveler	62	74	68	57	10S	31
FL7927-G26	63	65	64	57	0	31
Coker 797	64	58	61	57	ts	31
Coker 9733	44	69	57	60	0	38
Florida 301	43	60	52	58	5MS	36
Tyler	22	40	31	51	40S	30

1/ Average of Quincy and Jay locations.

2/ Quincy location.

Table 5. 1987 Georgia State Wheat Variety Test.

Entry	Grain yield[1/]	Test weight[1/]	Height[1/]	Lodging[1/]	Heading date[2/]	Septoria nodorum blotch[3/]	Leaf rust[3/]	Barley yellow dwarf virus[4/]	Powdery mildew[5/]
	bu/A	lbs/bu	in.	%		%	%	%	%
FL7927-G29	62	59	39	1	4-13	8	1	0	0
Florida 302	61	57	38	1	4-23	8	13	0	0
FL7927-G21	58	59	36	0	4-13	15	0	0	0
Coker 9766	58	57	36	5	4-24	5	0	5	0
Coker 983	58	60	32	1	4-22	8	25	0	0
Coker 9733	56	59	41	5	4-20	10	1	0	0
FL7927-G26	55	58	36	1	4-11	23	0	0	0
Hunter	54	61	31	2	4-16	18	40	0	0
Coker 916	54	58	33	1	4-22	5	10	15	0
Williams	54	56	37	2	4-25	15	20	5	50
Florida 301	52	59	42	21	4-15	8	5	0	0
Stacy	50	58	40	12	4-23	5	21	10	0

1/ Average of 5 locations - Tifton, Plains, Midville, Griffin, Calhoun.
2/ Average of 4 locations - Tifton, Plains, Griffin, Calhoun.
3/ Average of 2 locations - Plains and Griffin.
4/ One location - Plains.
5/ One location - Griffin.

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Table 6 . 1987 South Carolina State Wheat Variety Test

Entry	Grain[1/] yield	Test[1/] wt.	Height[1/]	Heading[2/] date
	bu/A	lbs/bu	in.	
FL7927-G21	53	57	34	4-17
FL7927-G29	51	54	36	4-17
FL7927-G26	47	57	34	4-17
Coker 983	47	57	31	4-24
Coker 916	46	56	32	4-23
Coker 9733	45	56	39	4-24
Coker 9766	44	54	34	4-26
Williams	44	55	35	4-26
Florida 302	43	55	36	4-25
Coker 797	41	56	33	4-26
Stacy	41	56	38	4-25
Florida 301	40	56	39	4-19
Hunter	40	58	31	4-20

[1/] Average of 5 locations - Clemson - Early planted, Clemson-late planted, Charleston, Blackville, Florence.

[2/] Average of 3 locations - Clemson - Early planted, Clemson-late planted, Charleston.

Table 7 . 1987 Arkansas State Wheat Variety Test.

Entry	Grain[1/] yield	Test[2/] wt.	Heading[3/] date	Plant[4/] height
	bu/A	lbs/bu		in.
Florida 302	57	54	4-19	36
Caldwell	52	53	4-20	35
Coker 983	51	57	4-17	30
Coker 916	51	55	4-16	32
Coker 9733	50	57	4-18	36
FL7927-G21	38	57	4-8	33
FL7927-G29	38	57	4-9	36
FL7927-G26	33	56	4-6	32
Florida 301	33	56	4-10	39

1/ Average of 11 locations.
2/ Average of 7 locations.
3/ Average of 10 locations.
4/ Average of 9 locations.

1987 CROP
UNIFORM SOUTHERN NURSERY

The Uniform Southern Nursery was comprised of samples sent from the following locations: (1) Plains, Georgia; (2) College Park, Maryland; (3) Blacksburg, Virginia; and Clemson, South Carolina. Thirty-four entries were included, six released varieties and twenty-eight test lines.

Tyler (#340) was selected as the standard, as it was in 1986. The test weight for Tyler was higher in 1987 (62.2 lb/bu vs. 60.1 lb/bu in 1986). Break flour yield for Tyler was significantly higher in 1987 (37.3% vs. 31.1% in 1986). Cookie diameter also was improved for Tyler in 1987 (17.91 cm. vs. 17.32 cm. in 1986). Although several released varieties scored higher than Tyler in combined quality score, Tyler served well as a standard, while maintaining continuity from 1986.

Three test lines scored better than the Tyler standard in combined quality score. FL 7924-D13-H14 (#347) was unsurpassed in milling quality score and scored well in baking quality as well. Other test lines that surpassed the standard were NA-SW-84-160 (#369) AND FL 927-G21 (#348).

Twelve entries were included in the Uniform Southern Nursery in past years. Most of them were ranked similiarly to 1986, with three exceptions. AR 116-6 rose to ninth place, up from 21st. This was because of a small cookie diameter in 1986. This shows the value of analyzing entries several times. The 1986 cookie diameter probably was atypical. Coker 9733 also improved. It was twenty-second in 1986 and eleventh in 1987. Again this was due to a large increase in cookie diameter. FL 72185A101-5-9 dropped from seventh place in 1986 to twenty-eighth in 1987. The baking quality score was lower in 1987 even though the cookie diameter was slightly larger (17.61 cm. vs. 17.42 cm. in 1986). The reason for the drop in score was because the Tyler standard in 1986 had a small cookie diameter (17.30 cm.), and so was very lenient. The 1987 Tyler was more typical with a cookie diameter of 17.94 cm. This resulted in a lower baking quality score in 1987.

The table on the next page presents the 1987 entries, ranked according to combined quality scores, as well as their rankings in past years.

1987 CROP UNIFORM SOUTHERN NURSERY
RANKED BY COMBINED QUALITY SCORE

	ENTRY	1987	1986	1985	1984	1983	1982
347	FL 7924-D13-H14	1	3				
339	PIONEER 2555	2					
338	STEELE	3	2	4			
369	NA-SW-84-160	4					
337	FLORIDA 302	5	6	2	15	6	1
348	FL 927-G21	6	8				
340	TYLER	7	9	6	3	5	
361	GA 781197	8					
344	AR 116-6	9	21				
367	MD 73025-51	10					
341	COKER 9733	11	22				
362	TX-79-30	12					
345	AR 322-21-3	13	13				
354	COKER 86-29	14					
352	COKER 86-17	15					
350	CL 840101	16					
353	COKER 86-26	17					
370	NA-SW-84-313	18					
364	TX-78-7303	19					
343	NA-SW-77-42-25	20	17				
365	MD 75191-80	21					
363	TX-79-19-1	22					
346	SC 810779	23	25				
366	MD 73019-28	24					
360	GA 781176	25					
368	MD 73065-03	26					
342	VA 82-52-64	27	23				
349	FL 72185A101-5-9	28	7				
355	COKER 86-31	29					
351	AL 840169	30					
356	AT 83WHR6208	31					
357	SC 820556	32					
358	SC 820886	33					
359	GA 781159	34					

1987 CROP

UNIFORM SOUTHERN NURSERY
STANDARD = 340, TYLER

WHEAT AND MILLING DATA

LAB NO.	ENTRY	MILLING QUALITY SCORE	BAKING QUALITY SCORE	COMBINED QUALITY SCORE	TEST WT.	BREAK FLOUR YIELD	ST. GR. FLOUR YIELD	RED PASSES	FRIABILITY	E.S.I.	MILLABILITY
***	STANDARD	100 A	100 A	100 A	60.1	37.3	76.3	7	29	10.4	109.9
***	BENCHMARK	100.4A	112.1A	100.4A	61.6	35.6*	76.3	7	28 Q	10.4	109.9
337 AQ	FLORIDA 302	107.1A	102.9A	102.9A	60.9	33.4Q	77.3	7	29.8	8.6	123.5
338 BEX	STEELE (NA-SW-76-59)	105 A	113.5A	105 A	58.4Q	37.4	77.7	7	30.6	8.5	120.3
339 FR	PIONEER 2555 (XW 546)	108.1A	115.5A	108.1A	59.2*	42.1	77.3	7	30.4	9	122.3
340 BJ	TYLER	100 A	100 A	100 A	60.1	37.3	76.3	7	29	10.4	109.9
341 BFR	COKER 9733 (COKER 84-33)	97.2 B	99.9 B	97.2 B	61.7	30.8Q	75.2*	7	29	10.8	106.8
342 BGE	VA 82-52-64	86.9 D	84.1 E	84.1 E	60	39.4	75 *	7	27.5Q	11.6*	86.2 Q
343 BGN	NA-SW-77-42-25	91.5 C	94.4 C	91.5 C	60.8	37.4	75.1*	8	26.6Q	12.4Q	94.3 *
344 BFK	AR 116-6	99 B	102.1A	99 B	61.3	33.2Q	76.4	7	28.9	10.1	109
345 BFL	AR 322-21-3	101.3A	96.9 B	96.9 B	60.5	31.1Q	77.2	7	29.3	9.9	115
346 BGA	SC 810779	88.5 D	90.5 C	88.5 D	62	31.9Q	74.9*	8	25.9Q	12.8Q	90.8 Q
347 BFZ	FL 7924-D13-H14	111.4A	110.7A	110.7A	59.9	33.7Q	77.8	7	30.5	8.1	131.8
348 ZO	FL 7927-G21	102.1A	100.1A	100.1A	61.3	35 Q	76.9	7	28.7	10.2	113.4
349 BGF	FL 72185A101-5-9	102.4A	83.2 E	83.2 E	62.2	32.7Q	76.4	7	28.9	10.1	114.2
350 BFQ	CL 840101	95.1 B	113 A	95.1 B	60.7	31.8Q	76.1	7	28.5*	11.3	103.8
351 BFM	AL 840169	97.5 B	82.5 E	82.5 E	58.4Q	36.1*	76.4	7	28.4*	10.6	108.1
352 BFS	COKER 86-17	95.2 B	103.3A	95.2 B	60.9	37.9	75.8	7	28.9	12 *	100.3*
353 BFT	COKER 86-26	95.1 B	96.2 B	95.1 B	62.2	31.7Q	75.8	7	28.4*	10.8	102.1
354 BFU	COKER 86-29	96.3 B	95.3 B	95.3 B	62.1	33.8Q	75.6	7	28.5*	10.9	103.1
355 BFW	COKER 86-31	101.9A	83 E	83 E	61.2	32.9Q	76.7	7	29.3	9.5	114.3
356 BFN	AT 83WHR6208	97 B	78.8 F	78.8 F	61.1	34.6Q	76	8	27.9Q	11.4*	105.1
357 BGB	SC 820556	91.5 C	77.2 F	77.2 F	61.5	31.8Q	75.9	7	28 Q	11.3	96.6 *
358 BGC	SC 820886	100.6A	46 F	46 F	61.3	21.9Q	77.6	7	28.7	8.7	117.9
359 BGG	GA 781159	86.6 D	25.7 F	25.7 F	63.2	19.8Q	76.1	7	26.5Q	11.6*	92.7 *
360 BGH	GA 781176	90 C	86.4 D	86.4 D	59.3*	36.8	74.8*	7	27.5Q	12.5Q	93.7 *
361 BGI	GA 781197	100 A	103.6A	100 A	59.7	38.2	76.2	7	29.3	9.9	109.8
362 BGD	TX-79-30	97.1 B	110 A	97.1 B	61.5	38.8	75.5	7	27.7Q	11.5*	102.6
363 BED	TX-79-19-1	89 D	89.3 D	89 D	59.2*	35.9*	75.3*	8	26.9Q	12.3*	92.6 *
364 BEC	TX-78-7303	99.5 B	91.7 C	91.7 C	59.4*	37.3	76.1	8	28.4*	11.6*	109.8
365 BGM	MD 75191-80	103.3A	90.4 C	90.4 C	59.1*	34.3Q	77.2	7	29.4	9.4	118.3
366 BGJ	MD 73019-28	87.7 D	94.7 C	87.7 D	59.7	37.5	74.9*	8	26.6Q	12.9Q	88.9 Q
367 BGK	MD 73025-51	98.7 B	111.4A	98.7 B	58.2Q	38	77.3	7	29.2	10.1	109.4
368 BGL	MD 73065-03	85.7 D	110.9A	85.7 D	60.2	39	75.5	8	26.5Q	12.1*	84.1 Q
369 BGO	NA-SW-84-160	104.9A	109.6A	104.9A	61.1	37.5	77.5	7	29.5	9.7	117.1

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1987 CROP

UNIFORM SOUTHERN NURSERY
STANDARD = 340, TYLER

WHEAT AND MILLING DATA

LAB NO.	ENTRY	MILLING QUALITY SCORE	BAKING QUALITY SCORE	COMBINED QUALITY SCORE	TEST WT.	BREAK FLOUR YIELD	ST. GR. FLOUR YIELD	RED PASSES	FRIABILITY	E.S.I.	MILLABILITY
370 BGP	NA-SW-84-313	94.4 C	94.7 C	94.4 C	58.8Q	31.8Q	76	7	28.7	10.4	104.6

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1987 CROP

UNIFORM SOUTHERN NURSERY
STANDARD = 340, TYLER

STRAIGHT-GRADE FLOUR

LAB NO.	FLOUR PROTEIN %	FLOUR ASH %	MICRO AWRC %	COOKIE DIAMETER CM.	TOP GRAIN
***	8.36	.39	50.7	17.91	5
***	8.899*	.35	51.3	18.35	7
337	8.76	.37	48.5	17.94	4
338	9.16 *	.41	50.1	18.43	4
339	8.16	.38	50.8	18.45	5
340	8.36	.39	50.7	17.91	5
341	9.7 Q	.38	47.1	17.94	5
342	8.84 *	.46 Q	53.8 *	17.7	3
343	8.95 *	.39	51.6	17.86	7
344	9.91 Q	.4	49.5	18.03	7
345	9.04 *	.39	49.4	17.83	6
346	10.45Q	.39	51.5	17.88	5
347	9.67 Q	.35	48.7	18.2	6
348	9.31 Q	.38	49.9	17.95	6
349	9.95 Q	.37	50.3	17.61*	4
350	9.02 *	.4	50.6	18.29	6
351	10.27Q	.39	50.6	17.63*	3
352	9.65 Q	.41	49.8	18.05	2
353	10.66Q	.41	49.6	17.95	7
354	10.06Q	.4	49.4	17.87	3
355	9.18 *	.39	49.8	17.52*	5
356	9.75 Q	.38	51.7	17.55*	2
357	10.98Q	.43 *	51.3	17.59*	5
358	9.82 Q	.39	55.3 Q	16.92Q	4
359	9.9 Q	.43 *	59.1 Q	16.59Q	2
360	9.77 Q	.4	52.7 *	17.78	5
361	9.42 Q	.4	50.9	18.09	5
362	9.22 *	.38	51.9	18.33	5
363	9.27 *	.41	52.2	17.79	3
364	9.41 Q	.36	51.8	17.84	3
365	8.15	.38	50.9	17.67	5
366	8.37	.41	52.2	17.85	3
367	8.66	.42 *	50	18.18	6
368	9.11 *	.46 Q	51.6	18.36	5
369	8.03	.39	53 *	18.22	5
370	9.07 *	.41	50.3	17.82	5

DATA RANKED ACCORDING TO COMBINED QUALITY SCORE

1987 CROP

UNIFORM SOUTHERN NURSERY
STANDARD = 340, TYLER

WHEAT AND MILLING DATA

LAB NO.		ENTRY	MILLING QUALITY SCORE	BAKING QUALITY SCORE	COMBINED QUALITY SCORE	TEST WT.	BREAK FLOUR YIELD	ST.GR. FLOUR YIELD	RED PASSES	FRIABILITY	E.S.I.	MILLABILITY
347	BFZ	FL 7924-D13-H14	111.A	110.7A	110.A	59.9	33.7Q	77.8	7	30.5	8.1	131.8
339	FR	PIONEER 2555 (XW 546)	108.A	115.5A	108.A	59.2*	42.1	77.3	7	30.4	9	122.3
338	BEX	STEELE (NA-SW-76-59)	105 A	113.5A	105 A	58.4Q	37.4	77.7	7	30.6	8.5	120.3
369	BGO	NA-SW-84-160	104.A	109.6A	104.A	61.1	37.5	77.5	7	29.5	9.7	117.1
337	AQ	FLORIDA 302	107.A	102.9A	102.A	60.9	33.4Q	77.3	7	29.8	8.6	123.5
***		BENCHMARK	100.A	112.1A	100.A	61.6	35.6*	76.3	7	28 Q	10.4	109.9
348	ZO	FL 7927-G21	102.A	100.1A	100.A	61.3	35 Q	76.9	7	28.7	10.2	113.4
340	BJ	TYLER	100 A	100 A	100 A	60.1	37.3	76.3	7	29	10.4	109.9
***		STANDARD	100 A	100 A	100 A	60.1	37.3	76.3	7	29	10.4	109.9
361	BGI	GA 781197	100 A	103.6A	100 A	59.7	38.2	76.2	7	29.3	9.9	109.8
344	BFK	AR 116-6	99 B	102.1A	99 B	61.3	33.2Q	76.4	7	28.9	10.1	109
367	BGK	MD 73025-51	98.7B	111.4A	98.7B	58.2Q	38	77.3	7	29.2	10.1	109.4
341	BFR	COKER 9733 (COKER 84-33)	97.2B	99.9 B	97.2B	61.7	30.8Q	75.2*	7	29	10.8	106.8
362	BGD	TX-79-30	97.1B	110 A	97.1B	61.5	38.8	75.5	7	27.7 Q	11.5*	102.6
345	BFL	AR 322-21-3	101.A	96.9 B	96.9B	60.5	31.1Q	77.2	7	29.3	9.9	115
354	BFU	COKER 86-29	96.3B	95.3 B	95.3B	62.1	33.8Q	75.6	7	28.5 *	10.9	103.1
352	BFS	COKER 86-17	95.2B	103.3A	95.2B	60.9	37.9	75.8	7	28.9	12 *	100.3*
350	BFQ	CL 840101	95.1B	113 A	95.1B	60.7	31.8Q	76.1	7	28.5 *	11.3	103.8
353	BFT	COKER 86-26	95.1B	96.2 B	95.1B	62.2	31.7Q	75.8	7	28.4 *	10.8	102.1
370	BGP	NA-SW-84-313	94.4C	94.7 C	94.4C	58.8Q	31.8Q	76	7	28.7	10.4	104.6
364	BEC	TX-78-7303	99.5B	91.7 C	91.7C	59.4*	37.3	76.1	8	28.4 *	11.6*	109.8
343	BGN	NA-SW-77-42-25	91.5C	94.4 C	91.5C	60.8	37.4	75.1*	8	26.6 Q	12.4Q	94.3 *
365	BGM	MD 75191-80	103.A	90.4 C	90.4C	59.1*	34.3Q	77.2	7	29.4	9.4	118.3
363	BED	TX-79-19-1	89 D	89.3 D	89 D	59.2*	35.9*	75.3*	8	26.9 Q	12.3*	92.6 *
346	BGA	SC 810779	88.5D	90.5 C	88.5D	62	31.9Q	74.9*	8	25.9 Q	12.8Q	90.8 Q
366	BGJ	MD 73019-28	87.7D	94.7 C	87.7D	59.7	37.5	74.9*	8	26.6 Q	12.9Q	88.9 Q
360	BGH	GA 781176	90 C	86.4 D	86.4D	59.3*	36.8	74.8*	7	27.5 Q	12.5Q	93.7 *
368	BGL	MD 73065-03	85.7D	110.9A	85.7D	60.2	39	75.5	8	26.5 Q	12.1*	84.1 Q
342	BGE	VA 82-52-64	86.9D	84.1 E	84.1E	60	39.4	75 *	7	27.5 Q	11.6*	86.2 Q
349	BGF	FL 72185A101-5-9	102.A	83.2 E	83.2E	62.2	32.7Q	76.4	7	28.9	10.1	114.2
355	BFW	COKER 86-31	101.A	83 E	83 E	61.2	32.9Q	76.7	7	29.3	9.5	114.3
351	BFM	AL 840169	97.5B	82.5 E	82.5E	58.4Q	36.1*	76.4	7	28.4 *	10.6	108.1
356	BFN	AT 83WHR6208	97 B	78.8 F	78.8F	61.1	34.6Q	76	8	27.9 Q	11.4*	105.1
357	BGB	SC 820556	91.5C	77.2 F	77.2F	61.5	31.8Q	75.9	7	28 Q	11.3	96.6 *
358	BGC	SC 820886	100.A	46 F	46 F	61.3	21.9Q	77.6	7	28.7	8.7	117.9
359	BGG	GA 781159	86.6D	25.7 F	25.7F	63.2	19.8Q	76.1	7	26.5 Q	11.6*	92.7 *

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DATA RANKED ACCORDING TO COMBINED QUALITY SCORE

1987 CROP

UNIFORM SOUTHERN NURSERY
STANDARD = 340, TYLER

STRAIGHT-GRADE FLOUR

LAB NO.	FLOUR PROTEIN %	FLOUR ASH %	MICRO A.W.R.C. %	COOKIE DIAMETER CM.	TOP GRAIN
347	9.67 Q	.35	48.7	18.2	6
339	8.16	.38	50.8	18.45	5
338	9.16 *	.41	50.1	18.43	4
369	8.03	.39	53 *	18.22	5
337	8.76	.37	48.5	17.94	4
***	8.899*	.35	51.3	18.35	7
348	9.31 Q	.38	49.9	17.95	6
340	8.36	.39	50.7	17.91	5
***	8.36	.39	50.7	17.91	5
361	9.42 Q	.4	50.9	18.09	5
344	9.91 Q	.4	49.5	18.03	7
367	8.66	.42 *	50	18.18	6
341	9.7 Q	.38	47.1	17.94	5
362	9.22 *	.38	51.9	18.33	5
345	9.04 *	.39	49.4	17.83	6
354	10.06Q	.4	49.4	17.87	3
352	9.65 Q	.41	49.8	18.05	2
350	9.02 *	.4	50.6	18.29	6
353	10.66Q	.41	49.6	17.95	7
370	9.07 *	.41	50.3	17.82	5
364	9.41 Q	.36	51.8	17.84	3
343	8.95 *	.39	51.6	17.86	7
365	8.15	.38	50.9	17.67	5
363	9.27 *	.41	52.2	17.79	3
346	10.45Q	.39	51.5	17.88	5
366	8.37	.41	52.2	17.85	3
360	9.77 Q	.4	52.7 *	17.78	5
368	9.11 *	.46 Q	51.6	18.36	5
342	8.84 *	.46 Q	53.8 *	17.7	3
349	9.95 Q	.37	50.3	17.61*	4
355	9.18 *	.39	49.8	17.52*	5
351	10.27Q	.39	50.6	17.63*	3
356	9.75 Q	.38	51.7	17.55*	2
357	10.98Q	.43 *	51.3	17.59*	5
358	9.82 Q	.39	55.3 Q	16.92Q	4
359	9.9 Q	.43 *	59.1 Q	16.59Q	2

EVALUATION SUMMARY

SUMMARY IS FOR ENTRIES 337 TO 370

	STANDARD DATA	ADJUSTED LSD	NOTATION BEGINS *	NOTATION BEGINS Q	AVERAGED DATA
MILLING QUALITY	100.0	----	----	----	97.3
BAKING QUALITY	100.0	----	----	----	93.7
COMBINED QUALITY	100.0	----	----	----	90.2
WHEAT DATA					
MILLABILITY	109.9	9.12	100.78	91.66	106.2
E.S.I.	10.40	0.95	11.35	12.31	10.70
TEST WEIGHT	60.1	0.55	59.55	59.00	60.5
RED. PASSES	7.0	----	----	----	7.2
BREAK FLOUR YIELD	37.3	0.958	36.3	35.4	34.5
FLOUR YIELD	76.3	0.89	75.4	74.5	76.2
FRIABILITY	29.0	0.34	28.7	28.3	28.5
FLOUR DATA					
FLOUR PROTEIN	8.36	0.46	8.82	9.29	9.40
FLOUR ASH	.39	.02	.41	.43	.40
A.W.R.C.	50.7	1.62	52.32	53.94	51.10
COOKIE DIAMETER	17.91	0.24	17.67	17.42	17.90
TOP GRAIN	5.0	2.08	2.92	0.83	4.60

COMBINED SCORES

A = 8 ENTRIES
B = 9 ENTRIES
C = 4 ENTRIES
D = 5 ENTRIES
E = 4 ENTRIES
F = 4 ENTRIES

34 ENTRIES AVERAGED FOR WHEAT DATA
34 ENTRIES AVERAGED FOR FLOUR DATA

34 TOTAL ENTRIES

EXHIBIT E

Statement of the Basis of Applicant's Ownership

Florida 303 was bred and developed by Dr. R. D. Barnett, University of Florida, Institute of Food and Agricultural Sciences, Florida Agricultural Experiment Station. The owner of the variety is the Florida Agricultural Experiment Station, University of Florida, IFAS. The address for correspondence with the owner is as follows: Dean for Research, 1022 McCarty Hall, University of Florida, Gainesville, Florida 32611.