No. 7200069

THE UNITED STATES OF AMERICA

TO ALL TO WHOM THESE PRESENTS SHALL COME:

Arkansas 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 seventeen 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. IN THE UNITED STATES SEED OF THIS VARIETY (1) SHALL BE SOLD BY VARIETY NAME ONLY AS A CLASS OF CERTIFIED SEED AND (2) SHALL CONFORM TO THE NUMBER OF GENERATIONS CERTIFIED BY THE OWNER OF THE RIGHTS. (84 STAT. 1542, AS AMENDED, 7 U.S.C. 2321 ET SEQ.)

COTTON

'Quapaw'

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 *this* 30th *day of* September *in the year of our Lord one thousand nine hundred and* seventy-four

Attest:

L. F. Rollin

Commissioner
Plant Variety Protection Office
Agricultural Marketing Service

Earl L. Butz

Secretary of Agriculture

FORM GR-470
(2-12-71)

UNITED STATES DEPARTMENT OF AGRICULTURE
CONSUMER AND MARKETING SERVICE
GRAIN DIVISION
HYATTSVILLE, MARYLAND 20782

FORM APPROVED
OMB NO. 40-R3712

APPLICATION FOR PLANT VARIETY PROTECTION CERTIFICATE

INSTRUCTIONS: *See Reverse.*

1. VARIETY NAME OR TEMPORARY DESIGNATION Quapaw	2. KIND NAME Cotton	FOR OFFICIAL USE ONLY PVPO NUMBER 72069
3. GENUS AND SPECIES NAME Gossypium Hirsutum L.	4. FAMILY NAME *(Botanical)* Malvaceae	FILING DATE 1-5-72 / TIME 1:5 ~~A.M.~~ P.M.
	5. DATE OF DETERMINATION September, 1967	FEE RECEIVED $50.00 / CHARGES
6. NAME OF APPLICANT(S) Arkansas Agricultural Experiment Station	7. ADDRESS *(Street and No. or R.F.D. No., City, State, and ZIP Code)* Fayetteville, Arkansas 72701	8. TELEPHONE AREA CODE AND NUMBER
9. IF THE NAMED APPLICANT IS NOT A PERSON, FORM OF ORGANIZATION: *(Corporation, partnership, association, etc.)* Public Research Institute	10. STATE OF INCORPORATION	11. DATE OF INCORPORATION

12. Name and mailing address of applicant representative(s), if any, to serve in this application and receive all papers:

~~E. M. Cralley, Director~~ ~~DR. John W. White, Vice Pres. for Agriculture~~
Agricultural Experiment Station
University of Arkansas
Fayetteville, Arkansas 72701

DR. L. O. WARREN Director of Agricultural Expt. Sta.

13. CHECK BOX BELOW FOR EACH ATTACHMENT SUBMITTED:

- [X] 12A. Exhibit A, Origin and Breeding History of the Variety *(See Section 52, P.L. 91-577)*
- [X] 12B. Exhibit B, Botanical Description of the Variety
- [ ] 12C. Exhibit C, Objective Description of the Variety
- [X] 12D. Exhibit D, Data Indicative of Novelty
- [ ] 12E. Exhibit E, Statement of the Basis of Applicant's Ownership

The applicant declares that a viable sample of basic seed of this variety will be deposited upon request before issuance of a certificate and will be replenished periodically in accordance with such regulations as may be applicable. *(See Section 52, P.L. 91-577).*

14A. 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), P.L. 91-577) (If "Yes," answer 14B and 14C below.)* [X] YES [ ] NO

14B. Does the applicant(s) specify that this variety be limited as to number of generations? [X] YES [ ] NO	14C. If "Yes," to 14B, how many generations of production beyond breeder seed? Three

Applicant is informed that false representation herein can jeopardize protection and result in penalties.

The undersigned applicant(s) of this sexually-reproduced novel plant variety believes 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 (P.L. 91-577).

DEC 29 1971
(DATE)

E M Cralley
(SIGNATURE OF APPLICANT)

(DATE)

(SIGNATURE OF APPLICANT)

RECEIVED
APR 3 1972
U.S. DEPARTMENT OF AGRICULTURE
C&MS GRAIN DIVISION

INSTRUCTIONS

GENERAL: Send an original copy of the application, exhibits and $50.00 fee to U.S. Dept. of Agriculture, Consumer and Marketing Service, Grain Division, Hyattsville, Maryland 20782. Retain one copy for your files. All items on the face of the form are self-explanatory unles noted below.

ITEM

5 Insert the date the applicant determined that he had a new variety.

12a First, give the genealogy, including public and commercial varieties, lines, or clones used, and the breeding method. Second, give the details of subsequent stages of selection and multiplication. Third, indicate the type and frequency of variants during reproduction and multiplication and state how these variants may be identified. Fourth, provide evidence on stability.

12b First, give any special characteristics of the seed and of the plant as it passes through the seedling stage, flowering stage and the fruiting stage. Second, describe the mature plant and compare it with a similar commercial variety grown under the same conditions, and indicate the differences.

12c A supplemental form will be furnished by the PVPO to describe in detail a variety for each kind of seed.

12d Provide complete data indicative of novelty. Seed and plant specimens may be submitted and seeds submitted may be sterile. Where possible, include photographs of plant comparisons, chemical tests, etc.

12e Indicate whether applicant is the actual breeder, the employer of the breeder, the owner through purchase or inheritance, etc.

EXHIBIT A REVISED

QUAPAW COTTON

APPLICATION NO. 72069

QUAPAW COTTON WAS DEVELOPED FROM A SERIES OF CROSSES AND BACKCROSSES INVOLVING NINE CULTIVARS: NUCALA 16-71, AHA 6-1-4, ROWDEN 41B, ROLDO ROWDEN, HOPI, STORMPROOF 120, EMPIRE WR, BBR-4-1-3-$6B_2$ AND MACHA STORMPROOF. THIS WAS THE CROSSING SEQUENCE: (A) NUCALA x ROWDEN 41-B, THIS CROSS SUBSEQUENTLY BEING CODED AS 'NR'; (B) NR x AHA 6-1-4; (C) ROLDO ROWDEN x (EMPIRE WR x ROLDO ROWDEN), SUBSEQUENTLY REFERRED TO AS 'R(2)-EMP. 21,' (D) 'R(2)-EMP. 21' x BBR-4-1-3-$6B_2$; (E) [(MACHA x HOPI) x MACHA] x STORMPROOF 120; THEN COMPLEX CROSSES OF 'B' x 'E', 'C' x ('B' x 'E'), 'D' x ['C' x ('B x E')], AND FINALLY, {'D' x ['C' x ('B x E')]} x ['C' x ('B' x 'E')].

THE F_2 OF THE FINAL CROSS WAS GROWN AT MARIANNA IN 1961. SELF POLLINATED SEED OF SINGLE PLANTS HAVING PROMISING RECOMBINATIONS WERE INCREASED IN MEXICO DURING THE 1961-62 WINTER AND A SELFED F_4 BULK WAS PLANTED AT MARIANNA IN 1962. ONE OF THESE F_4 PROGENIES, DESIGNATED AS 61-28, WAS THE ANCESTRAL PROGENY ROW OF QUAPAW COTTON. SELFED SEED FROM INDIVIDUAL PLANTS OF 61-28 WERE INCREASED IN MEXICO IN THE WINTER OF 1962-63. ONE OF THESE, DESIGNATED AS 62-5, WAS RE-SELECTED AT MARIANNA IN 1963. AMONG THESE, ONE, DESIGNATED AS 63-22, WAS INCREASED IN MEXICO IN THE WINTER OF 1963-64 AND BULK PLANTED AT MARIANNA IN 1964. SELFED SEED FROM 10 PLANTS WAS BULKED IN 1964 FOR ISOLATED INCREASE IN 1965. SEED FROM THIS INCREASE WAS PERFORMANCE TESTED IN 1966 AND THE RESULTING STRAIN, ARKANSAS 61-28, WAS RELEASED AS A PRIMARY BREEDING STOCK IN 1967 (ARK. FARM RES. SEPT.-OCT. 1968). MASS SELECTIONS WITHIN THE ISOLATED BREEDING BLOCK GAVE A SEEDSTOCK RENAMED AS "QUAPAW" IN 1970.

NEAR GLANDLESS (NO VISIBLE GOSSYPOL GLANDS) PLANTS, HAVING LIGHT GREEN BRACTS, OCCUR AT A LOW FREQUENCY (LESS THAN 0.5%) AS A RECURRING VARIANT IN QUAPAW COTTON. THE VARIANT IS VERY RARELY SEEN IN QUAPAW PLANTED AT AN EARLY DATE. PLANTINGS MADE AFTER THE NORMAL PLANTING DATE WILL REVEAL A LOW FREQUENCY OF HETEROZYGOUS GLANDLESS PLANTS HAVING BOTH GLANDED AND NEAR GLANDLESS BOLLS ON THE SAME PLANT.

ARKANSAS AGRICULTURAL EXPERIMENT STATION

UNIVERSITY OF ARKANSAS

QUAPAW
(Arkansas 61 - 28)

This new type of cotton has been developed over a period of years by Carl Moosberg, Cotton Breeder for the Arkansas Agricultural Experiment Station and located at the Cotton Branch Station, Marianna, Arkansas. Seed maintenance efforts have been centered at the Northeast Branch Experiment Station, Keiser, where yields above 700 lbs. per acre were harvested from 11 acres in 1970.

These general characteristics can be expected from QUAPAW (Arkansas 61-28):

Plant Type: determine growth type. Prolific, early and rapid fruiting with short internodes which give fruiting positions numbers comparable to much larger plants. These rapid fruiting traits were designed into the variety in recognition of recent trends towards once-over harvest with a mechanical picker in Arkansas.

Yield: Yield potential of 600-900 pounds of lint per acre makes the new variety competitive in Arkansas. The new plant type rewards good management and performs well with lower ranges of applied nitrogen. However, it is sensitive to excessive rates of nitrogen, and, under these excessive rates, growers will not obtain satisfactory yields. On heavy clay soils, QUAPAW responds well to high plant populations.

Earliness: All open in early October. The special earliness of QUAPAW is generated by its rapid and continuous rate of setting fruit, once this process is activated. This cotton was bred and developed for early October harvest and in this character excells over other Delta types.

Fiber Quality: The fiber strength of QUAPAW is superior to any rain grown variety of comparable yield. Fiber tests to date have averaged about 95,000 pounds breaking strength with fiber length of 1 1/32" to 1 1/16". This is a mature fiber of high natural luster and a micronaire value of 4.5--4.8. In spinning tests, its strength and fiber length uniformity give yarn strength comparable to those from Western cottons.

Disease Reactions: This new cotton is very susceptible to the Verticillium and Fusarium wilt diseases of cotton. Plantings should not be made in fields having a history of either or both wilts. It carries moderate resistance to the bacterial blight leaf disease.

Special Trait: QUAPAW resists field loss. The cotton stays in the bur very well but can be picked with the mechanical picker. It also can be harvested with a mechanical stripper. It has been bred especially for once-over harvest with either pickers or strippers.

FORM APPROVED. OMB NO. 40-R3712

FORM GR-470-8
(10-2-72)

UNITED STATES DEPARTMENT OF AGRICULTURE
AGRICULTURAL MARKETING SERVICE
GRAIN DIVISION
HYATTSVILLE, MARYLAND 20782

EXHIBIT C
(Cotton)

OBJECTIVE DESCRIPTION OF VARIETY

COTTON (*GOSSYPIUM SPP.*)

INSTRUCTIONS: *See Reverse.*

NAME OF APPLICANT(S)
Arkansas Agricultural Experiment Station

ADDRESS (*Street and No. or R.F.D. No., City, State, and ZIP Code*)
Fayetteville, Arkansas 72701

FOR OFFICIAL USE ONLY

PVPO NUMBER
72069

VARIETY NAME OR TEMPORARY DESIGNATION
Quapaw

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. SPECIES:

[1] 1 = GOSSYPIUM HIRSUTUM 2 = GOSSYPIUM BARBADENSE

2. AREA(S) OF ADAPTION (0 = Not Tested, 1 = Not Adapted, 2 = Adapted):

[0] EASTERN [2] DELTA [2] CENTRAL [2] HIGH PLAINS [0] EL PASO AREA

[0] WESTERN LOW HOT VALLEYS [0] SAN JOAQUIN [0] OTHER (*Specify*) _____

3. MATURITY (50% Open Boll):

[1][0] NO. OF DAYS *EARLIER* THAN ..... [2]

[ ][ ] NO. OF DAYS *LATER* THAN ..... [ ]

1 = COKER 310 2 = DELTAPINE 16 3 = STONEVILLE 213
4 = PAYMASTER 111 5 = ACALA 1517-70 6 = ACALA SJ-1
7 = LANKART 57 8 = OTHER (*Specify*) _____

4. PLANT HABIT:

[3] 1 = SPREADING 2 = INTERMEDIATE 3 = COMPACT [1] 1 = FOLIAGE SPARSE 2 = DENSE 3 = OTHER (*Specify*) _____

5. PLANT HEIGHT:

[2][0] CM. *SHORTER* THAN ..... [2]

[0][5] CM. *TALLER* THAN ..... [4]

1 = COKER 310 2 = DELTAPINE 16 3 = STONEVILLE 213
4 = PAYMASTER 111 5 = ACALA 1517-70 6 = ACALA SJ-1
7 = LANKART 57 8 = OTHER (*Specify*) _____

6. MAIN STEM:

[3] 1 = LAX 2 = ASCENDING 3 = ERECT [1][4] CM. TO FIRST FRUITING BRANCH [0][7] NO. OF NODES TO FIRST FRUITING BRANC (*from cotyledonary node*)

7. LEAF:

[1][5] CM. WIDTH OF WIDEST LEAVES AT MATURITY

8. LEAF PUBESCENSE:

[3] 1 = GLABROUS (HAIRS AS SPARSE AS D_2 SMOOTH) 2 = SMOOTH LEAF (DELTAPINE SMOOTH LEAF) 3 = PUBESCENT (STONEVILLE 213) 4 = HEAVY PUBESCENCE (H_1 OR H_2) 5 = OTHER (*Specify*) _____

9. LEAF COLOR:

[2] 1 = VIRESCENT YELLOW 2 = LIGHT GREEN 3 = DARK GREEN (*Acala-442*) 4 = RED 5 = OTHER (*Specify*) _____

10. LEAF TYPE:

[1] 1 = NORMAL 2 = OKRA 3 = SUPER OKRA 4 = OTHER (*Specify*) _____

11. FLOWER:

[2] 1 = NECTARILESS 2 = NECTARIED

[1] Petals: 1 = CREAM 2 = YELLOW [1] Pollen: 1 = CREAM 2 = YELLOW

12. FRUITING BRANCH TYPE:

[2] 1 = CLUSTER 2 = SHORT 3 = NORMAL [1] 1 = DETERMINATE 2 = INDETERMINATE

13. GOSSYPOL CONDITION:

[2] 1 = GLANDLESS 2 = REDUCED GLANDS 3 = NORMAL GLANDS 4 = OTHER (*Specify*) _____ [1] 1 = NORMAL BUD GOSSYPOL 2 = HIGH BUD GOSSYPOL

14. SEEDS:

[1][4][6] ± [1][3] SEED INDEX (*Fuzzy seed basis*) [2] Seed Fuzz: 1 = SPARSE (GREGG 35) 2 = MODERATE (DPL-16) 3 = HEAVY (ACALA SJ-1) 4 = OTHER (*Specify*) _____

4

EXHIBIT D REVISED

QUAPAW COTTON

APPLICATION No. 60629

DATA INDICATIVE OF NOVELTY

NOVELTY IS BASED ON THE UNIQUE COMBINATION OF THE FOLLOWING CHARACTERS:

'QUAPAW' MOST CLOSELY RESEMBLES LOCKETT 4789 EXCEPT IT HAS LEAVES 2-4 CM SMALLER IN WIDTH AND BRACTS 0.2-0.4 CM SHORTER; IT REACHES 50% OPEN 7-10 DAYS EARLIER; IT HAS FEWER GOSSYPOL GLANDS; IT IS LESS STORM-PROOF AFTER THE BOLLS OPEN; IT PRODUCES MATURE PLANTS ABOUT 20% SHORTER IN HEIGHT; AND IT YIELDS 10-20% MORE LINT PER ACRE IN THE MID-SOUTH.

EXHIBIT E

This is to certify that E. M. Cralley, as Director, represents the Arkansas Agricultural Experiment Station, who is the employer of Carl Moosberg, the breeder of Quapaw cotton. The Arkansas Agricultural Station thereby owns the germplasm designated and described as Quapaw cotton.

Betty J. Swope
Notary Public

My Commission Expires: July 31, 1975

WHEREAS, the Rogers Delinted Cottonseed Company has agreed to maintain, produce, process and market Quapaw cotton with proper acknowledgement that the variety originated from the Arkansas Agricultural Experiment Station and

WHEREAS, the Arkansas Agricultural Experiment Station agrees to make plantings of Quapaw cotton from Foundation seed provided by the Rogers Delinted Cottonseed Company and compare them with the inbred line in possession of the Arkansas Agricultural Experiment Station and

WHEREAS, the Rogers Delinted Cottonseed Company has provided a grant-in-aid for the consummation of this agreement, the Arkansas Agricultural Experiment Station assigns all rights of Plant Variety Certificate No. 7200069 to Rogers Delinted Cottonseed Company which is attached hereto and that a copy of this transfer is hereby deposited with the Commissioner of the Plant Variety Protection Office, United States Department of Agriculture.

L. O. Warren

L. O. Warren, Director
Arkansas Agricultural Experiment Station

APPROVED:

C. A. Vines

C. A. Vines, Interim
Vice President for Agriculture

Washington County
Fayetteville, AR 72701

Signature witnessed this 17th day of March 1975.

Betty J. Swope

Betty J. Swope, Notary Public
My Commission Expires: July 31, 1975

ROGERS DELINTED COTTONSEED CO.

P. O. DRAWER 1340 | PHONE 817-752-0328 | WACO, TEXAS 76703

February 28, 1985

Rogers Delinted Cottonseed Co., P.O. Drawer 1340, Waco, Texas 76703; hereafter referred to as SELLER, and George Franklin Grammer, Box 265, Bardwell, Texas 75101; hereafter referred to as BUYER do hereby agree as follows:

SELLER hereby assigns all rights of Plant Variety Certificate number 7200069 to BUYER. In addition SELLER further agrees to sell its entire inventory of fuzzy Quapaw seed (approximately 27,000#), 100 (One Hundred)- 50# sacks of registered Quapaw planting seed, and 330 sacks of Certified Quapaw planting seed (the entire inventory).

BUYER hereby agrees to pay a total price for the above rights and seed of $10,000.00 Ten Thousand Dollars.

Neither BUYER nor SELLER make any further representations or warranties concerning this transaction.

Agreed:

SELLER: Kent A. Ford

TITLE: GENERAL MANAGER

DATE: 2/28/85

BUYER: George Grammer

DATE: 2-28-85

SWORN TO AND SUBSCRIBED BY Kent A. Ford AND George Grammer

BEFORE ME THIS 28th DAY OF February 1985.

Betty W. McGinnis

Notary Public, McLennan County, TX

My Commission Expires 10-29-85

PAID IN FULL

CHECK # 317 FOR $10,000.00

C O N T R A C T

August 28, 1985

George Grammer, P. O. Box 265, Bardwell, Texas, 75101 hereafter referred to as the SELLER, and T. W. Rogers, Sr., 100011 Stony Point, Waco, Texas 76710, hereafter referred to as the BUYER, do hereby agree as follows:

SELLER hereby assigns all rights of Plant Variety Certificate number 7200069 to BUYER.

BUYER hereby agrees to pay a total price for the above rights $11,500.00 (Eleven Thousand Five Hundred Dollars).

Neither BUYER nor SELLER make any further representations or warranties concerning this transaction.

AGREED:

SELLER George Grammer BUYER T. W. Rogers Sr.

TITLE owner

DATE Aug. 28, 1985 DATE Aug. 28, 1985

ACKNOWLEDGMENT: SELLER

SWORN TO AND SUBSCRIBED BY GEORGE GRAMMER BEFORE ME THIS THE 28th DAY OF AUGUST, 1985.

Allan E. Watson

NOTARY PUBLIC, ELLIS COUNTY

MY COMMISSION EXPIRES 09-12-87

ACKNOWLEDEMENT: BUYER

SWORN TO AND SUBSCRIBED BY T. W. ROGERS, SR., BEFORE ME THIS THE 28th DAY OF AUGUST, 1985.

June B. Smith

NOTARY PUBLIC, MC LENNAN CNTY

MY COMMISSION EXPIRES 3-31-89

7200069

T.W. ROGERS - AGRICULTURAL PRODUCTS

10011 STONY POINT PHONE (817) 772-2432

WACO, TEXAS 76710

January 16, 1989

Mr. Bob Dumas
% Brownfield Seed & Delinting Co.
P. O. Box 608
Brownfield, Texas 79316

Dear Bob:

In accordance with our recent telephone conversation, I am plaased to adknowledge the following conditions of our transaction:

> the exchange of all rights to the production and sale of Quapaw and Quapaw D cottonseed from T. W. Rogers to Brownfield Seed & Delinting Co,, for 500 bags of Lankart 57 and 100 bags of Lankart 611 cottonseed, triple treated, delivered to Waco, Texas; it is further understood that Brownfield Seed receives the 18 bags of Eoundation seed now stored in the Brownfield warehouse, as a part of this trade.

Please sign a copy of this letter and return to me. I will write a letter to the Plant Variety Protection Office, Washington, D. C., authorizing this transfer. You, in turn, will mail a copy of my authorization with your letter to the Plant Variety Protection Office requesting the transfer to your company name.

Sincerely yours,

T. W. Rogers

T. W. Rogers
ir

Accepted by:

Bob Dumas
BROWNFIELD SEED & DELINTING CO.

15. BOLLS:

[2] Locules: 1 = 3-4, 2 = 4-5

[3 4] NO. SEEDS PER BOLL

[3 6 5] LINT PERCENT

[3 5] MM. DIAMETER

[1] Pitted: 1 = NONE, 2 = FINELY, 3 = COURSELY

[6 3 5] GRAMS SEED COTTON PER BOLL

[2] Breadth: 1 = BROADER AT BASE, 2 = BROADER AT MIDDLE

[2] Type: 1 = STORMPROOF (WESTBURN 70), 2 = STORM RESISTANT (LANKART 57), 3 = OPEN (DELTAPINE 16)

[3] Shape: 1 = LENGTH < WIDTH, 2 = LENGTH = WIDTH, 3 = LENGTH > WIDTH

16. BRACTEOLES:

[3] Breadth: 1 = LENGTH < WIDTH 2 = LENGTH = WIDTH 3 = LENGTH > WIDTH

[1] Teeth: 1 = FINE 2 = COURSE

[2] Teeth: 1 = 3-4 2 = 5-7 3 = 8-10 4 = OTHER *(Specify)* _____

17. YIELD: Compared to—

[0 8 5] PERCENT *LESS* THAN ..... [2]

[1 2 0] PERCENT *MORE* THAN ..... [4]

1 = COKER 310 2 = DELTAPINE 16 3 = STONEVILLE 213
4 = PAYMASTER 111 5 = ACALA 1517-70
6 = ACALA SJ-1 7 = LANKART 57

18. FIBER LENGTH (Complete one or more of the following and give the means):

[0 5 6] SPAN LENGTH 50%

[1 1 2] SPAN LENGTH 2.5%

[1 1 3] U.H.M. LENGTH

[0 9 0] MEAN LENGTH

[3 4] STAPLE LENGTH 32nd INCHES

[8 0] UNIFORMITY RATIO (MEAN/U.H.M.)

[5 0] UNIFORMITY INDEX (50% SPAN/2.5% SPAN)

19. FIBER STRENGTH AND ELONGATION:

[9 0 0] 1,000 P.S.I.

[0 8 3] ELONGATION E_1

[ ] STILOMETER T_0

[4 5 5] MICRONAIRE READING

[1 3 0] YARN STRENGTH *(Give test method)* Micro Spin

[1 7 5] STILOMETER T_1

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

[1] VERTICILLIUM WILT

[1] FUSARIUM WILT

[1] ROOT KNOT NEMATODE

[1] BACTERIAL BLIGHT *(Race 1)*

[0] BACTERIAL BLIGHT *(Race 2)*

[0] ASCOCHYTA BLIGHT

[0] PHYMATOTRICHUM ROOT ROT

[1] RHIZOCTONIA

[0] ANTHRACNOSE

[0] RUST

[0] OTHER *(Specify)* _____

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

[1] BOLL WEEVIL

[0] APHID

[1] FLEAHOPPER

[0] LEAFWORM

[0] FALL ARMYWORM

[0] GRASSHOPPER

[1] LYGUS

[0] PINK BOLLWORM

[1] STINKBUG

[0] THRIP

[0] CUTWORM

[0] SPIDERMITE

[0] OTHER *(Specify)* _____

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

(1) Brown, Harry B., and J. O. Ware, 1958, Cotton, McGraw-Hill Book Company, Inc., New York.
(2) Lewis, C. F., and H. H. Ramey, Jr., 1971, 1970 Regional Cotton Variety Tests, ARS 34-130, United States Department of Agriculture.

COLORS: Nickerson's or any recognized color fan may be used to determine flower color of the described variety.