No. 7200046

THE UNITED STATES OF AMERICA

TO ALL TO WHOM THESE PRESENTS SHALL COME:

The Texas 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 REQUIRED BY THE OWNER OF THE RIGHTS. (84 STAT. 1542, AS AMENDED, 7 U.S.C. 2321 ET SEQ.)

* [Waived]

COTTON

'Tamcot SP37'

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* first *day of* May *in the year of our Lord one thousand nine hundred and* seventy-five

PLANT VARIETY PROTECTION OFFICE · SECRETARY OF AGRICULTURE

Attest:

Commissioner
Plant Variety Protection Office
Grain Division
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 Tamcot SP37	2. KIND NAME Cotton	FOR OFFICIAL USE ONLY PVPO NUMBER 72046
3. GENUS AND SPECIES NAME Gossypium hirsutum L.	4. FAMILY NAME *(Botanical)* Malvaceae 5. DATE OF DETERMINATION September 1968	FILING DATE 10/26/71 TIME 12:30 ~~A.M.~~ P.M. FEE RECEIVED $ 750.00 CHARGES —
6. NAME OF APPLICANT(S) Texas Agricultural Experiment Station	7. ADDRESS *(Street and No. or R.F.D. No., City, State, and ZIP Code)* Texas A&M University College Station, Texas 77843	8. TELEPHONE AREA CODE AND NUMBER 713 845-3711 713 845-4051
9. IF THE NAMED APPLICANT IS NOT A PERSON, FORM OF ORGANIZATION: *(Corporation, partnership, association, etc.)* Land Grant University	10. STATE OF INCORPORATION Texas	11. DATE OF INCORPORATION 1876

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

Dr. J. W. Collier
Executive Secretary
Plant Variety Protection
Policy Committee

MAILING ADDRESS:
Foundation Seed Section
Department of Soil & Crop Sciences
Texas Agricultural Experiment Station
College Station, Texas 77843

13. CHECK BOX BELOW FOR EACH ATTACHMENT SUBMITTED:

XX 12A. Exhibit A, Origin and Breeding History of the Variety *(See Section 52, P.L. 91-577)*

XX 12B. Exhibit B, Botanical Description of the Variety

XX 12C. Exhibit C, Objective Description of the Variety

XX 12D. Exhibit D, Data Indicative of Novelty

XX 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 generations foundation, registered, & certified

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).

(DATE)

H. O. Kunkel, Dean and Acting Director
(SIGNATURE OF APPLICANT)

(DATE)

(SIGNATURE OF APPLICANT)

U.S. DEPARTMENT OF AGRICULTURE
CMS GRAIN DIVISION
RECEIVED
OCT 21 1971

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.

72046

Exhibit 12A, Tamcot SP37

The following parents were used in crosses.

1. K4808-5(1&2)A

2. K4808-5(1&2)D

Parents 1 and 2 were developed in the following manner. In 1950 Dr. R. L. Knight's *Gossypium barbadense* Sakel strain BAR 4/16 carrying the B_2B_3 genes for bacterial blight resistance was crossed with E808 (an Empire WR breeding strain obtained from Mr. Barney Hawkins). Four backcrosses were made to E808 and the B_2B_3 genes were transferred. One breeding strain from this transfer was designated K4808-5(1&2). It was segregating for glabrousness and for pollen color. K4808-5(1&2) was sent to Alabama for evaluation in the 1956 Tallassee Fusarium wilt-nematode nursery. Dr. A. L. Smith reported a good level of resistance to wilt-nematodes and made five plant selections designated A,B,C,D and E. These were planted in the greenhouse in 1956-57, inoculated and selected for bacterial blight resistance. The plants from selections A and D were used in crosses.

3. CA291A: This was the strain designation for Blightmaster which was developed by Dr. Levon Ray and Mr. Don Jones of the Research and Extension Center at Lubbock. Blightmaster carries the B_7 gene for blight resistance.

4. 39-11-20: This was a glandless strain with the gl_1 gl_2 genes that came originally from Mr. Scott McMichael.

5. Pay M54-M-105-3: This was a Paymaster strain obtained in 1956 for Mr. Quentin Adams, ACCO Seed Farm, Aiken, Texas.

72046

6. MA56005: This was the Chillicothe Station designation for the F_1 seed of the cross [CA291A x 39-11-20] which was made by Mr. Roy Quinby in 1956.

7. 62K,BV61: The designation of material developed from the cross [K4808-5(1&2)D x MA56005] which was made in the greenhouse in 1956-57. It carried the $B_2B_3B_7$ genes for blight resistance.

8. 92K,BV63: The designation of material developed from the cross [K4808-5(1&2)A x Pay M54-105-3] which was made in the greenhouse in 1956-57. It carried the B_2B_3 genes for blight resistance.

During the winter of 1963-64 the F_{11} of the 62K,BV61 material was grown. Following the K4808-5(1&2)D x [CA291A x 39-11-20] cross, straight selection was practiced. In the process, selection was made five times for blight resistance and twice for seedling disease escape. At the same time, the F_8 of the 92K,BV63 material was grown. Following the K4808-5(1&2)A x Pay M54-M-105-3 cross, straight selection was made six times for blight resistance and once each for Fusarium wilt-nematode resistance and seedling disease escape.

Using greenhouse plants, the cross 62K(428A) x 92K(451A) was made. Following two selections for blight resistance and one for seedling disease escape the F_3 progeny was 17M,BV65. This progeny was given the strain designation SP21-65,237,T. This was the basic breeding stock from which strains of the SP21 family were selected.

Using the 1963-64 greenhouse grown plants, the cross 92K(448B) x 62K (427B) was made. Following two selections for blight resistance and one for seedling disease escape, the F_3 progeny was 66N, BV65. This progeny was given the strain designation SP23-65,237,T. This was the basic breeding stock from which strains of the SP23 family were selected.

72046

Exhibit 12A, Tamcot SP37

From the same 448B x 427B cross, followed by four selections for blight resistance, one for wilt-nematode resistance and two for seedling disease escape, the F_5 progeny was 49R,BV66. This progeny was given the strain designation SP37-66,237,T. This was the basic breeding stock from which strains of the SP37 family were selected.

The breeding procedure is considered to be delayed convergent improvement followed by straight selection to obtain progressive improvement within a family. The improved strains of a family that are similar are then bulked to form a synthetic variety that represents the family. The adversity-multiple-disease resistance and escape procedures (selecting for seed and seedling cold tolerance, resistance to seed deterioration, earliness and environmental neutrality) are used in strain improvement. The improved strains are bulked for breeder's seed of the variety.

Frequency of variants will be given in exhibit B for the special characteristics of the variety.

The varieties have been quite stable over a three year test period. See the attached Table 12A-1 for evidence of stability in yielding ability.

72046

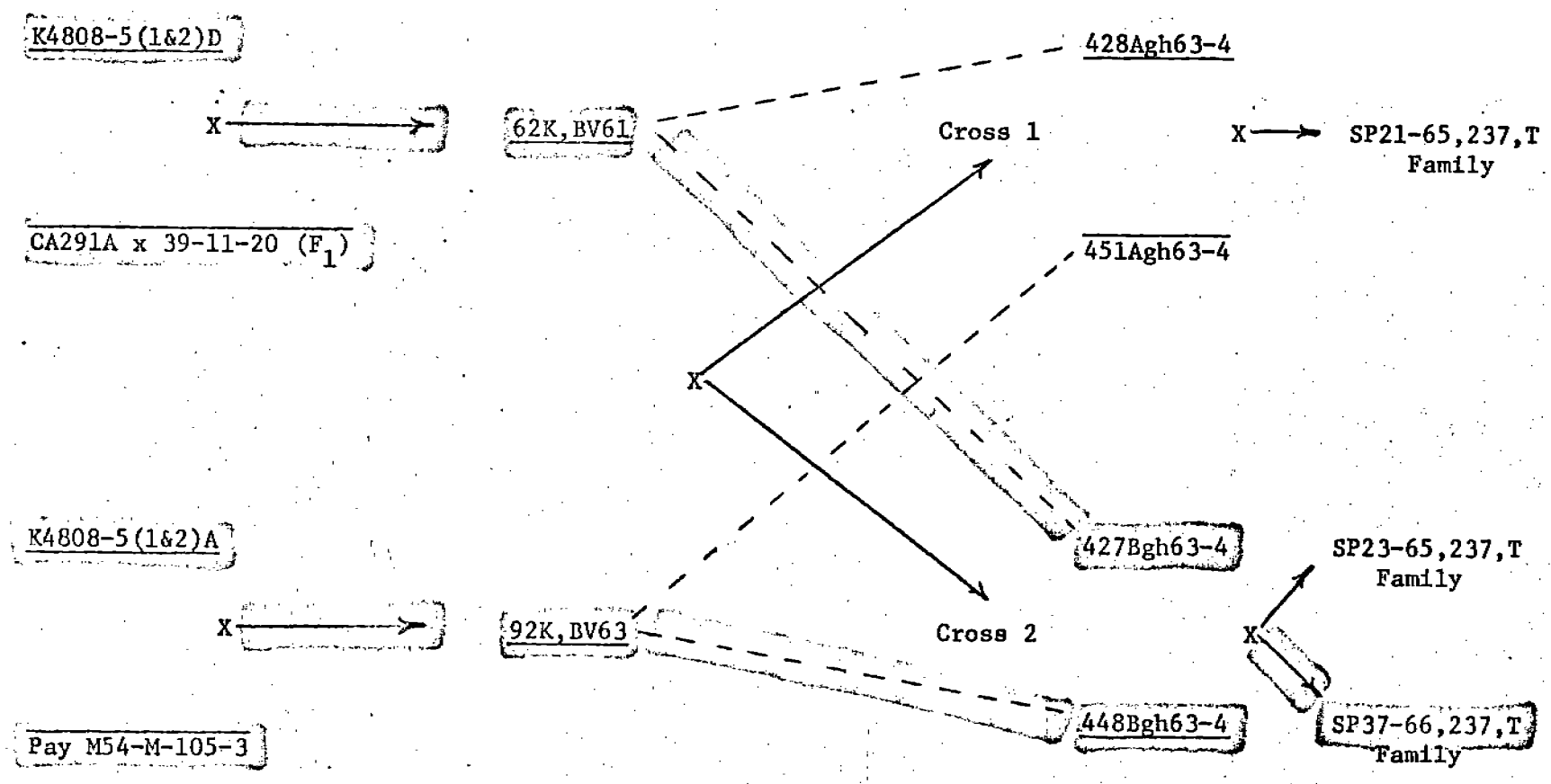
Exhibit 12A, Tamcot SP37

Table 12A-1. Average yield of cotton varieties and strains for the years 1968-70 illustrating the potential of the Tamcot SP strains for improving the cotton industry in Texas.

Variety types and strains	Average yield of fiber per acre	Percentage of yield measurements above the Texas average
	lbs.	%
Lankart, n=42	436±28	74
Stoneville, n=42	482±39	64
Deltapine, n=42	461±37	62
Lockett, n=42	401±26	67
Paymaster, n=42	418±29	64
Tamcot SP21, n=64	554±37	75
Tamcot SP23, n=61	562±37	75
Tamcot SP37, n=58	590±43	76
1968-70 Texas average	340	-

Exhibit 12A, Tamcot SP37

Summary Pedigrees for the SP Families



72046

72046

Exhibit 12B, Tamcot SP37

Tamcot SP37 has no unusual botanical seed or seedling characteristics. The flower is small in size, the corolla is cream colored and the pollen is yellow. A variant of Tamcot SP37 is about 2 to 3% cream pollen. The pollen for most commercial varieties is cream colored. The leaves are large in size and are hairy. The main stem tends to be weak, it is hairy and tends to remain green the same as Lankart 57 and Stoneville 7A. Type of growth is determinant to intermediate and vegetative branches are rare. The bolls (fruit) are small, round and storm resistant as compared with Lankart 57 which has large, round and storm resistant bolls and Stoneville 7A which has small, oval and open (seed cotton loose in bur) bolls. The mature defoliated plant stands erect, fruiting branches are prominent and the seed cotton is compact in the bur.

72046

Exhibit 12C, Tamcot SP37

Tamcot SP37, is the third of three initial varieties developed in the multi-disease resistance and escape program of the Texas Agricultural Experiment Station. It is immune from bacterial blight, has slight tolerance to the Fusarium wilt-root knot nematode complex and Verticillium wilt, resistance to seed deterioration, good cold tolerance for seed germination, escape from seedling disease, escape via earliness and delayed kill from Phymatotrichum root rot and escape from other adversities in production. SP37 has an exceptionally high average yielding ability (Table D1) combined with the above traits along with hairy leaves and stems, a storm resistant boll, fiber length equal to that of the Delta varieties, fiber strength slightly lower than the Delta varieties and a fiber micronaire lower and more desirable than the Delta varieties (Table D2). Tamcot SP37 should be extremely valuable to the cotton growers of the Blacklands, the Central River Valleys, Coastal Plains and the Lower Rio Grande Valley. It should be efficient in narrow-row plantings.

72046

Attachment 1

Exhibit C, PVPO Number 72046 Variety Tamcot SP37

20. Diseases

(0=Not tested, 1=Susceptible, 2=Intermediate Resistance, 3=Resistant, 4=Tolerance, 5=Delay-Kill Resistance, 6=Escape, 7=Other, specify Posesses)

[1] Verticillium wilt

[3] Bacterial blight, give genes if known: $B_2B_3B_7$

Give races for which resistance is known: 1,2,6,7,10,12 & 14

[0] Anthracnose

[1] Fusarium wilt

[1] Ascochyta blight

[1] Rust

[1] Root knot nematode

[1] Reniform nematode

[5] Phymatotrichum root rot

[6] Seedling disease

[0] Specific seedling pathogens

Give pathogen: _____

[3] Seed deterioration

[7] Seed and seedling cold tolerance

[ ] Other (Specify) _____

Tamcot SP37 is most similar to Stoneville 213 than other Upland varieties in leaf size and shape, plant color, pubescence, boll size and susceptibility to the wilts. Under field conditions, during the period prior to boll opening, it is difficult to distinguish between the two with the exception that; the flowers of 95% of the plants in Tamcot SP37 have yellow pollen and the pollen for Stoneville 213 is cream. Tamcot SP37 has high resistance to seven races of Xanthomonas malvacearum and Stoneville 213 is susceptible to all races. Tamcot SP37 has a measurable level of delay-kill resistance to Phymatotrichum root rot and Stoneville 213 is susceptible. Tamcot SP37 is much earlier and its plant is always shorter than Stoneville 213. The boll of Tamcot SP37 is storm resistant and the boll of Stoneville 213 is open. Tamcot SP37 differs from Stoneville 213 and other varieties in having a measurable level of resistance to seed deterioration and escape from seedling disease. The plants of Stoneville 213 are leafier and tend to have more vegetative branching than Tamcot SP37. Under a short season the yield of Tamcot SP37 tends to be twice that of Stoneville 213 whereas under a long season, in the absence of late season insect damage, the yields tend to be equal.

Averages show relative comparisons of fiber measurements (1973, paired comparison, A&M Plantation, n=4).

	Length	Strength (T_1)	Micronaire
Tamcot SP37	1.14	18.27	4.22
Stoneville 213	1.16	19.25	5.06

The fiber of Tamcot SP37 is lower in strength and micronaire in comparison with Stoneville 213.

Tamcot SP37 differs from Tamcot SP21 in pubescense vs. glabrousness, green stems vs. red stems, susceptibility to the wilts vs. resistance to the wilts, yellow pollen vs. cream pollen and a lower fiber strength than Tamcot SP21.

Tamcot SP37 differs from Tamcot SP23 in being less branchy and less leafy, more susceptible to the wilts and a longer but weaker fiber. Tamcot SP37 and Tamcot SP23 have the same degree of pubescense but they differ in pollen color. The boll of Tamcot SP37 is more storm resistant than the boll of Tamcot SP23.

Tamcots SP37, SP21 and SP23 have the same degree of high resistance to seven races of the bacterial blight pathogen. No other United Stated Upland variety approaches this high level of uniform resistance.

72046

Exhibit 12E, Tamcot SP37

Tamcot SP37 was developed in the adversity-multiple-disease resistance and escape program of the Texas Agricultural Experiment Station. The original crosses, subsequent crosses and selection cycles were made by Texas Agricultural Experiment Station personnel. L. S. Bird, Professor of Plant Sciences, The Texas Agricultural Experiment Station, directed the genetic improvement program during the entire period. The principle Research Assistants, Professional Associates and Technicians who assisted Dr. Bird, the breeder, were or are employee's of the Texas Agricultural Experiment Station. Some disease resistance performance data were obtained in regional nurseries. Fiber evaluation data were provided by the A.R.S., U. S. Department of Agriculture, Knoxville, Tennessee Laboratory and the Textile Research Center, Texas Tech University, Lubbock, Texas. The principle source of funds in addition to those of the Station were from grants by the Cooperative State Research Service of the U.S. Department of Agriculture. The Texas Agricultural Experiment Station by virtue of employing the principle personnel and providing facilities, direct and indirect cost for the adversity-multiple-disease resistance and escape program is the owner of Tamcot SP37.

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)
Texas Agricultural Experiment Station

ADDRESS *(Street and No. or R.F.D. No., City, State, and ZIP Code)*
System Building
College Station, Texas 77843

FOR OFFICIAL USE ONLY

PVPO NUMBER
72046

VARIETY NAME OR TEMPORARY DESIGNATION
Tamcot SP37

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

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

3. MATURITY (50% Open Boll):

[1][8] NO. OF DAYS *EARLIER* THAN ..... [3]

[0][0] NO. OF DAYS *LATER* THAN ..... [8]

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)* Earlier than all 7 given

4. PLANT HABIT:

[2] 1 = SPREADING 2 = INTERMEDIATE 3 = COMPACT

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

5. PLANT HEIGHT:

[1][0] CM. *SHORTER* THAN ..... [2]

[0][6] CM. *TALLER* THAN ..... [8]

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)* Lankart 611

6. MAIN STEM:

[2] 1 = LAX 2 = ASCENDING 3 = ERECT

[12] CM. TO FIRST FRUITING BRANCH

[0][6] NO. OF NODES TO FIRST FRUITING BRANC *(from cotyledonary node)*

7. LEAF:

[1][9] 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:

[3] 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

[2] Pollen: 1 = CREAM 2 = YELLOW

12. FRUITING BRANCH TYPE:

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

[2] 1 = DETERMINATE 2 = INDETERMINATE

13. GOSSYPOL CONDITION:

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

[1] 1 = NORMAL BUD GOSSYPOL 2 = HIGH BUD GOSSYPOL

14. SEEDS:

[1][0][4] ± [1][4] SEED INDEX *(Fuzzy seed basis)*

[2] Seed Fuzz: 1 = SPARSE (GREGG 35) 2 = MODERATE (DPL-16) 3 = HEAVY (ACALA SJ-1) 4 = OTHER *(Specify)* _____

8

TAMCOT SP37 72046

15. BOLLS:

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

[3 3] NO. SEEDS PER BOLL

[3 6 8] LINT PERCENT

[3 7] MM. DIAMETER

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

[6 0 6] 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

[4] Teeth: 1 = 3-4 2 = 5-7 3 = 8-10 4 = OTHER *(Specify)* 10-12

17. YIELD: Compared to—

[0 0 0] PERCENT *LESS* THAN .....

[1 9 0] PERCENT *MORE* THAN .....

[2] [7] 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 1] SPAN LENGTH 50%

[1 0 6] SPAN LENGTH 2.5%

[- - -] U.H.M. LENGTH

[- - -] MEAN LENGTH

[3 3] STAPLE LENGTH 32nd INCHES

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

[4 8] UNIFORMITY INDEX (50% SPAN/2.5% SPAN)

19. FIBER STRENGTH AND ELONGATION:

[0 8 5] 1,000 P.S.I.

[0 6 9] ELONGATION E_1

[- - -] STILOMETER T_0

[3 9 0] MICRONAIRE READING

[1 1 0] YARN STRENGTH *(Give test method)* 27 Tex. Std. Sk.

[1 8 0] STILOMETER T_1

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

See attachment 1

[ ] VERTICILLIUM WILT

[ ] FUSARIUM WILT

[ ] ROOT KNOT NEMATODE

[ ] BACTERIAL BLIGHT *(Race 1)*

[ ] BACTERIAL BLIGHT *(Race 2)*

[ ] ASCOCHYTA BLIGHT

[ ] PHYMATOTRICHUM ROOT ROT

[ ] RHIZOCTONIA

[ ] ANTHRACNOSE

[ ] RUST

[ ] OTHER *(Specify)* _____

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

[0] BOLL WEEVIL

[0] APHID

[0] FLEAHOPPER

[0] LEAFWORM

[0] FALL ARMYWORM

[0] GRASSHOPPER

[0] LYGUS

[0] PINK BOLLWORM

[0] STINKBUG

[0] THRIP

[0] CUTWORM

[0] SPIDERMITE

[ ] 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.