

No.

9200016



THE UNITED STATES OF AMERICA

TO ALL TO WHOM THESE PRESENTS SHALL COME;

Stoneville Pedigreed Seed Company, Inc.

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, 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 (T. 1542, AS AMENDED, 7 U.S.C. 2321 ET SEQ.)

COTTON

'Stoneville 907'

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 31st day of August in the year of our Lord one thousand nine hundred and ninety-four.

Attest:

Kenneth H. Evans
Commissioner
Plant Variety Protection Office
Agricultural Marketing Service

Mike Esny
Secretary of Agriculture



U.S. DEPARTMENT OF AGRICULTURE
 AGRICULTURAL MARKETING SERVICE

FORM APPROVED: OMB NO. 0581-0055

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).

APPLICATION FOR PLANT VARIETY PROTECTION CERTIFICATE
 (Instructions on reverse)

1. NAME OF APPLICANT(S) Stoneville Pedigreed Seed Company	2. TEMPORARY DESIGNATION Stoneville 907	3. VARIETY NAME Stoneville 907
4. ADDRESS (Street and No. or R.F.D. No., City, State, and Zip Code) P. O. Box 167 Stoneville, MS 38776	5. PHONE (Include area code) (601)686-2334	FOR OFFICIAL USE ONLY PVPO NUMBER 9200016

5. GENUS AND SPECIES NAME Gossypium Hirsutum, L.	7. FAMILY NAME (Botanical) Malvaceae	FILING DATE November 12, 1991 TIME <input type="checkbox"/> A.M. <input type="checkbox"/> P.M.
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8. KIND NAME Cotton	9. DATE OF DETERMINATION January 1989	AMOUNT FOR FILING \$ 2150.00 DATE Nov. 6, 1991
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10. IF THE APPLICANT NAMED IS NOT A "PERSON," GIVE FORM OF ORGANIZATION (Corporation, partnership, association, etc.) Corporation	AMOUNT FOR CERTIFICATE \$ 250.00 DATE Aug. 12, 1994
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11. IF INCORPORATED, GIVE STATE OF INCORPORATION Mississippi	12. DATE OF INCORPORATION
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13. NAME AND ADDRESS OF APPLICANT REPRESENTATIVE(S), IF ANY, TO SERVE IN THIS APPLICATION AND RECEIVE ALL PAPERS
 Gary W. Estis, General Manager & Dr. Charles D. Berry, Research Director,
 Stoneville Pedigreed Seed Company, Inc., P. O. Box 167, Stoneville, MS 38776
 PHONE (Include area code): (601)686-2334

14. CHECK APPROPRIATE BOX FOR EACH ATTACHMENT SUBMITTED

- a. Exhibit A, Origin and Breeding History of the Variety (See Section 52 of the Plant Variety Protection Act.)
- b. Exhibit B, Novelty Statement.
- c. Exhibit C, Objective Description of Variety (Request form from Plant Variety Protection Office.)
- d. Exhibit D, Additional Description of Variety.
- e. Exhibit E, Statement of the Basis of Applicant's Ownership.

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.)
 Yes (If "Yes," answer items 16 and 17 below) No

16. DOES THE APPLICANT(S) SPECIFY THAT THIS VARIETY BE LIMITED AS TO NUMBER OF GENERATIONS? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	17. IF "YES" TO ITEM 16, WHICH CLASSES OF PRODUCTION BEYOND BREEDER SEED? <input type="checkbox"/> Foundation <input type="checkbox"/> Registered <input type="checkbox"/> Certified
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18. DID THE APPLICANT(S) PREVIOUSLY FILE FOR PROTECTION OF THE VARIETY IN THE U.S.?
 Yes (If "Yes," give date) No

19. HAS THE VARIETY BEEN RELEASED, OFFERED FOR SALE, OR MARKETED IN THE U.S. OR OTHER COUNTRIES?
 Yes (If "Yes," give names of countries and dates) No
 U.S.A., 1991

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 Gary W. Estis	DATE 11/11/91
SIGNATURE OF APPLICANT Charles D. Berry	DATE 11/11/91

Origin and Breeding History of Stoneville 907

Stoneville 907 originated from a hand pollinated cross made at Stoneville Mississippi (Delta Branch Experiment Station) between DES 06-020-24 and Stoneville 18777 Nectariless.

Between 1974 and 1986, the germplasm base was selected and reselected from plant to row and finally 10 progeny rows grown in 1985 and tested in 1986 were blended to make the strain 7907.

1974 F1	Iguala Mexico	Bulk Harvested
1975 F2	Increase Block 905 SPSCO	Plant Selections
1976 F3	SL Rows 1788-1804	Plant Selections
1977 F4	Progeny Row No. 681143	Plant Selections
1978 F5	SL Row 2757	Plant Selections
1979 F6	SL Row 3046	Plant Selections
1980 F7	Progeny Row 98545	Plant Selections
1981 F8	Progeny Row 08808-08813	Row & Plant Selections
1982 F9	08813 Tested & Increased Progeny Rows 18609-18628	Row & Plant Selections
1983 F10	18628 Tested & Increased Progeny Rows 28316-28325 28397-28413 28538-28544 28567-28568	Row & Plant Selections
1984 F11	Tested & Increased ST 825-D24-18625-28403 ST 825-D24-18625-28405	Plant Selections

Exhibit A-2

1984 F11	Tested & Increased (Continued)	Plant Selections
	ST 825-D24-18628-28412	
	ST 825-D24-28628-28413	
	ST 825-D24-18716-28567	
1985 F12	Progeny Rows	Row Selections
	48209-48226	
	48435-48499	
1986 F13	Tested & Increased	
	ST 825-98545-08813-28316-48209	Increase Blocks
	ST 825-98545-08813-28316-48212	Bulk Harvested
	ST 825-98545-08813-28325-48222	
	ST 825-98545-08813-28325-48225	
	ST 825-98545-08813-28325-48226	
	ST 825-98545-28316-38436-48435	
	ST 825-98545-28316-38436-48441	
	ST 825-98545-28316-38437-48452	
	ST 825-98545-28316-38438-48456	
	ST 825-98545-28322-38457-48499	
1987 F14	10 Strains Bulked & Tested	Increase Block
	ST 9707	

In 1980 plant selections were made from Progeny Row No. 98545. These selections were grown in progeny rows in 1981. Plant and row selections from these progeny were continued through the year 1985. In 1986, ten strains from the ST 98545 family were tested and increased. These ten strains were bulked and designated as ST 9707 for testing and increase in 1987.

The new strain designated as ST 9707 was tested for two years in Stoneville replicated yield trials. Since 1989, the new strain has been designated as ST 907 and has been tested in State and Federal Experiment Station yield trials in addition to the Stoneville Pedigreed Seed Company trials.

After 17 generations of selecting and testing for yield performance, plant type, phenotypic appearance and fiber properties, all selections have proven to be stable. The number of variants in ST 907 are so few in number that they have been deemed insignificant.

**STONEVILLE 907:
A NEW NECTARILESS, HIGH STRENGTH PLANTING SEED**

Abstract

Stoneville 907 is a new nectariless variety being released by the Stoneville Pedigreed Seed Company. Stronger fiber, greater elongation, and higher yield make it an improvement over its most similar variety, ST 825. Stoneville 907's history and other characteristics are as follows:

Stoneville 907 originated from a hand-pollinated cross between DES 06-020-24 and Stoneville 1877N in 1974. In 1987 after 7 cycles of single plant selections the variety Stoneville 907 was identified. Single plant selections were made in an effort to develop a nectariless cotton variety with reduced leaf hair while maintaining yield and fiber qualities. Stoneville 907 has consistently exhibited superior fiber properties and yield performance when compared to Stoneville 825. After 4 years of extensive testing, Stoneville 907 has shown no phenotypic variation and excellent tolerance to field disease problems. ST 907 is most similar to Stoneville 825, with long internodes and tall indeterminate plant growth habit. Stoneville 907 tends to produce a tall non-fruit producing plant terminal as it attains maturity.

Stoneville 907 in early generation plant selections was selected as having a smooth leaf. Subsequent selection and microscopic examinations have shown Stoneville 907 to have approximately 1/2 as many leaf trichomes per unit area as Stoneville 825 (Table 1).

Stoneville 907 has shown increased tolerance to field-borne disease and insect complexes *versus* Stoneville 825. From 3 years of comparative data at Auburn University measuring the percentage of dead plants under intense Fusarium wilt conditions at Tallassee, Alabama, Stoneville 907 was demonstrated to have significantly more ($\alpha < 0.05$) tolerance to the disease complex than Stoneville 825. These experiments indicated a 48% reduction in the number of plants killed by the disease complex in Stoneville 907 (43.2%) *versus* Stoneville 825 (82.9%).

**STONEVILLE 907:
A NEW NECTARILESS, HIGH STRENGTH PLANTING SEED
(continued)**

Abstract

In 4 years of Beltwide yield testing, Stoneville 907 has shown a yield increase of 12% above Stoneville 825 for lint yield. In addition, Stoneville 907 has fiber strength 2 grams/tex great ($\alpha < 0.01$), 0.3 units higher micronaire ($\alpha < 0.01$), and 0.6 units greater elongation ($\alpha < 0.01$) than Stoneville 825. Fiber length and uniformity ratio are slightly greater for Stoneville 907 *versus* Stoneville 825 ($\alpha < 0.05$).

Table 1. Stoneville 907 Reduced Leaf Hair Trichomes/CM².

ST 907	63
ST 825	147
DES 119	154

Table 2. Comparison of Stoneville 825 and Stoneville 907 for tolerance to Fusarium Wilt/Root Knot Nematode Complex from Auburn University Tallassee Fusarium Wilt Nursery* from 1989 to 1991.

Year	Variety	
	Stoneville 825	Stoneville 907
	--- % Dead Plants ---	
1989	87.2	38.5
1990	82.9	40.3
1991	78.9	51.0
Mean	82.9	43.3
Alpha Level**	0.02	

* Means based on four replications

** Degree of significance based on Paired t-Test

**STONEVILLE 907:
A NEW NECTARILESS, HIGH STRENGTH PLANTING SEED
(continued)**

Abstract

Table 3. Stoneville 907 Beltwide Replicated Yields 1987-1990 13 Total Test

<u>Variety</u>	<u>Lint Yield</u>	<u>% Inc.</u>
ST 907	1100	12%
ST 825	987	
DES 119	1147	

Table 4. Comparison of Stoneville 825 and Stoneville 907 for mean fiber quality traits from 1992 Stoneville Pedigreed Seed Co. yield trials at 13 locations (4 Southeast, 5 Mid-South and 4 Southwest).

<u>Fiber Trait</u>	<u>Variety</u>		<u>Alpha**</u>
	<u>Stoneville 825</u>	<u>Stoneville 907</u>	
	--- mean ---		
Length (in)	1.11	1.12	<.05
Strength (g/tex)	26.5	28.6	<0.01
Micronaire	4.2	4.5	<0.01
Elongation	6.5	7.1	<0.01
Uniformity Ratio	82	83	<0.05

* Means based on 2 lb. fiber samples taken from 2 of 4 replications across 13 locations

** Degree of significance based on Paired t-Test

U.S. DEPARTMENT OF AGRICULTURE
AGRICULTURAL MARKETING SERVICE
LIVESTOCK, MEAT, GRAIN AND SEED DIVISION
BELTSVILLE, MARYLAND 20705

EXHIBIT C
(Cotton)

OBJECTIVE DESCRIPTION OF VARIETY
COTTON (*Gossypium* spp.)

NAME OF APPLICANT(S) Stoneville Pedigreed Seed Company, Inc.	TEMPORARY DESIGNATION Stoneville 907	VARIETY NAME Stoneville 907
ADDRESS (Street and No., or R.F.D. No., City, State, and Zip Code) P. O. Box 167 Stoneville, MS 38776		FOR OFFICIAL USE ONLY PVPO NUMBER 9200016

Place numbers in the boxes (e.g.,) for the characters that best describe typical plants of this variety. The symbol ▲ indicates decimal.

DPL 20 DPL 50 COMPARISON VARIETIES FOR USE BELOW

1 = ~~XXXXXXXXXX~~ 2 = ~~XXXXXXXXXX~~ 3 = ~~XXXXXXXXXX~~ ST 825 4 = ~~XXXXXXXXXX~~ ST 453 5 = Acala 1517-75
6 = Acala SJ-5 7 = Tamcot SP-37 8 = Pima S5

1. SPECIES:
 1 = *G. hirsutum* L. 2 = *G. barbadense* L.

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

Eastern Delta Central High Plains
 El Paso Area Western Low Hot Valleys San Joaquin
 Other (Specify) _____

3. MATURITY (50% Open Bolls, Ideal Method: Date 50% of Crop-Harvested-determined from sequential yield harvests. Give method % First Harvest _____.)

7% ~~XXXXXXXXXX~~ earlier than 3 } Comparison Varieties
Maturity same as 2 }
 1% ~~XXXXXXXXXX~~ Later than 1 }
 2 1 = Early ~~XXXXXXXXXX~~ DPL 20 2 = Medium ~~XXXXXXXXXX~~ DPL 50 3 = Late (Stoneville ~~XXXX~~ 825

4. PLANT:

09 Cm Shorter than 3 } Comparison Varieties 1 Habit: 1 = Spreading, 2 = Intermediate, 3 = Compact
Height same as } 2 Foliage: 1 = Sparse, 2 = Intermediate, 3 = Dense
 Cm Taller than } 2 Stem: 1 = Lodging, 2 = Intermediate, 3 = Erect

18 Cm to 1st Fruiting Branch (from cotyledonary node)
 06 No. of Nodes to 1st Fruiting Branch
 3 Stem Pubescence:
1 = Glabrous 2 = Sparse Pubescence 3 = Pubescent (Stoneville 213) 4 = Heavy Pubescence

5. LEAF:

18 Cm Width of Widest Leaves at Maturity 1 Type: 1 = Normal, 2 = Okra, 3 = Super Okra
 5 Pubescence: 1 = Glabrous (Tamcot SP21S) 2 = Sparse Pubescence (DPL-16) 5=1/2 of ST 825
3 = Pubescent (Stoneville 213) 4 = Heavy Pubescence
 2 Color: 1 = Greenish Yellow (Cascot B-2) 2 = Light Green (Stoneville 603) 3 = Dark Green (Coker 310)
4 = Other (Specify) _____
 1 Nectaries: 1 = Absent 2 = Present

6. FRUITING BRANCH:

3 Type: 1 = Cluster 2 = Short 3 = Normal
 2 Growth: 1 = Determinate 2 = Intermediate 3 = Indeterminate

7. GLANDS (*Gossypol*):

3 Gland Density (Vegetative): 1 = Glandless 2 = Low 3 = Medium (Stoneville 213) 4 = High
 2 Gossypol % (Buds): 1 = Low 2 = Medium (Stoneville 213) 3 = High

8. FLOWER:

Bracts: 1 = Normal 2 = Frego
 Nectaries: 1 = Absent 2 = Present

Petals: 1 = Cream 2 = Yellow
 Pollen: 1 = Cream 2 = Yellow

9. SEEDS:

Seed Index (g/100 seeds, fuzzy seed basis)

Lint Index (g of lint/100 seeds)

Seed Fuzz: 1 = sparse (Gregg 35) 2 = Moderate (DPL-61) 3 = Heavy (Acala SJ-1) 4 = Tufted (Pima)

10. BOLLS:

Lint Percent

No. Seeds Per Boll

Lint % less than }
Same as } Comparison Varieties
 Lint % more than }

Grams Seed Cotton Per Boll
 Grams less than }
Same as } Comparison Varieties
 Grams more than }

Locules: 1 = 3-4 2 = 4-5

Pitting: 1 = None 2 = Fine 3 = Coarse

Type: 1 = Stormproof (Westburn 70) 2 = Storm Resistant (Lankart 57) 3 = Open (Deltapine 16)

Mm Diameter

Breadth: 1 = Broadest at Base 2 = Broadest at Middle

Shape: 1 = Length Less Than Width 2 = Length Equals Width 3 = Length Greater Than Width

11. BRACTEOLAS:

Breadth: 1 = Length Less Than Width 2 = Length Equals Width 3 = Length Greater Than Width

Teeth: 1 = Fine 2 = Coarse

No. Teeth: 1 = 3-4 2 = 5-7 3 = 8-10 4 = More Than 10

12. FIBER LENGTH:

Staple Length (32nd inches)

In. Span Length (2.5%)
 In. Shorter Than }
Length Same as } Comparison Varieties
 In. Longer Than }

In. UHM Length
 In. Shorter Than }
Length Same as } Comparison Varieties
 In. Longer Than }

In. Span Length (50%)

In. Mean Length

Uniformity Index (50%/2.5%)

Uniformity Ratio (Mean/UHM)

13. FIBER STRENGTH ELONGATION AND FINENESS:

1000 P.S.I. (Pressley)

Stelometer (T₁) HVI

Elongation (E₁)

Micronaire

% Maturity Shirley FMT

Fineness/Millitex

14. DISEASES: (0 = not tested, 1 = susceptible, 2 = resistant) 3 Moderately Resistant

Verticillium Wilt

Bacterial Blight (Race 2)

Fusarium Wilt

Bacterial Blight (Other Races)

Root Knot Nematode

Ascochyta Blight

Bacterial Blight (Race 1)

Phymatotrichum Root Rot

8

14. DISEASES (Continued): (0 = not tested, 1 = susceptible, 2 = resistant)

- | | |
|---|--|
| <input type="checkbox"/> <i>Rhizoctonia solani</i> | <input type="checkbox"/> Southwestern Cotton Rust |
| <input type="checkbox"/> Anthracnose | <input type="checkbox"/> <i>Thielaviopsis basicola</i> |
| <input type="checkbox"/> <i>Pythium</i> (specify species) _____ | <input type="checkbox"/> Diplodia Boll Rot |
| <input type="checkbox"/> Reniform Nematode | <input type="checkbox"/> Other (specify) _____ |
| <input type="checkbox"/> <i>Alternaria macrospora</i> | <input type="checkbox"/> Other (specify) _____ |

15. INSECTS: (0 = not tested, 1 = susceptible, 2 = resistant) 3 Moderately Resistant

- | | |
|---|---|
| <input checked="" type="checkbox"/> Boll Weevil | <input checked="" type="checkbox"/> Thrip |
| <input checked="" type="checkbox"/> Aphid | <input checked="" type="checkbox"/> Cutworm |
| <input checked="" type="checkbox"/> Fleahopper | <input type="checkbox"/> <i>Alabama argillacea</i> (Leaf Worm) |
| <input checked="" type="checkbox"/> Fall Armyworm | <input type="checkbox"/> Spider Mite |
| <input checked="" type="checkbox"/> Grasshopper | <input checked="" type="checkbox"/> <i>Heliothis zea</i> (Bollworm) |
| <input checked="" type="checkbox"/> Lygus | <input checked="" type="checkbox"/> <i>Heliothis verescens</i> (Tobacco bud worm) |
| <input checked="" type="checkbox"/> Pink Bollworm | <input type="checkbox"/> Other (specify) _____ |
| <input checked="" type="checkbox"/> Stink Bug | <input type="checkbox"/> Other (specify) _____ |

16. GIVE VARIETY THAT MOST CLOSELY RESEMBLES THE SUBMITTED VARIETY FOR EACH OF THE FOLLOWING CHARACTERISTICS: (Indicate degree of resemblance (D.R.) with one of the following numbers: 1 = Submitted variety is less than, lighter, or inferior to similar variety, 2 = Same as, 3 = More than, darker, or superior, etc. Use comparison varieties or other more appropriate varieties.

CHARACTER	SIMILAR VARIETY	D.R.	CHARACTER	SIMILAR VARIETY	D.R.
Leaf Pubescence	DPL 5415	1	1000 PSI		
Seed Index			Stelometer (T ₁)		
Lint Index			Elongation (E ₁)		
Yarn Tenacity			Micronaire		
Verticillium Wilt Resistance	Stonveville 825	2	Fusarium Wilt Resistance	Stonveville 506	3

17. COMMENTS: (Present information which cannot be adequately described in 1 to 16 that significantly distinguishes your variety such as comparative disease reactions, other expressions of maturity:)

APPLICATION FORM FOR INSCRIPTION IN THE NATIONAL CATALOGUE"COTTON"

- VARIETY NAME ---*Stoneville 907*

- ORIGIN OF VARIETY AND METHODS OF SEED PRODUCTION:

Originated from hand pollinated cross followed by successive generations of single plant selections and bulking in advanced generations.

Seed maintained through pure line maintenance of breeder seed and production of foundation and registered seed.

MATURITY GROUPS: I = EARLY AND MEDIUM-EARLY VARIETIES:
Medium-early

II = LATE VARIETIES:

- VARIETIES NAMES MOST CLOSELY RESEMBLED TO THAT SUBMITTED:

Stoneville 825

- VARIETY'S CHARACTERISTICS LESS RESEMBLED TO THOSE OF THE ABOVE VARIETIES:

Stoneville 907 has superior tolerance to Fusarium wilt and Root Knot Nematode.

Stoneville 907 has superior fiber strength.

"COTTON"A. MORPHOLOGICAL CHARACTERISTICS1. Plant appearance

Open fruiting, indeterminate growth habit.

2. Height of plant at maturity

Approx. 140 cm

3. Stems (at flowering stage)

3.1. Type of branching:
Normal open branching

3.2. Number of stems with or without flowers:
At maturity the main stem will have approx. 19-23 nodes with fruiting stems above node #7.

3.3. Color of stem:
Normal light green stem color, turning red at plant maturity.

4.3. Pubescence:
Reduced from normal. Trichomes found only on stem ends.

4. Leaves (at the beginning of flowering)

4.1. Pubescence of petiole:
Reduced

4.2. Pubescence of blade:
Approx. 1/2 the trichome number per width areas as found on normal pubescent leaves

4.3. Number of lobes:

5

4.4. Depth of notches of the lobes:

10 - 15 %

4.5. Size of leaf:

Approx 15 cm. at broadest point

4.6. Leaf surface (small, medium, large):

Medium

4.7. Thickness of leaf (at maturity):

Normal

4.8. Color of blade:

Light green

5. Flowers

5.1. Ratio of size between bracts and corolla:

10 - 15 %

5.2. Color of petals:

Cream

5.3. Presence or absence of spots on the petals:

Absent

6. Boll

6.1. Shape (at the stage of green mature boll):

Length greater than width

6.2. Size of boll

Not available

6.3. Spots: presence or absence of gossypol spots at the stage of green mature boll:

Present

6.4. Opening of boll: Completed or not (at full maturity):
Opens completely at maturity.

6.5. Ability of the fiber to stick in the burr:
Fiber attach good to burr after opening but adverse weather (wind, water, snow, ice) will cause lint to fall out.

6.6. Number of locks:

4 - 5

7. Fibers (at full maturity)

7.1. Curled or smooth:

Smooth with convolutions.

7.2. Average length:

2.75 c.m.

7.3. Color:

White

A. Grain

8.1. Nude or not:

Normal linters

8.2. Color of pubescence:

Light gray

B. PHYSIOLOGICAL CHARACTERISTICS

1. Earliness

- 1.1. Number of days since sowing and 50% of plants are emerged:
6 - 10
- 1.2. Number of days since sowing and beginning of flowering:
50 - 60
- 1.3. Number of days since beginning of flowering and 50% of plants are at flowering stage:
7 - 10
- 1.4. Continues or non continuous flowering period:
Continuous
- 1.5. Days to maturity of boll:
120 - 125
- 1.6. Relative days to full maturity:
150 - 165

2. Resistance in Lodging

- 2.1. Strong, medium or weak stems:
Medium

3. Resistance to low temperatures

Ability to emerge under low temperature conditions:
Should not be planted where excessively low temperatures might occur.

C. RESISTANCE TO INSECTS AND PESTS

1. Resistance to blast (Verticillium wilt)

1.1. Intensity of infection at early appearance of blast:
Young plants are not affected by Verticillium wilt except in soils excessively high with inoculant.

1.2. Intensity of infection at late appearance of blast:
Plants tend to become more susceptible to infection as they establish a heavy fruit load and the plant has reduced resources to allocate toward defense of infection.

2. Resistance to insects

2.1. Sapsucking insects:
No resistance identified

2.2. Lepidoptera:
Some tolerance exhibited

2.3. Others:
No tested

D. PRODUCTIVITY

1.1. Yield of NOT GINNED:
Approx 3,300 to 6,000 kilohectare

1.2. Yield of GINNED:
Seed cotton lint % average 38 - 40%

1.3. Average weight of boll:
No available

1.4. Number of flowers per surface unit:
Not available

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Exhibit D-7

1.5. Number of bolls per surface unit:

Not available

E. TECHNOLOGICAL CHARACTERISTICS OF FIBER AND GRAIN

1. Fiber

1.1. Length 2.5%:

2.75 - 3.00 cm.

1.2. Length 50%:

Not available

1.3. Uniformity:

78 - 81 %

1.4. Strength:

26 - 29 gm/tex

1.5. Fineness - Maturity (Micronaire):

3.8 - 4.6

Grain

1.1. Weight of 100 grams:

9.5 - 10.5 gm.

1.2. Oil content:

Not available

1.3. Protein content:

Not available

1.4. Gossypol content:

Not available

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Exhibit D-8

F. SPECIFIC REQUIREMENTS OF VARIETY

1. Plant population

1.1. Best Plant population:

74,000 - 148,000 plants/hectare

2. Irrigation

1.1. Times and frequency of irrigation:

Plants should not be allowed to show visible signs of moisture stress, especially during early fruit formation.

APR 5 8 1984

17

9200016

Exhibit E

Statement of Basis of Applicants Ownership

Variety: Stoneville 907

Stoneville 907 was developed solely by the research and development staff at Stoneville Pedigreed Seed Company, P. O. Box 167, Stoneville, MS 38776. Stoneville Pedigreed Seed Company retains all rights and privileges pertaining to development, production, sales, and marketing of Stoneville 907.

