

THE UNITED STATES OF AMERICA

TO ALL TO WHOM THESE PRESENTS SHALL COME:

J. H. Lambright

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

COTTON

'Lambright GL-5'

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 27th day of June in the year of our Lord one thousand nine hundred and seventy-five

Attest:

J. J. Rollin
Commissioner
Plant Variety Protection Office
Grain Division
Agricultural Marketing Service

Earl L. Buttz

Secretary of Agriculture



APPLICATION FOR PLANT VARIETY PROTECTION CERTIFICATE

INSTRUCTIONS: See Reverse.

1. VARIETY NAME OR TEMPORARY DESIGNATION Lambright GL-5	2. KIND NAME Upland Cotton Glandless	FOR OFFICIAL USE ONLY	
		PV NUMBER 7500029	
3. GENUS AND SPECIES NAME Genus Gossypium	4. FAMILY NAME (Botanical) Gossypium Hirsutum L.	FILING DATE 10.4.74	TIME 2 P.M.
		FEE RECEIVED \$ 250	BALANCE DUE \$ =
	5. DATE OF DETERMINATION 1970	\$ 250	\$ =
6. NAME OF APPLICANT(S) J.H. Lambright	7. ADDRESS (Street and No. or R.F.D. No., City, State, and ZIP Code) Route 2, Slaton, Texas 79364	8. TELEPHONE AREA CODE AND NUMBER 806-996-2866	
9. IF THE NAMED APPLICANT IS NOT A PERSON, FORM OF ORGANIZATION: (Corporation, partnership, association, etc.)		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:

13. CHECK BOX BELOW FOR EACH ATTACHMENT SUBMITTED:

- 13A. Exhibit A, Origin and Breeding History of the Variety (See Section 52 of the Plant Variety Protection Act.)
- 13B. Exhibit B, Botanical Description of the Variety
- 13C. Exhibit C, Objective Description of the Variety
- 13D. Exhibit D, Data Indicative of Novelty
- 13E. Exhibit E, Statement of the Basis of Applicant's Ownership

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). (If "Yes," answer 14B, and 14C below.) YES NO

14B. Does the applicant(s) specify that this variety be limited as to number of generations? YES NO

14C. If "Yes," to 14B, how many generations of production beyond breeder seed? FOUNDATION REGISTERED CERTIFIED

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.

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.

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

September 28, 1974
(DATE)

J. H. Lambright
(SIGNATURE OF APPLICANT)

1

(DATE)

(SIGNATURE OF APPLICANT)

INSTRUCTIONS

GENERAL: Send an original copy of the application, exhibits and \$250.00 fee to U.S. Dept. of Agriculture, Agricultural Marketing Service, Grain Division, 6525 Belcrest Road, Hyattsville, Maryland 20782. (See Section 180.175 of the regulations and rules of practice.) Retain one copy for your files. All items on the face of the form are self-explanatory unless noted below.

ITEM

5. Insert the date the applicant determined that he had a new variety based on the definition in Section 41 (a) of the Act and decision is made to increase the seed.

13a 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.

13b 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.

13c A supplemental form will be furnished by the PVPO to describe in detail a variety for each kind of seed.

13d Provide complete data indicative of novelty. Seed and plant specimens or photographs of seed and plant comparisons clearly indicating novelty may be submitted. Seeds submitted may be sterile.

13e Indicate whether applicant is the actual breeder, the employer of the breeder, the owner through purchase or inheritance, etc.

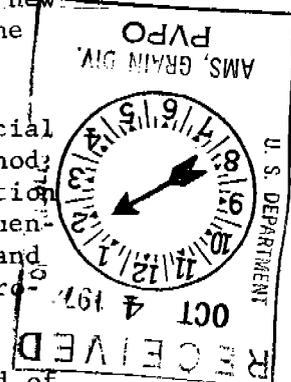


Exhibit A, Origin and Breeding History of the
Lambright GL-5 Cotton Variety

The 'Lambright GL-5' cotton variety is a glandless (gossypol free) cotton that has been developed by use of a back cross breeding program, from a cross made in 1966 by J.H. Lambright, by using the Lambright X-15-5, a normal glanded cotton, and glandless pollen from the Texas Agricultural Experiment Station at Lubbock Texas, The CA-852, CA-852 was developed by use of the Shafter Oil Glandless Acala.

Pedigree: X Blight master X Blight master
 X Acala breeding line (p 1874)
 X Stormproof breeding line CA-398
 F₆ progeny row.

The Lambright X-15-5 variety was developed from a cross made in 1964 by J.H. Lambright, by using the Lambright 123-BR-1 and Del Cerro cottons, the Lambright 123-BR-1 being an upland short staple storm-proof, and the Del Cerro being a longer staple loose lock cotton. The Lambright 123-BR-1 showed Bacterial Blight resistance to all 4 races of a mixture of race 1, race 2, and variant 5 and 6, of Xanthomonas Malvacearium, conducted at the Texas Agricultural Experiment Station at Lubbeck Texas, in 1965.

By using the facilities at Iguala Mexico for winter increase, allowing two generations each year for selection and reproduction, with the reproduction from the 1969-70 winter increase from Iguala, when all plants were free of gossypol glands, and in 1970 is when I first determined I had a new gossypol free variety of cotton. With the many years of reproduction and removal of all off type plants, the reaccurance of any off type plants are well below the allowable amount of tolerance in the Lambright GL-5 cotton variety.

Exhibit B, Botanical Description of the
Lambright GL-5 Cotton Variety

The special Botanical characteristics of the Lambright GL-5 cotton variety are the absence of the lysigenous pigmented internal gossypol glands, that are found in all normal glanded cottons, as it passes through the seedling, flowering, and fruiting stages.

The Lambright GL-5 cotton is annual plants of medium height, medium to early in maturity, medium size main stem, erect, good root system, with intermediate type growth, of the smooth leaf class, production equal or above commercial glanded varieties, occasional vegetative branching, normal to short jointed fruiting branches, creating a conical form, medium size, 3 to 5 lobe leaves, light green in color, medium foliage, the flowers are medium in size, 5 petals, and are born singly, the corolla and pollen are light cream or creamy yellow in color, the fruit is medium to large in size, round to round ovate in shape, 4 and 5 locks, with short beak, 60 bolls seed cotton per lb., stormproof, the seed are medium to large in size, ovoid in shape, coated with a greenish brown linters, lint percent of 38 percent, the typical range of fiber properties are, lint length of, 1 to 1 5/32 inch, presley strength 85,000 to 90,000 lbs. P.S.I., micronaire reading of 4.1, 115 to 120 days to maturity, has minimum to good tolerance to Verticillium and Fusarium wilt, with little or no bacterial blight.

The Lambright GL-5 cotton being of the homozygous genotype, with only the recessive genes, $gl_2 gl_2 gl_3 gl_3$ genes present, which are glandless bearing genes only, the seed and all parts of the plant are free of

7500029

gossypol glands throught the growing period, in comparison to the Lambright X-15-5 variety, being of a normal glanded genotype with the $G1_1$ $G1_1$ $G1_2$ $G1_2$ $G1_3$ $G1_3$ genes present, which are gossypol bearing genes, with the phenotype expression and the presence of the pigmeted gossypol bearing glands in all parts of the plant, which are obvious and easily noticeable throughout the growing period.

OBJECTIVE DESCRIPTION OF VARIETY
COTTON (*GOSSYPIUM SPP.*)

INSTRUCTIONS: See Reverse.

NAME OF APPLICANT(S)

J.H. Lambright

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

Route 2, Slaton, Texas 79364

FOR OFFICIAL USE ONLY

PVPO NUMBER

7500029

VARIETY NAME OR TEMPORARY DESIGNATION

Lambright GL-5

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

1. SPECIES:

1 = GOSSYPIUM HIRSUTUM 2 = GOSSYPIUM BARBADENSE

2. AREA(S) OF ADAPTION (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 Boll):

NO. OF DAYS EARLIER THAN } 1 = COKER 310 2 = DELTAPINE 16 3 = STONEVILLE 213
 NO. OF DAYS LATER THAN } 4 = PAYMASTER 111 5 = ACALA 1517-70 6 = ACALA SJ-1
7 = LANKART 57 8 = OTHER (Specify)

4. PLANT HABIT:

1 = SPREADING 2 = INTERMEDIATE 3 = COMPACT 1 = FOLIAGE SPARSE 2 = DENSE
3 = OTHER (Specify) Medium

5. PLANT HEIGHT:

CM. SHORTER THAN } 1 = COKER 310 2 = DELTAPINE 16 3 = STONEVILLE 213
 CM. TALLER THAN } 4 = PAYMASTER 111 5 = ACALA 1517-70 6 = ACALA SJ-1
7 = LANKART 57 8 = OTHER (Specify)

6. MAIN STEM:

1 = LAX 2 = ASCENDING 3 = ERECT CM. TO FIRST FRUITING BRANCH NO. OF NODES TO FIRST FRUITING BRANC (from cotyledonary node)

7. LEAF: 13 CM

CM. WIDTH OF WIDEST LEAVES AT MATURITY 8. LEAF PUBESCENCE: 1 = GLABROUS (HAIRS AS SPARSE AS D₂ SMOOTH)
2 = SMOOTH LEAF (DELTAPINE SMOOTH LEAF) 3 = PUBESCENT (STONEVILLE 213)
4 = HEAVY PUBESCENCE (H₁ OR H₂) 5 = OTHER (Specify)

9. LEAF COLOR:

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

10. LEAF TYPE:

1 = NORMAL 2 = OKRA 3 = SUPER OKRA 4 = OTHER (Specify)

11. FLOWER:

1 = NECTARILESS 2 = NECTARIED
 Petals: 1 = CREAM 2 = YELLOW Pollen: 1 = CREAM 2 = YELLOW

12. FRUITING BRANCH TYPE:

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

13. GOSSYPOL CONDITION:

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

14. SEEDS:

± SEED INDEX (Fuzzy seed basis) Seed Fuzz: 1 = SPARSE (GREGG 35) 2 = MODERATE (DPL-16) 5
3 = HEAVY (ACALA SJ-1) 4 = OTHER (Specify)

Exhibit D, Data Indicative of Novelty
 Lambright GL-5 Cotton Variety

Lambright GL-5, is most similiar to its one parent, Lambright X-15-5, except the GL-5 is a Glandless Cotton Variety, and the X-15-5 is a normal Glanded Cotton. The Lambright GL-5 is more Determinant, has 3 percent higher lint percent, 5 percent higher lint uniformity, (49 vs 44 percent), and .04 inch shorter lint, (1.09 vs 1.13 inches).

Exhibit E,

Statement of the Basis of
Applicants Ownership

I hereby declare that the foregoing statements, and information being submitted, are true and correct to the best of my knowledge and belief.

And that, I am the Originator, Breeder, and rightful owner, of the following varieties of cotton being submitted for plant variety protection at this time.

Lambright GL-5, Cotton Variety

Lambright GL-N, Cotton Variety

This Day, September 28, 1974

Signed, J. H. Lambright

FORM GR-470-8 (REVERSE)

15. BOLLS:

41.2 mm

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

35 NO. SEEDS PER BOLL

380 LINT PERCENT

15/8 MM. DIAMETER

1 Pitted: 1 = NONE
2 = FINELY
3 = COURSELY

697 GRAMS SEED COTTON PER BOLL

2 Breadth: 1 = BROADER AT BASE
2 = BROADER AT MIDDLE
3 = COURSELY

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

2 Shape: 1 = LENGTH < WIDTH
2 = LENGTH = WIDTH
3 = LENGTH > WIDTH

16. BRACTEOLAS:

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

2 Teeth: 1 = FINE 2 = COURSE

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

17. YIELD: Compared to—

000 PERCENT LESS THAN

100 PERCENT MORE THAN

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

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

054 SPAN LENGTH 50%

109 SPAN LENGTH 2.5%

U.H.M. LENGTH

MEAN LENGTH

35 STAPLE LENGTH 32nd INCHES

UNIFORMITY RATIO (MEAN/U.H.M.)

49 UNIFORMITY INDEX (50% SPAN/2.5% SPAN)

19. FIBER STRENGTH AND ELONGATION:

085 1,000 P.S.I.

070 ELONGATION E₁

410 MICRONAIRE READING

114 YARN STRENGTH (Give test method) *lbs 22 yarn*

240 STILOMETER T₀

STILOMETER T₁

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

2 VERTICILLIUM WILT

2 FUSARIUM WILT

0 ROOT KNOT NEMATODE

2 BACTERIAL BLIGHT (Race 1)

2 BACTERIAL BLIGHT (Race 2)

0 ASCOCHYTA BLIGHT

0 PHYMATOTRICHUM ROOT ROT

0 RHIZOCTONIA

0 ANTHRACNOSE

0 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.