No. 7200071

# THE UNITED STATES OF AMERICA

**TO ALL TO WHOM THESE PRESENTS SHALL COME:**

~~ACCO Seed~~ CARGILL Inc

**Whereas,** THERE HAS BEEN PRESENTED TO THE

**Secretary of Agriculture**

DDW 8/12/80

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 CLASS OF CERTIFIED SEED AND (2) SHALL CONFORM TO THE NUMBER OF GENERATIONS FIED BY THE OWNER OF THE RIGHTS. (84 STAT. 1542, AS AMENDED, 7 U.S.C. 2321 ET SEQ.)

COTTON

'Paymaster 111-A'

*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* 9th *day of* May *in the year of our Lord one thousand nine hundred and* seventy-four

*Attest:*

L. Rollin

*Commissioner*
*Plant Variety Protection Office*
*Grain Division*
*Agricultural Marketing Service*

Earl L Butz

*Secretary of Agriculture*

FORM GR-470
(12-15-72)

UNITED STATES DEPARTMENT OF AGRICULTURE
AGRICULTURAL 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: Paymaster 111-A | 2. KIND NAME: Cotton | FOR OFFICIAL USE ONLY — PV NUMBER: 72071 |
| 3. GENUS AND SPECIES NAME: Gossypium hirsutum | 4. FAMILY NAME *(Botanical)*: Malvaceae | FILING DATE: 1.5.72 — TIME: 10 A.M. ~~P.M.~~ |
| | 5. DATE OF DETERMINATION: 1967 | FEE RECEIVED: $ 250, $ 250, $ 250 — BALANCE DUE: $, $, $ |
| 6. NAME OF APPLICANT(S): CARGILL Inc ~~ACCO SEED~~ ~~Division of Anderson, Clayton & Company~~ 8/12/80 | 7. ADDRESS *(Street and No. or R.F.D. No., City, State, and ZIP Code)*: 15615 W. McGinty Rd ~~515 River Avenue North~~ ~~Belmond, Iowa 50421~~ MINNETONKA MINN 55343 | 8. TELEPHONE AREA CODE AND NUMBER: 515-444-2291 |
| 9. IF THE NAMED APPLICANT IS NOT A PERSON, FORM OF ORGANIZATION: *(Corporation, partnership, association, etc.)*: Corporation | 10. STATE OF INCORPORATION: Delaware | 11. DATE OF INCORPORATION: |

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

Dr. Delbert Hess
ACCO SEED
P. O. Box 1630
Plainview, Texas 79072

13. **CHECK BOX BELOW FOR EACH ATTACHMENT SUBMITTED:**

- [X] 13A. Exhibit A, Origin and Breeding History of the Variety *(See Section 52 of the Plant Variety Protection Act.)*
- [X] 13B. Exhibit B, Botanical Description of the Variety
- [X] 13C. Exhibit C, Objective Description of the Variety
- [X] 13D. Exhibit D, Data Indicative of Novelty
- [X] 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.)* [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? [X] FOUNDATION [X] REGISTERED [X] 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.

July 23, 1973
(DATE)

W. I. McKay
(SIGNATURE OF APPLICANT)
W. I. McKay, General Manager, ACCO SEED

(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 Variety

Paymaster 111-A has been developed from plant selections made from Paymaster 111. The original Paymaster 111 cross was Paymaster 101 x Lankart 611 and was made in 1952 by the Paymaster Seeds (now ACCO SEED) plant breeders at Aiken, Texas. A pedigree method of plant breeding was used in the development of both the Paymaster 111 and Paymaster 111-A varieties. Selection pressure was applied to characteristics such as productivity, fiber properties, storm resistance, bacterial blight resistance, adaptability to stripper harvest, and others. First stage multiplication of seed from promising plants or rows has usually been done in Mexico where flowers are self pollinated by hand. Later stage multiplication has been done by growing the variety on the Plains of Texas in fields that were free of volunteer cotton plants and well isolated from other cotton varieties.

Some variation is stormproofness and plant height has been evident during reproduction and multiplication. The frequency of these variants is very low and are evident only under certain growing conditions.

EXHIBIT B

Botanical Description of the Variety

Paymaster 111-A has a rather large seed (seed index of approximately 12.50 -13.50), and exhibits above average seedling vigor, has a flower with white petals and white or cream pollen and possesses a rather large and pointed boll.

The mature plant is medium in height, and has bolls that are large and semi-stormproof. "Stringing" of seed cotton from bolls is common but storm loss is usually very little. Turn-out or lint percent is rather low because of the relatively large seed. Approximate fiber properties are: 2.5 span length, 31/32 to 1 1/32 inch; Pressley strength, 85,000 PSI; micronaire, 4.5 or higher when mature. The characteristics in which Paymaster 111-A differs from Paymaster 111 are: (1) Paymaster 111-A has more field tolerance to bacterial blight and (2) has fiber that is 1/64 to 1/32 inch longer than its predecessor.

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)
ACCO SEED

ADDRESS (*Street and No. or R.F.D. No., City, State, and ZIP Code*)
515 River Avenue, North
Belmond, Iowa 50421

FOR OFFICIAL USE ONLY

PVPO NUMBER
72071

VARIETY NAME OR TEMPORARY DESIGNATION
Paymaster 111-A

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):**

[1] EASTERN [1] DELTA [1] CENTRAL [2] HIGH PLAINS [1] EL PASO AREA
[1] WESTERN LOW HOT VALLEYS [1] SAN JOAQUIN [ ] OTHER (*Specify*) ____

**3. MATURITY (50% Open Boll):**

[0][0] NO. OF DAYS *EARLIER* THAN ..... [4]
[0][0] NO. OF DAYS *LATER* 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*) ____

**4. PLANT HABIT:**

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

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

**5. PLANT HEIGHT:**

[0][0] CM. *SHORTER* THAN ..... [4]
[0][0] 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

[ ] CM. TO FIRST FRUITING BRANCH

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

**7. LEAF:**

[ ][ ] 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:**

[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][3][4] ± [2][0] 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

Data Indicative of Novelty

Paymaster 111A closely resembles Paymaster 111 in most characteristics but is novel in that it possesses (1) fiber that is longer than that of Paymaster 111 by approximately 1/64 inch, (2) fiber that is finer than Paymaster 111, the average micronaire value being approximately 0.1 unit less than that of Paymaster 111, and (3) more resistance than Paymaster 111 to races of bacterial blight prevalent on the High Plains of Texas. The first two novel characteristics are substantiated by the attached data summaries; the bacterial blight differences are based on field observations.

EXHIBIT E

Statement of the Basis of Applicant's Ownership

All developmental work on this variety was done by breeders employed by the applicant, ACCO SEED, Division of Anderson, Claytor and Company.

This variety was approved for certification by the Texas Seed and Plant Board on December 18, 1970.

Reference: letter February 15, 1974

ACCO Seed is the owner of 'Paymaster 111-A'