No. 9800243

# THE UNITED STATES OF AMERICA

TO ALL TO WHOM THESE PRESENTS SHALL COME:

## DEKALB Genetics Corporation

Whereas, THERE HAS BEEN PRESENTED TO THE

Secretary of Agriculture

AN APPLICATION REQUESTING A CERTIFICATE OF PROTECTION FOR AN ALLEGED DISTINCT VARIETY OF SEXUALLY REPRODUCED, OR TUBER PROPAGATED, 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 TWENTY 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 [illegible]RTING IT, OR EXPORTING IT, OR CONDITIONING IT FOR PROPAGATION, OR STOCKING IT FOR ANY OF THE [illegible] PURPOSE, OR USING IT IN PRODUCING A HYBRID OR DIFFERENT VARIETY THEREFROM, TO THE EXTENT [illegible]D BY THE PLANT VARIETY PROTECTION ACT. (84 STAT. 1542, AS AMENDED, 7 U.S.C. 2321 ET SEQ.)

*SOYBEAN*

*'CX496c'*

*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 twenty-seventh day of October, in the year of our Lord two thousand.*

PLANT VARIETY PROTECTION OFFICE · UNITED STATES DEPARTMENT OF AGRICULTURE

*Attest:*

*Acting Commissioner*
*Plant Variety Protection Office*
*Agricultural Marketing Service*

*Secretary of Agriculture*

REPRODUCE LOCALLY. *Include form number and date on all reproductions.*

FORM APPROVED - OMB NO. 0581-0

U.S. DEPARTMENT OF AGRICULTURE
AGRICULTURAL MARKETING SERVICE
SCIENCE AND TECHNOLOGY DIVISION - PLANT VARIETY PROTECTION OFFICE

# APPLICATION FOR PLANT VARIETY PROTECTION CERTIFICATE

*(Instructions and information collection burden statement on reverse)*

*The following statements are made in accordance with the Privacy Act 1974 (5 U.S.C. 552a) and the Paperwork Reduction Act (PRA) of 1995.*

*Application is required in order to determine if a plant variety protect certificate is to be issued (7 U.S.C. 2421). Information is held confiden until certificate is issued (7 U.S.C. 2426).*

1. NAME OF APPLICANT(S) *(as it is to appear on the Certificate)*: DEKALB Genetics Corporation

2. TEMPORARY DESIGNATION OR EXPERIMENTAL NUMBER: EX750

3. VARIETY NAME: CX496c

4. ADDRESS *(Street and No., or R.F.D. No., City, State, and ZIP Code, and Country)*: 3100 Sycamore Road, DeKalb, IL 60115

6. TELEPHONE *(include area code)*: (815) 758-3461

6. FAX *(include area code)*: (815) 758-4106

FOR OFFICIAL USE ONLY

PVPO NUMBER: 9800243

FILING DATE: 5/5/98

7. GENUS AND SPECIES NAME: Glycine max L. Merr.

8. FAMILY NAME *(Botanical)*: Leguminosae

9. CROP KIND NAME *(Common name)*: Soybean

10. IF THE APPLICANT NAMED IS NOT A "PERSON", GIVE FORM OF ORGANIZATION *(corporation, partnership, association, etc.) (Common name)*: Corporation

11. IF INCORPORATED, GIVE STATE OF INCORPORATION: Delaware

12. DATE OF INCORPORATION: June 15, 1988

FEES RECEIVED

FILING AND EXAMINATION FEE: $2450.00 DATE 5/5/98

CERTIFICATION FEE: $ 320 DATE 10/10/00

13. NAME AND ADDRESS OF APPLICANT REPRESENTATIVE(S), IF ANY, TO SERVE IN THIS APPLICATION AND RECEIVE ALL PAPERS

~~R. Mark Lawson~~ Tim Kain 8 Sept. 2000
DEKALB Genetics Corporation
3100 Sycamore Road
DeKalb, IL 60115

Robert E. Roman, Jr.
DEKALB Genetics Corporation
3100 Sycamore Road
DeKalb, IL 60115

14. TELEPHONE *(include area code)*: (815) 758-3461

15. FAX *(include area code)*: (815) 758-4106

16. CHECK APPROPRIATE BOX FOR EACH ATTACHMENT SUBMITTED *(Follow instructions on reverse)*

a. [X] Exhibit A. Origin and Breeding History of the Variety
b. [X] Exhibit B. Statement of Distinctness
c. [X] Exhibit C. Objective Description of the Variety
d. [ ] Exhibit D. Additional Description of the Variety *(Optional)*
e. [X] Exhibit E. Statement of the Basis of the Applicant's Ownership
f. [X] Voucher Sample *(2,500 viable untreated seeds or, for tuber propagated varieties verification that tissue culture will be deposited and maintained in an approved public repository)*
g. [X] Filing and Examination Fee ($2,450), made payable to "Treasurer of the United States" *(Mail to PVPO)*

17. DOES THE APPLICANT 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 18 and 19 below)* [X] NO *(If "no," go to item 20)*

18. DOES THE APPLICANT SPECIFY THAT SEED OF THIS VARIETY BE LIMITED AS TO NUMBER OF GENERATIONS?
[ ] YES [ ] NO

19. IF "YES" TO ITEM 18, WHICH CLASSES OF PRODUCTION BEYOND BREEDER SEED?
[ ] FOUNDATION [ ] REGISTERED [ ] CERTIFIED

20. HAS THE VARIETY OR A HYBRID PRODUCED FROM THE VARIETY BEEN RELEASED, USED, OFFERED FOR SALE, OR MARKETED IN THE U.S. OR OTHER COUNTRIES?
[X] YES *(If "yes," give names of countries and dates)* [ ] NO
U.S. Jan. 98

21. The applicant(s) declare that a viable sample of basic seed of the variety will be furnished with application and will be replenished upon request in accordance with such regulations as may be applicable, or for a tuber propagated variety a tissue culture will be deposited in a public repository and maintained for the duration of the certificate.

The undersigned applicant(s) is(are) the owner(s) of this sexually reproduced or tuber propagated plant variety, and believe(s) that the variety is new, distinct, uniform, and stable as required in Section 42, 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 *(Owner(s))* | | SIGNATURE OF APPLICANT *(Owner(s))* | |
|---|---|---|---|
| R Mark Lawson | | | |
| NAME *(Please print or type)* | | NAME *(Please print or type)* | |
| R. Mark Lawson | | | |
| CAPACITY OR TITLE | DATE | CAPACITY OR TITLE | DATE |
| Director Research | 5-4-98 | | |

**EXHIBIT A**

9800243

## Origin and Breeding History
## CX496c

CX496c is a late-Group IV variety derived from the cross Asgrow 4715 x CX340c.

| | |
|---|---|
| Summer 1991 | The cross Asgrow 4715 x CX340c was made. |
| Winter 1992 | The F1 generation was grown.<br>The F2 generation was grown. |
| Summer 1992 | The F3 generation was grown (range 16, rows 1-32). |
| Summer 1993 | The F4 generation was grown. |
| Summer 1994 | The F5 generation was grown. |
| Summer 1995 | The F6 generation was grown. |
| Summer 1996 | The F7 generation was grown. |
| Winter 1997 | The F8 generation was grown. |
| Summer 1997 | The F9 generation was grown. |
| February 1998 | The variety was commercially released as CX496c. |

## Statement of Stability and Uniformity

Soybean variety CX496c has been judged to be uniform for breeding use and testing after four (4) generations of selfing. CX496c was reproduced and judged uniform and stable for an additional five (5) generations.

## Statement of Variants

CX496c shows no variants other than what would normally be expected due to environment or that would occur for almost any characteristic during the course of repeated sexual reproduction.

**EXHIBIT B**

9800243

## Novelty Statement

DEKALB Genetics Corporation believes that CX496c is most similar to soybean variety CX499c, except for the following traits: CX496c has tan pods whereas, CX499c has brown pods.

**EXHIBIT C**

9800243

## OBJECTIVE DESCRIPTION OF VARIETY

**Soybean Variety CX496c**
Experimental Name: EX750

| | |
|---|---|
| **APPLICANT:** | DEKALB Genetics Corporation<br>3100 Sycamore Road<br>DeKalb, IL 60115 |

1. **SEED SHAPE:** (1) Spherical
2. **SEED COAT COLOR: (Mature Seed)** (1) Yellow
3. **SEED COAT LUSTER: (Mature Hand Shelled Seed)** (1) Dull
4. **SEED SIZE: (Mature Seed)** 15.7g/100 seed
5. **HILUM COLOR: (Mature Seed)** (6) Black
6. **COTYLEDON COLOR: (Mature Seed)** (1) Yellow
7. **SEED PROTEIN PEROXIDASE ACTIVITY:** (2) High
8. **SEED PROTEIN ELECTROPHORETIC BAND:** -
9. **HYPOCOTYL COLOR:** (2) Green with Bronze Band
10. **LEAFLET SHAPE:** (3) Ovate
11. **FLOWER COLOR:** (1) White
12. **POD COLOR:** (1) Tan
13. **PLANT PUBESCENCE COLOR:** (3) Tawny
14. **PLANT HABIT:** (3) Indeterminate
15. **MATURITY GROUP:** (8) V
16. **MATURITY SUBGROUP:** (0)

**EXHIBIT C**
CX496c
Page two.

**17. DISEASE REACTION:** **(0=Not Tested; 1=Susceptible; 2=Resistant; 3=Tolerant)**

***Bacterial Diseases:***

Bacterial Pustule: 0
Bacterial Blight: 0
WildfireBlight: 0

***Fungal Diseases:***

Brown Spot: 0
Frogeye Leaf Spot 2 (DEKALB's score is 4; scale 1-9, 1=most resistant)

| | | |
|---|---|---|
| Race 1: 0 | Race 2: 0 | Race 3: 0 |
| Race 4: 0 | Race 5: 0 | Race 6: 0 |
| Other: 0 | | |

Target Spot: 0
Downy Mildew: 0
Powdery Mildew: 0
Brown Stem Rot: 2 (DEKALB's score is 2; scale 1-9, 1=most resistant)
Stem Canker: 0
Pod and Stem Blight: 0
Purple Seed Stain: 0
Rhizoctonia Root Rot: 0
Phytophthora Root Rot (1)

| | | | |
|---|---|---|---|
| Race 1:0 | Race 2: 0 | Race 3: 0 | Race 4: 0 |
| Race 5: 0 | Race 6: 0 | Race 7: 0 | Race 8: 0 |
| Race 9: 0 | Race 10: 0 | Race 11: 0 | Race 12: 0 |
| Race 13: 0 | Race 14: 0 | Race 15: 0 | Race 16: 0 |
| Race 17: 0 | Race 18: 0 | Race 19: 0 | Race 20: 0 |
| Race 21: 0 | Race 22: 0 | Race 23: 0 | Race 24: 0 |
| Race 25: 0 | Race 26: 0 | Other: 0 | |

***Viral Diseases:***

Bud Blight: 0
Yellow Mosaic: 0
Cowpea Mosaic: 0
Pod Mottle: 0
Seed Mottle: 0

***Nematode Diseases:***

Soybean Cyst Nematode

| | | | |
|---|---|---|---|
| Race 1: 0 | Race 2: 0 | Race 3: 2 | Race 5: 0 |
| Race 6: 0 | Race 9: 0 | Race 14 (formerly Race 4): 0 | |

Lance Nematode: 0
Southern Root Knot Nematode: 0
Northern Root Knot Nematode: 0
Peanut Root Knot Nematode: 0
Reniform Nematode: 0
Other: 0

**20. PHYSIOLOGICAL RESPONSES:**

Iron Chlorosis on Calcareous Soil: Intermediate (DEKALB's score is 4; scale 1-9, 1=most resistant)
Other: 0

**21. INSECT REACTION:**

Mexican Bean Beetle: 0
Potato Leaf Hopper: 0
Other: 0

**22. HERBICIDE RESISTANCE:**

Metribuzin: 0
Sulfonylurea: 0
Roundup: 0
Other: 0

**ADDITIONAL INFORMATION**

Cyst Nematode Resistance: CX496c was tested in 20 replications at the U. of Arkansas for resistance to race 3 of Soybean Cyst Nematode. CX496c had on the average, 10% of the number of cysts that were present on the susceptible cultivar "Lee". On the basis of these results, CX496c is considered to be resistant to race 3 of Soybean Cyst Nematode.

REPRODUCE LOCALLY. *Include form number and edition date on all reproductions.*

FORM APPROVED - OMB NO. 0581-0055

U.S. DEPARTMENT OF AGRICULTURE
AGRICULTURAL MARKETING SERVICE

# EXHIBIT E
# STATEMENT OF THE BASIS OF OWNERSHIP

*The following statements are made in accordance with the Privacy Act of 1974 (5 U.S.C. 552a) and the Paperwork Reduction Act (PRA) of 1995.*

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1. NAME OF APPLICANT(S)

DEKALB Genetics Corporation

2. TEMPORARY DESIGNATION OR EXPERIMENTAL NUMBER

**EX750**

3. VARIETY NAME

**CX496c**

4. ADDRESS *(Street and No., or R.F.D. No., City, State, and ZIP, and Country)*

3100 Sycamore Road
DeKalb, IL 60115
U.S.A.

5. TELEPHONE *(include area code)*

(815) 758-3461

6. FAX *(include area code)*

(815) 758-4106

7. PVPO NUMBER

9800243

8. Does the applicant own all rights to the variety? *Mark an "X" in appropriate block.* **If no, please explain.** [X] YES [ ] NO

9. Is the applicant (individual or company) a U.S. national or U.S. based company? [X] YES [ ] NO
**If no, give name of country**

10. Is the applicant the original owner? [X] YES [ ] NO ***If no, please answer one of the following:***

a. If original rights to variety were owned by individual(s), is (are) the original owner(s) a U.S. national(s)?

[ ] YES [ ] NO **If no, give name of country**

b. If original rights to variety were owned by a company(ies), is(are) the original owner(s) a U.S. based company?

[ ] YES [ ] NO **If no, give name of country**

11. Additional explanation on ownership *(if needed, use reverse for extra space)*:

**PLEASE NOTE:**

Plant variety protection can be afforded only to owners (not licensees) who meet one of the following criteria:

1. If the rights to the variety are owned by the original breeder, that person must be a U.S. national, national of a UPOV member country, or national of a country which affords similar protection to nationals of the U.S. for the same genus and species.

2. If the rights to the variety are owned by the company which employed the original breeder(s), the company must be U.S. based, owned by nationals of a UPOV member country, or owned by nationals of a country which affords similar protection to nationals of the U.S. for the same genus and species.

3. If the applicant is an owner who is not the original owner, both the original owner and the applicant must meet one of the above criteria.

The original breeder/owner may be the individual or company who directed final breeding. See Section 41(a)(2) of the Plant Variety Protection Act for definition.

According to the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number. The valid OMB control number for this information collection is 0581-0055. The time required to compete this information collection is estimated to average 10 minutes per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information.

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To file a complaint, write the Secretary of Agriculture, U.S. Department of Agriculture, Washington, D.C. 20250, or call 1-800-245-6340 (voice) or (202) 720-1127 (TDD). USDA is an equal employment opportunity employer.