No. 7200038

# THE UNITED STATES OF AMERICA

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

## McNair Seed Company

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

WHEAT

'McNair 701'

*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* 26th *day of* February *in the year of our Lord one thousand nine hundred and* seventy-four

*Attest:*

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

*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: McNair 701 | 2. KIND NAME: Wheat | FOR OFFICIAL USE ONLY<br>PV NUMBER 72038 |
| 3. GENUS AND SPECIES NAME: Triticum aestivum L. em. Thell. | 4. FAMILY NAME *(Botanical)*: Gramineae | FILING DATE 10/12/71 TIME 1:30 P.m. |
| | 5. DATE OF DETERMINATION: 1969 | FEE RECEIVED $250.00 $250.00 $250.00 BALANCE DUE $ — $ — $ — |
| 6. NAME OF APPLICANT(S): McNair Seed Company | 7. ADDRESS *(Street and No. or R.F.D. No., City, State, and ZIP Code)*: P. O. Box 706, Laurinburg, North Carolina 28352 | 8. TELEPHONE AREA CODE AND NUMBER: (919) 276-0733 |
| 9. IF THE NAMED APPLICANT IS NOT A PERSON, FORM OF ORGANIZATION: *(Corporation, partnership, association, etc.)*: Corporation | 10. STATE OF INCORPORATION: North Carolina | 11. DATE OF INCORPORATION: 11-1-47 |

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:

[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.

3/23/73 (DATE) — [signature] (SIGNATURE OF APPLICANT)

(DATE) — (SIGNATURE OF APPLICANT)

FORM GR-470 (REVERSE)
RECEIVED
MAR 27 1973
PVPO

## 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.

PV# 72038

13A. Exhibit A. Origin and Breeding History of the Variety

McNair 701, C.I. 15288, is a reselection from McNair 2203, C.I. 15228, which originated from a $F_4$ selection at the Virginia Agricultural Experiment Station in 1964. It was from the following hybrid: Redcoat sib//Norin-10/Brevor/6/Seneca/5/Asosan/3/Supreza/Redhart//Chancellor/4/Transfer.

Reselections from the yield test were grown as head-rows in 1966-67 and in single 12' rows in 1967-68. Of 20 selections in this group, 3 were found to be slightly different from the others. Instead of roguing and bulking the uniform lines, as originally planned, all 20 went into a strains test in 1968-69. The original selection, number 2203, had shown good resistance to leaf fust (Puccinia recondita tritici) but to be segregating for powdery mildew (Erysiphe graminis). Of the 20 selections, 10 were found resistant to powdery mildew as well as to leaf rust. The mildew resistant group produced an average of 66.8 bushels per acre compared to 57.8 for the non-resistant group. In 1969-70 a drill strip was planted to each of the 10 mildew resistant lines as well as continuing the testing for yield. In these drill plots the same 3 selections which appeared to be slightly off-types in 1969 showed the same irregularities in 1970 and were discarded. The other 7 were bulked and became 701. The identities of the seven lines are being maintained however, prior to the breeder generation. At present our only reason for maintaining the identity of each line is because it is convenient to do so.

The only variants seen in these 7 lines are a few plants, less than .05%, with white, rather than brown chaff. To date it is not clear whether these are normal segregates or not.

McNair 701 will be maintained by reselecting a number of heads from each of the 7 lines, growing these in head-rows and roguing any off-types. The remainder will be grown the following year in 12' 4-row plots, rogued if necessary and then bulked. This process will continue, with the opportunity of eliminating one or more of the 7 components if this becomes advisable due to previously unobserved differences in the lines.

PV # 72038

13B.

~~12B.~~ Exhibit B. Botanical Description of the Variety

McNair 701 is an early variety, maturing 5-6 days ahead of Blueboy. It has a short, reasonably stiff straw with brown chaff. It has good resistance to races of leaf rust and powdery mildew which normally occur in the southeast, as mentioned in Exhibit A.

Recd Nov 14, 1973

FORM GR-470-6
(2-15-73)

FORM APPROVED. OMB NO. 40-R3712

UNITED STATES DEPARTMENT OF AGRICULTURE
AGRICULTURAL MARKETING SERVICE
GRAIN DIVISION
HYATTSVILLE, MARYLAND 20782

EXHIBIT C
*(Wheat)*

# OBJECTIVE DESCRIPTION OF VARIETY

## WHEAT *(TRITICUM SPP.)*

**INSTRUCTIONS:** *See Reverse.*

NAME OF APPLICANT(S)
McNair Seed Company

ADDRESS *(Street and No. or R.F.D. No., City, State, and ZIP Code)*
Post Office Box 706, Laurinburg, N. C. 28352

**FOR OFFICIAL USE ONLY**

PVPO NUMBER
72038

VARIETY NAME OR TEMPORARY DESIGNATION
McNair 701

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. KIND:**

[1] 1 = COMMON 2 = DURUM 3 = EMMER 4 = SPELT 5 = POLISH 6 = POULARD 7 = CLUB

**2. TYPE:**

[2] 1 = SPRING 2 = WINTER 3 = OTHER *(Specify)* _____

[1] 1 = SOFT 2 = HARD 3 = OTHER *(Specify)* _____

[2] 1 = WHITE 2 = RED 3 = OTHER *(Specify)* _____

**3. SEASON - NUMBER OF DAYS FROM EMERGENCE TO:**

[1][5][0] FIRST FLOWERING

[ ][ ][ ] LAST FLOWERING

**4. MATURITY *(50% Flowering)*:**

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

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

[1] 1 = ARTHUR 2 = SCOUT 3 = CHRIS 4 = LEMHI 5 = NUGAINES 6 = LEEDS

**5. PLANT HEIGHT *(From soil level to top of head)*:**

[0][9][8] CM. HIGH

[ ][ ] CM. TALLER THAN .....

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

[1] 1 = ARTHUR 2 = SCOUT 3 = CHRIS 4 = LEMHI 5 = NUGAINES 6 = LEEDS

**6. PLANT COLOR AT BOOTING *(See reverse)*:**

[2] 1 = YELLOW GREEN 2 = GREEN 3 = BLUE GREEN

**7. ANTHER COLOR:**

[1] 1 = YELLOW 2 = PURPLE

**8. STEM:**

[1] Anthocyanin: 1 = ABSENT 2 = PRESENT

[2] Hairiness of last internode of rachis: 1 = ABSENT 2 = PRESENT

[0][3] NO. OF NODES *(Originating from node above ground)*

[2] Waxy bloom: 1 = ABSENT 2 = PRESENT

[1] Internodes: 1 = HOLLOW 2 = SOLID

[1][8] CM. INTERNODE LENGTH BETWEEN FLAG LEAF AND LEAF BELOW

**9. AURICLES:**

[1] Anthocyanin: 1 = ABSENT 2 = PRESENT

[2] Hairiness: 1 = ABSENT 2 = PRESENT

**10. LEAF:**

[2] Flag leaf at booting stage: 1 = ERECT 2 = RECURVED 3 = OTHER *(Specify)*: _____

[2] Flag leaf: 1 = NOT TWISTED 2 = TWISTED

[1] Hairs of first leaf sheath: 1 = ABSENT 2 = PRESENT

[2] Waxy bloom of flag leaf sheath: 1 = ABSENT 2 = PRESENT

[1][8] MM. LEAF WIDTH *(First leaf below flag leaf)*

[2][7] CM. LEAF LENGTH *(First leaf below flag leaf)*:

FORM GR-470-6 (REVERSE)

**11. HEAD:**

[2] Density: 1 = LAX 2 = DENSE

[2] Shape: 1 = TAPERING 2 = STRAP 3 = CLAVATE 4 = OTHER *(Specify)* _____

[3] Awnedness: 1 = AWNLESS 2 = APICALLY AWNLETED 3 = AWNLETED 4 = AWNED

[5] Color at maturity: 1 = WHITE 2 = YELLOW 3 = PINK 4 = RED 5 = BROWN 6 = BLACK 7 = OTHER *(Specify)*: _____

[0 7] CM. LENGTH

[1 0] MM. WIDTH

**12. GLUMES AT MATURITY:**

[3] Length: 1 = SHORT *(CA. 7 mm.)* 2 = MEDIUM *(CA. 8 mm.)* 3 = LONG *(CA. 9 mm.)*

[3] Width: 1 = NARROW *(CA. 3 mm.)* 2 = MEDIUM *(CA. 3.5 mm.)* 3 = WIDE *(CA. 4 mm.)*

[2] Shoulder shape: 1 = WANTING 2 = OBLIQUE 3 = ROUNDED 4 = SQUARE 5 = ELEVATED 6 = APICULATE

[2] Beak: 1 = OBTUSE 2 = ACUTE 3 = ACUMINATE

**13. COLEOPTILE COLOR:**

[1] 1 = WHITE 2 = RED 3 = PURPLE

**14. SEEDLING ANTHOCYANIN:**

[1] 1 = ABSENT 2 = PRESENT

**15. JUVENILE PLANT GROWTH HABIT:**

[2] 1 = PROSTRATE 2 = SEMI-ERECT 3 = ERECT

**16. SEED:**

[1] Shape: 1 = OVATE 2 = OVAL 3 = ELLIPTICAL

[2] Check: 1 = ROUNDED 2 = ANGULAR

[2] Brush: 1 = SHORT 2 = MEDIUM 3 = LONG

[1] Brush: 1 = NOT COLLARED 2 = COLLARED

[ ] Phenol reaction *(See instructions)*: 1 = IVORY 2 = FAWN 3 = LT. BROWN 4 = BROWN 5 = BLACK

[2] Color: 1 = WHITE 2 = AMBER 3 = RED 4 = PURPLE 5 = OTHER *(Specify)* _____

[0 6] MM. LENGTH

[0 3] MM. WIDTH

[4 1] GM. PER 1000 SEEDS

**17. SEED CREASE:**

[1] Width: 1 = 60% OR LESS OF KERNEL 'WINOKA'
2 = 80% OR LESS OF KERNEL 'CHRIS'
3 = NEARLY AS WIDE AS KERNEL 'LEMHI'

[2] Depth: 1 = 20% OR LESS OF KERNEL 'SCOUT'
2 = 35% OR LESS OF KERNEL 'CHRIS'
3 = 50% OR LESS OF KERNEL 'LEMHI'

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

[1] STEM RUST *(Races)* 151, 15-B 11-32

[2] LEAF RUST *(Races)* _____

[0] STRIPE RUST *(Races)* _____

[0] LOOSE SMUT

[2] POWDERY MILDEW

[0] BUNT

[ ] OTHER *(Specify)* _____

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

[0] SAWFLY

[0] APHID *(Bydv.)*

[0] GREEN BUG

[1] CEREAL LEAF BEETLE

[ ] OTHER *(Specify)* _____

HESSIAN FLY RACES:

[2] GP [0] A [1] B [1] C

[1] D [2] E [0] F [0] G

**20. INDICATE WHICH VARIETY MOST CLOSELY RESEMBLES THAT SUBMITTED:**

| CHARACTER | NAME OF VARIETY | CHARACTER | NAME OF VARIETY |
|---|---|---|---|
| Plant tillering | | Seed size | |
| Leaf size | | Seed shape | |
| Leaf color | | Coleoptile elongation | |
| Leaf carriage | | Seedling pigmentation | |

## INSTRUCTIONS

**GENERAL:** The following publications may be used as a reference aid for the standardization of terms and procedures for completing this form:

(a) L.W. Briggle and L. P. Reitz, 1963, Classification of Triticum Species and Wheat Varieties Grown in the United States, Technical Bulletin 1278, United States Department of Agriculture.

(b) W.E. Walls, 1965, A Standardized Phenol Method for Testing Wheat Seeds for Varietal Purity, contribution No. 28 to the handbook of seed testing prepared by the Association of Official Seed Analysts. *(See attachment.)*

**LEAF COLOR:** Nickerson's or any recognized color fan should be used to determine the leaf color of the described variety.

PV# 72038

13D. Data Indicative of Novelty

McNair 701 is recognizable by a combination of three characters-semidwarf habit, earliness, and brown chaff. It had an average height of 99 cm. at 16 locations across the South during 1970-71 and was 3-7 days earlier on the average than other semidwarfs. At individual locations in its adapted area it was as early as or earlier than any presently released varieties and was the only one with brown chaff. The large kernel size (averaging over 40 gm/Mk) is a secondary distinguishing factor. McNair 701 is further distinguished in those areas of Georgia where Hessian fly is a problem, by its resistance to the prevalent races of this insect pest.

PV #72038

13E.

~~12E.~~ Exhibit E. Statement of the Basis of Applicant's Ownership

McNair 701 is the property of McNair Seed Company. This variety was developed by Dr. Gordon K. Middleton and J. R. Bennett, who were employed by McNair Seed Company during the time of its development. All costs of development were borne by McNair Seed Company.

ASSIGNMENT OF UNITED STATES PLANT VARIETY PROTECTION CERTIFICATES AND APPLICATIONS

In consideration of One Dollar ($1.00) and other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, McNair Seed Company, a North Carolina corporation, P.O. Box 706, Laurinburg, North Carolina 28352, does hereby sell, assign, transfer and convey to Northrup King Co. a Delaware corporation, 1500 Jackson Street N.E., Minneapolis, Minnesota 55413, the entire right, title and interest in and to the following United States Plant Variety Protection Certificates and Applications, together with all reissues, divisions and continuations thereof and the plant varieties described and claimed therein:

| Certificate Number | Variety | Date Issued |
|---|---|---|
| 7600077 | McNair 200 (Cotton) | July 19, 1977 |
| 7400023 | McNair 612 (Cotton) | March 6, 1974 |
| 7200095 | McNair 511 (Cotton) | May 21, 1974 |
| 7100090 | McNair 210 (Cotton) | June 20, 1974 |
| 7400035 | McNair 944 (Tobacco) | March 18, 1977 |
| 7700084 | McNair 1003 (Wheat) | August 10, 1978 |
| 7200037 | McNair 4823 (Wheat) | April 8, 1975 |
| 7500006 | McNair 1813 (Wheat) | May 1, 1975 |
| 7200038 | McNair 701 (Wheat) | February 26, 1974 |
| 76TQ016 | McNair 500 (Soybeans) | February 15, 1977 |
| 7100075 | McNair 600 (Soybeans) | February 26, 1974 |
| 7100042 | McNair 800 (Soybeans) | April 10, 1974 |

| Application Number | Variety | Date Filed |
|---|---|---|
| 7900059 | McNair 307 (Cotton) | December 19, 1978 |
| 7900053 | McNair 308 (Cotton) | December 19, 1978 |
| 7800068 | McNair 235 (Cotton) | February 23, 1978 |
| N/A | McNair 373 (Tobacco) | October 31, 1979 |
| 7900088 | McNair 710 (Soybeans) | June 20, 1979 |
| 7900089 | McNair 770 (Soybeans) | July 10, 1979 |
| 7900094 | McNair 780 (Soybeans) | July 25, 1979 |
| 7900093 | McNair 700 (Soybeans) | July 25, 1979 |

the same to be held and enjoyed by said Northrup King Co. for its own use and benefit, and for the use and benefit of its successors, assigns or other legal representatives, for the full term or terms for which said Certificates are or may be granted or reissued, as fully and entirely as the same would have been held and enjoyed by said McNair Seed Company if this assignment and sale had not been made; together with all claims for damages by reason of past infringement of said Certificates and Applications, including the right to sue for and collect the same for its own use and benefit, and for the use and benefit of its successors, assigns or other legal representatives.

IN WITNESS WHEREOF, McNair Seed Company has caused this assignment to be executed by its duly authorized officer, effective the 1st day of November, 1979.

McNAIR SEED COMPANY

(CORPORATE SEAL)

By E. Henry Evans Jr

STATE OF NORTH CAROLINA)
) ss.
COUNTY OF Scotland )

On this 9th day of November, 1979, before me, a Notary Public in and for the county and state aforesaid, personally appeared E. Herman Evans, Jr., to me personally known, who, being by me duly sworn, did say that he is the President of McNair Seed Company; that the seal affixed to the foregoing assignment is the corporate seal of McNair Seed Company and that the assignment was executed in behalf of McNair Seed Company by authority of its board of directors; and did acknowledge the assignment to be the free act and deed of McNair Seed Company.

Witness my hand and seal the day and year set forth above.

Billie H. Gibson
Notary Public

My Commission Expires April 9, 1981

# ASSIGNMENT OF UNITED STATES PLANT VARIETY PROTECTION CERTIFICATES

In consideration of One Dollar ($1.00) and other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, Northrup King Co., a Delaware corporation having an office at 1500 Jackson Street N.E., Minneapolis, Minnesota 55413, does hereby sell, assign, transfer and convey to Rohm and Haas Seeds Inc., a Delaware corporation, Independence Mall West, Philadelphia, Pennsylvania 19105, the entire right, title and interest in and to the following United States Plant Variety Protection Certificates together with all the rights described and claimed therein:

| Certificate Number | Variety | Date Issued |
|---|---|---|
| 7500005 | Prodax | June 30, 1975 |
| 7800010 | Solar | March 29, 1979 |
| 8200002 | Walera | June 17, 1982 |
| 8100013 | 711 | December 10, 1981 |
| | 715 | Applied for in 1983 |
| 8200033 | 817 | June 17, 1982 |
| 8200094 | 830 | September 23, 1982 |
| 8200006 | 835 | March 11, 1982 |
| 7200038 | McNair 701 | February 26, 1974 |
| 7700084 | McNair 1003 | August 10, 1978 |
| 7500006 | McNair 1813 | May 1, 1975 |
| 7200037 | McNair 4823 | April 8, 1975 |
| | RHS 8232 | Applied for in 1984 |

the same to be held and enjoyed by said Rohm and Haas Seeds Inc. for its own use and benefit, and for the use and benefit of its successors, assigns or other legal representatives, for the full term or terms for which said Certificates are or may be granted or reissued, as fully and entirely as the same would have been held and

enjoyed by said Northrup King Co. if this assignment and sale had not been made; together with all claims for damages by reason of past infringement of said Certificates, including the right to sue for and collect the same for its own use and benefit, and for the use and benefit of its successors, assigns or other legal representatives.

**IN WITNESS WHEREOF,** Northrup King Co. has caused this assignment to be executed by its duly authorized officer, effective the 20TH day of JULY, 1984.

**NORTHRUP KING CO.**

By: George L. Jones

(CORPORATE SEAL)

STATE OF MINNESOTA )
) ss.
COUNTY OF HENNEPIN )

On this 20TH day of JULY, 1984, before me, a Notary Public in and for the county and state aforesaid, personally appeared GEORGE L. JONES, to me personally known, who, being by me duly sworn, did say that he is the PRESIDENT of Northrup King Co.; that the seal affixed to the foregoing assignment is the corporate seal of Northrup King Co. and that the assignment was executed in behalf of Northrup King Co. by authority of its board of directors; and did acknowledge the assignment to be the free act and deed of Northrup King Co.

Witness my hand and seal the day and year set forth above.

Edward C. Resler
Notary Public

EDWARD C. RESLER
NOTARY PUBLIC - MINNESOTA
HENNEPIN COUNTY
My Commission Expires Nov. 2, 1990

# ASSIGNMENT

WHEREAS, Rohm and Haas Seeds Inc., a Delaware corporation, with its principal office at Independence Mall West, Philadelphia, Pennsylvania 19105 ("RHS") is the owner of the entire right, title and interest in and to the following wheat varieties, application for United States Plant Variety Protection Certificates and United States Plant Variety Protection Certificates (collectively referred to as "Certificates"):

| Wheat Variety | Certificate Number | Date Issued |
|---|---|---|
| McNair 4823 | 7200037 | April 8, 1975 |
| McNair 701 | 7200038 | February 26, 1974 |

| Wheat Variety | Application Number | Filing Date |
|---|---|---|
| RHS 8232 | 8400136 | July 16, 1984 |

WHEREAS, CR Seeds, a general partnership, having its principal office at 900 Darlington Highway, Hartsville, South Carolina 29550 ("Partnership") is desirous of acquiring the entire interest in the aforementioned varieties and Certificates;

NOW THEREFORE, for good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, RHS does hereby sell, assign, transfer to Partnership the entire

right, title and interest in and to the varities and Certificates for its use and benefit and for its successors and assigns.

IN TESTIMONY THEREOF, Rohm and Haas Seeds Inc. intending to be legally bound has caused this assignment to be executed by its duly authorized officer, effective as of the 20th day of December, 1984.

ROHM AND HAAS SEEDS INC.

Date: 12/23/85

By: Charles A Baker

Title: Pres

STATE OF Penn. :
:SS
COUNTY OF Phila. :

On this 23 day of December, 1985, before me appeared Charles A. Baker of Rohm and Haas Seeds Inc., the person who signed this instrument, who acknowledged that he signed it as a free act on behalf of Rohm and Haas Seeds Inc. with authority to do so.

Joan B. Henderson
Notary Public

JOAN B. HENDERSON
Notary Public, Phila., Phila. Co.
My Commission Expires Nov. 29, 1986

My Commission Expires:

# ASSIGNMENT

WHEREAS, CR Seeds, a general partnership having it principal office at 900 Darlington Highway, Hartsville, South Carolina 29550 ("Partnership"), is the owner of the entire right, title and interest to the United States Plant Variety Protection Certificates and applications for such Certificates (collectively "Certificates") listed on Appendix A attached hereto;

WHEREAS, the partners of CR Seeds, Rohm and Haas Seeds Inc., a Delaware corporation having its principal office at Independence Mall West, Philadelphia, PA 19105 ("RHS") and Coker's Pedigreed Seed Company, a South Carolina corporation with its principal office at 900 Darlington Highway, Hartsville, SC 29550 ("CPS"), are each desirous of acquiring a one-half undivided interest in the varieies and Certificates listed on Appendix A;

NOW, THEREFOR, for good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, CR Seeds does hereby sell, assign and transfer to RHS a one-half undivided interest in and to the varieties and Certificates and to CPS a one-half undivided interest in and to the varieties and Certificates for each of their use and benefit and for each of their successors and assigns.

IN TESTIMONY THEREOF, CR Seeds intending to be legally bound has caused this assignment to be executed by its duly authorized officer.

CR Seeds

By: E. Joe Dahmer
President

State of South Carolina )
)SS
County of Darlington )

On this 30th day of December, 1986, before me appeared E. Joe Dahmer of CR Seeds, the person who signed this instrument who acknowledged that he signed it as a free act on behalf of CR Seeds with authority to do so.

Lynn B. Elliott
Notary Public

My commission expires 4-14-91.

## APPENDIX A

### Soft Red Winter Wheat Varieties

| Variety Name | U.S. Plant Variety Certificate No. | Issue Date |
|---|---|---|
| Coker 68-15 | 7200014 | Mar. 6, 1974 |
| Coker 68-19 | 7200015 | Mar. 6, 1974 |
| Coker 747 | 76TQ015 | Sept. 9, 1978 |
| Coker 762 | 8000152 | Dec. 12, 1981 |
| Coker 797 | 8000145 | Dec. 12, 1981 |
| Coker 916 | 8300036 | Sept. 27, 1985 |
| Coker 983 | 8400058[1] | Feb. 27, 1984[1] |
| McNair 701 | 7200038 | Feb. 26, 1974 |
| McNair 4823 | 7200037 | April 8, 1975 |
| RHS 8232 | 8400136[1] | July 16, 1984[1] |
| 9227 | 8600009[1] | Oct. 22, 1985[1] |
| 9323 | 8600010[1] | Oct. 22, 1985[1] |

1. Application number and filing date.

## Winter Oat Varieties

| Variety Name | U.S. Plant Variety Certificate No. | Issue Date |
|---|---|---|
| Coker 227 | 7500007 | Oct. 20, 1977 |
| Coker 716 | 7900003 | Dec. 28, 1978 |
| Coker 820 | 8400059[1] | Feb. 28, 1984[1] |
| Coker 234 | 7500008 | Oct. 26, 1977 |
| Four Twenty Two | 7700085 | Apr. 12, 1979 |
| Big Mac | 8200121 | Aug. 19, 1982 |
| Mesquite | 8200122 | Aug. 19, 1982 |

1. Application number and filing date.

## Soybean Varieties

| | | |
|---|---|---|
| Coker Hampton 266A | 7100022 | Sept. 6, 1973 |
| Coker 136 | 7300091 | Oct. 18, 1973 |
| Coker 338 | 7400058 | Oct. 29, 1976 |
| Coker 237 | 7800034 | July 13, 1978 |
| Coker 488 | 7800035 | July 13, 1978 |
| Coker 156 | 7900043 | Nov. 27, 1979 |
| Coker 317 | 8100095 | Nov. 19, 1981 |
| Coker 368 | 8200140 | Aug. 31, 1983 |
| Coker 425 | 8400077 | May 31, 1985 |
| Coker 485 | 8400078 | May 31, 1985 |
| Coker 393 (Q327-4270) | 8400018 | Jan. 25, 1985 |
| Coker 355 (XP5878) | 8400019 | Jan. 25, 1985 |
| Coker 627 | 8700001[1] | Oct. 3, 1986[1] |
| Coker 686 | Pending[1] | Dec. 19, 1986 |

1. Application number and filing date.

| Variety Name | U.S. Plant Variety Certificate No. | Issue Date |
|---|---|---|
| AP55 | 8100089 | Feb. 18, 1982 |
| AP70 | 7800081 | Feb. 15, 1979 |
| AP71 | 8100090 | Sept. 24, 1981 |
| Lancer | 7600044 | Sept. 29, 1976 |
| RA-526 | 7500067 | Dec. 12, 1975 |
| RA-604 | 7900008 | Mar. 1, 1975 |
| RA-680 | 8100097 | Apr. 15, 1982 |
| RA-502 | 8200160 | Aug. 31, 1983 |
| RA-606 | 8200161 | Oct. 27, 1983 |
| RA-580 | 8300075 | Apr. 30, 1984 |
| Mitchell | 7300054 | Oct. 30, 1974 |
| RA-401 | 7800030 | June 22, 1978 |
| RA-601 | 7800031 | June 22, 1978 |
| Mitchell 450 | 7900046 | June 14, 1979 |
| RA-481 | 8000054 | Mar. 26, 1981 |
| RA-402 | 8000093 | July 31, 1981 |
| Mitchell 410 | 8200162 | Oct. 27, 1983 |
| RA-403 | 8200163 | Oct. 27, 1983 |

| Variety Name | Certificate No. | Issue Date |
|---|---|---|
| RA-451 | 8500008[1] | Oct. 10, 1984[1] |
| RA-452 | 8500009[1] | Oct. 10, 1984[1] |
| RA-405 | 8500010[1] | Oct. 10, 1984[1] |
| RA-501 A | 76TQ006 | May 11, 1978 |
| RA-480 | 7900007 | Feb. 15, 1979 |

1. Application number and filing date.

# ASSIGNMENT

WHEREAS, Rohm and Haas Seeds Inc., a Delaware corporation having its principal office at Independence Mall West, Philadelphia, PA 19105 ("RHS"), is the owner of a one-half undivided interest in and to the United States Plant Variety Protection Certificates and applications for such Certificates (collectively "Certificates") listed on Appendix A attached hereto:

WHEREAS, Coker's Pedigreed Seed Company, a South Carolina corporation with its principal office at 900 Darlington Highway, Hartsville, SC 29550 ("CPS"), is desirous of acquiring this one-half undivided interest in the aforementioned varieties and Certificates;

NOW, THEREFOR, for good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, RHS does hereby sell, assign and transfer to CPS RHS's one-half undivided interest in and to the varieties and Certificates for CPS's use and benefit and for its successors and assigns.

IN TESTIMONY THEREOF, RHS intending to be legally bound has caused this assignment to be executed by its duly authorized officer.

ROHM AND HAAS SEEDS INC.

By: Howard A. Mergelkamp

Assistant Treasurer

State of Pennsylvania )
)SS
County of Philadelphia )

On this 31st day of December, 1986, before me appeared Howard A. Mergelkamp of Rohm and Haas Seeds Inc., the person who signed this instrument who acknowledged that he signed it as a free act on behalf of Rohm and Haas Seeds Inc. with authority to do so.

Elizabeth A. Smith

Notary Public

ELIZABETH A. SMITH
Notary Public, Phila., Phila. Co.
My Commission Expires Oct. 14, 1989

My commission expires

7200038

# ASSIGNMENT OF PLANT VARIETY PROTECTION CERTIFICATES

WHEREAS, **COKER'S PEDIGREED SEED COMPANY**, a South Carolina corporation ("Coker's"), having its offices at 900 Darlington Highway, Hartsville, South Carolina 29550, has adopted and used and is the sole and exclusive owner of certain United States Plant Variety Protection Certificates and similar rights under laws of countries other than the United States as listed in Exhibit A hereto:

WHEREAS, **COKER'S PEDIGREED SEED CO.** and **NORTHRUP KING CO.**, a Delaware corporation ("NK"), have entered into an Asset Purchase Agreement, dated July 20, 1988, providing for the purchase and sale of substantially all of the assets and business of Coker's and the assumption of certain of Coker's liabilities and obligations by NK; and

WHEREAS, NK desires to acquire the right, title and interest in, to and under the Plant Variety Protection Certificates listed on Exhibit A hereto and the pending applications hereto (collectively, the "Plant Variety Protection Certificates").

NOW, THEREFORE, for good and valuable consideration, receipt of which is hereby acknowledged, Coker's hereby sells, assigns, transfers and sets over to NK the Plant Variety Protection Certificates. Coker's further agrees, at no cost to it, to execute and deliver to NK, upon the request of NK, any further instrument of assignment that may be necessary to effectuate the transfer of each Plant Variety Protection Certificate.

IN WITNESS WHEREOF, Coker's has caused this instrument to be executed by its duly authorized representative as of the 20th day of July, 1988.

COKER'S PEDIGREED SEED COMPANY

By: _____
E. Joe Dahmer
President

STATE OF MINNESOTA )
) ss:
COUNTY OF HENNEPIN )

On this 20th day of July, 1988, before me, a Notary Public in and for the County aforesaid, the undersigned officer, E. Joe Dahmer, personally appeared and acknowledged himself to be the President of Coker's Pedigreed Seed Co., and that he executed the foregoing instrument for the purposes therein.

WITNESS my hand and seal this 20th day of July, 1988.

TIMOTHY M. BANGASSER
NOTARY PUBLIC — MINNESOTA
HENNEPIN COUNTY
My Commission Expires May 22 1992

_____
Notary Public

Cotton Varieties, Continued

| Variety Name | U.S. Plant Variety Certificate Number | Issue Date | Term (Yrs.) |
|---|---|---|---|
| Coker 3131 | 8100019 | Sept. 24, 1981 | 18 |
| Coker 208 | 8300082 | Sept. 29, 1983 | 18 |
| Coker 139 | 8700070 | Dec. 18, 1987 | 18 |

Soft Red Winter Wheat Varieties

| | | | |
|---|---|---|---|
| Coker 68-15 | 7200014 | Mar. 6, 1974 | 17 |
| Coker 68-19 | 7200015 | Mar. 6, 1975 | 17 |
| Coker 747 | 76TQ015 | Sept. 20, 1978 | 17 |
| Coker 762 | 8000152 | Dec. 10, 1981 | 18 |
| Coker 797 | 8000145 | Dec. 10, 1981 | 18 |
| Coker 916 | 8300036 | Sept. 27, 1985 | 18 |
| Coker 983 | 8400058 | Dec. 31, 1980 | 18 |
| McNair 701 | 7200038 | Feb. 26, 1974 | 17 |
| McNair 4823 | 7200037 | Apr. 8, 1975 | 17 |
| RHS 8232 | 8400136 | Oct. 31, 1985 | 18 |
| 9227 | 8600009 | May 31, 1988 | 18 |
| 9323 | 8600010 | Apr. 29, 1988 | 18 |
| McNair 1813 | 7500006 | May 1, 1975 | 17 |
| McNair 1003 | 7700084 | Aug. 10, 1978 | 17 |
| Coker 833 | 8800005(1) | Oct. 2, 1987(1) | - |
| Coker 9733 | 8700159(1) | July 16, 1987(1) | - |
| Coker 9766 | 8700160(1) | July 17, 1987(1) | - |

(1) Application number and filing date.