No. 7700085

THE UNITED STATES OF AMERICA

TO ALL TO WHOM THESE PRESENTS SHALL COME:

Coker's Pedigreed 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 [illegible]D OF THE VARIETY IN A PUBLIC REPOSITORY AS PROVIDED BY LAW, THE RIGHT TO EX- [illegible] OTHERS FROM SELLING THE VARIETY, OR OFFERING IT FOR SALE, OR REPRODUCING IT, [illegible]RTING IT, OR EXPORTING IT, OR USING IT IN PRODUCING A HYBRID OR DIFFERENT [illegible]HEREFROM, TO THE EXTENT PROVIDED BY THE PLANT VARIETY PROTECTION ACT. [illegible]ITED STATES SEED OF THIS VARIETY (1) SHALL BE SOLD BY VARIETY NAME ONLY AS [illegible] CERTIFIED SEED AND (2) SHALL CONFORM TO THE NUMBER OF GENERATIONS S[illegible] [illegible]HE OWNER OF THE RIGHTS. (84 STAT. 1542, AS AMENDED, 7 U.S.C. 2321 ET SEQ.)

OAT

'Four Twenty Two'

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* 12th *day of* April *in the year of our Lord one thousand nine hundred and* seventy-nine

Attest:

Commissioner
Plant Variety Protection Office
Grain Division
Agricultural Marketing Service

Secretary of Agriculture

UNITED STATES DEPARTMENT OF AGRICULTURE
AGRICULTURAL MARKETING SERVICE
LIVESTOCK, POULTRY, GRAIN & SEED DIVISION

APPLICATION FOR PLANT VARIETY PROTECTION CERTIFICATE

INSTRUCTIONS: *See Reverse.*

FORM APPROVED
OMB NO. 40-R3822

No certificate for plant variety protection may be issued unless a completed application form has been received (5 U.S.C. 553).

1a. TEMPORARY DESIGNATION OF VARIETY 3/9/79 Exhibit A and Data tables Coker 74-22	1b. VARIETY NAME Four Twenty Two	FOR OFFICIAL USE ONLY PV NUMBER 7700085
2. KIND NAME Oats	3. GENUS AND SPECIES NAME Avena sativa L.	FILING DATE 7-12-77 TIME 10:00 A.M. P.M.
4. FAMILY NAME (BOTANICAL) Gramineae	5. DATE OF DETERMINATION July 1974	FEE RECEIVED $ 500.00 $ 250.00 DATE 7-12-77 3-30-79
6. NAME OF APPLICANT(S) Coker's Pedigreed Seed Company	7. ADDRESS *(Street and No. or R.F.D. No., City, State, and ZIP Code)* P.O. Box 340 Hartsville, South Carolina 29550	8. TELEPHONE AREA CODE AND NUMBER (803) 332-7532
9. IF THE NAMED APPLICANT IS NOT A PERSON, FORM OF ORGANIZATION: *(Corporation, partnership, association, etc.)* Corporation	10. IF INCORPORATED, GIVE STATE AND DATE OF INCORPORATION South Carolina	11. DATE OF INCORPORATION July 12/1918

12. NAME AND MAILING ADDRESS OF APPLICANT REPRESENTATIVE(S), IF ANY, TO SERVE IN THIS APPLICATION AND RECEIVE ALL PAPERS:
Howard F. Harrison, Coker's Pedigreed Seed Co., P.O. Box 340
Hartsville, South Carolina 29550

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, Novelty Statement.
- [X] 13C. Exhibit C, Objective Description of the Variety *(Request form from Plant Variety Protection Office.)*
- [X] 13D. Exhibit D, Additional Description of the Variety.

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

15a. DID THE APPLICANT(S) FILE FOR PROTECTION OF THIS VARIETY IN OTHER COUNTRIES? [ ] YES [X] NO *(If "Yes," give name of countries and dates.)* as per call of 3/9/79

15b. HAVE RIGHTS BEEN GRANTED THIS VARIETY IN OTHER COUNTRIES? [ ] YES [X] NO *(If "Yes," give name of countries and dates.)*

16. DOES THE APPLICANT(S) AGREE TO THE PUBLICATION OF HIS/HER (THEIR) NAME(S) AND ADDRESS IN THE OFFICIAL JOURNAL? [X] YES [ ] NO

17. The applicant(s) declare(s) that a viable sample of basic seed 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 Act.

Applicant(s) is (are) informed that false representation herein can jeopardize protection and result in penalties.

Aug. 2, 1978
(DATE)

Howard F. Harrison
(SIGNATURE OF APPLICANT)

1

(DATE)

(SIGNATURE OF APPLICANT)

FORM GR-470 (1-78)

INSTRUCTIONS

GENERAL: Send an original copy of the application and exhibits, at least 2,500 viable seeds, and $500 fee ($250 filing fee and $250 examination fee) to U.S. Dept. of Agriculture, Agricultural Marketing Service, Livestock, Poultry, Grain and Seed Division, Plant Variety Protection Office, National Agricultural Library Building, Beltsville, Maryland 20705. (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 Give the date the applicant determined that he had a new variety based on (1) the definition in section 41(a) of the Act and (2) the date a decision was made to increase the seed.

13a Give: (1) the genealogy, including public and commercial varieties, lines, or clones used, and the breeding method; (2) the details of subsequent stages of selection and multiplication; (3) the type and frequency of variants during reproduction and multiplication and state how these variants may be identified and (4) evidence of uniformity and stability.

U. S. DEPARTMENT OF AGRICULTURE
AMS, GRAIN DIV.
PVPO
RECEIVED
AUG 17 1978

13b Give a summary statement of the variety's novelty. Clearly state how this novel variety may be distinguished from all other varieties in the same crop. If the new variety most closely resembles one or a group of related varieties: (1) identify these varieties and state all differences objectively; (2) attach statistical data for characters expressed numerically and demonstrate that these differences are significant; and (3) submit, if helpful, seed and plant specimens or photographs of seed and plant comparisons clearly indicating novelty.

13c Fill in the Exhibit C, Objective Description form, for all characteristics for which you have adequate data.

13d Describe any additional characteristics that are not described, or whose description cannot be accurately conveyed in Exhibit C. Use comparative varieties as is necessary to reveal more accurately the description of characteristics that are difficult to describe, such as, plant habit, plant color, disease resistance, etc.

14a If "YES" is specified (seed of this variety be sold by variety name only as a class of certified seed) the applicant may NOT reverse his affirmative decision after the variety has either been sold and so labeled, his decision published, or the certificate has been issued. However, if the applicant specified "NO," he may change his choice. (See section 180.16 of the Regulations and Rules of Practice.)

15a See section 42 of the Plant Variety Protection Act and section 180.7 of the Regulations and Rules of Practice.

Four Twenty Two Oats

EXHIBIT A

Origin and Breeding History of the Variety

Four Twenty Two originated in South Carolina from the cross

Coker 70-12/ 4/ Coker 68-23/ 3 / Coker 68-26*4/ 2 / Sg.[1]/ P.I. 287211

The last cross was made in 1969, and the sequence of furthur generations is as follows:

1969- Growth Chamber F1 plants.
1969-70 - Spaced F2 plants.
1970-71- F3 Headrows.
1971-72- F4 Headrows.
1972-73- Single F4 Headrow to replicated yield test.
1973-74- Increase block 74-22.
1974-75- Entry in Uniform Central and Uniform Southern Oat Nurseries. (See attached data)
1975-76- " " "

Pure line selection was based on uniforming of appearance, reaction to disease, and prostrate growth habit. Observation of at least 100 panicle rows during each year of increase indicated stability for varietal characteristics. No identifiable variants have been observed in this variety.

[1]/ Sg = Suregrain

Four Twenty Two Oats

EXHIBIT B

Novelty Statement

Novelty is based on the unique combination of the following characters:

'Four Twenty Two'most closely resembles'Coker 227'except it has a more nearly prostate growth habit. (See attached data, Uniform Southern Oats, page 16, 1976) and averages 5 cm taller in plant height. (Uniform Southern Oats, page 5, 1976).

The second floret rachilla segment of'Four Twenty Two'is hairy, while that of'Coker 227'is glabrous.

FORM APPROVED: OMB NO. 40-R3712

FORM GR-470-35
(1-76)

U.S. DEPARTMENT OF AGRICULTURE
AGRICULTURAL MARKETING SERVICE
GRAIN DIVISION
HYATTSVILLE, MARYLAND 20782

OBJECTIVE DESCRIPTION OF VARIETY
OAT
(Avena spp.)

NAME OF APPLICANT(S): Coker's Pedigreed Seed Company

VARIETY NAME OR TEMPORARY DESIGNATION: Four Twenty Two

ADDRESS (Street and No., or R.F.D. No., City, State, and ZIP Code):
P.O. Box 340
Hartsville, S.C. 29550

FOR OFFICIAL USE ONLY
PVPO NUMBER: 7700085

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.

1. SPECIES:

1 — 1 = SATIVA 2 = BYZANTINA 3 = OTHER (Specify) _____

2. GROWTH HABIT:

1 — 1 = WINTER 2 = SEMIWINTER 3 = SPRING

1 — JUVENILE GROWTH: 1 = PROSTRATE 2 = SEMIPROSTRATE 3 = ERECT

STANDARD VARIETIES

1 = JAYCEE 2 = CLINTLAND 64 3 = CAYUSE 4 = NORLINE 5 = YANCEY 6 = FLORIDA 501

3. MATURITY (50% flowering):

[ ][ ] DAYS EARLIER THAN ..... [ ] STANDARD VARIETY 0 2 DAYS LATER THAN ..... 6 STANDARD VARIETY

3 Season: 1 = VERY EARLY (Jaycee) 2 = EARLY (Nodaway 70) 3 = MIDSEASON (Clintford) 4 = LATE (Lodi) 5 = VERY LATE (Garry) 6 = EXTREMELY LATE (Mackinaw)

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

1 0 6 CM. TALL

[ ][ ] CM. SHORTER THAN .... [ ] STANDARD VARIETY

0 3 CM. TALLER THAN ..... 5 STANDARD VARIETY

5. STEM:

2 — DIAMETER: 1 = FINE (Kherson) 2 = MEDIUM (Clintford) 3 = COARSE (Nodaway 70)

2 — HAIRINESS AT UPPER CULM NODES: 1 = HAIRLESS 2 = HAIRY

1 — MATURE STEM COLOR: 1 = YELLOW 2 = REDDISH

6. LEAF: (Leaf Color: The Royal Horticultural Society's or any recognized color chart should be used to determine the leaf color of the described variety.)

1 — CARRIAGE: 1 = DROOPING (Random) 2 = ERECT (Walken)

3 — COLOR: 1 = YELLOW GREEN 2 = LT. GREEN 3 = DK. GREEN 4 = BLUE GREEN

[ ][ ] MM. WIDTH (First leaf below flag leaf)

1 — LEAF MARGIN: 1 = GLABROUS 2 = CILIATE

2 — LIGULE: 1 = ABSENT 2 = PRESENT

1 — LEAF SHEATH: 1 = HAIRLESS 2 = HAIRY

7. HEAD:

1 — PANICLE SHAPE: 1 = EQUILATERAL 2 = INTERMEDIATE 3 = SIDE PANICLE (Unilateral)

1 — ATTACHMENT OF LOWER WHORL OF BRANCHES: 1 = FIRST NODE 2 = SECOND NODE (False node)

2 — PANICLE SIZE: 1 = SMALL (Yancey) 2 = MEDIUM (Walken) 3 = LARGE (Markton)

2 — PANICLE WIDTH: 1 = NARROW (Gopher) 2 = MIDBROAD (Yancey) 3 = BROAD (Nodaway 70)

2 4 CM. PANICLE LENGTH ~~2 9~~ 3 0 NUMBER OF BRANCHES 0 ~~8~~ 7 NUMBER OF WHORLS OF BRANCHES 8/17/78

2 — POSITION OF BRANCHES: 1 = ASCENDING (Yancey) 2 = SPREADING (Cayuse) 3 = DROOPING (Markton) 4 = PECTINATE (White Tartar) 5 = CONFUSED (Storm King)

Four Twenty Two Oats

EXHIBIT D

Additional Description of the Variety

The oat variety, Four Twenty Two is a winter type with a decumbent growth habit. Leaf color is dark green, approximating R.H.S. color chart 137 A. Leaf width averages about 12 mm. Leaf margin is glabrous and sheath hairless. Ligule present. Carriage of flag leaf is somewhat droopy.

Plant height is about 5 cm taller than Coker 227. Maturity is about the same as for Coker 227 under southeastern conditions. 8/17/78

Panicles are spreading, midwide, midlong, averaging ~~six~~ 7 nodes and ~~21~~ 30 branches. Glumes at heading are dark green. Awns are ~~fairly frequent~~ common, not twisted or geniculate. Mature unweathered glumes are greyed - yellow (R.H.S. color chart 161 C). Lemma of primary floret is about 17 mm long. Ripe lemma color is greyed - yellow (R.H.S. color chart 161 C) with grey tinge between the veins. Secondary floret is often darker than the primary to which it is attached. Basal hairs are few to absent and midlong.

Four Twenty Two has a level of winter hardiness similar to that of Nora. It is resistant to the races of crown rust prevalent in the U.S.A. during the period of its developement. It is moderately resistant to soil-borne mosaic, but susceptable to stem rust and some races of loose smut.

State of New York)
County of New York) ss.

TRANSFER OF OWNERSHIP

In consideration of the formation of a research partnership, which is named CR Seeds with its principal offices at 900 Darlington Highway, Hartsville, S.C. 29550, and of which Coker's Pedigreed Seed Company, Hartsville, S.C., is a partner, Coker's Pedigreed Seed Company does hereby convey to CR Seeds, free from all encumbrances, ownership of the following protected varieties:

Wheat Varieties

Variety Name	Plant Variety Certificate No.	Issue Date
Coker 68-15	7200014	March 6, 1974
Coker 68-19	7200015	March 6, 1974
Coker 747	76TQ015	September 9, 1978
Coker 762	8000152	December 12, 1981
Coker 797	8000145	December 12, 1981

Oat Varieties

Variety Name	Plant Variety Certificate No.	Issue Date
Coker 227	7500007	October 20, 1977
Coker 716	7900003	December 28, 1978
Coker 234	7500008	October 26, 1977
Four Twenty-Two	7700085	April 12, 1979
Big Mac	8200121	August 19, 1982
Mesquite	8200122	August 19, 1982

Soybean Varieties

Variety Name	Plant Variety Certificate No.	Issue Date
Coker-Hampton 266A	7100022	September 6, 1973
Coker 136	7300091	October 18, 1973
Coker 338	7400058	October 29, 1976
Coker 237	7800034	July 13, 1978
Coker 488	7900035	July 13, 1978
Coker 156	7900043	November 27, 1979
Coker 317	8100095	November 19, 1981
Coker 368	8200140	August 31, 1983

COKER'S PEDIGREED SEED CO.

By: E. Joe Dahmer
E. Joe Dahmer, President

Date: February 29, 1984

Sworn and subscribed to before me
this 29th day of February, 1984.

Ruth Silber
Notary Public ~~for South Carolina~~ [redacted]

RUTH SILBER
NOTARY PUBLIC, State of New York
No. 31-8994050
Qualified in New York County
Commission Expires March 30, 1984

Received 7-20-78 3pm

FORM 470-35 (REVERSE)

8. RACHIS:

[1] 1 = RECURVED (Yancey) 2 = ERECT (Walken)

[20] MM. SECOND FLORET RACHILLA SEGMENT LENGTH

[1] SECOND FLORET RACHILLA SEGMENT: 1 = HAIRLESS 2 = HAIRY

[ ] RACHILLA HAIRS: 1 = SHORT 2 = LONG

9. SPIKELET:

[2] SPIKELET SEPARATION BY: 1 = ABSCISSION 2 = SEMIABSCISSION 3 = FRACTURE

[2] FLORET SEPARATION BY: 1 = DISARTICULATION 2 = HETEROFRACTURE 3 = BASIFRACTURE

[25] FLORETS PER SPIKELET (mean no.)

10. GLUMES: (Glume Color: The Royal Horticultural Society's or any recognized color chart should be used to determine the color of the described variety.)

[08] MM. WIDTH [25] MM. LENGTH [10] NO. OF VEINS ON GLUMES [2] COLOR: 1 = WHITE 2 = YELLOW 3 = RED 4 = STRIPED

RHS 161 C

11. LEMMA: (Lemma Color: The Royal Horticultural Society's or any recognized color chart should be used to determine the color of the described variety.)

[18] MM. LENGTH [2] COLOR: 1 = WHITE 2 = YELLOW 3 = RED 4 = GRAY 5 = BLACK

[1] HAIRINESS OF DORSAL SURFACE: 1 = HAIRLESS 2 = HAIRY

RHS 161 C 8/17/78

12. AWN (First floret):

[3] OCCURENCE: 1 = ABSENT (Walken) 2 = INFREQUENT (Yancey) 3 = COMMON (Chilocco) 4 = FREQUENT (Random)

[1] TYPE: 1 = NON-TWISTED 2 = TWISTED 3 = TWISTED GENICULATE

[30] MM. AWN LENGTH

13. SEED:

[ ] FLORESCENCE UNDER ULTRAVIOLET LIGHT: 1 = FLORESCENT 2 = NON-FLORESCENT

[2] BASAL HAIR: 1 = ABSENT (Florida 501) 2 = ABSENT TO FEW (Yancey) 3 = FEW TO SEVERAL (Lee) 4 = SEVERAL TO NUMEROUS (Florilee) 5 = NUMEROUS (Red Rustproof)

D 8/17/78

[20] MM. BASAL HAIR LENGTH

[270] GMS. PER 1,000 SEEDS

[20] MG. GROAT WEIGHT (each)

[221] % GROAT PROTEIN

[ ] % GROAT OIL

14. INSECTS: (0 = NOT TESTED, 1 = SUSCEPTIBLE, 2 = RESISTANT)

[0] CEREAL LEAF BEETLE [0] BLUEGRASS BILLBUG [0] GRAIN BUG (C. Sayi) [0] NEMATODE (Type)

[0] GREEN BUG (Biotype) OTHER (Specify)

15. DISEASE: (0 = NOT TESTED, 1 = SUSCEPTIBLE, 2 = RESISTANT)

[0] HALO BLIGHT [0] POWDERY MILDEW [0] SEPTORIA LEAF BLOTCH [2] SOIL-BORNE MOSIAC

[0] HELMINTHOSPORIUM LEAF BLOTCH [0] YELLOW DWARF VIRUS [2] VICTORIA BLIGHT [2] OTHER (Specify) Culm Rot

SPECIFY RACES TESTED:

		RACES SUSCEPTIBLE	RACES RESISTANT
2	CROWN RUST	None Known	202, 216, 264, 294, 325, 326
1	STEM RUST		
0	COVERED SMUT		
1	LOOSE SMUT		

16. INDICATE VARIETY YOU BELIEVE MOST CLOSELY TO RESEMBLE THAT SUBMITTED:

CHARACTER	VARIETY	CHARACTER	VARIETY
PLANT TILLERING	Coker 227	LEAF COLOR	Coker 227
LEAF SIZE	Coker 227	LEAF CARRIAGE	Coker 227
SEED COLOR	Coker 234	SEED SHAPE	Coker 234

COMMENTS:

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.

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 _____.

7700085

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

Winter Oat Varieties

Variety Name	U.S. Plant Variety Certificate Number	Issue Date	Term (Yrs.)
Coker 227	7500007	Oct. 20, 1977	17
Coker 716	7900003	Dec. 28, 1978	17
Coker 820	8400059	June 30, 1987	18
Coker 234	7500008	Oct. 26, 1977	17
Four Twenty Two	7700085	Apr. 12, 1979	17
Big Mac	8200121	Aug. 19, 1982	18
Mesquite	8200122	Aug. 19, 1982	18

Tobacco Varieties

Coker 347	72022	Oct. 27, 1976	17
Coker 411	72023	Oct. 27, 1976	17
Coker 86	7600004	Oct. 27, 1976	17
Coker 48	7800008	Sept. 20, 1978	17
Coker 51	8100048	Feb. 18, 1982	18
Coker 176	8300056	Sept. 29, 1983	18
Coker 206	8500040	Apr. 30, 1986	18
Coker 371 Gold	8700049	Sept. 30, 1987	18

Cotton Varieties

Coker 310	7100021	Jan. 18, 1974	17
Coker 304	7700024	Dec. 21, 1978	17
Coker 420	7900087	Jan. 29, 1980	17
Coker 315	8000087	Dec. 18, 1980	17

State of Delaware

Office of the Secretary of State

I, EDWARD J. FREEL, SECRETARY OF STATE OF THE STATE OF DELAWARE, DO HEREBY CERTIFY THE ATTACHED IS A TRUE AND CORRECT COPY OF THE CERTIFICATE OF AMENDMENT OF "NORTHRUP KING CO.", CHANGING ITS NAME FROM "NORTHRUP KING CO." TO "NOVARTIS SEEDS, INC.", FILED IN THIS OFFICE ON THE THIRTIETH DAY OF DECEMBER, A.D. 1996, AT 9 O'CLOCK A.M.

A CERTIFIED COPY OF THIS CERTIFICATE HAS BEEN FORWARDED TO THE NEW CASTLE COUNTY RECORDER OF DEEDS FOR RECORDING.

GREAT SEAL OF THE STATE OF DELAWARE

LIBERTY AND INDEPENDENCE

1793 • 1847 • 1907

Edward J. Freel, Secretary of State

0829320 8100

960389892

AUTHENTICATION: 8267947

DATE: 12-31-96

CERTIFICATE OF AMENDMENT OF CERTIFICATE OF INCORPORATION

OF

NORTHRUP KING CO.

It is certified that:

1. The name of the corporation (hereinafter called the "Corporation") is Northrup King Co.

2. The Certificate of Incorporation of the Corporation is hereby amended by striking out Section 1 thereof and by substituting in lieu of said Section the following new Section.

1. The name of the Corporation is Novartis Seeds, Inc.

3. The amendment of the certificate of incorporation herein certified has been duly adopted and written consent has been given in accordance with the provisions of Sections 228 and 242 of the General Corporation Law of the State of Delaware.

4. The effective date of the amendment herein certified shall be January 1,1997.

Signed on December 27, 1996.

Edward C. Resler
Vice President & Secretary