No. 7700092

THE UNITED STATES OF AMERICA

TO ALL TO WHOM THESE PRESENTS SHALL COME:

National Seed Development Organization LTD.

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] 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]TING 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]TED 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 SP[illegible] OWNER OF THE RIGHTS. (84 STAT. 1542, AS AMENDED, 7 U.S.C. 2321 ET SEQ.)

RYEGRASS

'Augusta'

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* 2nd *day of* January *in the year of our Lord one thousand nine hundred and* eighty.

Attest:

Commissioner
Plant Variety Protection Office
Grain Division
Agricultural Marketing Service

Secretary of Agriculture

FORM GR-470
(1-76)

UNITED STATES DEPARTMENT OF AGRICULTURE
AGRICULTURAL MARKETING SERVICE
GRAIN DIVISION
PLANT VARIETY PROTECTION OFFICE
NATIONAL AGRICULTURAL LIBRARY
BELTSVILLE, MARYLAND 20705

FORM APPROVED
OMB NO. 40-R3712

APPLICATION FOR PLANT VARIETY PROTECTION CERTIFICATE

INSTRUCTIONS: *See Reverse.*

1a. TEMPORARY DESIGNATION OF VARIETY: 6AB 18	1b. VARIETY NAME: AUGUSTA	FOR OFFICIAL USE ONLY PV NUMBER: 7700092
2. KIND NAME: HYBRID RYEGRASS	3. GENUS AND SPECIES NAME: Lolium x hybridum Hausskn	FILING DATE: 7-25-77 TIME: 3:00 A.M. (P.M.)
4. FAMILY NAME (BOTANICAL): GRAMINEAE	5. DATE OF DETERMINATION: 1973	FEE RECEIVED: $ 250.00 / $ 250.00 / $ 250.00 DATE: 7-25-77 / 7-25-77 / 11-19-79
6. NAME OF APPLICANT(S): NATIONAL SEED DEVELOPMENT ORGANISATION LTD.	7. ADDRESS (*Street and No. or R.F.D. No., City, State, and ZIP Code*): Newton Hall, Newton, CAMBRIDGE Tel Cambridge 871167	8. TELEPHONE AREA CODE AND NUMBER
9. IF THE NAMED APPLICANT IS NOT A PERSON, FORM OF ORGANIZATION: (*Corporation, partnership, association, etc.*) State sponsored	10. IF INCORPORATED, GIVE STATE AND DATE OF INCORPORATION: UNITED KINGDOM. 1967	11. DATE OF INCORPORATION: 1967

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

As in 6 and 7 above

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? Ext as per letter dated 1/16/78
[X] PREBASIC FOUNDATION [X] BASIC REGISTERED [X] CERTIFIED

15. Does the applicant(s) agree to the publication of his/her (their) name(s) and address in the Official Journal? [X] YES [ ] NO

16. The applicant(s) declare(s) 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) 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.

25/3/77
(DATE)

(SIGNATURE OF APPLICANT)

(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, National Agricultural Library, 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 commerical 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 stability.

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 or published or the certificate has been issued. However, if the applicant specifies "NO", he may change his choice. (See Section 180.15 of the Regulations and Rules of Practice.)

bAB 18 AUGUSTA hybrid ryegrass tetraploid EXHIBIT A

13 a

ORIGIN AND BREEDING HISTORY

1. Augusta is a hybrid of tetraploid *Lolium multiflorum* and *L. perenne* B 1152 (3) x Ba 7430 (25)

2. Phenotypic selection and progeny testing. 7 F_1 plants selected as the basis of the variety.

   The variety is maintained by storage of second generation Breeders seed.

3. No evidence of variants during reproduction

4. Quantitative evidence on stability to be submitted in 1977

Additions

Origin/Material

The final plants selected from crosses between the multiflorum and perenne at the tetraploid level were progeny tested over several generations. These plants were selected for annual dry matter, spring growth, plant form, heading date, persistency etc., etc. This selection represents plants which give uniformity for the above characters and related only to the original material in so far as they represent hybrid between the multiflorum and perenne type.

The variety has been tested over several generations and no plants of significant difference were observed. Stability has been tested over 3 harvest years from 2 generations of seed and did not differ statistically at the 1% level when compared in the same year and trial.

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bAB 18 AUGUSTA hybrid ryegrass tetraploid EXHIBIT B

NOVELTY STATEMENT.

Sabel hybrid ryegrass tetraploid most closely resembles the submitted variety AUGUSTA.

Augusta exhibits the tetraploid hybrid characters shown by Sabel, and this serves to distinguish it from all other Lolium multiflorum and L. perenne varieties.

Augusta is clearly distinguished from Sabel by its heading date - Augusta heads 7 - 9 days later than Sabel.

9/3/75

7700092

U.S. DEPARTMENT OF AGRICULTURE
Agricultural Marketing Service
Grain Division

Objective Description of Cultivars
RYEGRASS
(Lolium spp.)

1. SPECIES:

[4] 1=L. multiflorum (annual or Italian: includes Westerwoldicum)
2=L. perenne (perennial) 3=L. rigidum (includes Wimmera)
4=Hybrid (of species) L. perenne × L. multiflorum 5=Other (specify) _____

2. PLOIDY:

[2] 1=Diploid 2=Tetraploid 3= Other (specify) _____

3. DURATION:

[2] 1=Annual or biennial 2=Short lived perennial (3-4 years)
3=Perennial (more than 4 years)

STANDARD CULTIVARS

1=Gulf	2=Wimmera 62	3=Linn	4=Pelo
5=Norlea	6=Aberystwyth S-23	7=Manhattan	8=Pennfine

4. MATURITY (50% Headed): (Use standard cultivars from above.)

[3] 1=Very early 3=Early 5=Medium 7=Late 9=Very late
[2][2] Days earlier than [6] standard cultivar
[ ][ ] Days later than [ ] standard cultivar

5. MATURE PLANT HEIGHT: (Use standard cultivars from above.)

[ ][ ][ ] cm. High [ ][ ][ ] cm. Shorter than [ ] standard cultivar
[ ][ ][ ] cm. Taller than [ ] standard cultivar

6. PERCENT WINTER DAMAGE (estimated as percent of the area appearing dead):
(Use standard cultivars from above.)

[ ][ ][ ] Percent damage of application cultivar
[ ][ ][ ] Percent damage of [ ] standard cultivar

7. TURF DENSITY: (Use standard cultivars from above.)

[ ][ ][ ] Tillers per 100 sq. cm.
[ ][ ][ ] Less tillers per 100 sq. cm. than [ ] standard cultivar
[ ][ ][ ] More tillers per 100 sq. cm. than [ ] standard cultivar

8. FLAG LEAF (at full growth): (Use standard cultivars from above.)

[ ][ ][ ] cm. Length (from ligule to tip)
[ ][ ][ ] cm. Shorter than [ ] standard cultivar
[ ][ ][ ] cm. Longer than [ ] standard cultivar
[ ][ ][ ] mm. Width (at widest point)
[ ][ ][ ] mm. Narrower than [ ] standard cultivar
[ ][ ][ ] mm. Wider than [ ] standard cultivar
[ ] Flag leaf at boot stage: 1=Deflexed 3=Recurved 5=Horizontal
7=Semi-erect 9=Erect

9. LEAVES:

[2] Vernation: 1=Leaves rolled in young shoots
2=Leaves semi-rolled (folded with rolled edges)
3=Leaves folded in young shoots
[1][0][0] % Plants with anthocyanin in lower leaf sheath
[2] Foliage color: 1=yellow green 2=medium green 3=blue green

10. SPIKE:

[ ][ ][ ] mm. Spike length (tip to internode below lowest floret)
[ ][ ] mm. Shorter than [ ]
[ ][ ] mm. Longer than [ ] (Use standard cultivars from above.)

MAY 16 1977

Exhibit D · Augusta Tetraploid hybrid ryegrass

ADDITIONAL DESCRIPTION OF THE VARIETY.
~~Data Indicative of Novelty~~

1. Augusta is a tetraploid hybrid ryegrass in the category which includes the varieties Sabrina and Sabel.
   No other established tetraploid hybrid ryegrasses are known as yet.

2. Augusta differs from both Sabrina and Sabel by having a mean ear emergence date about 6 days later than either of the former varieties.

3. Augusta has a flag leaf which at ear emergence is not quite as wide as that of Sabel and Sabrina and the difference is statistically significant at the 1% level.

Application No. 7700092

USDA

United States Department of Agriculture

Research, Education, and Economics
Agricultural Research Service

January 21, 1998

Marian R. Minnifield
Secretary
Plant Variety Protection Office
NAL Building, Room 500
10301 Baltimore Boulevard
Beltsville, Maryland 20705-2351

Subj: Expired PVPO's; disposition of

1. The following expired PVPO's have been transferred to the NPGS. Our records have been changed accordingly.

Serial Number		PVP Number	EXPIRED
107423	01	7900099	01/02/1997
107424	01	7800077	01/02/1997
107425	01	7900062	01/02/1997
107428	01	7900095	01/02/1997
107429	01	7700092	01/02/1997
108309	01	7900116	01/29/1997
108310	01	7900117	01/29/1997
108311	01	7900087	01/29/1997
108312	01	7800080	01/29/1997
108313	01	7800020	01/29/1997
109381	01	7900113	03/27/1997
109382	01	7900030	03/27/1997
109383	01	7900102	03/27/1997
109384	01	7900063	03/11/1997
109386	01	7300068	03/11/1997
109387	01	7900120	02/26/1997
109388	01	7700028	02/26/1997
109389	01	7700112	02/26/1997
109390	01	7900040	03/11/1997
109791	01	7800071	02/26/1997
110210	01	8000058	05/15/1997
110211	01	7800103	05/01/1997
110212	02	8000001	05/01/1997
110213	01	7800001	05/01/1997

ars

Northern Plains Area • National Seed Storage Laboratory
1111 South Mason Street • Ft. Collins, CO 80521-4500
Voice: 970 495-3200 • Fax: 970 221-1427
An Equal Opportunity Employer

110214	02	7200105	04/24/0197
110215	01	8000022	04/24/1997
110216	01	7900060	05/01/1997
110217	01	7900084	05/01/1997
110218	01	8000071	05/15/1997
110219	01	7900101	05/01/1997
110220	01	8000043	05/15/1997
110221	01	8000015	05/15/1997
110222	01	7900111	05/15/1997
110223	01	7900110	05/15/1997
110227	01	7900106	05/15/1997
110228	01	7900071	04/24/1997
110229	01	7900100	05/01/1997
110230	01	7900075	05/01/1997
110231	01	7900108	04/24/1997
110236	01	8000053	05/29/1997
110239	01	7900098	05/29/1997
110240	01	7900006	05/29/1997
110263	01	7900042	06/05/1997
110264	01	8000048	06/05/1997
110265	01	8000063	06/05/1997
110266	01	8000012	06/05/1997
110267	01	8000049	06/05/1997
110268	01	7800092	06/05/1997
112329	01	8000045	06/19/1997
112330	01	7900088	07/10/1997
112331	01	8000044	07/10/1997
112332	01	7800079	06/19/1997
112333	01	7900074	06/26/1997
112334	01	8000061	06/19/1997
112335	01	7700016	07/10/1997
112336	01	7700017	07/10/1997
112337	01	7900105	06/26/1997
112338	01	7900089	06/19/1997
112339	01	7900072	06/19/1997
112342	01	7900090	06/26/1997
112343	01	7900064	07/10/1997
112344	01	8000072	06/19/1997
112345	01	8000009	07/31/1997
112346	01	7800099	07/31/1997
112347	01	8000040	07/31/1997
112348	01	8000039	07/31/1997
112349	01	8000041	07/31/1997
112350	01	7900080	07/31/1997
112351	01	8000006	07/31/1997

112352	01	8000027	07/31/1997
112353	01	8000024	07/31/1997
112354	01	8000076	07/31/1997
112355	01	8000025	07/31/1997
112356	01	8000062	07/31/1997
112357	01	8000102	07/31/1997
112360	01	8000023	07/31/1997
112361	01	7900078	07/31/1997
112362	01	8000093	07/31/1997
112363	01	8000020	07/31/1997
112364	01	7800019	07/31/1997
112365	01	7900079	07/31/1997
113482	01	8000118	09/11/1997
113483	01	8000114	09/11/1997
113484	01	8000119	09/11/1997
113485	01	8000113	09/11/1997
113486	01	8000086	09/11/1997
113487	01	7900070	09/11/1997
113488	01	8000033	09/11/1997
113489	01	8000034	09/11/1997
113490	01	7900022	09/11/1997
113491	01	8000090	09/11/1997
113492	01	8000105	09/11/1997
113493	01	7900056	09/11/1997
113494	01	7900057	09/11/1997
113495	01	8000096	09/11/1997
113498	01	8000099	09/11/1997
113499	02	7900082	09/11/1997
113500	01	7500083	09/11/1997
113501	01	8000013	09/11/1997
113502	01	7900083	09/11/1997
113503	01	7300090	09/11/1997
114293	01	8000130	10/16/1997
114597	01	7900104	10/16/1997
114598	01	8000077	10/16/1997
114599	01	8000111	10/16/1997
114600	01	8000011	10/16/1997
114601	01	8000134	10/16/1997
169608	01	8100103	07/15/1997

Sincerely,

Eugene D. Keys

Eugene D. Keys
Computer Assistant
Data Management

7700092

10. SPIKE (continued):

[ ] mg. per ten spikes (trimmed to internode below lowest floret)
[ ] mg. lighter per ten spikes than
[ ] mg. heavier per ten spikes than } Use standard cultivars from above.
[ ] Florets per spikelet

Percentage of plants with:

Rachis: [ ] % smooth [ ] % rough
Spike color: [ ] % green [ ] % purple
Lemma: [ ] % awned [ ] mm. awn length

[ ] mm. glume length
1=Spikelet length nearly equal to outer glumes
2=Spikelet length much longer than outer glumes

11. COLEOPTILE:
[ ] %Plants with anthocyanin in coleoptile

12. ANTHER COLOR:
[ ] ~~% Plants with white anthers~~ [ ] % Plants with yellow anthers
[ ] % Plants with purple anthers

13. ROOT AND PLANT CHARACTERS:
[ ] % Plants with prostrate growth habit
[ ] % Plants with upright growth habit
[ ] % Plants with fluorescent roots

14. SEED:
4.21 mg. per 1,000 seed 66 mm. total length (ignoring awns) of 10 seeds 6 mm. total width of 10 seeds

15. DISEASE (0=Not tested, 2=Highly susceptible, 4=Moderately susceptible, 6=Moderately resistant, 8=Highly resistant):

* On present information

* 6 Crown rust (Puccinia coronata)
* 6 Leaf spot (Helminthosporium)
[ ] Snow mold (Typhula)
[ ] Dollar spot (Sclerotinia)
* 6 Mildew
[ ] Red thread (Corticium)
[ ] Brown patch (Rhizoctonia)
[ ] Other (specify) _____

16. INSECT (0=Not tested, 2=Highly susceptible, 4=Moderately susceptible, 6=Moderately resistant, 8=Highly resistant):
0 Specify _____

17. GIVE RESEMBLANCE VALUE IN LEFT COLUMN AND VARIETY IN RIGHT COLUMN FOR VARIETY WITH WHICH COMPARISON IS MADE: (1=Less than, 2=Same as, 3=More erect, more resistant, denser, more persistent, darker or greater height.)

Resemblance	Character	Similar variety
3	Plant habit (erectness)	SABRINA HYBRID RYEGRASS (tetraploid)
	Tillering	
2	Winter hardiness	" " "
	High temp.stress resistance	
2	Turf persistence	" " "
2	Plant color	" " "
	Vertical seedling growth rate	
	Crown density	
	Mower shredding resistance	

18. GIVE AREA OF ADAPTATION AND INTENDED USE: High quality conserved forage & grazing.

19. GIVE AREA TEST RESULTS PRESENTED FROM: Centres throughout the U.K.

COMMENTS: Augusta is a high yielding variety with the advantage of high palatability and digestibility.
It persists for up to 3 years