No. 7400017

THE UNITED STATES OF AMERICA

TO ALL TO WHOM THESE PRESENTS SHALL COME:

Van Engelen Zaden B.V.

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. [illegible] THE UNITED STATES SEED OF THIS VARIETY (1) SHALL BE SOLD BY VARIETY NAME ONLY AS [illegible] CLASS OF CERTIFIED SEED AND (2) SHALL CONFORM TO THE NUMBER OF GENERATIONS [illegible]FIED BY THE OWNER OF THE RIGHTS. (84 STAT. 1542, AS AMENDED, 7 U.S.C. 2321 ET SEQ.)

KENTUCKY BLUEGRASS

'Enmundi'

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* eighth *day of* August *in the year of our Lord one thousand nine hundred and* seventy-five

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 Enmundi (EVB 282)	2. KIND NAME Kentucky Bluegrass	FOR OFFICIAL USE ONLY PV NUMBER 7400017
3. GENUS AND SPECIES NAME Poa pratensis	4. FAMILY NAME *(Botanical)* Graminea	FILING DATE 9/10/73 TIME 11:45 A.M.
	5. DATE OF DETERMINATION Summer 1965	FEE RECEIVED $ 250.00 $ 250.00 $ 250.00 BALANCE DUE $ — $ — $ —
6. NAME OF APPLICANT(S) Van Engelen Zaden B.V.	7. ADDRESS *(Street and No. or R.F.D. No., City, State, and ZIP Code)* Vijfhoevenlaan 4, Vlijmen Netherlands	8. TELEPHONE AREA CODE AND NUMBER 04108-3251
9. IF THE NAMED APPLICANT IS NOT A PERSON, FORM OF ORGANIZATION: *(Corporation, partnership, association, etc.)* Corporation	10. STATE OF INCORPORATION Netherlands	11. DATE OF INCORPORATION

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

Messrs. International Seeds Inc.
820 First Street P.O. Box 168
Halsey/Oregon
97348

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 [ ] 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.

August, 17th 1973
(DATE)

(SIGNATURE OF APPLICANT)

(DATE)

(SIGNATURE OF APPLICANT)

FORM GR-470 (REVERSE)

RECEIVED SEP 10 73 U.S. DEPARTMENT AMS, GRAIN DIV. 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.

vanëngelen/zaden

Van Engelen Zaden B.V.
Vlijmen - Holland

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Kentucky Bluegrass Enmundi
Application Variety Protection

Exhibit A.

Origine and Breeding-history of the variety.

In July 1965 we harvested seed on a spaced plant nursery of collected material. The mother-plant of the variety Enmundi did give sufficient seed to establish a small plot in our trials, that were established in 1966. The mother-plant was cloned and in 1966 we harvested seed for more intensive testing. The results of these tests were very satisfactory and in 1968 we established our first multiplications.
In any of these multiplications this variety appeared to be highly apomyctic as we did find only a very limited number of off-types.
Seed from later multiplicationsis used extensively for testing purposes as well in Europe as in Northern America.

vanëngelen/zaden

Van Engelen Zaden B.V.
Vlijmen - Holland

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Kentucky Bluegrass Enmundi
Application Variety Protection

Exhibit B, botanical description

The official Dutch description, prepared by the "Raad voor het Kwekersrecht" (= Board for Plant Breeders Rights) - see appendix 1 - gives the following description:

Leaves of vegetative tiller:	sheaths of seedlings not red; with glabrous edges, without hairtufts beneath auricles.
	ligule glabrous
	leaf blades rather wide; with fringe of hairs on auricles; upper and lower surface glabrous
Culms:	short
Panicles:	not red, no bend in rachis at the lowest whorl. collar open. branches at lower whorl horizontal.
Seed:	large
date of anthesis:	late
Difference with other varieties:	The combination of the above mentioned characteristics characterizes this variety.

RECEIVED
SEP 10 1974

ENMUNDI *Poa pratensis*

Application No. 740017

EXHIBIT A

Frequency and description of variants.

Enmundi is highly apomictic, averaging from 95 to 98% apomictic progeny. The 2 to 5% off-types do not show particular characteristics but are usually smaller and less vigorous than apomictic progeny.

EXHIBIT C

1. Panicle Habit:

   The panicle habit of Enmundi is upright.

2. Seed:

   The average seed length of Enmundi is 2.7 mm; the 10,000 seed weight has, depending on lot, ranged from 4.25 g to 5.00 g with the average being 4.65 grams.

FORM APPROVED. OMB NO. 40-R3/12

FORM GR-470-18
(1-15-73)

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

EXHIBIT C
(Bluegrass)

OBJECTIVE DESCRIPTION OF VARIETY

BLUEGRASS *(POA SPP.)*

NAME OF APPLICANT(S)
Van Engelen Zaden B.V.

ADDRESS *(Street and No. or R.F.D. No., City, State, and ZIP Code)*
Vlijmen, Holland
Vijfhoevenlaan 4
P.O. Box 35

FOR OFFICIAL USE ONLY

PVPO NUMBER
740017

VARIETY NAME OR TEMPORARY DESIGNATION
ENMUNDI (EVB 252)

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:

[2] 1 = POA COMPRESSA 2 = P. PRATENSIS 3 = P. TRIVIALIS 4 = OTHER (Specify)_____

2. REGION OF BEST ADAPTATION:

[1] 1 = NORTHEAST 2 = TRANSITIONAL ZONE 3 = NORTH CENTRAL 4 = PACIFIC N.W. 5 = OTHER (Specify)_____

3. MATURITY (At First Anthesis):

[4] 1 = EARLY (Delta) 2 = MEDIUM EARLY (Fylking) 3 = MEDIUM (Newport) 4 = LATE (Merion)

[ ][ ] NUMBER OF DAYS EARLIER THAN ..... [ ]
[0][1] NUMBER OF DAYS LATER THAN ..... [4]

1 = NUGGET 2 = FYLKING
3 = DELTA 4 = MERION
5 = NEWPORT 6 = BARON

4. PLANT HEIGHT (Longest Shoot from Soil Surface to Top of Head):

[ ][ ][ ] CM. HEIGHT

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

1 = NUGGET 2 = FYLKING
3 = DELTA 4 = MERION
5 = NEWPORT 6 = BARON

5. HABIT:

[2] 1 = PROSTRATE (Fylking) 2 = SEMI-PROSTRATE (Márion) 3 = ERECT (Delta)

6. VEGETATIVE REPRODUCTION (1 = Absent; 2 = Present):

[2] RHIZOMES [1] STOLONS

7. LEAF BLADE:

[4] Color: 1 = LIGHT GREEN (Rough Bluegrass) 2 = BLUE GREEN (Canada Bluegrass) 3 = MODERATELY DARK GREEN (Merion) 4 = DARK GREEN (Adelphi) 5 = OTHER (Specify)_____

[1] Upper Surface: 1 = SHINY 2 = DULL

[ ][ ] MM. WIDTH

[1] Lower Surface: 1 = SHINY 2 = DULL

[ ][ ] MM. LENGTH

8. LEAF SHEATH (Base):

[1] Seedling Color: 1 = GREEN 2 = RED [ ][ ] MM. LENGTH

[2] Keel: 1 = NOT KEELED 2 = KEELED

Surface:

[1] 1 = GLABROUS 2 = PUBESCENT [1] 1 = SMOOTH 2 = ROUGH

[1] 1 = NON-GLAUCOUS 2 = GLAUCOUS

9. LEAFINESS (At First Anthesis):

[ ] Number of leaves per tiller or shoot: 1 = FEW (1 - 3) 2 = INTERMEDIATE (4 - 6) 3 = MANY (More than 6)

10. PANICLE:

[ ][ ][ ] MM. LENGTH

[ ][ ][ ] MM. LONGER THAN ..... [ ]
[ ][ ][ ] MM. SHORTER THAN ..... [ ]

1 = NUGGET 2 = FYLKING
3 = DELTA 4 = MERION
5 = NEWPORT 6 = BARON

5

ENMUNDI *Poa pratensis*
Application No. 740017

EXHIBIT D
Data Indicative of Novelty

Novelty of "Enmundi" is based on the unique combination of characteristics as summarized in tables 1 through 4.

"Enmundi" most closely resembles the patented cultivar "Baron" except is has shown:

1. better winter color,
2. better turf density,
3. better wear resistance,
4. better resistance to leafspot (*Helmintho sporium vagans*) and stem rust (*Puccinia graminis*),
5. finer texture under turf management,
6. more susceptibility to powdery mildew (*Erysiphe graminis*),
7. no hairs on the leaf sheath, leaf margin or ligule,
8. no tuft of hairs beneath the auricles,
9. no red coloration of the panicles,
10. and does not show a bend in the panicle rachis.

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TABLE 1

Official Dutch Trials
Wageningen, Holland

9= BEST

CULTIVAR	turfdensity	texture	resistance to leafspot	resistance to rust	winter-colour	wear re-sistance	resistance to powdery mildew
Fylking	8	7	8	8	6	8	6
Merion	7	5	8	4	5	7	5
Baron	7	4	7	7	5	7	7
Arista	5	7	5	6	5	4	8
Prato	5	6	4	6	6	4	5
Monopoly	7	5	8	6	7	8	7
Parade	8	5	8	7	8	7	6
Birka	8	6	8	7	7	7	7
Enmundi	8	5	8	8	6	8	6
Aquila	6	6	6	6	6	4	-
Sydsport	8	5	7	8	4	7	-
Nugget	7	7	7	4	3	5	-

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TABLE 2. Characters of 18 poa pratensis cultivars
TABVEAU 2. Caractères de 18 cultivars de Poa Pratensis

	1 Red sheath in young stage / Coloration rouge de la gaine de la feuille au stade jeune	2 Hairs on sheath margin / Ciliation du bord de la gaine de la feuille	3 Hairtuft on sheath just below top of the sheath / Touffe de poils sur la gaine juste au-dessous du sommet de la gaine	4 Hairs on ligule / Pilosité de la ligule	5 Width of leaf / Largeur de la feuille	6 Fringe of hairs at junction of leaf blade with sheath / Frange de pils á la jonction du limbe de la feuille et de la gaine	7 Hairs on upper leaf surface / Pilosité de la face supérieure de la feuille	8 Hairs on lower leaf surface / Pilosité de la face inférieure de la feuille	9 Length of culm / Longueur de la Tige	10 Red panicle / Coloration rouge de la panicule	11 Bend in rachis / Courbure du rachis	12 Closed collar / Fermeture du col du rachis	13 Angle of lower side branches / Angle des plus basses ramifications latérales	14 Size of seed / Dimension des semences	15 Date of ear emergence / Date d'épiaison
Adorno	2	1	1	1	1	1	2	1	2	1	1	2	2	1	1
Arista	2	2	2	3	3	2	1	1	1	1	1	2	2	2	3
Atlas	2	1	1	1	4	2	1	1	4	1	1	2	2	2	1
Barkenta	2	2	2	3	4	2	1	1	2	2	1	2	2	2	2
Captan	1	1	1	1	3	2	2	1	2	1	1	2	3	2	2
Delft	2	2	2	1	3	2	1	1	2	1	1	2	2	2	2
Delta	2	1	1	1	2	1	2	1	3	1	1	1	2	1	1
Fylking	1	2	2	1	3	2	1	1	2	1	1	1	2	2	2
Golf	1	2	2	2	4	2	1	1	2	2	2	1	2	2	4
Gullåker	2	2	1	2	4	2	1	1	4	1	2	1	2	1	4
Merion	1	2	1	1	3	2	2	1	2	1	2	2	2	1	4
Newport	2	2	1	2	1 ?	2	1	1	3	1	1	1	2	2	3
Park	2	1	1	1	2	2	3	1	3	1	1	1	2	2	2
Pondorosa	2	1	1	1	1	2	2	1	3	2	2	1	2	1	1
Prato	1	1	2	1	3	2	1	1	1	1	1	1	3	2	3
Primo	2	2	1	2	4	2	1	1	3	1	1	2	2	2	3
Späths	2	2	1	2	4	2	1	2	2	2	1	2	2	2	3
Windsor	1	1	2	1	3	2	2	1	3	1	1	1	2	2	2
Enmundi	1	1	1	1	3	2	1	1	1	1	1	1	2	2	4
Baron	1	2	2	2	3	2	1	1	1	2	2	1	2	2	4

SOURCE: Dr. R. Duyvendak
I.V.R.O. Wageningen
The Netherlands

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6. *Characters which may be used to distinguish cultivars of* Poa pratensis. *(Information supplied by R. Duyvendak, I.V.R.O., Netherlands.)*

6.1. *Characters used for identification of Poa pratensis cultivars* (See Table 2 and 3).

Red leaf sheath in young stage

Diagram 6

Hairs on margin of leaf sheath

Diagram 7

Hair tuft on leaf sheath just below top of the sheath

Diagram 8

Hairs on ligule

Diagram 9

Width of leaf

Diagram 10

Fringe of hairs at junction of leaf blade and sheath

Diagram 11

Hairs on upper leaf surface

Diagram 12

Hairs on lower leaf surface

Diagram 13

Length of culm of full grown plant

Diagram 14

Red panicle

Diagram 15

Bend in rachis opposite lower side branches

Diagram 16

Closed collar of rachis opposite lower side branches

Diagram 17

Angle of lower side branches

Diagram 18

Size of seed

Diagram 19

Mean date of ear emergence: early 1, medium early 2, medium late 3, late 4

6. *Caractères utilisables pour distinguer les cultivars de Poa pratensis.* (Renseignements fournis par M. R. Duyvendak, I.V.R.O., Pays-Bas).

6.1. *Caractères utilisés pour l'identification des cultivars de Poa pratensis* (Voir Tableaux 2 et 3).

Coloration rouge de la gaine de la feuille au stade jeune:

Figure 6

Ciliation du bord de la gaine de la feuille:

Figure 7

Touffe de poils sur la gaine juste au-dessous du sommet de la gaine:

Figure 8

Pilosité de la ligule

Figure 9

Largeur de la feuille

Figure 10

Frange de poils à la jonction du limbe de la feuille et de la gaine

Figure 11

Pilosité de la face supérieure de la feuille

Figure 12

Pilosité de la face inférieure de la feuille

Figure 13

Longueur de la tige lorsque la plante a atteint son complet développement

Figure 14

Coloration rouge de la panicule

Figure 15

Courbure du rachis du côté opposé aux plus basses ramifications latérales

Figure 16

Fermeture du col du rachis du côté opposé aux plus basses ramifications latérales

Figure 17

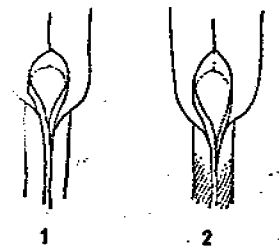
Angle des plus basses ramifications latérales

Figure 18

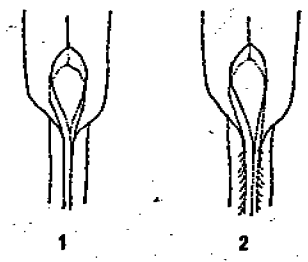
Dimension des semences

Figure 19

Date moyenne d'épiaison: précoce 1,



ogram 6



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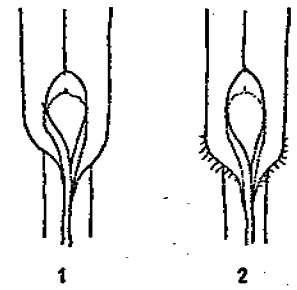

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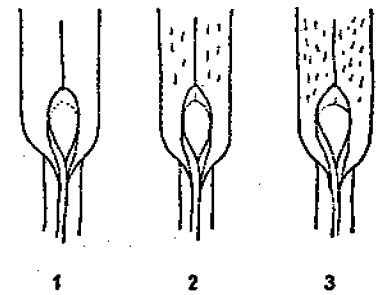

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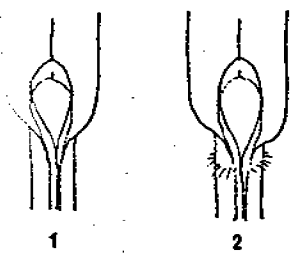

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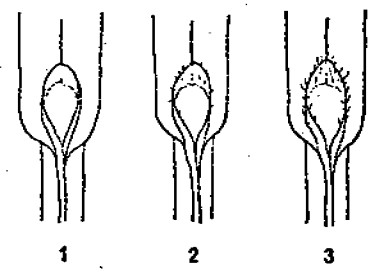

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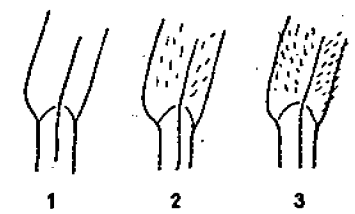

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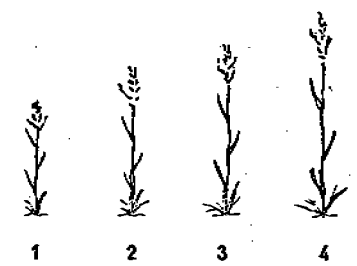
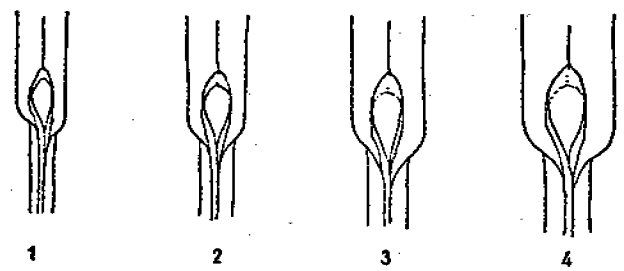


Diagram 14

11



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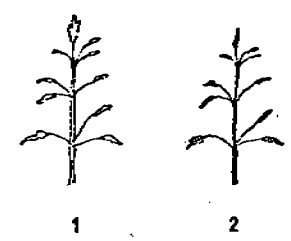

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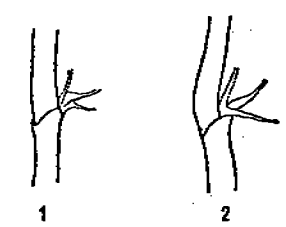

Diagram 16

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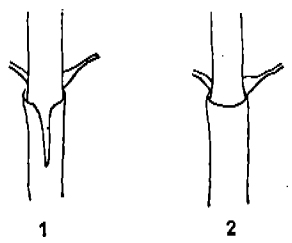

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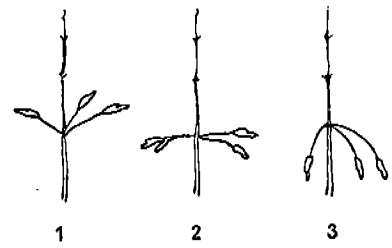

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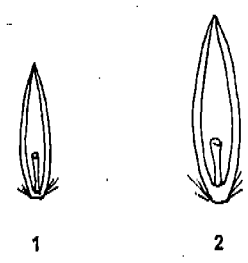

Diagram 19

TABLE 3

Rutgers University
New Brunswick, N.J.

NOT FOR PUBLICATION

1972 Regional Bluegrass Test - Rutgers 3/4-inch Cut

		Turf Quality 9 = best											
		1972	1973										1973
Rank	Entry	Ave.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Ave.
1	P-142	6.3	8.3	8.7	7.7	6.7	7.0	6.0	6.3	6.7	7.7	8.3	7.3
2	Majestic (P-84)	7.3	7.7	7.7	8.0	7.7	6.3	6.5	6.0	6.3	7.0	7.0	7.0
3	Brunswick (P-57)	5.5	6.7	6.7	6.3	6.7	7.0	8.0	7.0	6.7	7.0	6.7	6.9
4	Merion	6.3	6.0	7.0	5.7	5.7	7.3	8.0	7.7	7.3	7.0	6.7	6.8
5	Ram #1	7.5	6.3	5.3	6.0	6.7	7.7	7.0	6.7	7.0	8.0	7.7	6.8
6	P-141	5.0	7.0	6.7	6.3	7.3	6.7	6.0	6.0	7.0	7.7	7.3	6.8
7	Bonnieblue	6.3	7.3	7.0	7.7	7.0	7.0	6.3	6.3	5.7	6.0	6.7	6.7
8	Adelphi (P-69)	7.0	7.3	7.3	7.0	7.0	7.0	6.2	5.3	6.3	6.3	6.7	6.7
9	Sodco	6.8	5.7	5.7	6.0	6.3	7.0	7.5	7.0	7.0	7.7	7.0	6.7
10	Glade (P-29)	6.5	4.0	4.7	5.7	7.0	8.0	7.2	6.7	7.0	7.0	7.3	6.5
11	Pennstar	6.0	6.3	6.7	7.3	8.0	7.0	6.3	5.3	5.7	6.0	6.3	6.5
12	Parade	6.0	7.3	7.3	6.7	5.0	5.7	6.5	5.7	6.3	7.0	7.7	6.5
13	Plush (P-133)	6.0	5.3	5.7	6.0	6.7	7.3	7.2	6.3	6.3	7.3	7.3	6.5
14	Galaxy (P-27)	6.3	7.0	7.3	6.7	6.7	6.3	6.3	5.3	6.0	6.0	6.0	6.4
15	EVB 282 Enmundi	7.8	6.3	7.0	7.7	7.0	7.3	7.0	5.7	5.0	5.7	5.7	6.4
16	Fylking	6.0	6.3	6.3	6.0	6.7	6.7	6.2	5.7	5.7	6.3	6.7	6.3
17	Ram #2	6.0	5.7	6.0	6.3	6.3	6.7	6.5	6.3	6.0	6.3	6.3	6.2
18	Sydsport	5.0	5.7	5.7	5.7	5.7	5.7	5.8	6.0	6.0	6.7	6.7	6.0
19	W. Freehold OT	6.0	5.0	5.0	5.7	6.3	6.0	6.8	7.0	6.0	5.7	5.3	5.9
20	Baron	4.5	5.7	5.3	4.7	5.0	6.0	6.5	6.0	6.3	5.7	6.0	5.7
21	Victa	4.5	5.3	6.0	5.3	5.3	6.0	6.5	5.7	5.7	5.7	5.7	5.7
22	Cheri	5.5	5.0	5.3	5.0	5.7	5.3	6.3	6.0	5.7	5.7	5.7	5.6
23	EVB 391 Enoble	6.8	6.3	6.3	6.0	5.0	5.7	5.7	5.3	5.3	5.3	5.7	5.7
24	Windsor	4.5	3.7	4.0	4.0	4.7	5.7	6.7	7.0	7.0	6.3	6.3	5.5
25	Monopoly	4.5	6.0	6.0	5.3	5.3	5.3	5.2	5.0	4.7	6.0	6.3	5.5

		Turf Quality 9 = best											
		1972	1973										197
Rank	Entry	Ave.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Ave.
26	EVB 305 Enita	6.8	5.7	5.7	6.3	6.7	5.7	5.2	4.0	4.7	5.3	5.0	5.4
27	EVB 307 Entopper	6.3	6.3	7.0	6.3	6.3	5.7	5.2	4.7	4.3	4.3	4.3	5.4
28	Nugget	7.0	4.0	6.7	8.0	8.3	6.0	4.3	3.3	4.0	4.0	4.3	5.3
29	Vantage	3.8	4.3	4.0	3.7	4.0	5.3	6.0	6.7	5.7	5.3	5.7	5.1
30	Geronimo	5.5	5.0	4.7	4.7	5.0	5.0	5.5	5.3	4.7	4.7	4.3	4.9
31	Campina	5.3	4.3	4.7	4.0	3.0	3.3	3.7	3.7	4.0	4.3	4.7	4.0
32	Delft	4.8	5.3	4.7	4.0	4.0	3.3	2.3	2.0	2.7	2.7	3.7	3.5
33	Kenblue	4.0	3.0	3.3	2.3	2.0	2.7	3.0	3.3	3.7	3.3	3.7	3.0
34	Park	3.8	4.7	3.0	2.3	2.0	2.3	2.3	3.0	3.0	3.0	3.3	2.9

Not for Publication

TABLE 4

Tricalcium arsenate injury ratings on Kentucky bluegrass varieties, blends and mixtures - November, 1973
(9 = greatest injury)

Variety	Injury Rating	Variety	Injury Rating
1. P-142	6.7	26. Victa	1.2
2. Nugget	5.7	27. Brunswick	1.2
3. Enita	5.7	28. Ram #1	1.2
4. Entopper	5.2	29. P-141	1.1
5. Pennstar	4.1	30. Merion	1.0
6. Fylking	3.7	31. Windsor	1.0
7. Plush	3.5	32. Enmundi	1.0
8. Geronimo	3.2	33. W. Freehold OT	0.8
9. Campina	3.1		
10. Sydsport	2.9	LSD at 5%	1.6
11. Enoble	2.8		
12. Majestic	2.7		
13. Galaxy	2.6		
14. Parade	2.5		
15. Bonnieblue	2.0		
16. Adelphi	2.0		
17. Delft	1.9		
18. Cheri	1.8		
19. Vantage	1.7		
20. Park	1.7		
21. Ram #2	1.6		
22. Glade	1.5		
23. Monopoly	1.4		
24. Sodco	1.4		
25. Baron	1.2		

SOURCE: Rutgers University
New Brunswick, N.J.

vanengelenzaden

Van Engelen Zaden B.V.
Vlijmen - Holland

7400017

Kentucky Bluegrass: Enmundi
Application Variety Protection

Exhibit D.

The variety Enmundi has got Plant Breeders rights in the Netherlands. According to the Dutch legal system this means that this variety has been tested by civil servants in field trials in 2 consecutive seeding years and that in these trials no evidence was found that Enmundi is identical to any known variety.

The application in the Netherlands has been filed on September 12th 1969, at 24.00 hours and Plant Breeders Rights have been granted on June 27th 1973. In Germany an application has been made on September 27th 1971; this application is still pending. No applications have been made prior to the Dutch one.

The act requires that an application for Plant Variety Protection has to be made within one year after the first application for the same variety in a foreign country.

In accordance with § 180.7 (a) (7) of the "Rules and Regulations of Practice under the Plant Variety Protection Act" we apply for extension of this period until 4 years i.e. until Sept. 12th, 1973 as the official grow-out tests in the Netherlands have taken more than 3 years.

Based on the results of the official Europian tests and also on our own observations of trials in Northern America and Europe and on the trial reports that we have received, we are not aware of any variety that might be identical to Enmundi, as described in exhibits B and C.

vanëngelen/zaden

Van Engelen Zaden B.V.
Vlijmen - Holland

7400017

Kentucky Bluegrass Enmundi
Application Variety Protection

Exhibit E.

As the variety Enmundi has been discovered and bred by "Van Engelen Zaden B.V." the property of this variety belongs to our company no other company is involved.

PV# 7400017 ENMUNDI

FORM GR-470-18 (Reverse)

10. PANICLE (Cont.):

[ ] NUMBER OF PANICLES PER PLANT [ ] MILLIGRAMS SEED PER PANICLE

[2] Branches LOWEST WHORL: 1 = DROOPING (Prato) 2 = HORIZONAL (Merion) 3 = OTHER (Specify)

1/23/15 [2] Panicle Habit: 1 = NODDING (Newport) 2 = UPRIGHT (Nugget) [ ] MM. SPIKELET LENGTH

RECEIVED SEP 10 1973 PVPO

11. LEMMA

[ ] KEEL
[ ] LATERAL NERVES
} 1 = GLABROUS 2 = SLIGHTLY PUBESCENT 3 = PUBESCENT 4 = OTHER (Specify)

[ ] Intermediate Nerves: 1 = DISTINCT 2 = OBSCURE [ ] Basal Webbing: 1 = NONE 2 = SCANT 3 = COPIOUS

12. SEED:

[1] Apomictic Percentage: 1 = MORE THAN 95 2 = 85 TO 95 3 = LESS THAN 85

[4] Phenol Reaction: 1 = NONE - LEMMA REMOVED (Merion) 2 = BEIGE (Cougar) 3 = BROWN (Windsor) 4 = BLACK (Delta - 2 hours) 5 = BLACK (Anheuser - 24 hours)

[ ] MM. WIDTH 1/23/15 [2 7] MM. LENGTH 1/23/15 [4 6 5] GRAMS PER 10,000 SEEDS [ ] CHROMOSOME NO. (2n)

13. TURF DENSITY MAINTENANCE AT ONE INCH CUT:

[2] 1 = POOR 2 = MODERATE (Merion) 3 = SUPERIOR (Nugget) 4 = EXCELLENT

14. VERTICAL GROWTH RATE:

[2] 1 = SLOW (Nugget) 2 = MEDIUM (Merion) 3 = FAST (Delta) 4 = OTHER (Specify relation to a standard)

15. SPRING GREEN UP:

[2] 1 = EARLY (Windsor) 2 = MEDIUM (Fylking) 3 = LATE (Nugget)

16. FALL DORMANCY: (1 = Not Dormant; 2 = Intermediate; 3 = Dormant)

[2] NORTHERN (42° 30′ ± 30′ Lat.) [ ] INTERMEDIATE (40° ± 30′ Lat.) [ ] SOUTHERN (37° 30′ ± 30′ Lat.)

17. SEEDLING VIGOR (Growth Rate):

[2] Seedling: 1 = SLOW 2 = MEDIUM 3 = FAST

18. ENVIRONMENTAL RESISTANCE: (0 = Not Tested; 1 = Susceptible; 2 = Resistant)

[2] COOL TEMPERATURE (Winter color)	[2] COLD (Injury)	[0] HEAT	[2] DROUGHT
[1] SHADE	[2] POOR FERTILITY	[2] ACID SOIL	[0] ALKALINITY
[0] SALINITY	[2] SOIL COMPACTION	[0] POOR DRAINAGE	[0] AIR POLLUTION
[ ] OTHER (Specify)			

19. DISEASE, INSECTS, AND NEMATODE RESISTANCE: (0 = Not Tested; 1 = Susceptible; 2 = Resistant)

[2] HELMINTHOSPORIUM VAGANS	[2] H. SOROKINIANUM	[0] H. DICTYOIDES	[0] RHIZOCTONIA SOLANI
[1] ERYSIPHE GRAMINIS	[2*] USTILAGO STRIIFORMIS	[0] FUSARIUM NIVALE	[0] F. ROSEUM
[0] TYPHULA IOTANA	[0] SCELEROTINIA HOMEOCARPA	[1] PUCCINIA GRAMINIA	[0] P. STRIIFORMIS
[2] PYTHIUM ULTIMATUM	[0] CRAMBUS BONIFATELLUNS	[ ] OTHER (Specify)	

REFERENCE

Nickerson's or any recognized color fan may be used to determine plant colors of the described variety.

* Appears resistant at this time.