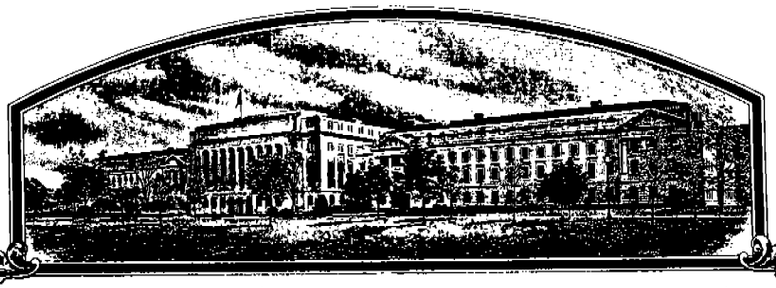

No. 7200061

THE UNITED STATES OF AMERICA

TO ALL TO WHOM THESE PRESENTS SHALL COME:

Zwaan & De Wiljes, 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 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 [illegible]RIETY THEREFROM, TO THE EXTENT PROVIDED BY THE PLANT VARIETY PROTECTION ACT. [illegible] UNITED STATES SEED OF THIS VARIETY (1) SHALL BE SOLD BY VARIETY NAME ONLY AS [illegible] OF CERTIFIED SEED AND (2) SHALL CONFORM TO THE NUMBER OF GENERATIONS [illegible]Y THE OWNER OF THE RIGHTS. (84 STAT. 1542, AS AMENDED, 7 U.S.C. 2321 ET SEQ.)

SMALLER CAT'S TAIL

'Match'

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* 28th *day of* January *in [illegible] year of our Lord one thousand nine [illegible]red and* seventy-seven

Attest:

Commissioner
Plant Variety Protection Office
Grain Division
Agricultural Marketing Service

Se[illegible] Agriculture

FORM GR-470
(2-12-71)

UNITED STATES DEPARTMENT OF AGRICULTURE
CONSUMER AND 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 MATCH	2. KIND NAME Smaller Cat's tail	FOR OFFICIAL USE ONLY PVPO NUMBER 72061
3. GENUS AND SPECIES NAME Phleum nodosum L	4. FAMILY NAME *(Botanical)* Gramineae 5. DATE OF DETERMINATION 28-8-'70	FILING DATE 12-10-71 / TIME 1:30 A.M. P.M. FEE RECEIVED $750.00 / CHARGES —
6. NAME OF APPLICANT(S) ZWAAN & DE WILJES LTD.	7. ADDRESS *(Street and No. or R.F.D. No., City, State, and ZIP Code)* Stationsstraat 124 P.O. Box 2 SCHEEMDA/The Netherlands	8. TELEPHONE AREA CODE AND NUMBER 05979-233
9. IF THE NAMED APPLICANT IS NOT A PERSON, FORM OF ORGANIZATION: *(Corporation, partnership, association, etc.)*	10. STATE OF INCORPORATION Limited Liability Company	11. DATE OF INCORPORATION 1914

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

no representative. All documents relevant to this application should be sent to Zwaan & de Wiljes, Scheemda.

13. CHECK BOX BELOW FOR EACH ATTACHMENT SUBMITTED:

- [x] 12A. Exhibit A, Origin and Breeding History of the Variety *(See Section 52, P.L. 91-577)*
- [x] 12B. Exhibit B, Botanical Description of the Variety
- [x] 12C. Exhibit C, Objective Description of the Variety
- [x] 12D. Exhibit D, Data Indicative of Novelty
- [x] 12E. Exhibit E, Statement of the Basis of Applicant's Ownership

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. *(See Section 52, P.L. 91-577).*

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), P.L. 91-577) (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? 2 generations viz. basic-seed and certified seed, first generation.

Applicant is informed that false representation herein can jeopardize protection and result in penalties.

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 (P.L. 91-577).

29th November 1971.
(DATE)

ZWAAN & DE WILJES LIMITED
(SIGNATURE OF APPLICANT)

00001

(DATE)

(SIGNATURE OF APPLICANT)

FORM GR-470 (REVERSE)

RECEIVED DEC 10 1971 U.S. DEPARTMENT OF AGRICULTURE CCMS GRAIN DIVISION

INSTRUCTIONS

GENERAL: Send an original copy of the application, exhibits and $50.00 fee to U.S. Dept. of Agriculture, Consumer and Marketing Service, Grain Division, Hyattsville, Maryland 20782. Retain one copy for your files. All items on the face of the form are self-explanatory unles noted below.

ITEM

5 Insert the date the applicant determined that he had a new variety.

12a 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.

12b 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.

12c A supplemental form will be furnished by the PVPO to describe in detail a variety for each kind of seed.

12d Provide complete data indicative of novelty. Seed and plant specimens may be submitted and seeds submitted may be sterile. Where possible, include photographs of plant comparisons, chemical tests, etc.

12e Indicate whether applicant is the actual breeder, the employer of the breeder, the owner through purchase or inheritance, etc.

Application No. 72061, Smaller Cat's Tail "Match"

New Exhibit A

1. The variety "Match" has been derived from seed of Phleum Bertolonii received through the CSRI in Australia and is of Spanish origin.

2. Selection work started in 1966 by establishing 270 clones. In 1969 the 10 best clones were vegatively multiplied and 10 clonal fields established. The clonal topcross-seed of the 8 best clones is the basis of the variety.
All clones are 2n = 14.

3. As you can expect in an open-pollinated crop, there is a normal-distribution for every quantitive character. The standard-deviations show that the homogeneity of "Match" is better than in existing varieties (stated by the IVRO-the Dutch Institute for Variety Examination).
There are no plants which really deviate. So we can state: no variants.

4. The plants of the different generations after the breeders-seed do not differ at all from the plants of the breeders-seed. The plants of every generation are of the same type and the average shooting dates are quite similar.
We can prove this by telling you, that we have obtaines Breedersrights in Holland and Germany for "Match".
In these countries the different generations are grown together on the official trialgrounds and have to meet a 100% stability.
Match is stable.

Application No. 72061, Smaller Cat's Tail "Match"

New Exhibit D

"Match" is a diploid Phleum (Bertolonii). "Match" is different from all the other diploid Phleum varieties by having a 4 or more days earlier maturity date (50% of plants headed). A difference of 2.7 days is required for a statistically significant difference at the 0,05 level of significance.

Attachment to application for Plant Variety Protection Certificate of Phleum nodosum L "MATCH"

Botanical Description of the Variety

12b Exhibit B

Although 1000 grain weight is somewhat variable due to environment the variety "Match" has a 1000 grain weight of 460 mgr. against Pedestra 320 mgr. and Impresso 312 mgr.

In the year of sowing the new variety shoots the same time as S 50 from the Welsh Plant Breeding Station. In the year after sowing the new variety shoots the same time as Barenza a haytype of Timothy from Barenbrug Ltd. in Holland.

In case "Match" is cut short around shooting time in the year after planting only a small percentage of the plants shoots again the same year.

The culms of "Match" are shorter than S 50.

"Match" has a wider and slightly lighter colored foliage than S 50. An important characteristic of this variety is its high 1000 grain weight.

April 3, 1975

UNITED STATES DEPARTMENT OF AGRICULTURE
AGRICULTURAL MARKETING SERVICE
GRAIN DIVISION
HYATTSVILLE, MARYLAND 20782
OBJECTIVE DESCRIPTION OF VARIETY 7200061

Timothy, Smaller Cat's Tail "Match"
(Phleum spp.) no. 72061

1. SPECIES:
[1] 1=bertolonii 2=pratense 3=other (specify) _____

2. PLOIDY:
[1] 1 = diploid 2 = tetraploid 3 = Other (specify) _____
[1 4] 2n chromsome number.

3. AREA OF ADAPTATION:
[1] Type: 1=Turf 2=Pasture 3=Hay or pasture 4=Hay

3. MATURITY (50% anthesis):
[2] 1 = very early 2 = early 3 = medium 4 = late 5 = very late

[6] days earlier than [1] } 1 = Aberystwyth S 50 2 = Evergreen
[ ] days later than [ ] } 3 = Clair 4 = Itasca 5 = Climax 6 = Lorain
7 = Verdant 8=Other (specify) _____

5. PLANT HEIGHT
[3 9] cm tall
[1 6] cm shorter than [2] } 1 = Aberystwyth S 50 2 = Evergreen
[ ] cm taller than [ ] } 3= Clair 4=Itasca 5=Climax 6=Lorain 7=Verdant
8=Other (specify) _____

6. PLANT:
[1] 1=stolons absent 2=stolons present 3=rhizomes present
[2] 1=prostrate growth 2=semiprostrate 3=erect

7. TURF CHARACTERISTICS:

[1] Turf Thickness:	1 = thinner	2 = equal	3 = thicker	than [1]	
[2] Coarseness:	1 = finer	2 = equal	3 = coarser	than [3]	1 = Aberystwyth S 50
[3] Summer Color:	1 = lighter	2 = equal	3 = darker	than [1]	2 = Evergreen 3 = Other
[3] Winter Color:	1 = lighter	2 = equal	3 = darker	than [1]	(specify) allgreen
[1] Winter Burn:	1 = less	2 = equal	3 = more	than [3]	

8. STEM:
[1] anthocyanin 1 = absent 2 = present
[ ] cm exertion (Flag leaf to base of head at maturity)
[ ] no. of nodes above corm

Stem color before ripening
[1 0 0] % green
[0] % purple
[0] % Other (specify) _____

Shape of neck
[ ] % straight
[ ] % wavy
[ ] % Other(specify) _____

9. LEAF:
[5 7] mm width of flag leaf } Results of the IVRO
[3 3] cm length of flag leaf } (Dutch Variety Office)
[2] angle of flag leaf (at boot stage): 1 = drooping 2 = ascending
3 = Other (specify) _____

[1] Flag leaf: 1=Not twisted 2=Twisted
[2] Cross section of flag leaf (at boot stage): 1=flat 2=concave
3=Other(specify) _____

[2] anthocyanin: 1=absent 2=present
(few, sometimes)

00004

10. HEAD:

[ ] mm width [4.2] cm length (of IVRO)

[1] Heads produced after mowing at early boot: 1 = none 2 = few 3 = many

[1] anthocyanin 1 = absent 2 = present

[2] shape: 1 = fusiform 2 = cylindrical 3 = conical 4 = clavate
5 = other (specify) _____

11. SEED:

[460] mg. per 1,000 seed

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

[0] rust (Puccinia graminis)
[0] brown stripe (Scolecotrichum graminis)
[0] leaf smut (Ustilago striaeformis)
[0] Eyespot (Heterosporium phlei)
[0] Bacterial stripe (Zanthomonas translucens)
[0] Other (specify) _____
[0] Other (specify) _____

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

[0] (specify insect) _____
[0] (specify insect) _____
[0] (specify insect) _____

INDICATE WHICH VARIETY MOST CLOSELY RESEMBLES THAT SUBMITTED FOR THE FOLLOWING CHARACTERS:

CHARACTER	VARIETY	CHARACTER	VARIETY
Leafiness	Holea	Persistence	Sport
Seedling vigor	—	Regrowth	—
Coarsness	Allgreen		
Area of adaptation	Aberystwyth S-50		

ADDITIONAL INFORMATION:

Application No. 72061, Smaller Cat's Tail "Match"

New Exhibit D

"Match" is a diploid Phleum (Bertolonii). "Match" is different from all the other diploid Phleum varieties by having a 4 or more days earlier maturity date (50% of plants headed). A difference of 2.7 days is required for a statistically significant difference at the 0,05 level of significance.

7200061

ZWAAN & DE WILJES Limited, SCHEEMDA / Holland

WHOLESALE SEED GROWERS-, MERCHANTS and PLANTBREEDERS

Telephone: 05979-233
Cable address: „Selecta" - Scheemda
Telex 53146 (Smith nl)
Bankers: AMRO BANK, Groningen
acc.nr. 44.60.70.114

SCHEEMDA, 29th September 1976
P.O. Box 2

All orders are booked subject to the usual non-warranty clause as adopted by the Seed Trade.

United States Department of Agriculture
Agricultural Marketing Service
Grain Division
National Agricultural Library
BELTSVILLE/Maryland 20705
U.S.A.

To the attention of Mr. Kenneth H. Evans

Subject: Application No. 72061, Smaller Cat's Tail, "Match".
Your letter of September 22nd, 1976

Dear Sir,

The table of the N.A.K. (Netherlands General Inspection Service) Wageningen/Holland shows the maturity dates as stated below

Match	4/6	Barbino	10/6
Mortel	8/6	Nodora	11/6
Impresso	9/6	Baret	11/6
Sport	10/6	Barosa	11/6
S-50	10/6	Piccolo	11/6
Holea	10/6	Allgreen	12/6

The variety "Match" is 4 or more days earlier than the other varieties.

Yours faithfully

ZWAAN & DE WILJES B.V.

Ir. C.J.M. van Oruchten
Plantbreeder

CvO/IEP

00007

Attachment to application for Plant Variety Protection Certificate of Phleum nodosum L "MATCH"

Data Indicative of Novelty

12d Exhibit D

As the new variety of Phleum nodosum L under consideration is meant for lawn purposes the following relevant comparisons were made in the lawn between S 50, Match and King. The latter is a commercial variety of D.J. van der Have in The Netherlands.

Year after sowing (1970)

Spring thickness turf	Match	=	S 50	=	King
fresh color	Match	=	S 50	≫	King
Summer drought resistance	S 50	>	King	>	Match
Late Summer color	Match	>	S 50	>	King
Late fall color	S 50	>	King	>	Match
Winter color	S 50	=	Match	>	King

Second year after sowing 1971

Late Spring thickness turf	King	>	S 50	>	Match
Early Summer color	Match	≫	S 50	>	King
Late Summer color	Match	≫	S 50	≫	King
Fall color	Match	=	S 50	≫	King

Attachment to application for Plant Variety Protection Certificate of Phleum nodosum L "MATCH"

12e Exhibit E - Statement of the Basis of Applicant's Ownership

Applicant, Zwaan & de Wiljes Limited, Scheemda (The Netherlands) is the actual breeder.