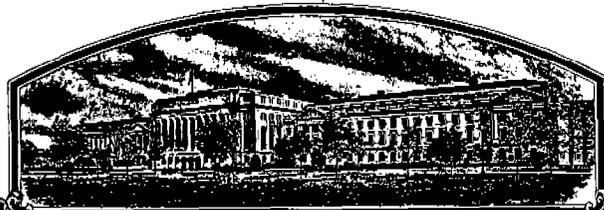


No.

8200079



THE UNITED STATES OF AMERICA

TO ALL TO WHOM THESE PRESENTS SHALL COME:

Germinal Holdings Limited

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 APART 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 *fifteen* 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 EXHIBIT THE VARIETY TO 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 (7 U.S.C. 2321 ET SEQ.)

SLENDER CREEPING REV FESCUE

'Logro'



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 24th day of March in the year of our Lord one thousand nine hundred and eighty-three.

Attest

Kenneth H. ...
Acting
Commissioner
Plant Variety Protection Office
Grain Division
Agricultural Marketing Service

John R. Block

Secretary of Agriculture

APPLICATION FOR PLANT VARIETY PROTECTION CERTIFICATE
(Instructions on reverse)

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

| | | | |
|---|--|--|---------------------------------|
| 1. NAME OF APPLICANT(S) GERMINAL HOLDINGS LIMITED | | 2. TEMPORARY DESIGNATION | 3. VARIETY NAME LOGRO |
| 4. ADDRESS (Street and No. or R.F.D. No., City, State, and Zip Code) COMMERCIAL ROAD, BANBRIDGE, CO. DOWN, N. IRELAND | | 5. PHONE (Include area code) BANBRIDGE 24585 OR 22521 | |
| 6. GENUS AND SPECIES NAME FESTUCA RUBRA ssp. TRICOPHYLLA | | 7. FAMILY NAME (Botanical) GRAMINEAE | |
| 8. KIND NAME SLENDER CREEPING RED FESCUE | | 9. DATE OF DETERMINATION 19/10/79 | |
| 10. IF THE APPLICANT NAMED IS NOT A "PERSON," GIVE FORM OF ORGANIZATION (Corporation, partnership, association, etc.) PRIVATE LIMITED COMPANY | | FILING DATE 3/5/82 TIME 11:30 <input type="checkbox"/> A.M. <input type="checkbox"/> P.M. | |
| 11. IF INCORPORATED, GIVE STATE OF INCORPORATION PRIVATE LIMITED COMPANY REGISTERED IN THE U.K. | | FEE RECEIVED AMOUNT FOR FILING \$ 500.00 DATE 3/5/82 | |
| 13. NAME AND ADDRESS OF APPLICANT REPRESENTATIVE(S), IF ANY, TO SERVE IN THIS APPLICATION AND RECEIVE ALL PAPERS MR. SAM K. McCAUSLAND | | FEE RECEIVED AMOUNT FOR CERTIFICATE \$ 250.00 DATE 2/7/83 | |
| 14. CHECK APPROPRIATE BOX FOR EACH ATTACHMENT SUBMITTED | | 12. DATE OF INCORPORATION 1963 | |

14. CHECK APPROPRIATE BOX FOR EACH ATTACHMENT SUBMITTED

- a. Exhibit A, Origin and Breeding History of the Variety (See Section 52 of the Plant Variety Protection Act.)
- b. Exhibit B, Novelty Statement
- c. Exhibit C, Objective Description of the Variety (Request form from Plant Variety Protection Office.)
- d. Exhibit D, Additional Description of the Variety

15. DOES THE APPLICANT(S) SPECIFY THAT SEED OF THIS VARIETY BE SOLO BY VARIETY NAME ONLY AS A CLASS OF CERTIFIED SEED? (See Section 83(a) of the Plant Variety Protection Act.)

Yes No Yes (If "Yes," answer items 16 and 17 below) NO

16. DOES THE APPLICANT(S) SPECIFY THAT THIS VARIETY BE LIMITED AS TO NUMBER OF GENERATIONS?

Yes No

17. IF "YES" TO ITEM 16, WHICH CLASSES OF PRODUCTION BEYOND BREEDER SEED?

Foundation Registered Certified

18. DID THE APPLICANT(S) FILE FOR PROTECTION OF THE VARIETY IN THE U.S. OR OTHER COUNTRIES?

UNITED KINGDOM 22/10/79

Yes (If "Yes," give names of countries and dates) No

19. HAVE RIGHTS BEEN GRANTED IN THE U.S. OR OTHER COUNTRIES?

Yes (If "Yes," give names of countries and dates) No

20. The applicant(s) declare(s) that a viable sample of basic seeds 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 Protection Act.

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

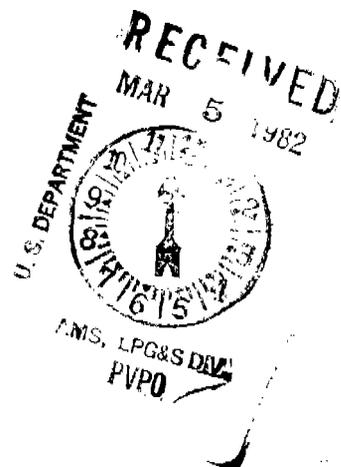
| | |
|---|------------------------|
| SIGNATURE OF APPLICANT S. K. McCausland | DATE 25/2/82 |
| SIGNATURE OF APPLICANT | DATE |

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. Department of Agriculture, Agricultural Marketing Service, Livestock, Meat, Grain and Seed Division, Plant Variety Protection Office, National Agricultural Library Building, Beltsville, Maryland 26705. (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

- 9 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.
- 14a 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.
- 14b 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.
- 14c Fill in the Exhibit C, Objective Description form, for all characteristics for which you have adequate data.
- 14d 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.
- 15 If "Yes" is specified (*seed of this variety be sold by variety name only as a class of certified seed*) the applicant may 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.*)
- 16 See section 42 of the Plant Variety Protection Act and section 180.7 of the Regulations and Rules of Practice.



APPLICATION FOR PLANT VARIETY PROTECTION CERTIFICATE

Exhibit A: ORIGIN AND BREEDING HISTROY OF THE VARIETY
Breeder: The Queen's University of Belfast, Northern Ireland
Variety Name: Logro
Species: Festuca rubra ~~ssp~~ tricophylla
Kind Name: Slender Creeping Red Fescue
Parentage: Selection from the variety Dawson
Breeding Method: Hybridisation and polycrossing of selected segregates

SELECTION AND MULTIPLICATION

The variety Logro was bred from an original dwarf seedling which was found by chance in the variety Dawson. The **seedling was** cloned into 10 segments, each of which was crossed with a Dawson plant in isolation. The resulting progenies all displayed a tall character, however, segregation into tall and short plants occurred in the next generation.

The short plants were polycrossed in collective isolation and intermediate or tall variants were removed from the progeny. After two more generations it was found that the progeny plants were all dwarf. Selections for uniformity were made and the resulting variety Logro was synthesised from a group of nine plants. These plants were polycrossed and a space plant nursery plot was established from their progeny. Slight variation was observed in seed-head height and angle, however, no plants assumed the tall growth habit of the Dawson parents. No variants were observed when comparing characteristics such as leaf length, leaf width and leaf colour. The results shown in Table 1 indicate the differences in seed-head height between Logro and Dawson. A comparison of the standard error values (shown in parenthesis) indicates that the variation observed in Logro is no greater than that in Dawson.

Table I Seed Head Height (mm)
(n = 50)

| | <u>LOGRO</u> | <u>DAWSON</u> |
|-------------|-------------------|--------------------|
| 1980 | 326 (66.5) | 729 (132.8) |
| 1980 | 294 (53.1) | 709 (125.4) |

The morphological characteristics of Logro have been observed to remain uniform and unchanged in successive sexually reproduced generations.

U.S. DEPARTMENT OF AGRICULTURE
AGRICULTURAL MARKETING SERVICE
 LIVESTOCK, MEAT, GRAIN & SEED DIVISION
 PLANT VARIETY PROTECTION OFFICE
 BELTSVILLE, MARYLAND 20705

EXHIBIT C
(Fine Leaved Fescues)

OBJECTIVE DESCRIPTION OF VARIETY
FINE LEAVED FESCUES
(Festuca spp.)

| | | |
|---|-----------------------|----------------------------------|
| NAME OF APPLICANT(S) | TEMPORARY DESIGNATION | VARIETY NAME L o g s 0 |
| ADDRESS (Street and No. or R.F.D. No., City, State, and Zip Code) | | FOR OFFICIAL USE ONLY |
| | | PVPO NUMBER 8200079 |

Place the appropriate number that describes the varietal character of this variety in the boxes below. Use leading zeroes when necessary (e.g., or). Characteristics described including numerical measurements, should represent those that are typical for the variety. Measured data should be for SPACED PLANTS. Royal Horticultural Society or any recognized color fan may be used to determine plant colors; designate system used: _____

Describe location of test area, conditions and number of plants used: _____

Northern Ireland, 1200 spaced plants

1. SPECIES: (With comparison varieties for use below - use varieties within species of application variety)

- | | | | | |
|--------------------------------|---|---------------|---------------------|----------------|
| <input type="text" value="2"/> | 1 = <i>F. rubra ssp. commutata</i> (Chewings) | 11 = Cascade | 12 = Highlight | 13 = Jamestown |
| | 2 = <i>F. rubra ssp. litoralis</i> (Creeping Red) | 14 = Banner | 15 = Barfalla | 23 = Merlin |
| | 3 = <i>F. rubra ssp. rubra</i> (Spreading Red) | 21 = Dawson | 22 = Starlight | 33 = Fortress |
| | 4 = <i>F. ovina</i> (Sheep) | 24 = Pennlawn | 31 = Boreal | 32 = Ruby |
| | 5 = <i>F. longifolia</i> (Hard) | 31 = Boreal | 32 = Ruby | 33 = Fortress |
| | 6 = <i>F. tenuifolia</i> (Fine-Leaved Sheep) | 34 = Ensylva | 41 = Covar | |
| | 7 = Other (Specify) <i>F.</i> _____ | 41 = Covar | | |
| | | 51 = Durar | 52 = Biljart (C-26) | 53 = Scaldis |
| | | 61 = Panda | 62 = Barok | |

2. CYTOLOGY:

| | | | | | | |
|---|-------------------|--------------------------------|--------|---------------|----------------|---------------|
| <input type="text" value="4"/> <input type="text" value="2"/> | Chromosome Number | <input type="text" value="1"/> | Ploidy | 1 = diploid | 2 = tetraploid | 3 = hexaploid |
| | | | | 4 = octoploid | | |

3. ADAPTATION: (0 = Not Tested; 1 = Not Adapted; 2 = Adapted)

| | | | | | | | | | |
|--------------------------------|-----------|--------------------------------|-----------|--------------------------------|---------------|--------------------------------|--------------|--------------------------------|--|
| <input type="text" value="0"/> | Northeast | <input type="text" value="0"/> | Southeast | <input type="text" value="0"/> | North Central | <input type="text" value="0"/> | Pacific N.W. | <input type="text" value="2"/> | Other (Specify) <u>British temperate</u> |
|--------------------------------|-----------|--------------------------------|-----------|--------------------------------|---------------|--------------------------------|--------------|--------------------------------|--|

4. MATURITY: Date First Headed (panicle emergence) Location(s) of Trail(s) N. Ireland lat 54° 23'

| | | | | |
|---|-------------------|---------------------------------|---|-----------------------------------|
| <input type="text" value="5"/> | Maturity Class: | 1 = Very Early (Covar) | 2 = Early (Highlight) | 3 = Medium Early (Boreal, Dawson) |
| | | 4 = Medium Late (Cascade, Ruby) | 5 = Late (Jamestown, Agram) | 6 = Very Late |
| | Date Headed | <u>25 May</u> | | |
| <input type="text" value="0"/> <input type="text" value="0"/> | Days earlier than | None | <input type="text" value="m"/> | } Comparison Variety |
| | Maturity same as | None | <input type="text" value="0"/> <input type="text" value="0"/> | |
| <input type="text" value="0"/> <input type="text" value="7"/> | Days later than | None | <input type="text" value="2"/> <input type="text" value="4"/> | |

5. PLANT HEIGHT: (At maturity: to top of panicle; Average of 10 tallest culms)

| | | | | |
|--|-----------------|---|----------------------|---|
| <input type="text" value="3"/> <input type="text" value="1"/> <input type="text" value="0"/> | mm height | | | |
| <input type="text" value="3"/> <input type="text" value="2"/> <input type="text" value="0"/> | mm shorter than | <input type="text" value="m"/> <input type="text" value="3"/> | } Comparison Variety | |
| | Height same as | None | | <input type="text" value="0"/> <input type="text" value="0"/> |
| <input type="text" value="0"/> <input type="text" value="0"/> <input type="text" value="0"/> | mm taller than | None, | | <input type="text" value="m"/> |

6. GROWTH HABIT: (Mature)

| | | | |
|--------------------------------|------------------|----------------------------|-------------------------|
| <input type="text" value="2"/> | 1 = Erect (Ruby) | 2 = Semi-erect (Highlight) | 3 = Prostrate (Silvana) |
|--------------------------------|------------------|----------------------------|-------------------------|

7. RHIZOMES:

| | | | | | |
|--|---------------------------------------|---|--------------------------------|---|---------------------|
| <input type="text" value="0"/> <input type="text" value="9"/> <input type="text" value="0"/> | mm Length | <input type="text" value="0"/> <input type="text" value="3"/> | mm Width | <input type="text" value="2"/> <input type="text" value="0"/> | mm Internode length |
| <input type="text" value="2"/> | 1 = Absent (Highlight) | 2 = Weakly Creeping (Dawson) | 3 = Strongly Creeping (Boreal) | | |
| | 4 = Vary Strongly Creeping (Fortress) | | | | |

EXHIBIT **B**: ADDITIONAL DESCRIPTION OF THE VARIETY

VARIETY: Logro

SEEDLING MEASUREMENTS

TABLE 1

| | <u>Logro</u> | <u>Oasis</u> | <u>Dawson</u> |
|--|--------------|--------------|---------------|
| Number of tillers per plant | 9.3 | 5.4 | 4.9 |
| Tiller angle (Degrees from horizontal) | 27 | 58 | 62 |

DRY MATTER YIELD

Dry matter yield was based on a single cwt taken approximately 10 months after sowing.

TABLE 2

| | <u>DM yield kg/ha</u> |
|--------|-----------------------|
| Logro | 1,625 |
| Oasis | 4,050 |
| Dawson | 4,750 |

FREQUENCY OF CUTTING EXPERIMENT

When 40 mm in height plots were cut back to 20 mm using a rotary mower.

TABLE 3

| | <u>Mean No. of Cuts per Season (5 replicates)</u> |
|-----------|---|
| Dawson | 11.2 |
| Highlight | 10.2 |
| Logro | 8.6 |

U.S. DEPARTMENT OF AGRICULTURE
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 LIVESTOCK, MEAT, GRAIN & SEED DIVISION
 PLANT VARIETY PROTECTION OFFICE
 BELTSVILLE, MARYLAND 20705

EXHIBIT C
 (Fine Leaved Fescues)

OBJECTIVE DESCRIPTION OF VARIETY
FINE LEAVED FESCUES
 (*Festuca spp.*)

| | | |
|--|-----------------------|----------------------------------|
| NAME OF APPLICANT(S) | TEMPORARY DESIGNATION | VARIETY NAME L o g r o |
| ADDRESS (Street and No., or R.F.D. No., City, State, and Zip Code) | | FOR OFFICIAL USE ONLY |
| | | PVPO NUMBER 8200079 |

Place the appropriate number that describes the varietal character of this variety in the boxes below. Use leading zeroes when necessary (e.g., or). Characteristics described including numerical measurements, should represent those that are typical for the variety. Measured data should be for SPACED PLANTS. Royal Horticultural Society or any recognized color fan may be used to determine plant colors; designate system used: _____

Describe location of test area, conditions and number of plants used: _____

Northern Ireland, 1200 spaced plants

1. SPECIES: (With comparison varieties for use below use varieties within species of application variety)

- | | | | |
|---|--|---|---|
| <input type="checkbox"/> 1 = <i>F. rubra</i> ssp. <i>commutata</i> (Chewings) | <input type="checkbox"/> 11 = Cascade | <input type="checkbox"/> 12 = Highlight | <input type="checkbox"/> 13 = Jamestown |
| <input type="checkbox"/> 2 = <i>F. rubra</i> ssp. <i>litoralis</i> (Creeping Red) | <input type="checkbox"/> 14 = Banner | <input type="checkbox"/> 15 = Barfalla | <input type="checkbox"/> 23 = Merlin |
| <input type="checkbox"/> 3 = <i>F. rubra</i> ssp. <i>rubra</i> (Spreading Red) | <input type="checkbox"/> 21 = Dawson | <input type="checkbox"/> 22 = Starlight | <input type="checkbox"/> 33 = Fortress |
| <input type="checkbox"/> 4 = <i>F. ovina</i> (Sheep) | <input type="checkbox"/> 24 = Pennlawn | <input type="checkbox"/> 31 = Boreal | <input type="checkbox"/> 32 = Ruby |
| <input type="checkbox"/> 5 = <i>F. longifolia</i> (Hard) | <input type="checkbox"/> 34 = Ensylnva | <input type="checkbox"/> 41 = Covar | <input type="checkbox"/> 51 = Durar |
| <input type="checkbox"/> 6 = <i>F. tenuifolia</i> (Fine-Leaved Sheep) | <input type="checkbox"/> 52 = Biljart (C-26) | <input type="checkbox"/> 53 = Scaldis | <input type="checkbox"/> 61 = Panda |
| <input type="checkbox"/> 7 = Other (Specify) <i>F.</i> _____ | <input type="checkbox"/> 62 = Barok | | |

2. CYTOLOGY:

Chromosome Number Ploidy 1 = diploid 2 = tetraploid 3 = hexaploid
 4 = octoploid

3. ADAPTATION: (0 = Not Tested; 1 = Not Adapted; 2 = Adapted)

Northeast Southeast North Central Pacific N.W. Other *Specify* British temperate

4. MATURITY: Date First Headed (panicle emergence) Location(s) of Trial(s) & Ireland Lat 54 23'

Maturity Class:
 1 = Very Early (Covar) 2 = Early (Highlight) 3 = Medium Early (Boreal, Dawson)
 4 = Medium Late (Cascade, Ruby) 5 = Late (Jamestown, Agram) 6 = Very Late

Date Headed 25 May

| | | | | |
|---|-------------------|------|---|----------------------|
| <input type="text" value=""/> | Days earlier than | None | <input type="text" value=""/> | } Comparison Variety |
| <input type="text" value=""/> | Maturity same as | None | <input type="text" value=""/> | |
| <input type="text" value="0"/> <input type="text" value="7"/> | Days later than | | <input type="text" value="2"/> <input type="text" value="4"/> | |

5. PLANT HEIGHT: (At maturity; to top of panicle; Average of 10 tallest culms)

mm height

mm shorter than } Comparison Variety

Height same as **None.**

mm taller than **None.**

6. GROWTH HABIT: (Mature)

1 = Erect (Ruby) 2 = Semi-erect (Highlight) 3 = Prostrate (Silvana)

7. RHIZOMES:

mm Length mm Width mm Internode length

1 = Absent (Highlight) 2 = Weakly Creeping (Dawson) 3 = Strongly Creeping (Boreal)
 4 = Very Strongly Creeping (Fortress)

8. LEAF BLADE:

3 Color: 1 = Light Green (Starlight) 2 = Medium Light Green (Highlight) 3 = Medium Dark Green (Ruby, Agram)
4 = Dark Green (Jamestown, Manoir) 5 = Bluegreen (Saphir) 6 = Gtavgteen (Scaldis)
7 = Other (Specify) _____

1 GlaucoSiv (Sowing Year): 1 = Absent (Koket) 2 = Present (Vendome)

1 Anthocvanin: 1 = Absent 2 = Present 1 Hairs (Basal) 1 = Absent 2 = Present

1 Margins: 1 = Smooth 2 = Semi-rough 3 = Rough

2 Margin folding (closure): 1 = Rolled inward (closed-Highlight) 2 = Flat (open-Jamestown, Engina)

3 Width class:
1 = Vetr Fine (Agram, Frida) 2 = Fine (Jamestown, Highlight, Banner, Dawson)
3 = Medium Fine (Fortress, Ruby, Scaldis) 4 = Medium Coarse (Engina)

1 0 5 mm Length (flag leaf)

2 1 mm Shorter than 2 4
Blade length same as None as } Comparison Variety

2 7 mm Longer than E I }

5 2 1 mm Width (flay leaf)

0 0 9 mm Narrower than 2 4
Blade width same as 2 2 1 } Comparison Variety

1 1 0 mm Wider than 2 2 }

9. LEAF SHEATH:

2 Anthocvanin. (seedling): 1 = Absent (Highlight) 2 = Present (Jamestown, Fortress, Marga)

1 Auricle Hairiness: 1 = Absent 2 = Present

1 Margins: 1 = Open (Highlight) 2 = Closed (Jamestown)

10. PANICLE (Mature plant):

2 Shape: 1 = Narrow-tapering 2 = Ovate 3 = Oblong 4 = Other (Specify) _____

2 Type: 1 = Open 2 = Intermediate 3 = Compact

1 Orientation: 1 = Erect 2 = Nodding

2 Branch Pubescence: 1 = Glabrous 2 = Pubescent

3 Anther Color: 1 = Yellowish Green 2 = Green 3 = Bluish Green 4 = Purplish
 1 Glume Color (At 50% flowering): 5 = Reddish 6 = Other (Specify) _____

0 7 8 mm Length

1 1 6 mm Shorter than 2 3
Panicle length same as 2 2 } Comparison Variety

mm Longer than None)

11. PALEA:

2 Hairs (On keels or margins): 1 = Absent (Banner) 2 = Short (Agram, Scaldis, Olds)
3 = Long (Rainier, Fortress, Jamestown)

12. LEMMA (Mature):

Hairs: 1 = Absent (Jamestown) 2 = Several 3 = Many (Highlight)

mm Lemma Length

mm Shorter than } Comparison Variety

Lemma length same as } Comparison Variety

mm Longer than None } Comparison Variety

mm Narrower than } Comparison Variety

Lemma width same as } Comparison Variety

mm Wider than } Comparison Variety

Awns: 1 = Absent 2 = Present

mm Awn Length

mm Shorter than } Comparison Variety

Awn length same as } Comparison Variety

mm Longer than } Comparison Variety

13. SEED (With lemma & palea):

Size Class (g/1000 seed):
 1 = < .9g (Biljart, Dawson) 2 = .9 - < 1.1g (Jamestown, Highlight)
 3 = 1.1 - 1.3g (Fortress, Novorubra) 4 = > 1.3g (Boreal, Golfrood)

mg per 1000 seed

mg per 1000 seed less than } Comparison Variety

Seed Weight same as } Comparison Variety

mg per 1000 more than. None } Comparison Variety

14. DISEASE, INSECT, AND NEMATODE REACTION (0 = Not Tested, 1 = Susceptible, 2 = Resistant):

| | |
|---|---|
| <input type="text" value="0"/> Melting-out <i>Drechslera poae</i> (<i>Helminthosporium vagans</i>) | <input type="text" value="0"/> Stripe rust <i>I? striiformis</i> |
| <input type="text" value="0"/> Leaf spot <i>D. siccans</i> | <input type="text" value="0"/> Leaf rust <i>P. poae-nemorale</i> |
| <input type="text" value="0"/> Net blotch <i>D. dictyoides</i> | <input type="text" value="0"/> <i>P. crandallii</i> |
| <input type="text" value="0"/> Leaf spot <i>Bipolaris sorokiniana</i> | <input type="text" value="0"/> Pythium Blight <i>Pythium ultimum</i> |
| <input type="text" value="0"/> Brown patch <i>Rhizoctonia solani</i> | <input type="text" value="0"/> Red thread <i>Corticium fusciforme</i> |
| <input type="text" value="0"/> Powdery mildew <i>Erysiphe graminis</i> | G i l Dollar spot <i>Sclerotinia homoeocarpa</i> |
| <input type="text" value="0"/> Stripe smut <i>Ustilago striiformis</i> | c / Insect _____ |
| <input type="text" value="0"/> F, Patch, Pink snow-mold <i>Fusarium nivale</i> | <input type="text" value=""/> Nematode _____ |
| <input type="text" value="0"/> Fusarium blight <i>F. tricinctum</i> , <i>F. roseum</i> | <input type="text" value=""/> Other _____ |
| <input type="text" value="0"/> Gray snow mold <i>Typhula lotana</i> | <input type="text" value=""/> Other _____ |
| <input type="text" value="0"/> Stem rust <i>Puccinia graminis</i> | <input type="text" value=""/> Other _____ |

15. GIVE VARIETY OR VARIETIES THAT MOST CLOSELY RESEMBLE THE APPLICATION VARIETY. For the following characteristics indicate Degree of Resemblance by placing the column marked, D.R., one of the following numbers:

1 = Application variety is less than comparison variety. 2 = Same As
3 = More than, better, greater, darker, more disease resistant, etc.

| CHARACTER | VARIETY | D.R. | CHARACTER | VARIETY | D.R. |
|-----------------|----------|------|--|-----------|------|
| Rhizome Length | Dawson | 2 | Growth Habit | Starlight | 1 |
| Leaf Width | Pennlawn | 2 | Leaf Color | Dawson | 2 |
| Panicle Color | Dawson | 2 | Panicle Shape | Dawson | 2 |
| Winter Color | Pennlawn | 2 | Cold Injury | Dawson | 2 |
| Shade Tolerance | Dawson | 2 | Heat | Unknown | |
| Drought | Dawson | 2 | Disease * <u>Corticium</u> <u>luciforme</u> | Merlin | 2 |
| | | | | | |

* Specify each disease evaluated.

16. ADDITIONAL DESCRIPTION: (Use additional sheets as required)

Describe all characteristics that cannot be adequately described in the form above in Exhibit D. Comparative varieties should be used as may be appropriate, such as for disease. Append all comparative trial and evaluation data, including measured characters, environmental, and disease tests.

1. The cultivar 'Logro' has been selected and bred for short growth.
2. Despite its slow growth rate, Logro has shown to be **compatible** with companion species in the turf.
3. Lawn trials have indicated **Logro's** ability to withstand heavy wear and frequent, close mowing. This is believed to be attributed to its high tillering capacity.
4. The problem of lodging in seed crops does not occur due to short seed-head height.