# Forage Cultivar Trials

Northern Research Group
Canada Agriculture Research Branch
Research Station, Beaverlodge, AB

1986 Bulletin
In cooperation with

Alberta
AGRICULTURE, FOOD AND
RURAL DEVELOPMENT

# FORAGE CULTIVAR TRIALS

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## FOREWORD

This report is the ninth for a special series of field trials conducted by the Agriculture Canada Research Station at Beaverlodge in cooperation with Alberta Agriculture.

The objective of this program is to provide relative information on seed production capability and general adaptability of named foreign cultivars of perennial grasses and legumes in northern Alberta. The information assists the Canadian forage seed industry in the development of production contracts and seed export markets. Emphasis is on crops economically suitable for the region and which currently form part of Canada's forage seed export industry.

The following test sites were selected to represent the major agronomic soils of the region.

1. Beaverlodge A. Research Station (SE-1-72-10-W6th)

   Dark Gray Solod (Esher clay) to Dark Gray Luvisol (Hythe fine loam).

2. Beaverlodge B. Foster Farm (SE-25-71-10-W6th)

   Near Beaverlodge, Alberta. Orthic Humic Gleysol (Goose fine loam to Codner clay).

3. Falher. Beaupre Farm (NW-1-78-21-W5th)

   Near Falher, Alberta. Dark Gray Solod (Falher clay) to Solonetzic Gray Luvisol (Nampa clay).

4. Fort Vermilion. Experimental Farm (NW-13-108-13-W5th)

   Dark Gray Luvisol (Leith coarse loam) to Orthic Gray Luvisol (Culp coarse loam).

5. Gimle. Driedger Farm (SW-30-72-10-W6th)

   Near Beaverlodge, Alberta. Solonetzic Dark Gray Chernozemic (Albright clay) to Solonetzic Gray Luvisol(Hazelmere clay).

6. High Level. Fedeyko Farm (NW-35-109-17-W5th)

   Near High Level, Alberta. Orthic Gray Luvisol (Davis fine loam) to Dark Gray Luvisol (Tangent fine loam).

### Section A

Data presented in this section has been collected from stands established at the various test sites described above.

Plots comprise of four rows, 30.5 cm (1 foot) apart, 6.1 metres (20 feet) long, and are replicated 4 times. Weeds are controlled by mechanical and chemical means. Plots are fertilized annually in the autumn.

Seed and herbage (dry matter) yields are expressed as actual production per hectare and as a percent of a designated (*) standard. The Least Significant Difference at the 5% level is also presented for each test. Winter

survival is shown by a hardiness scale of 0 to 9, with 9 being the best.

Section B

Data presented in this section has been collected from screening trials established at the Beaverlodge Research Station. The purpose of these trials is to determine which cultivars should be tested at the various test sites of Part A.

Plots comprise of two rows, 30.5 cm (1 foot) apart, 6.1 metres (20 feet) long, and are replicated 3 times. Plot maintenance is the same as for Part A.

Seed and herbage yields are expressed by a 0 to 5 performance scale, with 5 being best. Winter hardiness is shown by a hardiness scale of 0 to 5, with 5 being best. Cultivars rated above 3 in the above three categories will be considered for further testing in Part A.

Section C

Data presented in this section contains a summary of forage seed yields collected from the various test sites established in northern Alberta. Only those cultivars licensed in Canada and cultivars eligible for certification under the OECD scheme are listed.

Environmental data prepared by Mr. Peter Mills, Beaverlodge Research Station.

The author acknowledges the contributions of the following people to the program: J. Bonnett, L. Burgess, T. Cramer, R. Martin, F. Swanson and D. Wieliczko-Wester.

Evaluation of this publication and suggestions for improvements will be greatly appreciated and should be directed to:

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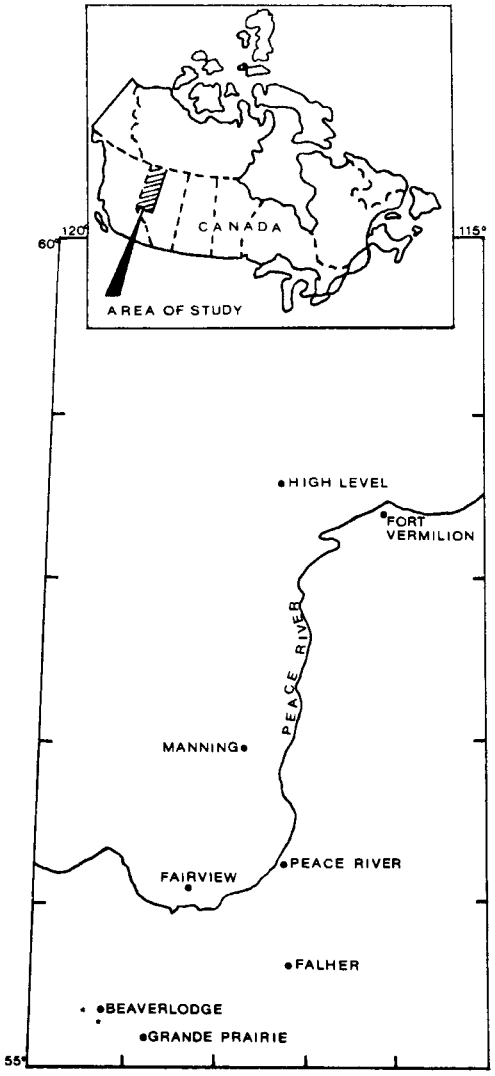
Cover Photo: Farm scene courtesy of the Alberta Photograph Library




ENVIRONMENTAL DATA FOR SELECTED SITES IN THE STUDY AREA

| | | Beaverlodge | | Fairview | | Fort Vermilion | |
|---|---|---|---|---|---|---|---|
| | | 1951-80 | 1986 | 1951-80 | 1986 | 1951-80 | 1986 |
| Growing Degree Days Above 5°C | May - Aug | 988.8 | 1048.3 | 1078.0 | 1106.7 | 1110.3 | 1133.8 |
| Total Hours Bright Sun | Annual | 2125.5 | | 2059.9 | | 2106.9 | |
| | May - Aug | 1111.8 | 1115.1 | 1060.3 | N/A | 1134.9 | 1006.2 |
| Total Precip. (mm) | Annual | 467.0 | | 446.6 | | 382.5 | |
| | May - Aug | 235.2 | 159.5 | 236.8 | 172.9 | 201.7 | 295.9 |
| Temperature (°C) Mean | Annual | 1.6 | | 1.3 | | -1.2 | |
| | May - Aug | 13.0 | 13.4 | 13.7 | 15.6 | 13.9 | 14.2 |
| Mean Maximum | Annual | 7.0 | | 6.3 | | 4.5 | |
| | May - Aug | 19.2 | 20.1 | 19.6 | 20.9 | 20.5 | 20.3 |
| Mean Minimum | Annual | -3.7 | | -3.6 | | -6.9 | |
| | May - Aug | 6.7 | 6.7 | 7.8 | 10.2 | 7.4 | 8.1 |
| Photoperiod | June 22 | 17:25 | | 17:38 | | 18:18 | |
| Last Spring Frost | (0°C) | May 24 | May 23 | May 19 | May 15 | May 28 | Jun 13 |
| First Fall Frost | (0°C) | Sep 7 | Sep 5 | Sep 16 | N/A | Sep 3 | Aug 25 |
| Frost Free Period | (days) | 105 | 104 | 119 | N/A | 97 | 73 |

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Section C - Forage Seed Yield Summaries

# A

Red Fescue

Test Site: Beaverlodge Research Station
Seeding Year: 1984

| Cultivar | | Origin | Hardiness | Height (cm) | Date Ripe 1985 | Date Ripe 1986 | Seed Yield kg/ha 1985 | Seed Yield kg/ha 1986 | Seed Yield % of Boreal 1985 | Seed Yield % of Boreal 1986 |
|---|---|---|---|---|---|---|---|---|---|---|
| **Beauty** | **(1)** | **Netherlands** | **9.0** | **32** | **Jul 19** | **Jul 21** | **87** | **210** | **31** | **26** |
| Boreal* | (3) | Canada | 9.0 | 50 | Jul 19 | Jul 25 | 278 | 812 | 100 | 100 |
| **B 7733** | **(3)** | **Canada** | **9.0** | **54** | **Jul 19** | **Jul 25** | **482** | **1106** | **173** | **136** |
| Carlawn | (3) | Canada | 9.0 | 50 | Jul 19 | Jul 25 | 421 | 801 | 151 | 99 |
| **Commodore** | **(3)** | **Netherlands** | **9.0** | **50** | **Jul 19** | **Jul 25** | **162** | **515** | **58** | **63** |
| G | (2) | Hungary | 9.0 | 53 | Jul 19 | Jul 25 | 160 | 826 | 58 | 102 |
| **Islandic** | **(3)** | **Netherlands** | **9.0** | **50** | **Jul 19** | **Jul 25** | **116** | **789** | **42** | **97** |
| Leik | (3) | Norway | 9.0 | 61 | Jul 19 | Jul 25 | 325 | 901 | 117 | 111 |
| **Perelle** | **(2)** | **France** | **7.8** | **35** | **Jul 19** | **Jul 25** | **6** | **201** | **2** | **25** |
| Robot | (3) | United Kingdom | 9.0 | 55 | Jul 19 | Jul 25 | 328 | 695 | 118 | 86 |
| **Satin** | **(2)** | **Sweden** | **9.0** | **48** | **Jul 19** | **Jul 21** | **40** | **235** | **14** | **29** |
| Zernickower | (3) | East Germany | 9.0 | 56 | Jul 19 | Jul 25 | 352 | 832 | 127 | 102 |
| Mean | | | | | | | 230 | 660 | | |
| L.S.D. (P = .05) | | | | | | | 129 | 89 | | |

(1) Rhizomes absent or rudimentary
(2) Slender rhizomes
(3) Strong rhizomes
(4) Unclassified

Red Fescue

Test Site: Beaverlodge B (Foster Farm)
Seeding Year: 1984

| Cultivar | | Origin | Hardiness | Height (cm) | Date Ripe 1985 | Date Ripe 1986 | Seed Yield kg/ha 1985 | Seed Yield kg/ha 1986 | % of Boreal 1985 | % of Boreal 1986 |
|---|---|---|---|---|---|---|---|---|---|---|
| Beauty | (1) | Netherlands | 9.0 | 40 | Jul 19 | Jul 24 | 193 | 502 | 40 | 44 |
| Boreal* | (3) | Canada | 9.0 | 50 | Jul 19 | Jul 24 | 477 | 1142 | 100 | 100 |
| B 7733 | (3) | Canada | 9.0 | 49 | Jul 19 | Jul 24 | 588 | 1287 | 123 | 113 |
| Carlawn | (3) | Canada | 9.0 | 54 | Jul 19 | Jul 24 | 724 | 1151 | 152 | 101 |
| Commodore | (3) | Netherlands | 9.0 | 53 | Jul 19 | Jul 24 | 406 | 886 | 85 | 78 |
| G | (2) | Hungary | 9.0 | 55 | Jul 19 | Jul 24 | 328 | 1099 | 69 | 96 |
| Islandic | (3) | Netherlands | 9.0 | 54 | Jul 19 | Jul 24 | 281 | 990 | 59 | 87 |
| Leik | (3) | Norway | 9.0 | 59 | Jul 19 | Jul 24 | 453 | 1077 | 95 | 94 |
| Perelle | (2) | France | 7.3 | 39 | Jul 19 | Jul 21 | 15 | 291 | 3 | 25 |
| Robot | (3) | United Kingdom | 9.0 | 54 | Jul 19 | Jul 24 | 408 | 978 | 86 | 86 |
| Satin | (2) | Sweden | 9.0 | 51 | Jul 19 | Jul 21 | 100 | 346 | 21 | 30 |
| Zernickower | (3) | East Germany | 9.0 | 57 | Jul 19 | Jul 24 | 523 | 1198 | 110 | 105 |
| Mean | | | | | | | 375 | 912 | | |
| L.S.D. (P = .05) | | | | | | | 160 | 123 | | |

(1) Rhizomes absent or rudimentary
(2) Slender rhizomes
(3) Strong rhizomes
(4) Unclassified

Red Fescue

Test Site: Fort Vermilion Experimental Farm
Seeding Year: 1984

| Cultivar | | Origin | Hardiness | Height (cm) | Date Ripe 1985 | Date Ripe 1986 | Seed Yield kg/ha 1985 | Seed Yield kg/ha 1986 | Seed Yield % of Boreal 1985 | Seed Yield % of Boreal 1986 |
|---|---|---|---|---|---|---|---|---|---|---|
| **Beauty** | (1) | **Netherlands** | **8.4** | 48 | Jul 16 | Jul 21 | 629 | 103 | 44 | 39 |
| Boreal* | (3) | Canada | 9.0 | 63 | Jul 16 | Jul 21 | 1436 | 264 | 100 | 100 |
| **B 7733** | (3) | **Canada** | **9.0** | 66 | Jul 16 | Jul 21 | 1213 | 266 | 84 | 101 |
| Carlawn | (3) | Canada | 9.0 | 65 | Jul 16 | Jul 21 | 1178 | 196 | 82 | 74 |
| **Commodore** | (3) | **Netherlands** | **9.0** | 65 | Jul 16 | Jul 21 | 806 | 114 | 56 | 43 |
| G | (2) | Hungary | 9.0 | 72 | Jul 16 | Jul 21 | 1069 | 217 | 74 | 82 |
| **Islandic** | (3) | **Netherlands** | **9.0** | 66 | Jul 16 | Jul 21 | 731 | 83 | 51 | 31 |
| Leik | (3) | Norway | 9.0 | 72 | Jul 16 | Jul 21 | 1023 | 219 | 71 | 83 |
| **Perelle** | (2) | **France** | **9.0** | 45 | Jul 16 | Jul 21 | 165 | 21 | 11 | 8 |
| Robot | (3) | United Kingdom | 9.0 | 62 | Jul 16 | Jul 21 | 760 | 145 | 53 | 55 |
| **Satin** | (2) | **Sweden** | **9.0** | 61 | Jul 16 | Jul 21 | 351 | 40 | 24 | 15 |
| Zernickower | (3) | East Germany | 9.0 | 67 | Jul 16 | Jul 21 | 1014 | 174 | 71 | 66 |
| Mean | | | | | | | 865 | 153 | | |
| L.S.D. (P = .05) | | | | | | | 243 | 57 | | |

(1) Rhizomes absent or rudimentary
(2) Slender rhizomes
(3) Strong rhizomes
(4) Unclassified

Red Fescue

Test Site: Gimle (Driedger Farm)
Seeding Year: 1984

| Cultivar | | Origin | Hardiness | Height (cm) | Date Ripe 1986 | Seed Yield kg/ha 1986 | Seed Yield % of Boreal 1986 |
|---|---|---|---|---|---|---|---|
| Beauty | (1) | Netherlands | 9.0 | 53 | Jul 24 | 922 | 61 |
| Boreal* | (3) | Canada | 9.0 | 68 | Jul 21 | 1506 | 100 |
| B 7733 | (3) | Canada | 9.0 | 65 | Jul 24 | 1371 | 91 |
| Carlawn | (3) | Canada | 9.0 | 66 | Jul 24 | 1383 | 92 |
| Commodore | (3) | Netherlands | 9.0 | 65 | Jul 24 | 1101 | 73 |
| G | (2) | Hungary | 9.0 | 73 | Jul 24 | 1209 | 80 |
| Islandic | (3) | Netherlands | 9.0 | 66 | Jul 24 | 1045 | 69 |
| Leik | (3) | Norway | 9.0 | 66 | Jul 24 | 931 | 62 |
| Robot | (3) | United Kingdom | 9.0 | 60 | Jul 24 | 1236 | 82 |
| Satin | (2) | Sweden | 9.0 | 55 | Jul 21 | 396 | 26 |
| Zernickower | (3) | East Germany | 9.0 | 63 | Jul 24 | 1303 | 87 |
| Mean | | | | | | 1128 | |
| L.S.D. (P = .05) | | | | | | 289 | |

(1) Rhizomes absent or rudimentary
(2) Slender rhizomes
(3) Strong rhizomes
(4) Unclassified

Summary of Red Fescue Seed Yields
1984 Seeding Year
(Yields are shown as % of Boreal)

| Cultivar | | Origin | B'lodge A | | B'lodge B | | Falher | Fort Vermilion | | Gimle | | High Level | All Locations (Average) | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | 1985 | 1986 | 1985 | 1986 | | 1985 | 1986 | 1985 | 1986 | | 1985 | 1986 |
| **Beauty** | (1) | **Netherlands** | 31 | 26 | 40 | 44 | (a) | 44 | 39 | (b) | 61 | (a) | 38 | 43 |
| Boreal* | (3) | Canada | 100 | 100 | 100 | 100 | | 100 | 100 | | 100 | | 100 | 100 |
| **B 7733** | (3) | **Canada** | 173 | 136 | 123 | 113 | | 84 | 101 | | 91 | | 127 | 110 |
| Carlawn | (3) | Canada | 151 | 99 | 152 | 101 | | 82 | 74 | | 92 | | 128 | 92 |
| **Commodore** | (3) | **Netherlands** | 58 | 63 | 85 | 78 | | 56 | 43 | | 73 | | 66 | 64 |
| G | (2) | Hungary | 58 | 102 | 69 | 96 | | 74 | 82 | | 80 | | 67 | 90 |
| **Islandic** | (3) | **Netherlands** | 42 | 97 | 59 | 87 | | 51 | 31 | | 69 | | 51 | 71 |
| Leik | (3) | Norway | 117 | 111 | 95 | 94 | | 71 | 83 | | 62 | | 94 | 88 |
| **Perelle** | (2) | **France** | 2 | 25 | 3 | 25 | | 11 | 8 | | - | | 5 | 19 |
| Robot | (3) | United Kingdom | 118 | 86 | 86 | 86 | | 53 | 55 | | 82 | | 86 | 77 |
| **Satin** | (2) | **Sweden** | 14 | 29 | 21 | 30 | | 24 | 15 | | 26 | | 20 | 25 |
| Zernickower | (3) | East Germany | 127 | 102 | 110 | 105 | | 71 | 66 | | 87 | | 103 | 90 |
| Boreal Yield in kg/ha | | | 278 | 812 | 477 | 1142 | | 1436 | 264 | | 1506 | | 730 | 931 |

(1) Rhizomes absent or rudimentary
(2) Slender rhizomes
(3) Strong rhizomes
(4) Unclassified

(a) Not seeded
(b) Seed not harvested

Red Fescue

Test Site: Beaverlodge Research Station
Seeding Year: 1984

| Cultivar | | Origin | 1st Herbage Yield | | | | | | 2nd Herbage Yield | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Day Cut | | (DM) t/ha | | % of Boreal | | Day Cut | | (DM) t/ha | | % of Boreal | |
| | | | 1985 | 1986 | 1985 | 1986 | 1985 | 1986 | 1985 | 1986 | 1985 | 1986 | 1985 | 1986 |
| **Beauty** | **(1)** | **Netherlands** | **Jun 18** | **Jun 17** | **0.11** | **1.37** | **22** | **46** | **Aug 21** | **Aug 21** | **0.24** | **0.98** | **26** | **84** |
| Boreal* | (3) | Canada | Jun 18 | Jun 17 | 0.50 | 2.97 | 100 | 100 | Aug 21 | Aug 21 | 0.91 | 1.17 | 100 | 100 |
| **B 7733** | **(3)** | **Canada** | **Jun 18** | **Jun 17** | **0.78** | **2.95** | **156** | **99** | **Aug 21** | **Aug 21** | **1.28** | **0.78** | **141** | **67** |
| Carlawn | (3) | Canada | Jun 18 | Jun 17 | 0.80 | 2.89 | 160 | 97 | Aug 21 | Aug 21 | 0.81 | 0.90 | 89 | 77 |
| **Commodore** | **(3)** | **Netherlands** | **Jun 18** | **Jun 17** | **0.55** | **2.73** | **110** | **92** | **Aug 21** | **Aug 21** | **0.86** | **0.97** | **95** | **83** |
| G | (2) | Hungary | Jun 18 | Jun 17 | 0.40 | 3.49 | 80 | 118 | Aug 21 | Aug 21 | 0.90 | 1.32 | 99 | 113 |
| **Islandic** | **(3)** | **Netherlands** | **Jun 18** | **Jun 17** | **0.57** | **3.37** | **114** | **113** | **Aug 21** | **Aug 21** | **1.41** | **1.37** | **155** | **117** |
| Leik | (3) | Norway | Jun 18 | Jun 17 | 0.99 | 3.58 | 198 | 121 | Aug 21 | Aug 21 | 1.42 | 0.68 | 156 | 58 |
| **Perelle** | **(2)** | **France** | **Jun 18** | **Jun 17** | **0.09** | **1.89** | **18** | **64** | **Aug 21** | **Aug 21** | **0.35** | **1.06** | **38** | **91** |
| Robot | (3) | United Kingdom | Jun 18 | Jun 17 | 0.77 | 2.79 | 154 | 94 | Aug 21 | Aug 21 | 1.29 | 0.98 | 142 | 84 |
| **Satin** | **(2)** | **Sweden** | **Jun 18** | **Jun 17** | **0.30** | **2.60** | **60** | **88** | **Aug 21** | **Aug 21** | **1.06** | **1.56** | **116** | **133** |
| Zernickower | (3) | East Germany | Jun 18 | Jun 17 | 1.06 | 3.74 | 212 | 126 | Aug 21 | Aug 21 | 1.43 | 0.88 | 157 | 75 |
| Mean | | | | | 0.58 | 2.86 | | | | | 1.00 | 1.05 | | |
| L.S.D. (P = .05) | | | | | 0.34 | 0.45 | | | | | 0.35 | 0.28 | | |

(1) Rhizomes absent or rudimentary
(2) Slender rhizomes
(3) Strong rhizomes
(4) Unclassified

Red Fescue

Test Site: Beaverlodge B (Foster Farm)
Seeding Year: 1984

| Cultivar | | Origin | 1st Herbage Yield | | | | | | 2nd Herbage Yield | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Day Cut | | (DM) t/ha | | % of Boreal | | Day Cut | | (DM) t/ha | | % of Boreal | |
| | | | 1985 | 1986 | 1985 | 1986 | 1985 | 1986 | 1985 | 1986 | 1985 | 1986 | 1985 | 1986 |
| Beauty | (1) | Netherlands | Jun 17 | Jun 17 | 0.37 | 2.60 | 49 | 66 | Aug 19 | Aug 18 | 0.45 | 1.59 | 53 | 97 |
| Boreal* | (3) | Canada | Jun 17 | Jun 17 | 0.75 | 3.96 | 100 | 100 | Aug 19 | Aug 18 | 0.85 | 1.64 | 100 | 100 |
| B 7733 | (3) | Canada | Jun 17 | Jun 17 | 0.87 | 4.67 | 116 | 118 | Aug 19 | Aug 18 | 1.02 | 1.87 | 120 | 114 |
| Carlawn | (3) | Canada | Jun 17 | Jun 17 | 1.22 | 4.35 | 163 | 110 | Aug 19 | Aug 18 | 1.18 | 2.06 | 139 | 126 |
| Commodore | (3) | Netherlands | Jun 17 | Jun 17 | 0.74 | 4.50 | 99 | 114 | Aug 19 | Aug 18 | 0.92 | 1.94 | 108 | 118 |
| G | (2) | Hungary | Jun 17 | Jun 17 | 0.94 | 5.78 | 125 | 146 | Aug 19 | Aug 18 | 1.02 | 2.08 | 120 | 127 |
| Islandic | (3) | Netherlands | Jun 17 | Jun 17 | 0.97 | 5.04 | 129 | 127 | Aug 19 | Aug 18 | 1.40 | 2.29 | 165 | 140 |
| Leik | (3) | Norway | Jun 17 | Jun 17 | 1.12 | 5.32 | 149 | 134 | Aug 19 | Aug 18 | 1.60 | 1.53 | 188 | 93 |
| Perelle | (2) | France | Jun 17 | Jun 17 | 0.13 | 2.83 | 17 | 71 | Aug 19 | Aug 18 | 0.42 | 1.79 | 49 | 109 |
| Robot | (3) | United Kingdom | Jun 17 | Jun 17 | 1.01 | 4.74 | 135 | 120 | Aug 19 | Aug 18 | 1.30 | 1.89 | 153 | 115 |
| Satin | (2) | Sweden | Jun 17 | Jun 17 | 0.63 | 4.36 | 84 | 110 | Aug 19 | Aug 18 | 1.27 | 2.41 | 149 | 147 |
| Zernickower | (3) | East Germany | Jun 17 | Jun 17 | 1.38 | 5.26 | 184 | 133 | Aug 19 | Aug 18 | 1.28 | 2.01 | 151 | 123 |
| Mean | | | | | 0.84 | 4.45 | | | | | 1.06 | 1.93 | | |
| L.S.D. (P = .05) | | | | | 0.32 | 0.70 | | | | | 0.27 | 0.31 | | |

(1) Rhizomes absent or rudimentary
(2) Slender rhizomes
(3) Strong rhizomes
(4) Unclassified

Red Fescue

Test Site: Fort Vermilion Experimental Farm
Seeding Year: 1984

| Cultivar | | Origin | 1st Herbage Yield | | | | | | 2nd Herbage Yield | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Day Cut | | (DM) t/ha | | % of Boreal | | Day Cut | | (DM) t/ha | | % of Boreal | |
| | | | 1985 | 1986 | 1985 | 1986 | 1985 | 1986 | 1985 | 1986 | 1985 | 1986 | 1985 | 1986 |
| Beauty | (1) | Netherlands | Jun 10 | Jun 9 | 1.70 | 1.02 | 53 | 70 | Aug 13 | Aug 19 | 1.34 | 1.24 | 86 | 78 |
| Boreal* | (3) | Canada | Jun 10 | Jun 9 | 3.21 | 1.45 | 100 | 100 | Aug 13 | Aug 19 | 1.56 | 1.58 | 100 | 100 |
| B 7733 | (3) | Canada | Jun 10 | Jun 9 | 3.07 | 2.04 | 96 | 141 | Aug 13 | Aug 19 | 1.59 | 2.02 | 102 | 128 |
| Carlawn | (3) | Canada | Jun 10 | Jun 9 | 2.98 | 1.56 | 93 | 108 | Aug 13 | Aug 19 | 1.46 | 1.71 | 94 | 108 |
| Commodore | (3) | Netherlands | Jun 10 | Jun 9 | 2.37 | 1.62 | 74 | 112 | Aug 13 | Aug 19 | 1.44 | 1.73 | 92 | 109 |
| G | (2) | Hungary | Jun 10 | Jun 9 | 3.60 | 1.98 | 112 | 137 | Aug 13 | Aug 19 | 2.09 | 2.27 | 134 | 144 |
| Islandic | (3) | Netherlands | Jun 10 | Jun 9 | 2.65 | 1.45 | 83 | 100 | Aug 13 | Aug 19 | 1.99 | 2.17 | 128 | 137 |
| Leik | (3) | Norway | Jun 10 | Jun 9 | 3.14 | 2.59 | 98 | 179 | Aug 13 | Aug 19 | 1.56 | 1.22 | 100 | 77 |
| Perelle | (2) | France | Jun 10 | Jun 9 | 0.93 | 1.59 | 29 | 110 | Aug 13 | Aug 19 | 1.46 | 2.00 | 94 | 127 |
| Robot | (3) | United Kingdom | Jun 10 | Jun 9 | 2.62 | 1.75 | 82 | 121 | Aug 13 | Aug 19 | 1.53 | 1.97 | 98 | 125 |
| Satin | (2) | Sweden | Jun 10 | Jun 9 | 2.19 | 1.69 | 68 | 117 | Aug 13 | Aug 19 | 2.25 | 1.99 | 144 | 126 |
| Zernickower | (3) | East Germany | Jun 10 | Jun 9 | 2.66 | 2.11 | 83 | 146 | Aug 13 | Aug 19 | 1.96 | 2.22 | 126 | 141 |
| Mean | | | | | 2.59 | 1.74 | | | | | 1.69 | 1.84 | | |
| L.S.D. (P = .05) | | | | | 0.62 | 0.45 | | | | | 0.42 | 0.40 | | |

(1) Rhizomes absent or rudimentary
(2) Slender rhizomes
(3) Strong rhizomes
(4) Unclassified