

British Columbia

Alberta

Western Canadian Grass Seed Testing Program



2004 Report

Saskatchewan

Manitoba

INTRODUCTION

This report provides a summary of the grass seed trials conducted under the Western Grass Testing Program during 2004. The main objective of these trials is to determine the seed production potential and adaptability of grass varieties for contract seed production for the domestic and export market. All attempts have been made to ensure the success of these trials, however, at times environmental conditions may adversely affect the yield results regardless of the management practices followed.

Severe winter injury and winter kill was observed on most of the plots at the Arborg, Manitoba location.

We thank the following companies for their sponsorship of our 2004 research endeavors and look forward to cooperating and working with them during the 2005 production year.

Alberta Research Council
Agriculture & Agri-Food Canada
Barenbrug USA, Inc.
Brett-Young Seeds Ltd.
Boreal Plant Breeding
Deutsche Saatveredelung
DLF-International
John Zuelzer & Son Canada Ltd.
Moore Seed Processors Inc.
Newfield Seeds Company Inc.
Peace Pedigreed Seed
Peace River Seed Co-op Ltd.
The Scotts Company
Tomorrow's Seed
Turf-Seed, Inc.

Data Collection Procedures

Seed Yield	reported on a clean seed basis in kg ha^{-1} ($\text{kg ha}^{-1} \times 0.9 = \text{lbs ac}^{-1}$)
Harvest Date	date the variety was swathed.
Plant Height	measured in centimeters and is the height of the plant at harvest from ground level to the tip of the seed head ($1 \text{ cm} \times 0.3937 = \text{inches}$).

Trial Procedures

For information on specific trial procedures, contact the respective location representative listed on the following page.

* Please Note *

Some varieties in this report have been tested for shorter periods of time than others. It is advised not to use average yield figures to make variety comparisons for single-year data. Only after a **minimum** of three years of testing should data be considered as 90% reliable. In some cases, data may not be reported due to extreme variations that cannot be accounted for in the statistical design.

Statistical information for this report was generated through an Analysis of Variance (ANOVA). Least significant difference (LSD) values are presented at the bottom of each table when statistically significant differences are present using the 5% level of significance. This means there is a 95% probability that you can reject the hypothesis that the treatments are the same or there is only a 5% probability that the treatment differences occurred by chance. If the difference in treatment values is less than the LSD value, the treatments are not considered to be significantly different.

Disclaimer

Reference to commercial products or trade names is made with the understanding that no discrimination is intended and no endorsement is implied.

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Protocol for Western Grass Seed Testing (WGST) Program

Revised January 2004

1. Research Sponsorship

The research sponsorship of \$120 CAN/entry/year/location is requested on an annual basis, as years of production will vary with the species being tested, and applies to the establishment year as well. Alberta Agriculture, Food and Rural Development will administer funds for the Western Grass Seed Testing Program.

2. Eligibility of Entries

Released and experimental lines of all tame and native grass species will be considered if they are of interest to commercial seed companies. We reserve the right not to initiate tests:

- if seed arrives late
- if there is lack of space in any year at a particular location
- if there are too few entries in any year for a particular location

3. Seed Requirements and Deadline for Seed Entry

The applicant will provide for **EACH TEST LOCATION**:

- 50 gm bentgrass, Kentucky bluegrass or timothy
- 100 gm of orchardgrass, creeping red, chewings, hard, meadow, sheep or tall fescue, annual or perennial ryegrass
- 200 gm of meadow or smooth brome grass, wheatgrasses

Submitted seed shall be supplied by **March 1** of the establishment year and will include the percent germination and relative maturity (early, medium or late) of each variety. Please indicate whether the submission is a forage or turf type. For fescues please indicate whether the submission is a creeping, chewings, hard, meadow, sheep or tall fescue.

4. Use of Seed

Seed submitted will only be used to establish the agreed upon trials. The seed will **NOT** be used for increase, selection or distribution.

5. Test Locations

1. Fort St. John, British Columbia
2. Beaverlodge, Alberta
3. Brooks, Alberta (irrigated)
4. Bow Island, Alberta (irrigated)
5. Vegreville, Alberta
6. Melfort, Saskatchewan
7. Outlook, Saskatchewan (irrigated)
8. Portage La Prairie, Manitoba
9. Arborg, Manitoba

The applicant selects the locations where their material is to be tested.



6. Test Description

Due to plot equipment differences and land availability at the various test sites, certain conditions must be met in establishing trials. Each test will be a randomized complete block consisting of a minimum of 4 replicates. No test will have more than 25 entries of a particular species. Plots will be seeded at appropriate seeding rates for the species being tested and normal cultural practices for the area will be carried out. A minimum of 3 sq. m will be harvested.

Species, check varieties and years of testing (establishment year and seed production years):

Bentgrasses - 18th Green - 4 yrs.	Tall fescue - Courtenay - 4 yrs
Kentucky bluegrass - Abbey - 4 yrs	Orchardgrass - Kay - 3 yrs
Meadow brome - Fleet - 3 yrs	Annual ryegrass - Aubade - 1 yr
Smooth brome - Carlton - 4 yrs	Perennial ryegrass - Norlea - 2 yr
Meadow fescue - Mimer - 4 yrs	Timothy - Climax - 4 yrs
Red fescue - Boreal - 3 yrs	

Information to be recorded will include clean seed yield, % stand in fall and spring, plant height, harvest date and if available, climatic data for each test site.

7. Publication of Results

Data will undergo appropriate statistical analyses and each applicant will be provided with an annual report. Information on varieties will be made available in various annual reports and to seed producers upon request.

- 8.** All reasonable care will be taken to ensure a successful test, however, a guarantee cannot be made that a particular test will be successful. If required a test will be reseeded.

9. For further information, contact:

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**Kentucky Bluegrass 2001 Seed Production Trial
Beaverlodge, Alberta 2004 Results**

Company	Variety	Seed Yield (kg/ha ⁻¹)	Harvest Date	Plant Height (cm)
DLF-International	Blue Knight	97	10-Aug-04	30
	Broadway	104	10-Aug-04	36
Check	Abbey	121	10-Aug-04	35
	Mean	107	.	33
	CV (%)	23.9		22.3
	LSD (0.05)	ns		ns

**Kentucky Bluegrass 2001 Seed Production Trial
Outlook, Saskatchewan 2004 Results**

Company	Variety	Seed Yield (kg/ha ⁻¹)	Harvest Date	Plant Height (cm)
Turf-Seed	Bluestar	447	13-Aug-04	.
	Brilliant	629	13-Aug-04	.
	Moonlight	506	13-Aug-04	.
	North Star	582	13-Aug-04	.
Check	Abbey	538	13-Aug-04	.
	Mean	540	.	.
	CV (%)	45.0		
	LSD (0.05)	378		

**Kentucky Bluegrass 2002 Seed Production Trial
Bow Island, Alberta 2004 Results**

Company	Variety	Seed Yield (kg/ha ⁻¹)	Harvest Date	Plant Height (cm)
Brett-Young	Orfeo	687	20-Jul-04	77
DLF-International	Blue Knight	428	22-Jul-04	72
	Broadway	651	20-Jul-04	71
DSV	214/94	496	26-Jul-04	74
	POPR 97561	431	22-Jul-04	66
	POPR 97562	523	26-Jul-04	70
	POPR 97563	384	22-Jul-04	75
	POPR 97564	779	29-Jul-04	84
	POPR 97567	332	29-Jul-04	65
	POPR 97570	503	26-Jul-04	63
	POPR 97571	457	22-Jul-04	71
	POPR 97573	595	29-Jul-04	78
	POPR 97576	500	20-Jul-04	75
Turf-Seed	Blacksburg II	439	26-Jul-04	75
	Midnight Star	538	20-Jul-04	76
Check	Abbey	989	20-Jul-04	74
	Mean	546	.	73
	CV (%)	16.3		9.7
	LSD (0.05)	126		10

**Kentucky Bluegrass 2002 Seed Production Trial
Brooks, Alberta 2004 Results**

Company	Variety	Seed Yield (kg/ha ⁻¹)	Harvest Date	Plant Height (cm)
DVS	POPR 97570	457	23-Jul-04	76
	POPR 97571	412	23-Jul-04	79
	POPR 97573	689	23-Jul-04	85
	POPR 97576	481	23-Jul-04	83
Turf-Seed	Blacksburg II	520	23-Jul-04	86
	Midnight Star	437	23-Jul-04	84
Check	Abbey	519	23-Jul-04	82
	Mean	502	.	82
	CV (%)	19.9		7.1
	LSD (0.05)	149		ns

**Kentucky Bluegrass 2003 Seed Production Trial
Bow Island, Alberta 2004 Results**

Company	Variety	Seed Yield (kg/ha ⁻¹)	Harvest Date	Plant Height (cm)
Brett-Young	A96-425	.	.	.
	A96-43	.	.	.
	A98-146	.	.	.
	A98-475	.	.	.
	A99-2573	.	.	.
DLF-International	A98-139		Poor establishment	
	DLF 769037		Reseeded 2004	
	HB95 Hybrid	.	.	.
	HB96 Hybrid	.	.	.
	Plantini	.	.	.
	SCR-320	.	.	.
	Slezanka	.	.	.
DSV	N 522	.	.	.
	POPF 00577	.	.	.
	POPF 00578	.	.	.
	POPF 00580	.	.	.
	POPR 99575	.	.	.
Check	Abbey	.	.	.

**Kentucky Bluegrass 2003 Seed Production Trial
Brooks, Alberta 2004 Results**

Company	Variety	Seed Yield (kg/ha ⁻¹)	Harvest Date	Plant Height (cm)	
DSV	214/94	583	29-Jul-04	76	
	N 522	410	29-Jul-04	82	
	POPF 00577	420	23-Jul-04	81	
	POPF 00578	290	29-Jul-04	79	
	POPF 00580	412	23-Jul-04	78	
	POPR 97561	.	29-Jul-04	.	
	POPR 97562	408	29-Jul-04	74	
	POPR 97563	447	23-Jul-04	84	
	POPR 97564	530	29-Jul-04	86	
	POPR 97567	350	23-Jul-04	85	
	POPR 99575	450	29-Jul-04	83	
	Check	Abbey	662	23-Jul-04	81
		Mean	458	.	81
	CV (%)	16.7		9.4	
	LSD (0.05)	125		ns	

**Kentucky Bluegrass 2003 Seed Production Trial
Portage la Prairie, Manitoba 2004 Results**

Company	Variety	Seed Yield (kg/ha ⁻¹)	Harvest Date	Plant Height (cm)
Brett-Young	BDX-003			
	CBT-003			
Check	Abbey			

**Poor establishment
Trial discontinued**

**Smooth Bromegrass 2003 Seed Production Trial
Beaverlodge, Alberta 2004 Results**

<u>Company</u>	<u>Variety</u>	<u>Seed Yield (kg/ha⁻¹)</u>	<u>Harvest Date</u>	<u>Plant Height (cm)</u>
Newfield Seeds	Peak	557	9-Aug-04	136
Check	Carlton	520	9-Aug-04	131
	Mean	539	.	134
	CV (%)	6.9		6.3

**Smooth Bromegrass 2003 Seed Production Trial
Melfort, Saskatchewan 2004 Results**

<u>Company</u>	<u>Variety</u>	<u>Seed Yield (kg/ha⁻¹)</u>	<u>Harvest Date</u>	<u>Plant Height (cm)</u>
Newfield Seeds	Peak	563	3-Aug-04	158
Check	Carlton	845	3-Aug-04	167
	Mean	704	.	162
	CV (%)	19.9		2.7

**Smooth Bromegrass 2003 Seed Production Trial
Outlook, Saskatchewan 2004 Results**

<u>Company</u>	<u>Variety</u>	<u>Seed Yield (kg/ha⁻¹)</u>	<u>Harvest Date</u>	<u>Plant Height (cm)</u>
Newfield Seeds	Peak	1156	13-Aug-04	.
Check	Carlton	1164	13-Aug-04	.
	Mean	1159	.	.
	CV (%)	19.0		

**Smooth Bromegrass 2003 Seed Production Trial
Arborg, Manitoba 2004 Results**

Company	Variety	Seed Yield (kg/ha ⁻¹)	Harvest Date	Plant Height (cm)
Newfield Seeds	Peak	683	11-Aug-04	.
Check	Carlton	993	11-Aug-04	.
	Mean	838	.	.
	CV (%)	8.7		

**Smooth Bromegrass 2003 Seed Production Trial
Portage la Prairie, Manitoba 2004 Results**

Company	Variety	Seed Yield (kg/ha ⁻¹)	Harvest Date	Plant Height (cm)
Newfield Seeds	Peak		Poor establishment	
Check	Carlton		Trial discontinued	

**Fine Fescue 2002 Seed Production Trial
Bow Island, Alberta 2004 Results**

Species	Company	Variety	Seed Yield (kg/ha ⁻¹)	Harvest Date	Plant Height (cm)
Creeping red	Turf-Seed	Aberdeen	2057	14-Jul-04	82
		Inverness	1731	16-Jul-04	85
Hard		Aurora Gold	1150	8-Jul-04	79
		Aurora II	1272	8-Jul-04	74
Creeping red	Check	Boreal	2258	16-Jul-04	93
Mean			1694	.	83
CV (%)			8.5		7.9
LSD (0.05)			222		10

**Fine Fescue 2002 Seed Production Trial
Brooks, Alberta 2004 Results**

Species	Company	Variety	Seed Yield (kg/ha ⁻¹)	Harvest Date	Plant Height (cm)
Creeping red	Turf-Seed	Aberdeen	1210	16-Jul-04	93
		Inverness	779	19-Jul-04	77
Hard		Aurora Gold	398	13-Jul-04	79
		Aurora II	592	13-Jul-04	75
Creeping red	Check	Boreal	1234	16-Jul-04	91
Mean			843	.	83
CV (%)			17.6		9.8
LSD (0.05)			228		12

**Fine Fescue 2002 Seed Production Trial
Beaverlodge, Alberta 2004 Results**

Species	Company	Variety	Seed Yield (kg/ha ⁻¹)	Harvest Date	Plant Height (cm)
Blue hard	Turf-Seed	Little Bighorn	777	12-Jul-04	.
Creeping red	AAFC Beaverlodge	BRFB1	899	22-Jul-04	73
	Brett-Young	FRP 101	605	22-Jul-04	63
		Swing	305	22-Jul-04	61
Sheep	Newfield Seeds	Rocky	389	12-Jul-04	.
Creeping red	Check	Boreal	683	22-Jul-04	70
		Mean	610	.	67
		CV (%)	44.9		8.7
		LSD (0.05)	413		9

**Fine Fescue 2003 Seed Production Trial
Bow Island, Alberta 2004 Results**

Species	Company	Variety	Seed Yield (kg/ha ⁻¹)	Harvest Date	Plant Height (cm)
Creeping red	Turf-Seed	Florentine GT	1444	16-Jul-04	75
	Check	Boreal	2268	14-Jul-04	84
		Mean	1856	.	79
		CV (%)	8		7.2

**Fine Fescue 2003 Seed Production Trial
Brooks, Alberta 2004 Results**

	Company	Variety	Seed Yield (kg/ha ⁻¹)	Harvest Date	Plant Height (cm)
Creeping red	Turf-Seed	Florentine GT	1392	19-Jul-04	88
	Check	Boreal	2231	16-Jul-04	89
		Mean	1812	.	88
		CV (%)	9.1		5.9

**Fine Fescue 2003 Seed Production Trial
Beaverlodge, Alberta 2004 Results**

Species	Company	Variety	Seed Yield (kg/ha ⁻¹)	Harvest Date	Plant Height (cm)
Blue hard	Turf-Seed	Little Bighorn	799	12-Jul-04	.
Creeping red	Peace Pedigreed Seed	LEL 2002	1430	22-Jul-04	71
Sheep	Newfield Seeds	Rocky	533	12-Jul-04	.
Creeping red	Check	Boreal	1208	22-Jul-04	70
		Mean	993	.	70
		CV (%)	19.9		9.2
		LSD (0.05)	317		

**Fine Fescue 2003 Seed Production Trial
Fort St. John, British Columbia 2004 Results**

Species	Company	Variety	Seed Yield (kg/ha ⁻¹)	Harvest Date	Plant Height (cm)
Blue hard	Turf-Seed	Little Bighorn	350	15-Jul-04	.
Creeping red	AAFC Beaverlodge	BRFB1	604	18-Jul-04	.
	Brett-Young	FRP 101	402	18-Jul-04	.
		Swing	262	18-Jul-04	.
	Peace Pedigreed Seed	LEL 2002	667	18-Jul-04	.
	Turf-Seed	Aberdeen	622	18-Jul-04	.
		Forentine GT	250	18-Jul-04	.
		Inverness	465	18-Jul-04	.
	Check	Boreal	573	18-Jul-04	.
		Mean	466	.	.
		CV (%)	23.4		
		LSD (0.05)	159		

**Fine Fescue 2003 Seed Production Trial
Melfort, Saskatchewan 2004 Results**

Species	Company	Variety	Seed Yield (kg/ha ⁻¹)	Harvest Date	Plant Height (cm)
Creeping red	Peace Pedigreed Seed	LEL 2002			
Sheep	Newfield Seeds	Rocky			
Creeping red	Check	Boreal			
Poor growth Trial discontinued					

**Fine Fescue 2003 Seed Production Trial
Outlook, Saskatchewan 2004 Results**

Species	Company	Variety	Seed Yield (kg/ha ⁻¹)	Harvest Date	Plant Height (cm)
Sheep	Newfield Seeds	Rocky	361	13-Aug-04	.
Creeping red	Check	Boreal	990	13-Aug-04	.
		Mean	675	.	.
		CV (%)	26		

**Meadow Fescue 2001 Seed Production Trial
Beaverlodge, Alberta 2004 Results**

Company	Variety	Seed Yield (kg/ha ⁻¹)	Harvest Date	Plant Height (cm)
DLF-International	FB 6	57	26-Jul-04	50
Check	Mimer	140	26-Jul-04	56
	Mean	99	.	53
	CV (%)	20.6		10

**Meadow Fescue 2001 Seed Production Trial
Fort St. John, British Columbia 2004 Results**

Company	Variety	Seed Yield (kg/ha ⁻¹)	Harvest Date	Plant Height (cm)
DLF-International	FB 6	121	23-Jul-04	.
Check	Mimer	106	23-Jul-04	.
	Mean	113	.	.
	CV (%)	44.0		

**Tall Fescue 2001 Seed Production Trial
Bow Island, Alberta 2004 Results**

Company	Variety	Seed Yield (kg/ha ⁻¹)	Harvest Date	Plant Height (cm)
Scotts	Coyote	1736	20-Jul-04	91
	WAF	1759	20-Jul-04	91
Check	Courtenay	1689	16-Jul-04	134
	Mean	1728	.	105
	CV (%)	12.5		9.7
	LSD (0.05)	ns		18

**Tall Fescue 2001 Seed Production Trial
Outlook, Saskatchewan 2004 Results**

Company	Variety	Seed Yield (kg/ha ⁻¹)	Harvest Date	Plant Height (cm)
Turf-Seed	Endeavor	500	13-Aug-04	.
	Maximize	401	13-Aug-04	.
	Olympic Gold	639	13-Aug-04	.
	Spring Green (f)	393	13-Aug-04	.
	Tar Heel	420	13-Aug-04	.
	Wolfpack	549	13-Aug-04	.
Check	Courtenay	578	13-Aug-04	.
	Mean	495		
	CV (%)	23.0		
	LSD (0.05)	168		

f - Festulolium

**Tall Fescue 2002 Seed Production Trial
Bow Island, Alberta 2004 Results**

Company	Variety	Seed Yield (kg/ha ⁻¹)	Harvest Date	Plant Height (cm)
Turf-Seed	Endure	1816	20-Jul-04	100
	Silverstar	2550	20-Jul-04	102
	Tomahawk GT	2658	20-Jul-04	106
Check	Courtenay	1977	16-Jul-04	132
	Mean	2250	.	110
	CV (%)	11.2		6.1
	LSD (0.05)	402		11

**Tall Fescue 2002 Seed Production Trial
Brooks, Alberta 2004 Results**

Company	Variety	Seed Yield (kg/ha ⁻¹)	Harvest Date	Plant Height (cm)
Turf-Seed	Endure	1396	23-Jul-04	117
	Silverstar	1520	23-Jul-04	101
	Tomahawk GT	1721	23-Jul-04	104
Check	Courtenay	1431	19-Jul-04	140
	Mean	1517	.	116
	CV (%)	16.2		9
	LSD (0.05)	ns		17

**Tall Fescue 2003 Seed Production Trial
Bow Island, Alberta 2004 Results**

Company	Variety	Seed Yield (kg/ha ⁻¹)	Harvest Date	Plant Height (cm)
DLF-International	Hykor (f)	1309	14-Jul-04	115
Turf-Seed	Matador GT	1613	20-Jul-04	88
	Silverado II	1825	20-Jul-04	89
	Tar Heel II	999	14-Jul-04	78
Check	Courtenay	1283	14-Jul-04	127
	Mean	1419	.	99
	CV (%)	20.3		7.1
	LSD (0.05)	ns		13

f - Festulolium

**Tall Fescue 2003 Seed Production Trial
Brooks, Alberta 2004 Results**

Company	Variety	Seed Yield (kg/ha ⁻¹)	Harvest Date	Plant Height (cm)
Turf-Seed	Matador GT	1926	23-Jul-04	105
	Silverado II	1420	23-Jul-04	106
	Tar Heel II	1056	16-Jul-04	83
Check	Courtenay	1551	23-Jul-04	121
	Mean	1493	.	105
	CV (%)	11.9		8.2
	LSD (0.05)	345		17

**Tall Fescue 2003 Seed Production Trial
Fort St. John, British Columbia 2004 Results**

Company	Variety	Seed Yield (kg/ha ⁻¹)	Harvest Date	Plant Height (cm)
Turf-Seed	Matador GT	645	26-Jul-04	.
	Silverado II	275	26-Jul-04	.
	Tar Heel II	368	23-Jul-04	.
Check	Courtenay	473	23-Jul-04	.
	Mean	440	.	.
	CV (%)	36.1		
	LSD (0.05)	254		

**Tall Fescue 2003 Seed Production Trial
Arborg, Manitoba 2004 Results**

Company	Variety	Seed Yield (kg/ha ⁻¹)	Harvest Date	Plant Height (cm)
DLF-International	Hykor (f)	113	11-Aug-04	.
Tommorow's Seed	TS-T3	597	11-Aug-04	.
Check	Courtenay	422	11-Aug-04	.
	Mean	430	.	.
	CV (%)	25.5		
	LSD (0.05)	249		

f - Festulolium (did not over winter well)

**Native Grasses 2003 Seed Production Trial
Bow Island, Alberta 2004 Results**

Company	Variety	Seed Yield (kg/ha ⁻¹)	Harvest Date	Plant Height (cm)
Research Council	ARC-AWG-1-1 (aw)	1693	3-Aug-04	135
	ARC-CWR-2-1 (cw)	1768	10-Aug-04	150
	ARC-IRG-1-1 (ir)	.	.	.
	Hillcrest (aw)	2232	26-Jul-04	123
	Mean	1898	.	136
	CV (%)	6.9		4.9
	LSD (0.05)	229		12

aw - Awned Wheatgrass

cw - Canadian Wildrye

ir - Indian Ricegrass (slow establishment, little seed produced)

**Native Grasses 2003 Seed Production Trial
Beaverlodge, Alberta 2004 Results**

Company	Variety	Seed Yield (kg/ha ⁻¹)	Harvest Date	Plant Height (cm)
Research Council	ARC-AWG-1-1 (aw)	472	9-Aug-04	119
	ARC-CWR-2-1 (cw)	710	19-Aug-04	147
	ARC-IRG-1-1 (ir)	126	19-Aug-04	58
	Hillcrest (aw)	472	3-Aug-04	95
	Mean	445	.	108
	CV (%)	17.3		5.1
	LSD (0.05)	123		9

aw - Awned Wheatgrass

cw - Canadian Wildrye

ir - Indian Ricegrass (slow establishment)

**Orchard Grass 2002 Seed Production Trial
Bow Island, Alberta 2004 Results**

Company	Variety	Seed Yield (kg/ha ⁻¹)	Harvest Date	Plant Height (cm)
Tomorrow's Seed	TS02 MLYK	1003	20-Jul-04	128
Check	Kay	1152	16-Jul-04	132
	Mean	1077	.	130
	CV (%)	12.1		7.2

**Orchard Grass 2002 Seed Production Trial
Brooks, Alberta 2004 Results**

Company	Variety	Seed Yield (kg/ha ⁻¹)	Harvest Date	Plant Height (cm)
Tomorrow's Seed	TS02 A4	1089	19-Jul-04	153
	TS02 MYK	1032	19-Jul-04	156
	TS02 PX2	1158	19-Jul-04	157
Check	Kay	1098	19-Jul-04	154
	Mean	1094	.	155
	CV (%)	13.3		3.4
	LSD (0.05)	ns		ns

**Orchard Grass 2003 Seed Production Trial
Arborg, Manitoba 2004 Results**

Company	Variety	Seed Yield (kg/ha ⁻¹)	Harvest Date	Plant Height (cm)
Tomorrow's Seed	TS-A2000	688	4-Aug-04	.
	TS-A4	516	4-Aug-04	.
	TS-AP	398	4-Aug-04	.
	TS-HATT	565	4-Aug-04	.
	TS-MYK	278	4-Aug-04	.
	TS-PX2	159	4-Aug-04	.
	TS-VLA	587	4-Aug-04	.
Check	Kay	211	4-Aug-04	.
	Mean	425	.	.
	CV (%)	16.7		
	LSD (0.05)	104		

**Perennial Ryegrass 2003 Seed Production Trial
Bow Island, Alberta 2004 Results**

Company	Variety	Seed Yield (kg/ha ⁻¹)	Harvest Date	Plant Height (cm)
Turf-Seed	Quicksilver	1102	20-Jul-04	59
Check	Norlea	1177	20-Jul-04	90
	Mean	1140	.	74
	CV (%)	3.6		14.1

**Perennial Ryegrass 2003 Seed Production Trial
Brooks, Alberta 2004 Results**

Company	Variety	Seed Yield (kg/ha ⁻¹)	Harvest Date	Plant Height (cm)
Turf-Seed	Quicksilver			
Check	Norlea			
			Grasshopper damage Reseeded 2004	

**Perennial Ryegrass 2003 Seed Production Trial
Arborg, Manitoba 2004 Results**

Company	Variety	Seed Yield (kg/ha ⁻¹)	Harvest Date	Plant Height (cm)
DLF-International	Capri	.	.	.
	Cinderella	.	.	.
	DP 17-9501	.	.	.
	DP 17-9502	.	.	.
	Easy Living			
	Elfkin			
	Esquire	.	.	.
	Esteem	.	.	.
	PDQ	.	.	.
	Sauvignon	.	.	.
Check	Norlea	.	.	.
			Winter Killed Reseeded 2004	

**Timothy 2001 Seed Production Trial
Bow Island, Alberta 2004 Results**

Company	Variety	Seed Yield (kg/ha ⁻¹)	Harvest Date	Plant Height (cm)
DLF-International	Bilbo	700	3-Aug-04	106
	Dolina	653	3-Aug-04	98
	Tundra	518	3-Aug-04	100
Check	Climax	609	3-Aug-04	112
	Mean	620	.	104
	CV (%)	16.3		7.4
	LSD (0.05)	ns		ns

**Timothy 2001 Seed Production Trial
Beaverlodge, Alberta 2004 Results**

Company	Variety	Seed Yield (kg/ha ⁻¹)	Harvest Date	Plant Height (cm)
DLF-International	Bilbo	102	10-Aug-04	63
	Dolina	70	10-Aug-04	61
	DVP 001657	62	10-Aug-04	59
	Tundra	54	10-Aug-04	55
Check	Climax	51	10-Aug-04	61
	Mean	68	.	60
	CV (%)	43.7		6.7
	LSD (0.05)	ns		ns

**Timothy 2001 Seed Production Trial
Fort St. John, British Columbia 2004 Results**

Company	Variety	Seed Yield (kg/ha ⁻¹)	Harvest Date	Plant Height (cm)
DLF-International	Bilbo	301	11-Aug-04	.
	Dolina	211	11-Aug-04	.
	DVP 001657	179	11-Aug-04	.
	Tundra	224	11-Aug-04	.
Check	Climax	151	11-Aug-04	.
	Mean	213	.	.
	CV (%)	54.8		
	LSD (0.05)	ns		

**Timothy 2002 Seed Production Trial
Beaverlodge, Alberta 2004 Results**

Company	Variety	Seed Yield (kg/ha ⁻¹)	Harvest Date	Plant Height (cm)
Moore Seed	Grassland Charlton	283	10-Aug-04	99
Check	Climax	404	10-Aug-04	113
	Mean	344	.	106
	CV (%)	19.2		3.4

**Timothy 2003 Seed Production Trial
Beaverlodge, Alberta 2004 Results**

Company	Variety	Seed Yield (kg/ha ⁻¹)	Harvest Date	Plant Height (cm)
Moore Seed	SBT 9501	427	9-Aug-04	103
Check	Climax	406	9-Aug-04	102
	Mean	416	.	102
	CV (%)	26.2		5.6

**Timothy 2003 Seed Production Trial
Fort St. John, British Columbia 2004 Results**

Company	Variety	Seed Yield (kg/ha ⁻¹)	Harvest Date	Plant Height (cm)
DLF-International	DP 70-9707	404	10-Aug-04	.
	DP 70-9802	613	10-Aug-04	.
	Winnetou	692	10-Aug-04	.
Moore Seed	Grassland Charlton	445	10-Aug-04	.
	SBT 9501	448	10-Aug-04	.
Check	Climax	501	10-Aug-04	.
	Mean	517	.	.
	CV (%)	12.9		
	LSD (0.05)	101		

**Timothy 2003 Seed Production Trial
Arborg, Manitoba 2004 Results**

Company	Variety	Seed Yield (kg/ha ⁻¹)	Harvest Date	Plant Height (cm)
DLF-International	DP 70-9707	156	19-Aug-04	.
	DP 70-9802	388	19-Aug-04	.
	Winnetou	421	19-Aug-04	.
Check	Climax	286	19-Aug-04	.
	Mean	323	.	.
	CV (%)	20.6		
	LSD (0.05)	113		

Summary of seed yield (kg ha⁻¹) for Kentucky Bluegrass in Western Canada 1997-2004

Company	Variety	Seed yield / production year												
		Bow Island			Brooks			Beaverlodge			Outlook			
		1	2	3	1	2	3	1	2	3	1	2	3	
Check	Abbey	1251	1241	833	1126	850	734	187	349	221	501	349	538	
Brett-Young	Orfeo	1032	687											
DLF - International	Blue Knight	869	428					39	200	97				
	Broadway	878	651					65	223	104				
DSV	VB 17921	468	636	323	759	507	369				287	479		
	VB 19111	880	1044	298	989	604	600				253	437		
	214/94	1118	496		583									
	N 522				410									
	N-545	740	483	456	1550	322	256							
	N-551	603	509	431	1025	431	151							
	N-552	637	724	401	972	550	177							
	N-554	372	626	326	1186	356	166							
	POPF 00577				420									
	POPF 00578				290									
	POPF 00580				412									
	POPR 97561	808	431											
	POPR 97562	622	523		408									
	POPR 97563	670	384		447									
	POPR 97564	1139	779		530									
POPR 97567	521	332		350										
POPR 97570	837	503		766	457									
POPR 97571	836	457		696	412									
POPR 97573	907	595		992	689									
POPR 97576	739	500		665	481									
POPR 99575				450										
PPR 11-85	588	677	516	1117	453	189								

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Summary of seed yield (kg ha⁻¹) for Kentucky Bluegrass in Western Canada 1997-2004 (con't)

Company	Variety	Seed yield / production year											
		Bow Island			Brooks			Beaverlodge			Outlook		
		1	2	3	1	2	3	1	2	3	1	2	3
Lesco	LSKB CT 98-1	1028	1585	334				335	474	256			
	LSKB CT 1	1011	285	165									
	LSKB CT 2	1309	514	252									
Montana Turfgrass	MTT 483	831	795	749	586	890	492						
	MTT 683	799	865	732	655	843	444						
Newfield Seeds	Dormie	1350	873	280	907	428	279						
	Opal	986	863	183	693	299	304						
Pickseed Canada	Banff	1264	326		838	439							
	Pick 113-3				769	407							
	Pick H94-301	1146	503		838	594							
Scotts	HB-127	881	754	462									
Turf-Seed	Blacksburg II	814	439		644	520							
	Bluestar	1393	684	372	1470	944	718	253	160	172	345		447
	Brilliant	534	440	434							235		629
	Denim	1554	635	520	945	775	672	124	166	296			
	Lato	291	268	289									
	Midnight Star	803	538		588	437							
	Moonlight	672	411	344							182		506
	North Star	539	383	339							123		582
	Serene	504	705	151	375	162	205	150	97	72			
	Voyager	959	452	306	1054	554	481	11	191	66			
Mean		894	655	440	803	575	444	154	256	173	303	422	540

Summary of seed yield (kg ha⁻¹) for Smooth Bromegrass in Western Canada 1997-2004

		Seed yield / production year							
		Brooks			Beaverlodge			Fort St. John	
Company	Variety	1	2	3	1	2	3	1	2
Newfield Seeds	Peak				557				
Pickseed Canada	Bravo	969	288	375	378	222	109	416	642
Check	Carlton	1384	415	607	599	462	292	750	920
Mean		1177	352	491	533	342	200	583	781

		Seed yield / production year					
		Melfort	Outlook	Arborg	Portage la Prairie		
Company	Variety	1	1	1	1	2	3
Newfield Seeds	Peak	563	1156	683			
Pickseed Canada	Bravo				112	436	496
Check	Carlton	845	1164	993	214	585	463
Mean		704	1160	838	163	496	474

Summary of seed yield (kg ha⁻¹) for Fine Fescues in Western Canada 1997-2004

			Seed yield / production year											
Species	Company	Variety	Bow Island		Brooks		Beaverlodge		Fort St. John		Melfort		Outlook	Arborg
			1	2	1	2	1	2	1	2	1	2	1	1
Creeping red	Check	Boreal	2361	1865	1837	1121	1006	549	1042	429	357	35	990	
Blue hard	Turf-Seed	Bighorn	1304	1077	2110	1465								
		Little Bighorn					634	777	350					
Chewings	DLF-International	Casanova					506	323	1400	1021				
	Pickseed Canada	Victory II	2685	718	1218	466								
	Turf-Seed	Tiffany	1107	1509	929	1274								
Creeping red		Eugene					949	532						
	AAFC Beaverlodge	BRFB1					1250	899	604					
	Brett-Young	BY511751					297	134	1221	23				
		FRP 101					748	605	402					
		Swing					305	305	262					
	DLF-International	RU 1511					711	494	1607	564				
		RU 1645					737	613	813	246				
	Newfield Seeds	SW Kristina	1222	1602			384	269	277	627	146	17		
	Parsons Seeds	Kauni					956	687	1760	1274				
	Peace Pedigreed Seed	LEL 2002					1430		667					
	Pickseed Canada	Jasper					714	316	1687	993				
	Turf-Seed	Aberdeen	1999	2057	1408	1210			622					
		Florentine	1549	590	828	614	269	152						
		Florentine GT	1444		1392				250					
		Inverness	2068	1731	1276	779			465					
		Miramar	1281	748	1380	526	372	290						
		Shademaster II	1358	1134	1322	865								
	Proven Seed	UGG 2001					566	255	759	654				
		UGG 2002					425	301	407	729				

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Summary of seed yield (kg ha⁻¹) for Fine Fescues in Western Canada 1997-2004 (con't)

Species	Company	Variety	Seed yield / production year											
			Bow Island		Brooks		Beaverlodge		Fort St. John		Melfort		Outlook	Arborg
			1	2	1	2	1	2	1	2	1	2	1	1
Fine	Lesco	LSFF CT 98-1	1719	1777			702	448	1036	756				
		LSFF CT 98-2	1593	2137			417	589	715	1290				
		LSFF CT 98-3	1510	1588			91	607	250	1117				
Hard	Turf-Seed	Aurora Gold	1280	1402	1340	707	112	692						
		Aurora II	1349	1272	1393	592								
		Discovery	1161	986	1575	994								
Sheep	Newfield Seeds	Rocky					533	389				361		
Slender	Peace Valley Seeds	Barcrown	404	492	0	587								
	Turf-Seed	Seabreeze	1083	1191	726	199	171	207						
Mean			1637	1355	1391	862	655	466	906	693	252	26	676	

Summary of seed yield (kg ha⁻¹) for Mountain Fescue in Western Canada 1997-2004

Company	Variety	Seed yield / production year					
		Beaverlodge			Fort St. John		
		1	2	3	1	2	3
Research Council	ARCFS-1	398	297	163	1142	764	187
	ARCFS-2	467	371	157	1050	930	363
	ARCFS-V	372	379	92	1183	618	160
Mean		412	349	137	1125	771	237

Summary of seed yield (kg ha⁻¹) for Meadow Fescue in Western Canada 1997-2004

Company	Variety	Seed yield / production year							
		Beaverlodge			Fort St. John			Arborg	
		1	2	3	1	2	3	1	2
Check	Mimer	644	416	196	1406	463	132	336	240
DLF-International	FB 6	465	249	57	1180	261	121		
	Premil	232	419	102	989	270	231		
Parsons Seeds	Antti	958	200	219				247	131
Mean		575	321	144	1192	331	161	292	186

Summary of seed yield (kg ha⁻¹) for Festulolium in Western Canada 1997-2004

Company	Variety	Seed yield / production year				
		Bow Island		Outlook		Arborg
		1	2	1	3	1
DLF-International	Hykor	1309				113
Turf-Seed	Spring Green	580	634	176	393	
Check (Tall Fescue)	Courtenay	1287	1295	257	578	405

Summary of seed yield (kg ha⁻¹) for Tall Fescues in Western Canada 1997-2004

			Seed yield / production year																		
Company	Variety	Type	Bow Island			Brooks			Beaverlodge			Fort St. John	Outlook			Arborg		Portage la Prairie			
			1	2	3	1	2	3	1	2	3	1	1	2	3	1	2	1	2	3	
Check	Courtenay	Forage	1512	1717	1418	1678	1359	886	615	329	388	473	868	661	373	405	335	460	450	36	
Advanta	Fuego	Forage	1057	1530	2140	1129	1280	1057													
	Regiment	Turf	1327	1977	2287	1653	1802	1312													
	Seine	Forage	1076	2405	2538	1379	1617	1408													
	Tulsa	Turf	1302	1819	2152	1784	1963	1362													
DLF-International	Cajun 2	Forage											1558	719	146						
	Martin 2	Forage	1136	2131	2167	1215	1869	1487					1808	820	277						
Lesco	LSTF CT 98-1		2216	2036	1053				917	174	81										
Northstar Seed	F.T.K. 98	Forage														639	404	649	437	17	
Parsons Seeds	Kokanee	Forage							575	196	171					428	159				
	Retu	Forage							791	190	188					527	274				
Scotts	ATF - 188		1564	1992	2209	2069	2068	1360													
	Cody								332	492	464										
	Coyote		1821	2066	1736																
	RT-93								208	678	161										
	WAF		1847	2023	1759																
	Wyatt								494	365	492										
Tomorrow's Seed	TS-T3															597					
Turf-Seed	Endeavor	Turf	1477	1557	1773								672		500						
	Endure	Turf	1845	1816		1406	1396														
	Matador	Turf	1875	2004	2325	2415	2043	1613													
	Matador GT	Turf	1770									645									
	Maximize	Forage	828	1044	1003								408		401						
	Olympic Gold	Turf	2665	2791	1213	3205	1655	966	933	175	76		644		639						
	PST 5LMD	Turf	1366	2412	800	2357	1425	716	669	170	28										
	Pure Gold	Turf	2651	2990	1196	2926	1476	818	1247	198	110										
	Safari	Turf	2852	2367	1103	2688	1498	550	1227	236	115										
	Silverado II	Turf	1623									275									
	Silverstar	Turf	2702	2550		1470	1520														
	Tar Heel	Turf	1333	1386	2052	1976	1625	1287					474		420						
	Tar Heel II	Turf	1028									368									
	Tomahawk GT	Turf	2715			1602															
Wolfpack	Turf	1268	1465	1593								551		549							
Mean			1662	1982	1683	1894	1600	1140	711	297	235	440	764	733	409	519	293	536	443	26	

Summary of seed yield (kg ha⁻¹) for Orchard Grass in Western Canada 1997-2004

		Seed yield / production year										
Company	Variety	Bow Island		Brooks		Beaverlodge		Arborg		Portage la Prairie		
		1	2	1	2	1	2	1	2	1	2	
Check	Kay	581	865	1027	646	48	174	229	115	313	213	
Cascade	Mammoth			822	25							
Northstar Seed	A2000							343	169	352	237	
	APlus							343	135	294	202	
	Arctic	760	942	725	859							
	Lidacta	433	763	167	457							
Parsons Seeds	Haka					119	265	341	239			
Pickseed Canada	OKAY					71	166					
Tomorrow's Seed	OG2000ABC	344	1044									
	OG2000DEF	281	1011									
	TS-A2000							688				
	TS-A4							516				
	TS-AP							398				
	TS-HATT							565				
	TS-MYK							278				
	TS-PX2							159				
	TS-VLA							587				
		TS02 A4			773	1089						
		TS02 MLYK	1244	1003								
		TS02 MYK			613	1032						
		TS02 PX2			789	1158						
	Turf-Seed	Elsie	84	334							101	144
Megabite		156	436							332	268	
Mean		485	800	702	752	79	202	404	165	278	213	

Summary of seed yield (kg ha⁻¹) for Perennial Ryegrass in Western Canada 1997-2004

Company	Variety	Type	Seed yield							
			Bow Island	Brooks	Beaverlodge	Fort St. John	Melfort	Outlook	Arborg	Portage la Prairie
Check	Norlea	Forage	1994	1511	862	1500	338	527	417	275
Advanta	Dimension	Turf	700	1081						
Cascade	Catia		692	1202						
	Pearl	Turf	966	1159						
DLF-International	Cambridge		842	955						
	ER2012		911	936						
	ET161		679	323						
	Gator II	Turf	1132	1543					567	179
	LP49		343	371						
	Minerva		686	292						
	Platinum								555	192
	Respect		982	862						
DSV	LPR 98143	Turf	1787	1508						
	LPR 98144	Turf	2099	1731						
Lesco	LSPR CT 98-1		1880		1103	1129				
	LSPR CT 98-2		1887		694	936				
Newfield Seeds	NSCL 32						31	590		
Pickseed Canada	94-1			1513						
	Cutter	Turf			566	772				
	Dancer		1754							
	Darius			883						
	Lex 86		1173	896						
	Lowgrow		2145	1604						
	LPEE 93		1124	974	792	573				
	Magyar			966						
	Pick F3 (Fiesta III)		2484	1979						
	Pick PR 1-94		1605						689	
	Secretariat		1144	1304						
	Sunshine		2158	1577						

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Summary of seed yield (kg ha⁻¹) for Perennial Ryegrass in Western Canada 1997-2004 (cont.)

Company	Variety	Type	Seed yield								
			Bow Island	Brooks	Beaverlodge	Fort St. John	Melfort	Outlook	Arborg	Portage la Prairie	
Scotts	DS95-201										201
	Majesty		979	1441							
	MB45		883	1247							
	Rutgers 8000		2609								222
Turf- Seed	Brightstar	Turf	1785	1303	794						
	Brightstar II	Turf	1539	1457	922						244
	Brightstar SLT	Turf	1927	1146							290
	Catalina		1828								
	Catalina II	Turf	2416	1541							
	Chaparral		1860	1450	142						
	Chaparral II	Turf	1303	418							
	Charger II	Turf	1677	1687	236						
	Citation Fore	Turf	2091	1498							
	Citation III	Turf	628	1236							
	Quick Trans		1561	875							
	Quicksilver	Turf	1102								
	Roadrunner		2762	2228	279						
	Salinas	Turf	1981	1004							
	Tolerator		2435	1734	243						
Proven	Barball	Turf	900	1078							
	Barclay	Turf	573	587							
	Barlow		587	457							
	Barrage	Turf	857	1071							
	Penguin			1873							
	SR4010			2018							
	SR4100			1979							
	SR4200			2014							
Mean			1537	1279	625	982	185	559	557	218	

Summary of seed yield (kg ha⁻¹) for Timothy in Western Canada 1997-2004

		Seed yield / production year												
Company	Variety	Bow Island			Beaverlodge			Fort St. John			Melfort		Arborg	
		1	2	3	1	2	3	1	2	3	1	2	1	2
Check	Climax	346	641	609	191	192	128	562	448	598	532	35	209	29
DLF-International	Bilbo	510	746	700	201	253	102	743	436	301				
	Dolina	435	726	653	194	235	70	644	253	211				
	DP 70-9707							404					156	
	DP 70-9802							613					388	
	DVP 001657				113	205	62	530	297	179				
	Latima				111	166	165						293	5
	Tundra	363	684	518	250	223	54	621	375	224				
	Winnetou							692					421	
Moore Seed	Grasslands Charlton				362	283		445						
	SBT 9501				427			448						
Parsons Seeds	BOR 72002				147	109	111						322	31
	BOR 94301				122	113	108						374	45
	BOR 94322				172	103	90						306	54
	BOR 94372				296	186	214							
	BOR 94373				241	157	195							
	BOR 94374				329	172	214							
Pickseed Canada	Fidanza				168	183	177							
	RUP03				125	151	212							
Proven	UGG 1703				265	138	103	672	712	1047				
Mean		414	699	620	195	174	148	599	428	451	532	35	309	33

Appendix 1

Alberta Weather Data

		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Seasonal Mean or Total
Beaverlodge CDA Mean Monthly Temp. (C)	2004	-15.5	-5.5	-1.9	5.1	8.2	14.8	16.4	15.9					
	2003	-10.7	-8.5	-8.4	2.0	8.4	13.8	16.7	13.9	8.9	5.3	-6.7		
	2002	-11.5	-5.8	-12.8	-1.4	6.8	14.9	15.8	14.2	8.4	1.9	-0.4	-5.2	2.1
	2001	-1.6	-10.2	-3.2	3.5	9.1	12.5	15.0	15.1	10.5	3.4	-3.9	-11.9	3.9
	2000	-13.9	-7.5	-2.3	3.0	6.9	12.9	15.1	13.4	9.3	3.7	-2.2	-12.4	2.2
	30 yr	-13.1	-10.0	-4.0	3.7	9.8	13.4	15.3	14.3	9.9	4.3	-5.7	-10.7	1.8
Mean Monthly Precip. (mm)	2004	9.4	0.0	0.0	0.0	0.0	21.1	54.3	0.0					
	2003	49.7	21.7	30.7	22.8	14.2	46.0	37.8	63.8	31.6	35.7	14.6		
	2002	17.9	8.9	25.9	24.0	32.5	40.6	47.7	24.2	48.1	23.7	17.9	0.2	311.6
	2001	10.8	11.2	11.6	12.4	18.2	34.8	108.2	40.0	12.8	15.7	8.0	9.7	293.4
	2000	2.2	4.2	1.4	15.6	26.4	43.2	42.4	104.0	47.4	33.8	9.2	6.6	336.4
	30 yr	32.3	22.6	19.5	18.2	41.6	77.4	72.4	63.6	45.7	24.3	24.0	29.6	448.6
Bow Island Mean Monthly Temp. (C)	2004	-11.1	-5.6	3.1	7.4	9.6	14.1	18.6		11.6	5.8			
	2003	-6.5	-8.3	-3.0	7.0	10.3	15.7	19.2	20.3	12.0	8.6	-7.3	-4.6	5.3
	2002	-5.6	-2.9	-12.1	2.5	9.3	16.1	20.4	15.7	12.4	2.5	2.2	-2.8	4.8
	2001	-4.0	-12.3	1.7	6.1	13.7	15.7	20.1	21.1	15.5	6.1	2.5	-7.4	7.9
	2000	-9.0	-5.9	1.7	5.9	11.9	15.4	20.6	18.9	13.0	7.0	-3.4	-10.9	5.4
	30 yr	-9.0	-6.3	-1.1	6.4	11.6	17.8	18.6	18.2	12.7	7.6	-2.1	-7.4	5.6
Mean Monthly Precip. (mm)	2004	1.8	1.8	53.9	11.9	41.7	36.1	26.2		9.9	9.6			
	2003	2.3	5.6	4.3	31.7	30.0	60.5	4.1	2.8	23.4	10.2	5.8	0.0	180.7
	2002	3.3	1.6	4.1	17.6	41.9	176.4	33.0	67.4	67.4	10.9	10.7	1.8	436.1
	2001	4.1	0.9	6.1	13.2	11.8	80.8	15.0	1.2	1.2	12.6	4.1	1.1	152.1
	2000	3.5	9.4	14.2	16.4	8.4	50.6	11.0	16.2	27.4	10.2	6.8	7.6	181.8
	30 yr	16.7	11.3	12.8	28.9	43.8	71.0	31.8	38.0	39.5	12.3	14.8	17.1	338.0

		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Seasonal Mean or Total
Brooks CDC South	2004	-12.7	-7.6	1.7	6.9	9.5	14.2	18.6	16.6	11.0	4.7			
	2003	-8.7	-8.9	-3.4	6.3	9.8	15.4	19.7	20.2	11.9	8.3	-9.3	-7.1	4.5
	2002	-7.5	-3.3	-13.2	2.3	9.4	16.2	19.8	15.9	11.9	2.0	1.1	-4.4	4.2
	2001	-3.7	-13.4	1.2	5.5	13.0	15.4	19.8	20.0	14.3	5.2	1.6	-9.3	5.8
	2000	-11.3	-8.1	0.9	5.5	11.3	15.0	20.2	18.3	11.8	6.3	-5.0	-11.8	4.4
	30 yr	-11.6	-8.2	-2.0	5.7	11.5	15.9	18.5	17.8	12.0	6.1	-3.5	-9.4	4.4
Mean Monthly Precip. (mm)	2004	0	1.2	1.2	14.0	36.4	64.8	37.6	67.0	8.6	5.4			
	2003	7.7	8.4	3.6	32.6	28.6	59.0	9.4	13.4	33.8	25.4	13.6	0.0	235.5
	2002	5.1	0.0	11.1	5.6	9.2	111.6	23.2	53.4	54.2	9.4	1.6	3.2	284.6
	2001	8.3	42.9	13.0	10.0	19.6	42.8	13.8	1.4	16.6	8.9	15.5	3.6	156.2
	2000	14.8	12.5	6.6	11.3	12.8	28.6	3.4	31.4	24.4	51.6	6.3	5.8	209.5
	30 yr	14.9	11.6	21.4	24.8	41.7	57.6	39.0	37.9	34.3	13.7	14.3	17.3	328.5

Provided by the Conservation and Development Branch, AAFRD. This information is based on unverified preliminary data obtained from Environment Canada.

Appendix 2.

Saskatchewan Weather Data

		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Seasonal Mean or Total
Melfort Mean Monthly Temp. (C)	2004	-21.8	-10.6	-7.5	2.7	6.9	12.8	16.5	13.4	10.5	3.0			
	2003	-18.0	-18.7	-10.3	3.7	12.6	15.3	18.0	20.0	10.4	5.4	-9.6	-10.0	1.6
	2002	-17.9	-13.1	-13.1	-2.9	7.5	19.8	20.7	15.3	11.5	-0.8			2.7
	2001	-9.1	-18.2	-5.4	-7.5	3.5	14.1	18.8	19.1	13.6	3.5	-3.3	-11.9	1.4
	2000	-18.6	-11.1	-1.5	2.8	9.1	13.0	17.6	16.5	11.0	4.4	3.2	-21.4	2.1
	30 yr.	-19.1	-15.5	-9.0	2.2	10.6	15.5	17.6	16.3	10.4	3.9	-7.0	-16.2	0.8
Total Monthly Precip.(mm)	2004	30.0	10.2	34.8	11.8	85.2	66.0	56.4	54.8	52.0	15.1			
	2003	4.7	10.0	10.7	27.5	45.0	52.0	35.8	24.4	23.2	0.0	0.0	21.9	255.2
	2002	9.3	10.0	14.6	17.3	5.0	56.2	57.8	130.6	24.6	25.4			350.8
	2001	4.5	9.6	2.6	60.0	11.1	20.4	46.4	11.4	12.0	9.9	9.1	12.4	209.4
	2000	18.6	6.4	4.4	15.0	42.6	73.6	106.4	49.6	25.4	25.4	6.6	39.6	413.6
	30 yr.	17.7	13.9	18.5	20.7	41.4	61.9	66.6	53.1	41.4	26.6	18.2	22.5	402.5
Outlook (PFRA) Mean Monthly Temp. (C)	2004	-16.4	-7.6	-0.8	6.4	9.1	14.5	17.9	14.9	11.5	4.1			
	2003	-13.6	-13.4	-6.8	5.6	12.2	16.2	19.8	21.0	12.3	8.0	-7.8	-6.3	3.9
	2002	-11.1	-5.5	-11.9	-0.8	9.8	17.3	20.4	17.2	12.2	1.0	-2.5	-5.9	3.4
	2001	-7.2	-15.5	-1.6	-4.8	5.8	15.2	19.7	19.8	14.7	3.9	0.3	10.4	5.1
	2000	-14.2	-9.1	-0.2	4.8	11.8	14.4	19.2	17.9	12.7	5.7	5.2	-17.0	4.3
	30 yr.	-15.5	-11.8	-5.3	4.6	11.8	16.6	19.0	18.0	12.0	5.9	-4.5	-12.7	3.2
Total Monthly Precip. (mm)	2004	20.0	8.3	20.6	20.2	24.0	57.8	78.6	119.8	24.1	33.6			
	2003	17.3	30.3	9.7	61.0	27.8	20.0	41.6	12.8	27.8	19.8	7.1	3.3	278.5
	2002	0.6	0.0	2.8	9.6	14.0	55.6	22.8	54.4	39.2	34.4	14.2	21.0	268.6
	2001	1.0	7.1	6.6	8.7	24.2	27.9	99.2	2.4	13.4	27.6	3.4	6.8	228.3
	2000	29.3	7.9	12.7	33.0	15.4	50.8	82.2	49.5	34.6	6.1	56.2	31.4	409.1
	30 yr.	14.8	13.0	17.9	17.9	39.3	60.4	54.5	34.2	28.6	13.6	12.8	16.4	323.4

Appendix 3

Manitoba Weather Data

		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Seasonal Mean or Total
Arborg	2004					7.9	13.8	17.5	14.5					
	30 yr					10.5	15.7	18.3	17.1					
Mean Monthly Temp. (C)	2004					102	43.5	59.5	113.5					
	30 yr					47.6	76.9	70.9	79.7					
Portage la Prairie	2004													
	2003					12.6	16.7	19.5	20.9					
	2002	-12.7	-8.3	-11.0	1.9	8.8	17.7	20.9	17.6					
	2001	-9.9	-16.2	-4.7	4.5	12.6	15.8	20.1	19.1	13.0	4.6			
	2000	-15.3	-7.6	0.2	4.3	11.5	14.3	19.1	18.4	11.9	6.7	-5.4	-20.4	
	30 yr	-16.3	-12.9	-5.6	4.3	11.5	17.0	19.8	18.4	12.4	5.5	-4.8	-13.7	
Mean Monthly Precip. (mm)	2004													
	2003					69.4	139.0	27.4	49.2					
	2002	12.1	8.9	19.5	30.7	30.7	125.6	70.8	98.9	36.5				
	2001	7.2	9.3	31.7	30.7	133.2	94.1	90.0	30.0	30.2	45.0			
	2000	18.4	72.8	25.8	9.8	56.6	110.8	159.0	67.6	74.2	29.6	79.4	27.8	
	30 yr	21.0	16.2	26.8	34.5	57.1	79.0	72.3	79.2	58.5	37.1	22.2	22.0	

Western Grass Seed Testing (WGST) Program

Application for Entry

1. Company: _____ Contact person: _____
 Mailing address _____

2. 2005 entries: (if you wish to add more entries, please attach another sheet)

Species	Type (Forage, Turf)	Variety name/code	% germ	Relative maturity (early, medium, late)
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____

3. Please indicate at which locations you wish your entries tested (see attached map). The applicant will be invoiced once test sites for the current test year are finalized.

Fort St. John, BC _____	Melfort, SK _____
Beaverlodge, AB _____	Outlook, SK (IRR) _____
Bow Island, AB (IRR) _____	Portage La Prairie, MB (IRR) _____
Brooks, AB (IRR) _____	Arborg, MB _____
Vegreville, AB _____	

Send by March 1, 2005 to: Henry Najda
 Crop Diversification Centre South
 SS 4
 Brooks, AB Canada T1R 1E6
 Phone: 403-362-1346, Fax: 403-362-1306, or
 e-mail: henry.najda@gov.ab.ca.