

British Columbia

Alberta

Western Canadian Grass Seed Testing Program



2003 Report

Saskatchewan

Manitoba

INTRODUCTION

This report provides a summary of the grass seed trials conducted under the Western Grass Testing Program during 2003. 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.

We thank the following companies for their sponsorship of our 2003 research endeavors and look forward to cooperating and working with them during the 2004 production year.

Alberta Research Council
Agriculture & Agri-Food Canada
Brett-Young Seeds Ltd.
Deutsche Saatveredelung
DLF-International
Lamorna Enterprises Ltd.
Moore Seed Processors Inc.
Newfield Seeds Company Inc.
Northstar Seed Ltd.
Parsons Seeds
Pickseed Canada
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

1. Research Sponsorship

The research sponsorship will be \$120CAN/entry/year/location and is requested on an annual basis, as years of production will vary with the species being tested. The charge is applied for the establishment year. 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 to **NOT** 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 of bentgrass, Kentucky bluegrass or timothy
- 100 gm of creeping red, chewings, hard, meadow, sheep and tall fescue, annual or perennial ryegrass or orchard grass
- 200 gm of meadow or smooth brome grass

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. Also, in the case of 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 (see map page 3)

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

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

6. Test Description

Due to plot equipment differences and land availability at the various test sites, certain minimums will 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. meters is to be harvested.

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

Bentgrasses - 18th Green - 4 yrs.
Kentucky Bluegrass - Abbey - 4 yrs
Meadow Bromegrass - Fleet - 4 yrs
Smooth Bromegrass - Carlton - 4 yrs
Meadow Fescue - Mimer - 4 yrs
Red Fescue - Boreal - 3 yrs

Tall Fescue - Courtenay - 4 yrs
Orchard Grass - Kay - 3 yrs
Annual Ryegrass - Aubade - 1 yr.
Perennial Ryegrass - Norlea - 2 yr.
Timothy - Climax - 4 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

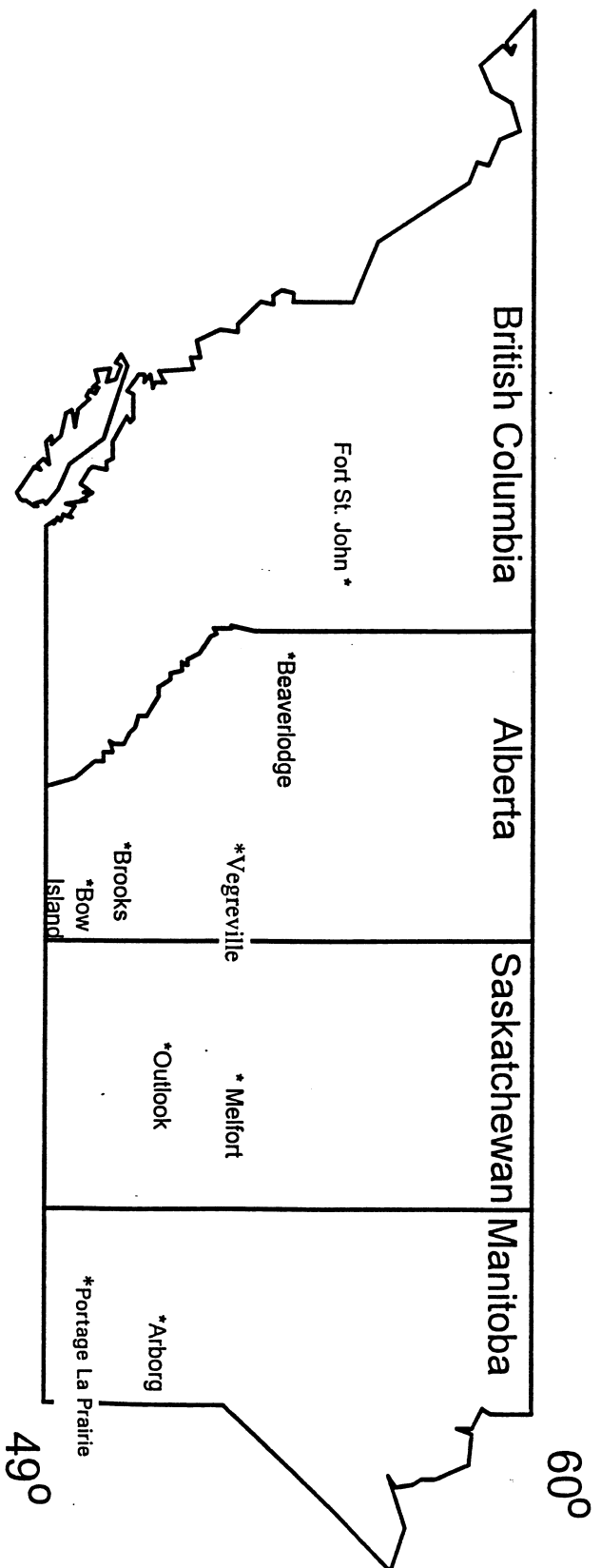
Data will undergo appropriate statistical analyses and each applicant will be provided with an annual report. Information on varieties will be made available in various annual reports and upon request to seed producers.

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.

9. For further information, contact:

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Locations in Western Canada for Grass Seed Testing



**Kentucky Bluegrass 2000 Seed Production Trial
Bow Island, Alberta 2003 Results**

Company	Variety	Seed Yield (kg ha ⁻¹)	Harvest Date	Plant Height (cm)
DSV	N-545	456	16-Jul-03	66
	N-551	431	16-Jul-03	68
	N-552	401	14-Jul-03	70
	N-554	326	21-Jul-03	52
	PPR-11-85	516	16-Jul-03	76
DLF-International	VB 17921	433	16-Jul-03	71
Scotts	HB-127	462	16-Jul-03	70
Turf-Seed	Brilliant	434	18-Jul-03	65
	Lato	289	16-Jul-03	84
	Moonlight	344	18-Jul-03	58
	North Star	339	21-Jul-03	49
Check	Abbey	791	16-Jul-03	67
	Mean	435	.	66
	CV (%)	18.4		8.4
	LSD (0.05)	118		8

**Kentucky Bluegrass 2000 Seed Production Trial
Brooks, Alberta 2003 Results**

Company	Variety	Seed Yield (kg ha ⁻¹)	Harvest Date	Plant Height (cm)
DSV	N-545	256	22-Jul-03	53
	N-551	151	22-Jul-03	59
	N-552	177	22-Jul-03	60
	N-554	166	22-Jul-03	56
	PPR 11-85	189	22-Jul-03	60
Check	Abbey	340	22-Jul-03	55
	Mean	213	.	57
	CV (%)	19.9		9.4
	LSD (0.05)	64		ns

**Kentucky Bluegrass 2000 Seed Production Trial
Beaverlodge, Alberta 2003 Results**

Company	Variety	Seed Yield (kg ha ⁻¹)	Harvest Date	Plant Height (cm)
Turf-Seed	Bluestar	172	31-Jul-03	31
	Denim	296	31-Jul-03	38
	Voyager	66	24-Jul-03	56
Check	Abbey	356	31-Jul-03	39
	Mean	222	.	41
	CV (%)	19.2		4.0
	LSD (0.05)	68		3

**Kentucky Bluegrass 2001 Seed Production Trial
Beaverlodge, Alberta 2003 Results**

Company	Variety	Seed Yield (kg ha ⁻¹)	Harvest Date	Plant Height (cm)
DLF-International	Blue Knight	200	31-Jul-03	43
	Broadway	223	31-Jul-03	41
Check	Abbey	420	24-Jul-03	41
	Mean	281	.	42
	CV (%)	20.9		13.7
	LSD (0.05)	101		ns

**Kentucky Bluegrass 2001 Seed Production Trial
Outlook, Saskatchewan 2003 Results**

Company	Variety	Seed Yield (kg ha ⁻¹)	Harvest Date	Plant Height (cm)
Turf-Seed	Bluestar			
	Brilliant			
	Moonlight			
	North Star			
Check	Abbey			
	Mean			
	CV (%)			
	LSD (0.05)			

**Not harvested in 2003
Mowed off due to weed infestation**

**Kentucky Bluegrass 2002 Seed Production Trial
Bow Island, Alberta 2003 Results**

Company	Variety	Seed Yield (kg ha ⁻¹)	Harvest Date	Plant Height (cm)
Brett-Young	Orfeo	1032	21-Jul-03	72
DLF-International	Blue Knight	869	21-Jul-03	60
	Broadway	878	23-Jul-03	64
DSV	214/94	1118	23-Jul-03	61
	POPR 97561	808	23-Jul-03	60
	POPR 97562	622	23-Jul-03	61
	POPR 97563	670	23-Jul-03	68
	POPR 97564	1139	23-Jul-03	67
	POPR 97567	521	21-Jul-03	64
	POPR 97570	837	23-Jul-03	54
	POPR 97571	836	23-Jul-03	59
	POPR 97573	907	21-Jul-03	72
	POPR 97576	739	21-Jul-03	59
Turf-Seed	Blacksburg II	814	23-Jul-03	67
	Midnight Star	803	21-Jul-03	67
Check	Abbey	1506	21-Jul-03	64
	Mean	881	.	64
	CV (%)	15.8		7.9
	LSD (0.05)	231		8

**Kentucky Bluegrass 2002 Seed Production Trial
Brooks, Alberta 2003 Results**

Company	Variety	Seed Yield (kg ha ⁻¹)	Harvest Date	Plant Height (cm)
DSV	POPR 97570	766	22-Jul-03	57
	POPR 97571	696	22-Jul-03	53
	POPR 97573	992	22-Jul-03	65
	POPR 97576	665	22-Jul-03	61
Turf-Seed	Blacksburg II	644	22-Jul-03	68
	Midnight Star	588	22-Jul-03	68
Check	Abbey	1015	22-Jul-03	64
	Mean	767	.	62
	CV (%)	13.8		6.2
	LSD (0.05)	158		8

**Smooth Bromegrass 2000 Seed Production Trial
Portage la Prairie (A), Manitoba 2003 Results**

<u>Company</u>	<u>Variety</u>	<u>Seed Yield (kg ha⁻¹)</u>	<u>Harvest Date</u>	<u>Plant Height (cm)</u>
Pickseed Canada	Bravo	361	.	.
Check	Carlton	362	.	.
	Mean	362	.	.
	CV (%)	20.2		

**Smooth Bromegrass 2000 Seed Production Trial
Portage la Prairie, Manitoba 2003 Results**

<u>Company</u>	<u>Variety</u>	<u>Seed Yield (kg ha⁻¹)</u>	<u>Harvest Date</u>	<u>Plant Height (cm)</u>
Pickseed Canada	Bravo	496	.	.
Check	Carlton	563	.	.
	Mean	530	.	.
	CV (%)	4.1		

**Fine Fescue 2001 Seed Production Trial
Beaverlodge, Alberta 2003 Results**

Company	Variety	Seed Yield (kg ha ⁻¹)	Harvest Date	Plant Height (cm)
DLF-International	RU1511	501	23-Jul-03	54
	RU1645	613	23-Jul-03	60
Check	Boreal	459	24-Jul-03	58
	Mean	524	.	57
	CV (%)	14.5		5.8
	LSD (0.05)	ns		ns

**Fine Fescue 2001 Seed Production Trial
Fort St. John, British Columbia 2003 Results**

Company	Variety	Seed Yield (kg ha ⁻¹)	Harvest Date	Plant Height (cm)
DLF-International	RU 1511	258	28-Jul-03	.
	RU 1645	246	28-Jul-03	.
Check	Boreal	251	28-Jul-03	.
	Mean	251	.	.
	CV (%)	36.9		
	LSD (0.05)	ns		

**Fine Fescue 2002 Seed Production Trial
Bow Island, Alberta 2003 Results**

Company	Variety	Seed Yield (kg ha ⁻¹)	Harvest Date	Plant Height (cm)
Turf-Seed	Aberdeen	1999	11-Jul-03	70
	Aurora Gold	1273	7-Jul-03	71
	Aurora II	1349	7-Jul-03	62
	Inverness	2068	14-Jul-03	69
Check	Boreal	2898	14-Jul-03	78
	Mean	1917	.	70
	CV (%)	8.3		6.1
	LSD (0.05)	246		7

**Fine Fescue 2002 Seed Production Trial
Brooks, Alberta 2003 Results**

<u>Company</u>	<u>Variety</u>	<u>Seed Yield (kg ha⁻¹)</u>	<u>Harvest Date</u>	<u>Plant Height (cm)</u>
Turf-Seed	Aberdeen	1408	15-Jul-03	67
	Aurora Gold	1187	9-Jul-03	65
	Aurora II	1393	9-Jul-03	69
	Inverness	1276	15-Jul-03	63
Check	Boreal	1562	15-Jul-03	72
	Mean	1365	.	67
	CV (%)	8.3		9.2
	LSD (0.05)	176		ns

**Fine Fescue 2002 Seed Production Trial
Beaverlodge, Alberta 2003 Results**

<u>Company</u>	<u>Variety</u>	<u>Seed Yield (kg ha⁻¹)</u>	<u>Harvest Date</u>	<u>Plant Height (cm)</u>
AAFC Beaverlodge	BRFB1	1250	24-Jul-03	62
Brett-Young	FRP 101	748	23-Jul-03	64
	Swing	305	24-Jul-03	53
Turf-Seed	Little Bighorn	468	16-Jul-03	56
Check	Boreal	1170	24-Jul-03	63
	Mean	788	.	60
	CV (%)	20.1		8.2
	LSD (0.05)	245		8

**Meadow Fescue 2001 Seed Production Trial
Beaverlodge, Alberta 2003 Results**

Company	Variety	Seed Yield (kg ha ⁻¹)	Harvest Date	Plant Height (cm)
DLF-International	FB 6	249	28-Jul-03	60
Check	Mimer	375	28-Jul-03	65
	Mean	312	.	63
	CV (%)	4.1		7.1

**Meadow Fescue 2001 Seed Production Trial
Fort St. John, British Columbia 2003 Results**

Company	Variety	Seed Yield (kg ha ⁻¹)	Harvest Date	Plant Height (cm)
DLF-International	FB 6	261	30-Jul-03	.
Check	Mimer	318	30-Jul-03	.
	Mean	289	.	.
	CV (%)	14.2		

**Mountain Fescue 2000 Seed Production Trial
Beaverlodge, Alberta 2003 Results**

Company	Variety	Seed Yield (kg ha ⁻¹)	Harvest Date	Plant Height (cm)
ARC Vegreville	ARCFS-1	163	16-Jul-03	34
	ARCFS-2	157	7-Jul-03	33
	ARCFS-V	92	24-Jul-03	38
	Mean	137	.	35
	CV (%)	41.6		5.1
	LSD (0.05)	ns		3

**Tall Fescue 2000 Seed Production Trial
Bow Island, Alberta 2003 Results**

Company	Variety	Seed Yield (kg ha ⁻¹)	Harvest Date	Plant Height (cm)
Turf-Seed	Endeavor	1773	18-Jul-03	97
	Maximize	1003	14-Jul-03	106
	Spring Green*	.	.	.
	Wolfpack	1593	18-Jul-03	96
Check	Courtenay	1567	14-Jul-03	119
	Mean	1484	.	100
	CV (%)	9.4		8.3
	LSD (0.05)	224		12

* no yield due to winter damage

**Tall Fescue 2000 Seed Production Trial
Beaverlodge, Alberta 2003 Results**

Company	Variety	Seed Yield (kg ha ⁻¹)	Harvest Date	Plant Height (cm)
Scotts	RT-93	161	5-Aug-03	55
Check	Courtenay	451	31-Jul-03	93
	Mean	306	.	74
	CV (%)	31.4		9.5

**Tall / Meadow Fescue 2000 Seed Production Trial
Arborg, Manitoba 2003 Results**

Company	Variety	Seed Yield (kg ha ⁻¹)	Harvest Date	Plant Height (cm)
Parsons seeds	Antti			
Check	Mimer		Trial discontinued	
Northstar Seed	F.T.K. 98		due to winter kill	
Parsons seeds	Kokanee			
Check	Courtenay			
	Mean			
	CV (%)			
	LSD (0.05)			

**Tall Fescue 2000 Seed Production Trial
Portage la Prairie (A), Manitoba 2003 Results**

Company	Variety	Seed Yield (kg ha ⁻¹)	Harvest Date	Plant Height (cm)
Northstar Seed	F.T.K. 98	16	.	.
Check	Courtenay	44	.	.
	Mean	30	.	.
	CV (%)	62.9		

**Tall Fescue 2000 Seed Production Trial
Portage la Prairie, Manitoba 2003 Results**

Company	Variety	Seed Yield (kg ha ⁻¹)	Harvest Date	Plant Height (cm)
Northstar Seed	F.T.K. 98	17	.	.
Check	Courtenay	28	.	.
	Mean	23	.	.
	CV (%)	25.1		

**Tall Fescue 2001 Seed Production Trial
Bow Island, Alberta 2003 Results**

Company	Variety	Seed Yield (kg ha ⁻¹)	Harvest Date	Plant Height (cm)
Scotts	Coyote	2066	18-Jul-03	98
	WAF	2023	18-Jul-03	94
Check	Courtenay	1439	14-Jul-03	116
	Mean	1842	.	103
	CV (%)	7.9		4.3
	LSD (0.05)	253		8

**Tall Fescue 2001 Seed Production Trial
Outlook, Saskatchewan 2003 Results**

Company	Variety	Seed Yield (kg ha ⁻¹)	Harvest Date	Plant Height (cm)
Turf-Seed	Endeavor			
	Maximize			
	Olympic Gold			
	Spring Green			
	Tar Heel			
	Wolfpack			
Check	Courtenay			
	Mean			
	CV (%)			
	LSD (0.05)			

**Not harvested in 2003
Mowed off due to weed infestation**

**Tall Fescue 2002 Seed Production Trial
Bow Island, Alberta 2003 Results**

Company	Variety	Seed Yield (kg ha ⁻¹)	Harvest Date	Plant Height (cm)
Turf-Seed	Silverstar	2702	16-Jul-03	89
	Endure	1845	16-Jul-03	82
	Tomahawk RT	2715	16-Jul-03	86
Check	Courtenay	2239	14-Jul-03	110
	Mean	2375	.	92
	CV (%)	6.3		8.9
	LSD (0.05)	239		13

**Tall Fescue 2002 Seed Production Trial
Brooks, Alberta 2003 Results**

Company	Variety	Seed Yield (kg ha ⁻¹)	Harvest Date	Plant Height (cm)
Turf-Seed	Silverstar	1470	17-Jul-03	87
	Endure	1406	17-Jul-03	90
	Tomahawk RT	1602	17-Jul-03	88
Check	Courtenay	1265	15-Jul-03	104
	Mean	1436	.	92
	CV (%)	9.0		5.6
	LSD (0.05)	ns		10

**Orchard Grass 2001 Grass Seed Production Trial
Bow Island, Alberta 2003 Results**

Company	Variety	Seed Yield (kg ha ⁻¹)	Harvest Date	Plant Height (cm)
Tomorrow's Seeds	OG2000ABC	1044	16-Jul-03	127
	OG2000DEF	1011	14-Jul-03	120
Check	Kay	853	16-Jul-03	119
	Mean	969	.	122
	CV (%)	8.5		4.2
	LSD (0.05)	142		ns

**Orchard Grass 2002 Grass Seed Production Trial
Bow Island, Alberta 2003 Results**

Company	Variety	Seed Yield (kg ha ⁻¹)	Harvest Date	Plant Height (cm)
Tomorrow's Seeds	TS02 MLYK	1244	14-Jul-03	118
Check	Kay	1219	14-Jul-03	119
	Mean	1232	.	119
	CV (%)	3.5		1.1

**Perennial Ryegrass 2002 Seed Production Trial
Bow Island, Alberta 2003 Results**

Company	Variety	Seed Yield (kg ha ⁻¹)	Harvest Date	Plant Height (cm)
Turf-Seed	Brightstar SLT	2049	24-Jul-03	60
	Catalina II	2416	24-Jul-03	61
	Chaparral II	1303	1-Aug-03	50
	Citation Fore	2091	24-Jul-03	57
	Quick Trans	1774	18-Jul-03	54
	Salinas	1981	24-Jul-03	62
Check	Norlea	2651	24-Jul-03	83
	Mean	2038	.	61
	CV (%)	5.5		11.7
	LSD (0.05)	227		9

**Perennial Ryegrass 2002 Seed Production Trial
Brooks, Alberta 2003 Results**

Company	Variety	Seed Yield (kg ha ⁻¹)	Harvest Date	Plant Height (cm)
Turf-Seed	Brightstar SLT	1443	22-Jul-03	56
	Catalina II	1541	22-Jul-03	51
	Chaparral II	418	30-Jul-03	47
	Citation Fore	1498	22-Jul-03	61
	Quick Trans	1108	18-Jul-03	55
	Salinas	1004	22-Jul-03	53
Check	Norlea	1503	22-Jul-03	65
	Mean	1216	.	55
	CV (%)	10.5		11.9
	LSD (0.05)	227		9

Note: Chaparral II reduced yield due to late grasshopper damage

**Timothy 2000 Seed Production Trial
Beaverlodge, Alberta 2003 Results**

Company	Variety	Seed Yield (kg ha ⁻¹)	Harvest Date	Plant Height (cm)
DLF-International	Latima	168	19-Aug-03	59
Parsons Seeds	BOR 94372	214	11-Aug-03	65
	BOR 94373	195	11-Aug-03	63
	BOR 94374	214	11-Aug-03	65
Pickseed Canada	Fidanza	132	11-Aug-03	61
	RUP03	172	11-Aug-03	67
Check	Climax	112	11-Aug-03	68
	Mean	176	.	64
	CV (%)	22.2		8.2
	LSD (0.05)	58		ns

**Timothy 2000 Seed Production Trial
Arborg, Manitoba 2003 Results**

Company	Variety	Seed Yield (kg ha ⁻¹)	Harvest Date	Plant Height (cm)
DLF-International	Latima	Not harvested in 2003 due to dry conditions		
Parsons Seeds	BOR 72002			
	BOR 94301			
	BOR 94322			
Check	Climax			
	Mean			
	CV (%)			
	LSD (0.05)			

**Timothy 2001 Seed Production Trial
Bow Island, Alberta 2003 Results**

<u>Company</u>	<u>Variety</u>	<u>Seed Yield (kg ha⁻¹)</u>	<u>Harvest Date</u>	<u>Plant Height (cm)</u>
DLF-International	Bilbo	746	1-Aug-03	103
	Dolina	726	1-Aug-03	104
	Tundra	684	1-Aug-03	103
Check	Climax	641	1-Aug-03	113
	Mean	699	.	106
	CV (%)	7		5.1
	LSD (0.05)	ns		ns

**Timothy 2001 Seed Production Trial
Beaverlodge, Alberta 2003 Results**

<u>Company</u>	<u>Variety</u>	<u>Seed Yield (kg ha⁻¹)</u>	<u>Harvest Date</u>	<u>Plant Height (cm)</u>
DLF-International	Bilbo	253	11-Aug-03	69
	Dolina	235	11-Aug-03	68
	DVP 001657	205	11-Aug-03	64
	Tundra	223	11-Aug-03	62
Check	Climax	94	11-Aug-03	63
	Mean	202	.	65
	CV (%)	29.8		10.4
	LSD (0.05)	92		ns

**Timothy 2001 Seed Production Trial
Fort St. John, British Columbia 2003 Results**

Company	Variety	Seed Yield (kg ha ⁻¹)	Harvest Date	Plant Height (cm)
DLF-International	Bilbo	436	19-Aug-03	.
	Dolina	253	23-Aug-03	.
	DVP 001657	297	14-Aug-03	.
	Tundra	375	19-Aug-03	.
Check	Climax	194	23-Aug-03	.
	Mean	311	.	.
	CV (%)	12.0		
	LSD (0.05)	57		

**Timothy 2002 Seed Production Trial
Beaverlodge, Alberta 2003 Results**

Company	Variety	Seed Yield (kg ha ⁻¹)	Harvest Date	Plant Height (cm)
Moore Seed	Grassland Charlton	362	14-Aug-03	75
Check	Climax	223	14-Aug-03	84
	Mean	292	.	79
	CV (%)	13.7		4.2

Summary of seed yield (kg ha⁻¹) for Kentucky Bluegrass in Western Canada 1997-2003

		Seed yield (kg/ha) per Production year											
Company	Variety	Bow Island			Brooks			Beaverlodge			Outlook		
		1	2	3	1	2	3	1	2	3	1	2	
Check	Abbey	1251	1303	833	1219	933	734	187	349	271	501	349	
Brett-Young	Orfeo	1032											
DLF - International	Blue Knight	869						39	200				
	Broadway	878						65	223				
	VB 17921	468	636	323	759	507	369				287	479	
	VB 19111	880	1044	298	989	604	600				253	437	
	DSV	214/94	1118										
	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						
	POPR 97561	808											
	POPR 97562	622											
	POPR 97563	670											
	POPR 97564	1139											
	POPR 97567	521											
	POPR 97570	837			766								
	POPR 97571	836			696								
	POPR 97573	907			992								
	POPR 97576	739			665								
	PPR 11-85	588	677	516	1117	453	189						
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			644								
	Bluestar	1393	684	372	1470	944	718	253	160	172	345		
	Brilliant	534	440	434							235		
	Denim	1554	635	520	945	775	672	124	166	296			
	Lato	291	268	289									
	Midnight Star	803			588								
	Moonlight	672	411	344							182		
	North Star	539	383	339							123		
	Serene	504	705	151	375	162	205	150	97	72			
	Voyager	959	452	306	1054	554	481	11	191	66			
Mean		894	710	440	928	596	444	154	256	201	303	422	

Summary of seed yield (kg ha⁻¹) for Smooth Bromegrass in Western Canada 1997-2003

		Seed yield (kg/ha) per Production year											
		Brooks			Beaverlodge			Fort St. John		Portage la Prairie			
Company	Variety	1	2	3	1	2	3	1	2	1	2	3	
Pickseed Canada	Bravo	969	288	375	378	222	109	416	642	112	436	496	
Check	Carlton	1384	415	607	678	462	292	750	920	214	585	463	
Mean		1177	352	491	528	342	200	583	781	163	496	474	

Summary of seed yield (kg ha⁻¹) for Fine Fescues in Western Canada 1997-2003

			Seed yield (kg/ha) per Production year									
Species	Company	Variety	Bow Island		Brooks		Beaverlodge		Fort St. John		Melfort	
			1	2	1	2	1	2	1	2	1	2
	Check	Boreal	2212	1734	1778	1083	884	526	1159	489	357	35
Chewings	DLF-International	Casanova					506	323	1400	1021		
	Pickseed Canada	Victory II	2685	718	1218	466						
	Turf-Seed	Tiffany	1107	1509	929	1274						
Creeping		Eugene					949	532				
	AAFC Beaverlodge	BRFB1					1250					
	Brett-Young	BY511751					297	134	1221	23		
		FRP 101					748					
		Swing					305					
	DLF-International	RU1511					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		
	Pickseed Canada	Jasper					714	316	1687	993		
	Turf-Seed	Aberdeen	1999		1408							
		Florentine	1549	590	828	614	269	152				
		Inverness	2068		1276							
		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		
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	1654	1340	1016	112	692				
		Aurora II	1349		1393							
		Discovery	1161	986	1575	994						
Sheep	Turf-Seed	Bighorn	1304	1077	2110	1465						
		Little Bighorn					468					
Slender	Peace Valley Seeds	Barcrown	404	492	0	587						
	Turf-Seed	Seabreeze	1083	1191	726	199	171	207				
Mean			1494	1262	1235	826	547	413	1007	753	252	26

Summary of seed yield (kg ha⁻¹) for Mountain Fescue in Western Canada 1997-2003

		Seed yield (kg/ha) per Production year					
		Beaverlodge			Fort St. John		
Company	Variety	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 1997-2003

		Seed yield (kg/ha) per Production year							
		Beaverlodge			Fort St. John			Arborg	
Company	Variety	1	2	3	1	2	3	1	2
Check	Mimer	644	416	223	1406	427	159	336	240
DLF-International	FB 6	465	249		1180	261			
	Premil	232	419	102	989	270	231		
Parsons Seeds	Antti	958	200	219				247	131
Mean		575	321	181	1192	319	195	292	186

Summary of seed yield (kg ha⁻¹) for Tall Fescues in Western Canada 1997-2003

			Seed yield (kg/ha) per Production year																	
Company	Variety	Type	Bow Island			Brooks			Beaverlodge			Outlook			Arborg		Portage la Prairie			
			1	2	3	1	2	3	1	2	3	1	2	3	1	2	1	2	3	
Check	Courtenay	Forage	1560	1652	1282	1678	1335	886	615	329	388	868	661	168	458	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																
	RT-93								208	678	161									
	WAF		1847	2023																
	Wyatt								494	365	492									
Turf-Seed	Endeavor	Turf	1477	1557	1773							672								
	Endure	Turf	1845			1406														
	Matador	Turf	1875	2004	2325	2415	2043	1613												
	Maximize	Forage	828	1044	1003							408								
	Olympic Gold	Turf	2665	2791	1213	3205	1655	966	933	175	76	644								
	Pure Gold	Turf	2651	2990	1196	2926	1476	818	1247	198	110									
	PST 5LMD	Turf	1366	2412	800	2357	1425	716	669	170	28									
	Safari	Turf	2852	2367	1103	2688	1498	550	1227	236	115									
	Silverstar	Turf	2702			1470														
	Spring Green (f)	Forage	580	634								176								
	Tar Heel	Turf	1333	1386	2052	1976	1625	1287				474								
	Tomahawk RT	Turf	2715			1602														
	Wolfpack	Turf	1268	1465	1593							551								
Mean			1698	1914	1699	1935	1666	1140	728	291	207	795	733	197	513	293	555	444	27	

f - Festulolium

Summary of seed yield (kg ha⁻¹) for Orchard Grass in Western Canada 1997-2003

		Seed yield (kg/ha) per 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	721	1027	194	48	174	362	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								
	TS02 A4			773							
	TS02 MLYK	1244									
	TS02 MYK			613							
	TS02 PX2			789							
Turf-Seed	Elsie	84	334							101	144
	Megabite	156	436							332	268
Mean		485	750	702	384	79	202	347	165	278	213

Summary of seed yield (kg ha⁻¹) for Perennial Ryegrass in Western Canada 1997-2003

Company	Variety	Type	Seed yield (kg/ha)							
			Bow Island	Brooks	Beaverlodge	Fort St. John	Melfort	Outlook	Arborg	Portage la Prairie
Check	Norlea	Forage	2130	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						

cont. next page

Summary of seed yield (kg ha⁻¹) for Perennial Ryegrass in Western Canada 1997-2003 (cont.)

Company	Variety	Type	Seed yield (kg/ha)							
			Bow Island	Brooks	Beaverlodge	Fort St. John	Melfort	Outlook	Arborg	Portage la Prairie
Scotts	DS95-201									201
	Majesty		979	1441						
	MB45		883	1247						
Turf- Seed	Rutgers 8000		2609							222
	2HO		2435	1734	243					
	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						
	Chaparal		1860	1450	142					
	Chaparal II	Turf	1303	418						
	Charger II	Turf	1677	1687	236					
	Citation 3	Turf	628	1236						
	Citation Fore	Turf	2091	1498						
	Quick Trans		1561	875						
	Roadrunner		2762	2228	279					
	Proven	Salinas	Turf	1981	1004					
Barball		Turf	900	1078						
Barclay		Turf	573	587						
Barlow			587	457						
Barrage		Turf	857	1071						
Penguin				1873						
SR4010				2018						
SR4100				1979						
	SR4200			2014						
Mean			1551	1279	625	982	185	559	557	218

Summary of seed yield (kg ha⁻¹) for Timothy in Western Canada 1997-2003

		Seed yield (kg/ha) per Production year											
Company	Variety	Bow Island		Beaverlodge			Fort St. John			Melfort		Arborg	
		1	2	1	2	3	1	2	3	1	2	1	2
Check	Climax	346	641	148	139	154	578	385	1044	532	35	312	29
DLF-International	Bilbo	510	746	201	253		743	436					
	Dolina	435	726	194	235		644	253					
	DVP 001657			113	205		530	297					
	Latima			111	166	165						293	5
	Tundra	363	684	250	223		621	375					
Moore Seed	Grasslands Charlton			362									
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							
Pickseed Canada	BOR 94374			329	172	214							
	Fidanza			168	183	177							
Proven	RUP03			125	151	212							
	UGG 1703			265	138	103	672	712	1047				
Mean		414	699	203	169	158	631	410	1046	532	35	321	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)	2003	-10.7			2.1									
	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
	1999	-13.9	-7.5	-2.6	4.1	7.5	12.0	13.7	15.3	9.6	4.6	-2.8	-3.6	3.0
	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)	2003	49.7			22.8									
	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
	1999	-	-	-	17.2	27.0	26.6	29.8	29.2	14.0	13.0	20.6	4.2	-
	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)	2003	-6.5	-8.3	-3.0	7.0	10.3	15.7	19.2	20.3	12.0	8.6	-7.3		
	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
	1999	-7.3	1.2	3.1	7.2	11.6	15.9	17.4	19.9	12.8	8.9	4.5	0.2	7.9
	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)	2003	2.3	5.6	4.3	31.7	30.0	60.5	4.1	2.8	23.4	10.2	5.8		
	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
	1999	10.1	0.5	0.3	37.9	43.9	102.8	37.7	41.8	9.0	26.9	15.2	8.2	334.3
	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	2003	-8.7	-8.9	-3.4	6.3	9.8	15.4	19.7	20.2	11.9	8.3	-9.3		
	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
	1999	-11.5	-1.3	1.1	6.0	10.1	14.3	16.2	18.2	11.8	6.8	2.6	-1.4	6.1
	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)	2003	7.7	8.4	3.6	32.6	28.6	59	9.4	13.4	33.8	25.4	13.6		
	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
	1999	17.1	1.5	4.2	38.1	39.8	115.0	110.2	47.2	2.4	5.2	7.1	7.4	394.0
	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)	2003	-18.0	-18.7	-10.3	3.7	12.6	15.3	18.0	20.0	10.4	5.4			
	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	4.4	3.2	-21.4	2.1
	1999	-17.9	-10.9	-4.1	5.7	10.2	14.0	15.6	16.9	9.9	3.3	-1.2	-8.0	2.8
	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)	2003	4.7	10.0	10.7	27.5	45.0	52.0	35.8	24.4	23.2	0.0			
	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	42.6	73.6	106.4	49.6	25.4	25.4	6.6	39.6	413.6
	1999	9.2	3.6	1.5	41.4	41.5	56.0	96.0	36.0	19.2	11.2	3.8	2.2	321.6
	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)	2003	-13.6	-13.4	-6.8	5.6	12.2	16.2	19.8	21.0	12.3	8.0			
	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
	1999	-14.5	-6.1	-2.1	6.8	10.6	15.1	16.9	18.3	11.1	2.1	2.7	-3.3	4.8
	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)	2003	17.3	30.3	9.7	61	27.8	20	41.6	12.8	27.8	19.8			268.1
	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	15.4	50.8	82.2	49.5	34.6	6.1	56.2	31.4	409.1
	1999	3.6	4.0	4.4	12.0	61.4	63.2	91.2	37.8	11.6	2.4	3.8	10.2	305.6
	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
Portage la Prairie Mean Monthly Temp. (C)	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	
	1999													
	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)	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	
	1999													
	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. 2004 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, 2004 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.