

FORAGE CULTIVAR TRIALS

PUBLICATION NO. 83 - 16B - 1983

PREPARED BY
NORTHERN RESEARCH GROUP
CANADA AGRICULTURE RESEARCH STATION
RESEARCH STATION, BEAVERLODGE, ALBERTA

IN CO-OPERATION WITH

Alberta
AGRICULTURE

FORAGE CULTIVAR TRIALS

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1983

FOREWORD

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

The objective is to provide relative information on seed production capability and general adaptability of named foreign cultivars of perennial grasses and legumes to assist 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).

Part A

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

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

Seed and Herbage (dry matter) yields are expressed both 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.

Part 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 two rows, 30.5 cm (1 foot) apart, 6.1 metres (20 feet) long, and 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.

This publication will supplement "Forage Introductions Publication No. 79-16A-1979" which reports on all forages introduced since 1969.

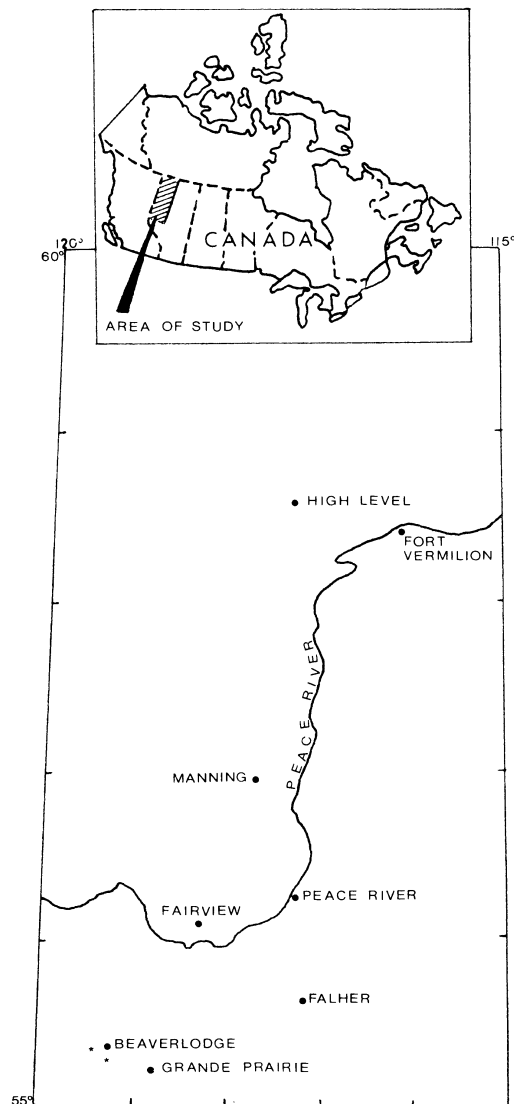
Environmental data provided by Mr. Peter Mills, Beaverlodge Research Station.

The author acknowledges the contributions of the following people to the program: L. Burgess, T. Cramer, M. Howe, H. Klein-Gebbinck, S. Powers, H. Thomas, K. Wallan, and D. Wieliczko.

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

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ENVIRONMENTAL DATA FOR SELECTED SITES IN THE STUDY AREA



		Beaverlodge		Fairview		Fort Vermilion	
		1951-80	1983	1951-80	1983	1951-80	1983
Growing Degree Days ($^{\circ}\text{C}$)		1137.5	1143.3	1234.7	1233.8	1237.2	M*
Total Hours	Annual	2125.5		2059.9		2106.9	
Bright Sun	May - Sep	1275.6	1312.1	1225.8	1332.1	1284.9	1146.6E*
Total Precip. (mm)	Annual	467.0		446.6		382.5	
	May - Sep	277.2	354.7	271.3	313.8	236.4	195.8E
Temperature ($^{\circ}\text{C}$)							
Mean	Annual	1.6		1.3		-1.2	
	May - Sep	12.3	12.3	12.9	12.8	12.9	12.4E
Mean Maximum	Annual	7.0		6.3		4.5	
	May - Sep	18.4	18.2	18.7	18.1	19.3	18.7E
Mean Minimum	Annual	-3.7		-3.6		-6.9	
	May - Sep	6.1	6.4	7.1	7.5	6.5	6.0E
Photoperiod	June 22	17:25		17:38		18:18	
Last Spring Frost (0°C)	May 24	May 12	May 19	May 24	May 28	M	
First Fall Frost (0°C)	Sep 7	Sep 8	Sep 16	Aug 17	Sep 3	M	
Frost Free Period (days)		105	119	119	85	97	M

M*: Missing data - unable to estimate

E*: Estimated value adjusted for missing data

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PART A

Bromegrass

Test Site: Beaverlodge Research Station
Seeding Year: 1982

Cultivar	Origin	Hardi- ness	Height (cm)	Date Ripe 1983	Seed Yield	
					kg/ha 1983	% of Carlton
Beacon	Canada	9.0	115	Aug 12	401	47
Carlton*	Canada	9.0	114	Aug 12	847	100
Jubilee	Canada	9.0	100	Aug 12	135	16
Signal (S-8800)	Canada	9.0	124	Aug 12	1158	137
Svaja	Sweden	9.0	113	Aug 12	334	39
Mean					575	
L.S.D. (P = .05)					345	

Test Site: Fort Vermilion Experimental Farm
Seeding Year: 1982

Beacon	Canada	9.0	104	Jul 26	374	49
Carlton*	Canada	9.0	109	Jul 26	758	100
Jubilee	Canada	9.0	101	Jul 26	283	37
Signal (S-8800)	Canada	9.0	105	Jul 26	777	103
Svaja	Sweden	9.0	104	Jul 26	425	56
Mean					523	
L.S.D. (P = .05)					106	

Bromegrass

 Test Site: Gimle
 Seeding Year: 1982

Cultivar	Origin	Hardi- ness	Height (cm)	Date Ripe	Seed Yield	
					kg/ha 1983	% of Carlton
Beacon	Canada	9.0	96	Aug 12	93	33
Carlton*	Canada	9.0	99	Aug 12	279	100
Jubilee	Canada	9.0	94	Aug 12	136	49
Signal (S-8800)	Canada	9.0	108	Aug 12	429	156
Svaja	Sweden	9.0	96	Aug 10	146	52
Mean					216	
L.S.D. (P = .05)					109	

Summary of Bromegrass Seed Yields
1982 Seeding Year - 1983 Harvest
(Yields are shown as % of Carlton)

Cultivar	Origin	Beaverlodge A	Beaverlodge B	Falher	Fort Vermilion	Gimli	High Level	All Locations (Average)
Beacon	Canada	47	(a)	(b)	49	33	(b)	43
Carlton*	Canada	100			100	100		100
Jubilee	Canada	16			37	49		34
Signal (S-8800)	Canada	137			103	156		132
Svaja	Sweden	39			56	52		49
Carlton Yield in kg/ha		847			758	279		628

(a) Not seeded in 1982

(b) No stand establishment in 1982

Bromegrass

Test Site: Beaverlodge Research Station
Seeding Year: 1982

Cultivar	Origin	1st Herbage Yield			2nd Herbage Yield		
		Day Cut	(DM) t/ha	% of Carlton	Day Cut	(DM) t/ha	% of Carlton
Beacon	Canada	Jun 23	2.17	83	Aug 11	2.06	89
Carlton*	Canada	Jun 23	2.63	100	Aug 11	2.31	100
Jubilee	Canada	Jun 23	0.43	16	Aug 11	1.35	58
Signal (S-8800)	Canada	Jun 23	1.84	70	Aug 11	2.31	100
Svaja	Sweden	Jun 23	1.52	58	Aug 11	2.31	100
Mean			1.72			2.09	
L.S.D. (P = .05)			0.59			0.52	

Test Site: Fort Vermilion Experimental Farm
Seeding Year: 1982

Beacon	Canada	Jun 27	4.27	82	Aug 15	0.42	58
Carlton*	Canada	Jun 27	5.19	100	Aug 15	0.73	100
Jubilee	Canada	Jun 27	2.45	47	Aug 15	0.67	92
Signal (S-8800)	Canada	Jun 27	6.00	116	Aug 15	0.81	111
Svaja	Sweden	Jun 27	4.75	92	Aug 15	0.75	103
Mean			4.53			0.68	
L.S.D. (P = .05)			0.87			0.26	

Bromegrass

Test Site: Gimle
Seeding Year: 1982

Cultivar	Origin	1st Herbage Yield			2nd Herbage Yield		
		Day Cut	(DM) t/ha	% of Carlton	Day Cut	(DM) t/ha	% of Carlton
Beacon	Canada	Jun 22	1.02	68	Aug 18	0.91	120
Carlton*	Canada	Jun 22	1.49	100	Aug 18	0.76	100
Jubilee	Canada	Jun 22	0.88	59	Aug 18	0.80	105
Signal (S-8800)	Canada	Jun 22	1.51	101	Aug 18	0.85	112
Svaja	Sweden	Jun 22	1.16	78	Aug 18	1.03	136
Mean			1.21			0.87	
L.S.D. (P = .05)			0.63			0.43	

Summary of Bromegrass Herbage Yields
1982 Seeding Year - 1983 Harvest
(Yields are shown as % of Carlton)

Cultivar	Origin	Beaverlodge A		Beaverlodge B		Falher		Fort Vermilion		Gimle		High Level		All Locations (Average)	
		1st Cut	2nd Cut	1st Cut	2nd Cut	1st Cut	2nd Cut	1st Cut	2nd Cut	1st Cut	2nd Cut	1st Cut	2nd Cut	1st Cut	2nd Cut
Beacon	Canada	83	89	(a)		(b)		82	58	68	120	(b)		78	89
Carlton*	Canada	100	100					100	100	100	100			100	100
Jubilee	Canada	16	58					47	92	59	105			41	85
Signal (S-8800)	Canada	70	100					116	111	101	112			96	108
Svaja	Sweden	58	100					92	103	78	136			76	113
Carlton Yield in (DM) t/ha		2.63	2.31					5.19	0.73	1.49	0.76			3.10	1.27

(a) Not seeded in 1982

(b) No stand establishment in 1982

Red Fescue

Test Site: Beaverlodge Research Station
Seeding Year: 1981

Cultivar	Origin	Hardi- ness	Height (cm)	Date Ripe		Seed Yield				Herbage Yield			
				1982	1983	kg/ha		% of Boreal		(DM) t/ha	% of Boreal		
						1982	1983	1982	1983	1982†	1983†	1982	1983
Boreal*	(3) Canada	9.0	67	Jul 20	Jul 25	315	680	100	100	4.29	4.96	100	100
Carlaw	(3) Canada	9.0	64	Jul 20	Jul 28	252	616	80	91	3.82	5.38	89	108
Chiwago	(2) West Germany	9.0	64	Jul 20	Jul 22	67	289	21	43	2.44	4.47	57	90
Eboli	(1) Denmark	9.0	53	Jul 12	Jul 19	48	106	15	16	2.33	4.22	54	85
Falter	(1) West Germany	9.0	55	Jul 16	Jul 19	18	80	6	12	2.28	3.73	53	75
Futuro	(3) West Germany	9.0	70	Jul 20	Jul 28	80	128	25	19	3.75	5.33	87	107
Gavotte	(1) Netherlands	8.9	52	Jul 14	Jul 19	57	125	18	18	2.03	3.17	47	64
Hawk	(3) United Kingdom	9.0	65	Jul 20	Jul 28	169	575	54	85	3.71	5.18	86	104
Lirota	(1) West Germany	8.9	51	Jul 12	Jul 19	44	87	14	13	2.23	2.87	52	58
Lobi	(1) West Germany	8.9	50	Jul 12	Jul 19	70	290	22	43	2.33	2.53	54	51
Oasis	(2) Netherlands	9.0	53	Jul 12	Jul 19	24	30	8	4	2.73	4.16	64	84
Solfege	(1) France	8.7	55	Jul 19	Jul 28	8	238	3	35	1.61	3.03	38	61
Tridano	(3) Denmark	9.0	66	Jul 20	Jul 27	215	336	68	49	4.23	5.38	99	108
Mean						105	275			2.91	4.19		
L.S.D. (P = .05)						35	119			0.66	0.95		

(1) Rhizomes absent or rudimentary

(2) Slender rhizomes

(3) Strong rhizomes

(4) Unclassified

† Two cuts combined

Red Fescue

Test Site: Beaverlodge Research Station
Seeding Year: 1982

Cultivar	Origin	Hardi- ness	Height (cm)	Date Ripe	Seed Yield	
					kg/ha 1983	% of Boreal
Boreal*	(3) Canada	9.0	64	Jul 28	261	100
Carlawn	(3) Canada	9.0	66	Jul 28	359	138
Fidelimo	(1) Netherlands	9.0	45	Jul 19	19	7
Leik	(3) Norway	9.0	76	Jul 26	152	58
Luster	(1) Netherlands	9.0	48	Jul 22	6	2
Milda	(3) France	9.0	65	Jul 26	51	20
Oasis	(2) Netherlands	9.0	49	Jul 19	22	8
Valaska	(4) Czechoslovakia	9.0	56	Jul 19	203	78
Zernickower	(3) East Germany	9.0	71	Jul 28	183	70
Mean					140	
L.S.D. (P = .05)					207	

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

Red Fescue

Test Site: Fort Vermilion Experimental Farm
Seeding Year: 1982

Cultivar		Origin	Hardi- ness	Height (cm)	Date Ripe	Seed Yield	
						kg/ha 1983	% of Boreal
Boreal*	(3)	Canada	9.0	59	Jul 11	103	100
Carlawn	(3)	Canada	9.0	66	Jul 11	92	89
Fidelimo	(1)	Netherlands	9.0	48	Jul 11	2	2
Leik	(3)	Norway	9.0	67	Jul 11	104	101
Luster	(1)	Netherlands	9.0	47	Jul 11	3	3
Milda	(3)	France	9.0	53	Jul 11	1	1
Oasis	(2)	Netherlands	9.0	60	Jul 11	7	7
Valaska	(4)	Czechoslovakia	9.0	59	Jul 11	42	41
Zernickower	(3)	East Germany	9.0	61	Jul 11	96	93
Mean						50	
L.S.D. (P = .05)						78	

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

Red Fescue

Test Site: Gimle
Seeding Year: 1982

Cultivar		Origin	Hardi- ness	Height (cm)	Date Ripe	Seed Yield	
						kg/ha 1983	% of Boreal
Boreal*	(3)	Canada	9.0	71	Jul 23	412	100
Carlawn	(3)	Canada	9.0	69	Jul 23	335	81
Fidelimo	(1)	Netherlands	9.0	60	Jul 18	58	14
Leik	(3)	Norway	9.0	76	Jul 23	262	64
Luster	(1)	Netherlands	9.0	48	Jul 18	49	12
Milda	(3)	France	9.0	64	Jul 22	122	30
Oasis	(2)	Netherlands	9.0	58	Jul 18	72	17
Valaska	(4)	Czechoslovakia	9.0	62	Jul 18	141	34
Zernickower	(3)	East Germany	9.0	71	Jul 23	346	84
Mean						200	
L.S.D. (P = .05)						128	

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

Summary of Red Fescue Seed Yields
1982 Seeding Year - 1983 Harvest
(Yields are shown as % of Boreal)

Cultivar		Origin	Beaverlodge A	Beaverlodge B	Falher	Fort Vermilion	Gimli	High Level	All Locations (Average)
Boreal*	(3)	Canada	100	(a)	(b)	100	100	(b)	100
Carlawn	(3)	Canada	138			89	81		103
Fidelimo	(1)	Netherlands	7			2	14		8
Leik	(3)	Norway	58			101	64		74
Luster	(1)	Netherlands	2			3	12		7
Milda	(3)	France	20			1	30		17
Oasis	(2)	Netherlands	8			7	17		11
Valaska	(4)	Czechoslovakia	78			41	34		51
Zernickower	(3)	East Germany	70			93	84		82
Boreal Yield in kg/ha			261			103	412		259

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

- (a) Not seeded in 1982
- (b) No stand establishment in 1982

Red Fescue

Test Site: Beaverlodge Research Station
Seeding Year: 1982

Cultivar		Origin	1st Herbage Yield			2nd Herbage Yield		
			Day Cut	(DM) t/ha	% of Boreal	Day Cut	(DM) t/ha	% of Boreal
Boreal*	(3)	Canada	Jun 16	0.39	100	Aug 11	1.90	100
Carlawn	(3)	Canada	Jun 16	0.43	110	Aug 11	1.38	73
Fidelimo	(1)	Netherlands	Jun 16	0.12	31	Aug 11	0.29	15
Leik	(3)	Norway	Jun 16	0.72	185	Aug 11	1.05	55
Luster	(1)	Netherlands	Jun 16	0.03	8	Aug 11	0.26	14
Milda	(3)	France	Jun 16	0.11	28	Aug 11	0.86	45
Oasis	(2)	Netherlands	Jun 16	0.06	15	Aug 11	1.01	53
Valaska	(4)	Czechoslovakia	Jun 16	0.35	90	Aug 11	0.69	36
Zernickower	(3)	East Germany	Jun 16	0.28	72	Aug 11	1.27	67
Mean				0.28			0.97	
L.S.D. (P = .05)				0.32			0.50	

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

Red Fescue

Test Site: Fort Vermilion Experimental Farm
Seeding Year: 1982

Cultivar		Origin	1st Herbage Yield			2nd Herbage Yield			
			Day Cut	(DM) t/ha	% of Boreal	Day Cut	(DM) t/ha	% of Boreal	
Boreal*	(3)	Canada	Jun 27	0.40	100	+			
Carlawn	(3)	Canada	Jun 27	0.30	75				
Fidelimo	(1)	Netherlands	Jun 27	0.06	15				
Leik	(3)	Norway	Jun 27	0.54	135				
Luster	(1)	Netherlands	Jun 27	0.07	18				
Milda	(3)	France	Jun 27	0.16	40				
Oasis	(2)	Netherlands	Jun 27	0.07	18				
Valaska	(4)	Czechoslovakia	Jun 27	0.16	40				
Zernickower	(3)	East Germany	Jun 27	0.54	135				
Mean				0.25					
L.S.D.				0.27					

(1) Rhizomes absent or rudimentary

(2) Slender rhizomes

(3) Strong rhizomes

(4) Unclassified

+ Second cut not taken

Red Fescue

Test Site: Gimle
Seeding Year: 1982

Cultivar		Origin	1st Herbage Yield			2nd Herbage Yield		
			Day Cut	(DM) t/ha	% of Boreal	Day Cut	(DM) t/ha	% of Boreal
Boreal*	(3)	Canada	Jun 22	0.69	100	Aug 19	0.57	100
Carlawn	(3)	Canada	Jun 22	0.81	117	Aug 19	0.56	98
Fidelimo	(1)	Netherlands	Jun 22	0.23	33	Aug 19	0.15	26
Leik	(3)	Norway	Jun 22	0.90	130	Aug 19	0.32	56
Luster	(1)	Netherlands	Jun 22	0.31	45	Aug 19	0.18	32
Milda	(3)	France	Jun 22	0.56	81	Aug 19	0.80	140
Oasis	(2)	Netherlands	Jun 22	0.36	52	Aug 19	0.45	79
Valaska	(4)	Czechoslovakia	Jun 22	0.68	99	Aug 19	0.32	56
Zernickower	(3)	East Germany	Jun 22	0.75	109	Aug 19	0.59	104
Mean				0.59			0.44	
L.S.D. (P = .05)				0.20			0.24	

(1) Rhizomes absent or rudimentary

(2) Slender rhizomes

(3) Strong rhizomes

(4) Unclassified

Summary of Red Fescue Herbage Yields
1982 Seeding Year - 1983 Harvest
(Yields are shown as % of Boreal)

Cultivar		Origin	Beaverlodge A		Beaverlodge B		Falher		Fort Vermilion		Gimle		High Level		All Locations (Average)	
			1st Cut	2nd Cut	1st Cut	2nd Cut	1st Cut	2nd Cut	1st Cut	2nd Cut	1st Cut	2nd Cut	1st Cut	2nd Cut	1st Cut	2nd Cut
Boreal*	(3)	Canada	100	100	(a)		(b)		100	(c)	100	100	(b)		100	100
Carlawm	(3)	Canada	110	73					75		117	98			101	86
Fidelimo	(1)	Netherlands	31	15					15		33	26			26	21
Leik	(3)	Norway	185	55					135		130	56			150	56
Luster	(1)	Netherlands	8	14					18		45	32			24	23
Milda	(3)	France	28	45					40		81	140			50	93
Oasis	(2)	Netherlands	15	53					18		52	79			28	66
Valaska	(4)	Czechoslovakia	90	36					40		99	56			76	41
Zernickower	(3)	East Germany	72	67					135		109	104			105	86
Boreal Yield in (DM) t/ha			0.39	1.90					0.40		0.69	0.57			0.49	1.24

(1) Rhizomes absent or rudimentary

(2) Slender rhizomes

(3) Strong rhizomes

(4) Unclassified

(a) Not seeded in 1982

(b) No stand establishment in 1982

(c) Second cut not taken due to drought

Timothy - Hay

Test Site: Beaverlodge Research Station
 Seeding Year: 1981

Cultivar	Origin	Hardi- ness	Height (cm)	Date Ripe		Seed Yield				Herbage Yield			
				1982	1983	kg/ha		% of Climax		(DM) t/ha	% of Climax		
						1982	1983	1982	1983	1982+	1983+	1982	1983
Arabelle	West Germany	9.0	78	Aug 11	Aug 21	117	444	67	87	6.13	5.58	71	77
Bartowia	Poland	9.0	90	Aug 11	Aug 18	228	523	130	103	8.40	6.65	97	91
Camilla	Netherlands	9.0	77	Aug 11	Aug 21	128	234	73	46	7.00	5.59	81	77
Climax*	Canada	9.0	91	Aug 11	Aug 20	175	510	100	100	8.65	7.27	100	100
Lacombe Comp.	Canada	9.0	91	Aug 11	Aug 19	226	557	129	109	8.16	7.38	94	102
Marpessa	Netherlands	9.0	84	Aug 11	Aug 19	335	794	191	157	7.80	7.23	90	99
Mentor	Netherlands	9.0	86	Aug 11	Aug 18	316	685	181	134	5.74	5.95	66	82
Molstad	Norway	9.0	84	Aug 11	Aug 17	186	621	106	122	7.06	6.20	82	85
Salvo	Canada	9.0	84	Aug 11	Aug 19	192	503	110	99	6.89	6.55	80	90
Saxo	Denmark	9.0	81	Aug 11	Aug 18	127	275	73	54	6.77	6.41	78	88
Skala	Poland	9.0	85	Aug 11	Aug 17	188	718	107	141	7.92	7.66	92	105
Valstad	Norway	9.0	84	Aug 11	Aug 17	284	702	162	138	6.35	6.56	74	90
Mean						208	547			7.24	6.59		
L.S.D. (P = .05)						76	131			0.68	0.82		

+ Two cuts combined

Timothy - Hay

Test Site: Beaverlodge Research Station
Seeding Year: 1982

Cultivar	Origin	Hardi- ness	Height (cm)	Date Ripe	Seed Yield	
					kg/ha 1983	% of Climax
Alpage	France	9.0	84	Aug 27	143	92
Climax*	Canada	9.0	84	Aug 30	156	100
Hokussyu	Japan	9.0	86	Aug 22	232	149
Korpa	Iceland	9.0	85	Aug 17	700	449
Lacombe Composite	Canada	9.0	91	Aug 17	277	178
Ludor	France	9.0	73	Sep 6	87	56
Melora	Netherlands	9.0	79	Aug 20	304	195
Nosappu	Japan	9.0	88	Aug 27	280	179
Salvo	Canada	9.0	81	Sep 1	75	48
Mean					250	
L.S.D. (P = .05)					135	

Test Site: Fort Vermilion Experimental Farm
Seeding Year: 1982

Alpage	France	9.0	68	Aug 15	213	121
Climax*	Canada	9.0	71	Aug 15	176	100
Hokussyu	Japan	9.0	61	Aug 15	196	111
Korpa	Iceland	9.0	70	Aug 15	368	209
Lacombe Composite	Canada	9.0	70	Aug 15	283	161
Ludor	France	9.0	65	Aug 15	68	39
Melora	Netherlands	9.0	61	Aug 15	145	82
Nosappu	Japan	9.0	78	Aug 15	188	109
Salvo	Canada	9.0	69	Aug 15	86	49
Mean					191	
L.S.D. (P = .05)					48	

Timothy - Hay

Test Site: Gimle
Seeding Year: 1982

Cultivar	Origin	Hardi- ness	Height (cm)	Date Ripe	Seed Yield	
					kg/ha 1983	% of Climax
Alpage	France	9.0	90	Aug 18	356	124
Climax*	Canada	9.0	94	Aug 10	288	100
Hokusyu	Japan	9.0	79	Aug 18	196	68
Korpa	Iceland	9.0	90	Aug 10	567	197
Lacombe Composite	Canada	9.0	95	Aug 18	542	188
Ludor	France	9.0	81	Aug 18	169	59
Melora	Netherlands	9.0	83	Aug 18	306	106
Nosappu	Japan	9.0	94	Aug 10	324	113
Salvo	Canada	9.0	85	Aug 5	162	56
Mean					323	
L.S.D. (P = .05)					91	

Summary of Timothy Seed Yields
1982 Seeding Year - 1983 Harvest
(Yields are shown as % of Climax)

Cultivar	Origin	Beaverlodge A	Beaverlodge B	Falher	Fort Vermilion	Gimle	High Level	All Location (Average)
Alpage	France	92	(a)	(b)	121	124	(b)	112
Climax*	Canada	100			100	100		100
Hokussyu	Japan	149			111	68		109
Korpa	Iceland	449			209	197		285
Lacombe Composite	Canada	178			161	188		176
Ludor	France	56			39	59		51
Melora	Netherlands	195			82	106		128
Nosappu	Japan	179			109	113		134
Salvo	Canada	48			49	56		51
Climax Yield in kg/ha		156			176	288		207

(a) Not seeded in 1982

(b) No stand establishment in 1982

Timothy - Hay Test Site: Beaverlodge Research Station
Seeding Year: 1982

Cultivar	Origin	1st Herbage Yield			2nd Herbage Yield		
		Day Cut	(DM) t/ha	% of Climax	Day Cut	(DM) t/ha	% of Climax
Alpage	France	Jun 23	0.50	57	Aug 18	3.18	106
Climax*	Canada	Jun 23	0.88	100	Aug 18	2.99	100
Hokusyu	Japan	Jun 23	0.91	103	Aug 18	3.11	104
Korpa	Iceland	Jun 23	0.34	39	Aug 18	1.27	42
Lacombe Composite	Canada	Jun 23	1.61	183	Aug 18	3.24	108
Ludor	France	Jun 23	0.11	13	Aug 18	1.99	67
Melora	Netherlands	Jun 23	0.38	43	Aug 18	2.53	85
Nosappu	Japan	Jun 23	0.74	84	Aug 18	3.52	118
Salvo	Canada	Jun 23	0.60	68	Aug 18	3.50	117
Mean			0.67			2.81	
L.S.D. (P = .05)			0.39			1.31	

Test Site: Fort Vermilion Experimental Farm
Seeding Year: 1982

Alpage	France	Jun 27	1.64	99	Aug 15	0.39	100
Climax*	Canada	Jun 27	1.66	100	Aug 15	0.39	100
Hokusyu	Japan	Jun 27	1.28	77	Aug 15	0.33	85
Korpa	Iceland	Jun 27	2.63	158	Aug 15	0.22	56
Lacombe Composite	Canada	Jun 27	2.26	136	Aug 15	0.43	110
Ludor	France	Jun 27	1.13	68	Aug 15	0.22	56
Melora	Netherlands	Jun 27	1.31	79	Aug 15	0.16	41
Nosappu	Japan	Jun 27	1.53	92	Aug 15	0.50	128
Salvo	Canada	Jun 27	1.36	82	Aug 15	0.32	82
Mean			1.64			0.33	
L.S.D. (P = .05)			0.52			0.17	

Timothy - Hay

Test Site: Gimle
Seeding Year: 1982

Cultivar	Origin	1st Herbage Yield			2nd Herbage Yield		
		Day Cut	(DM) t/ha	% of Climax	Day Cut	(DM) t/ha	% of Climax
Alpage	France	Jun 22	1.29	101	Aug 19	1.06	73
Climax*	Canada	Jun 22	1.28	100	Aug 19	1.45	100
Hokusyu	Japan	Jun 22	0.87	68	Aug 19	1.65	114
Korpa	Iceland	Jun 22	1.30	102	Aug 19	0.43	30
Lacombe Composite	Canada	Jun 22	1.53	120	Aug 19	1.02	70
Ludor	France	Jun 22	0.94	73	Aug 19	1.31	90
Melora	Netherlands	Jun 22	1.05	82	Aug 19	1.42	98
Nosappu	Japan	Jun 22	1.36	106	Aug 19	1.14	79
Salvo	Canada	Jun 22	1.30	102	Aug 19	1.68	116
Mean			1.21			1.24	
L.S.D. (P = .05)			0.31			0.48	

Summary of Timothy Herbage Yields
1982 Seeding Year - 1983 Harvest
(Yields are shown as % of Climax)

Cultivar	Origin	Beaverlodge A		Beaverlodge B		Falher		Fort Vermilion		Gimle		High Level		All Locations (Average)	
		1st Cut	2nd Cut	1st Cut	2nd Cut	1st Cut	2nd Cut	1st Cut	2nd Cut	1st Cut	2nd Cut	1st Cut	2nd Cut	1st Cut	2nd Cut
Alpage	France	57	106	(a)		(b)		99	100	101	73	(b)		86	93
Climax*	Canada	100	100					100	100	100	100			100	100
Hokusyu	Japan	103	104					77	85	68	114			83	101
Korpa	Iceland	39	42					158	56	102	30			100	43
Lacombe Composite	Canada	183	108					136	110	120	70			146	96
Ludor	France	13	67					68	56	73	90			51	71
Melora	Netherlands	43	85					79	41	82	98			68	75
Nosappu	Japan	84	118					92	128	106	79			94	108
Salvo	Canada	68	117					82	82	102	116			84	105
Climax Yield in (DM) t/ha		0.88	2.99					1.66	0.39	1.28	1.45			1.27	1.61

(a) Not seeded in 1982

(b) No stand establishment in 1982

Red Clover

Test Site: Beaverlodge Research Station
Seeding Year: 1981

Cultivar	Origin	Hardiness		Height (cm)	Seed Yield				Herbage Yield			
		1982	1983		kg/ha 1982	1983	% of Altaswede 1982	1983	(DM) 1982†	t/ha 1983†	% of Altaswede 1982	1983
Altaswede*	Canada	9.0	7.8	61	266	326	100	100	5.42	7.71	100	100
Bjorn	Sweden	9.0	7.2	58	169	176	64	54	4.73	5.57	87	72
Deben 4n	United Kingdom	9.0	3.8	50	79	22	30	7	4.93	3.39	91	44
Diper	France	9.0	4.0	46	142	27	53	8	4.54	2.45	84	32
Janbo 4n	Denmark	9.0	4.3	45	88	28	33	9	4.76	4.26	88	55
Kenstar	United States	9.0	3.7	44	140	21	53	6	4.76	2.79	88	36
Kvarta	Czechoslovakia	9.0	5.7	53	104	64	39	20	5.27	4.83	97	63
Norlac	Canada	9.0	8.0	57	245	339	92	104	4.27	5.14	79	67
Quin	United Kingdom	9.0	3.2	44	153	20	58	6	5.06	2.06	93	27
Redman	United States	9.0	5.2	47	195	55	73	17	5.84	4.04	108	52
Start	Czechoslovakia	9.0	4.5	48	178	64	67	20	5.20	3.03	96	39
Triton 4n	Sweden	9.0	5.8	55	173	106	65	33	6.69	4.67	123	61
Mean					161	104			5.13	4.16		
L.S.D. (P = .05)					63	50			0.51	0.99		

† Two cuts combined

Red Clover

Test Site: Beaverlodge Research Station
Seeding Year: 1982

Cultivar	Origin	Hardi- ness	Height (cm)	Date Ripe	Seed Yield	
					kg/ha 1983	% of Altaswede
Altaswede*	Canada	7.8	65	Sep 21	396	100
Florex	United States	4.3	45	Sep 21	124	31
Florie	United States	3.5	44	Sep 21	68	17
Gollum	Denmark	7.0	54	Sep 21	337	85
Marino	East Germany	4.8	41	Sep 21	138	35
Palna	Denmark	5.8	53	Sep 21	360	91
Sara 4n	Sweden	5.3	58	Sep 21	146	37
Tristan	United States	3.5	35	Sep 21	85	21
Mean					207	
L.S.D. (P = .05)					88	

Test Site: Gimle
Seeding Year: 1982

Altaswede*	Canada	9.0	76	Sep 20	206	100
Florex	United States	9.0	59	Sep 20	65	32
Florie	United States	8.8	50	Sep 20	48	23
Gollum	Denmark	9.0	70	Sep 20	126	61
Marino	East Germany	8.8	59	Sep 20	80	39
Palna	Denmark	8.8	71	Sep 20	124	60
Sara 4n	Sweden	8.8	74	Sep 20	51	25
Tristan	United States	9.0	54	Sep 20	79	38
Mean					97	
L.S.D. (P = .05)					58	

Summary of Red Clover Seed Yields
1982 Seeding Year - 1983 Harvest
(Yields are shown as % of Atlaswede)

Cultivar	Origin	Beaverlodge A	Beaverlodge B	Falher	Fort Vermilion	Gimle	High Level	All Locations (Average)
Atlaswede*	Canada	100	(a)	(b)	(c)	100	(b)	100
Florex	United States	31				32		32
Florie	United States	17				23		20
Gollum	Denmark	85				61		73
Marino	East Germany	35				39		37
Palna	Denmark	91				60		76
Sara 4n	Sweden	37				25		31
Tristan	United States	21				38		30
Atlaswede Yield in kg/ha		396				206		301

(a) Not seeded in 1982

(b) No stand establishment in 1982

(c) Complete winterkill

Red Clover

Test Site: Beaverlodge Research Station
Seeding Year: 1982

Cultivar	Origin	1st Herbage Yield			2nd Herbage Yield		
		Day Cut	(DM) t/ha	% of Altaswede	Day Cut	(DM) t/ha	% of Altaswede
Altaswede*	Canada	Jul 19	3.45	100	Sep 21	2.41	100
Florex	United States	Jul 8	0.99	29	Sep 21	3.81	158
Florie	United States	Jul 5	0.30	9	Sep 21	2.64	110
Gollum	Denmark	Jul 19	1.76	51	Sep 21	1.57	65
Marino	East Germany	Jun 30	0.31	9	Sep 21	3.73	155
Palna	Denmark	Jul 13	1.75	51	Sep 21	2.59	107
Sara 4n	Sweden	Jul 19	2.39	69	Sep 21	1.88	78
Tristan	United States	Jun 30	0.22	6	Sep 21	3.29	137
Mean			1.39			2.74	
L.S.D. (P = .05)			1.05			1.13	

Test Site: Gimle
Seeding Year: 1982

Altaswede*	Canada	Jul 13	4.32	100	Sep 19	1.64	100
Florex	United States	Jun 29	2.22	51	Sep 19	3.42	209
Florie	United States	Jun 29	1.23	28	Sep 19	3.82	233
Gollum	Denmark	Jul 13	2.96	69	Sep 19	1.87	114
Marino	East Germany	Jun 29	1.25	29	Sep 19	2.00	122
Palna	Denmark	Jul 13	2.97	69	Sep 19	2.26	138
Sara 4n	Sweden	Jul 13	3.97	92	Sep 19	1.62	99
Tristan	United States	Jun 29	1.24	29	Sep 19	3.27	199
Mean			2.52			2.49	
L.S.D. (P = .05)			0.65			1.49	

Summary of Red Clover Herbage Yields
1982 Seeding Year - 1983 Harvest
(Yields are shown as % of Altaswede)

Cultivar	Origin	Beaverlodge A		Beaverlodge B		Falher		Fort Vermilion		Gimle		High Level		All Locations (Average)	
		1st Cut	2nd Cut	1st Cut	2nd Cut	1st Cut	2nd Cut	1st Cut	2nd Cut	1st Cut	2nd Cut	1st Cut	2nd Cut	1st Cut	2nd Cut
Altaswede*	Canada	100	100	(a)		(b)		(c)		100	100	(b)		100	100
Florex	United States	29	158							51	209			40	184
Florie	United States	9	110							28	233			19	172
Gollum	Denmark	51	65							69	114			60	90
Marino	East Germany	9	155							29	122			19	139
Palna	Denmark	51	107							69	138			60	123
Sara 4n	Sweden	69	78							92	99			81	89
Tristan	United States	6	137							29	199			18	168
Altaswede Yield in (DM) t/ha		3.45	2.41							4.32	1.64			3.89	2.03

(a) Not seeded in 1982

(b) No stand establishment in 1982

(c) Complete winterkill

PART B

Cultivar Screening Trial
Seeding Year: 1982

Species	Cultivar	Origin	Hardiness	Height (cm)	Seed Yield Rating	Herbage Yield Rating
Alfalfa (<i>Medicago sativa</i> L.)						
	Beaver*	Canada	4.0	53	3.0	3.0
	Ceres	United States	4.0	53	3.5	3.0
	Chimo	Canada	3.5	68	4.5	3.0
	Iroquois	United States	4.0	50	3.5	2.5
	Kane	Canada	4.0	53	3.0	3.5
	Lesina	Sweden	3.0	55	3.0	2.5
	Lubella	West Germany	4.5	60	4.0	3.0
	Maverick	United States	4.0	55	3.0	3.5
	Natuwakaba	Japan	3.5	58	2.5	1.5
	Pacer	United States	3.5	55	3.0	2.5
	Peace	Canada	4.5	63	4.0	3.0
	Pickstar	Canada	3.5	55	3.0	3.0
	Shau-Tong	China	5.0	60	3.5	4.0
	Thor	United States	3.5	58	4.5	3.5
	Valor	Canada	3.5	50	2.5	3.0
Birdsfoot Trefoil (<i>Lotus corniculatus</i> L.)						
	Cree	Canada	4.0	35	4.5	2.0
	Dawn	United States	1.5	25	1.5	1.0
	Fergus	United States	3.5	30	2.0	1.5
	Hoki	West Germany	2.0	28	1.0	1.0
	Leo*	Canada	3.0	40	2.0	2.0
Clover, Red (<i>Trifolium pratense</i> L.)						
	Aled	United States	4.0	65	4.0	4.5
	Altaswede*	Canada	4.5	60	5.0	4.5
	A 0301	Sweden	3.0	53	2.5	2.0
	Ertetra 4n	China	2.5	53	2.5	2.5
	Joseph	Italy	2.5	48	2.5	2.0
	Kora	Sweden	4.0	60	4.5	4.5

Cultivar Screening Trial
Seeding Year: 1982

Species	Cultivar	Origin	Hardiness	Height (cm)	Seed Yield Rating	Herbage Yield Rating
Clover, Red (<i>Trifolium pratense</i> L.), cont'd.						
	Merviot	Belgium	2.5	33	1.5	1.0
	SV0 334 4n	Sweden	3.0	38	4.0	3.0
	Tapiopoly 4n	Hungary	3.0	48	3.5	3.0
	Tero	Denmark	3.0	38	2.0	2.0
	WWR 62 4n	Sweden	4.5	55	4.5	5.0
Clover, White (<i>Trifolium repens</i> L.)						
	Haifa	Australia	0	0	0	0
	Kitaooha	Japan	1.0	28	0.5	0.5
	Nora*	Sweden	3.0	23	4.5	2.5
	Olwen	United Kingdom	0.5	20	0.5	0.5
	Sacramento	United States	1.0	20	2.5	1.0
Milkvetch (<i>Astragalus cicer</i> L.)						
	Korean	Korea	0	0	0	0
Bluegrass, Canada (<i>Poa compressa</i> L.)						
	Reuben	United States	5.0	48	4.0	3.5
Bluegrass, Kentucky (<i>Poa pratensis</i> L.)						
	Barzan	Netherlands	5.0	50	3.0	1.0
	Bono	Canada	5.0	65	2.0	3.0
	Entopper	Netherlands	5.0	53	2.0	2.0
	Glade	United States	5.0	60	1.0	1.0
	#171	Finland	5.0	65	3.5	3.5
	Park*	United States	5.0	70	4.0	3.5
	Petit	Denmark	5.0	58	2.0	2.0
	Ryosti	Finland	5.0	73	5.0	5.0

Cultivar Screening Trial
Seeding Year: 1982

Species	Cultivar	Origin	Hardiness	Height (cm)	Seed Yield Rating	Herbage Yield Rating
Bromegrass, Smooth (<i>Bromus inermis</i> Leyss.)						
	Bromex	United States	5.0	115	4.5	4.0
	Carlton*	Canada	5.0	113	5.0	5.0
	Lofar	Norway	5.0	113	3.5	4.0
	S-8778	Canada	5.0	125	4.5	4.5
	S-8792	Canada	5.0	130	5.0	5.0
	WWF 73	Sweden	3.0	110	2.0	2.0
	WWF 74	Sweden	5.0	110	1.5	2.5
	WWF 75	Sweden	3.0	100	1.5	1.0
	WWF 76	Sweden	5.0	103	1.5	2.0
Fescue, Meadow (<i>Festuca pratensis</i> Huds.; <i>F. elatior</i> auct.)						
	Barnardo	Netherlands	5.0	78	3.0	3.5
	Barracuda	Netherlands	5.0	80	3.0	2.0
	First	Japan	5.0	98	5.0	5.0
	Kalevi	Finland	5.0	85	5.0	5.0
	Lifesta	West Germany	5.0	85	4.5	4.5
	Mimer*	Sweden	5.0	90	4.5	4.0
	N 208	West Germany	5.0	93	4.5	4.5
	N 209	West Germany	5.0	88	3.5	4.0
	N 211	West Germany	5.0	78	4.0	3.5
	VG 01259	Sweden	4.5	80	4.5	4.0
	WWAS 6-70	Sweden	5.0	83	3.0	3.5
Fescue, Red (<i>Festuca rubra</i> L.)						
	BAR FRC 78 (3)	Netherlands	5.0	63	2.0	2.0
	Boreal* (3)	Canada	5.0	73	5.0	4.5
	Dorado (1)	West Germany	5.0	65	1.0	1.5
	Feru 0305 (3)	Iceland	5.0	63	1.0	1.5
	FRT 3 (3)	Netherlands	5.0	45	3.0	3.0
	Icelandic (3)	Netherlands	5.0	73	3.5	3.5

Cultivar Screening Trial
Seeding Year: 1982

Species	Cultivar	Origin	Hardiness	Height (cm)	Seed Yield Rating	Herbage Yield Rating
Fescue, Red (<i>Festuca rubra</i> L.), cont'd.						
	Leik (3)	Norway	5.0	75	3.5	4.5
	Lovisa (2)	Sweden	5.0	60	3.0	3.0
	Ludvine (1)	France	5.0	58	1.0	2.0
	M6-8537 (4)	United Kingdom	5.0	58	1.0	1.5
	M6-8754 (4)	United Kingdom	5.0	60	1.0	1.0
	M6-8755 (4)	United Kingdom	5.0	40	1.0	1.0
	Meldal (3)	Norway	5.0	75	1.0	1.0
	MOM FRR 25 (3)	Netherlands	5.0	58	1.0	1.0
	N 105 (3)	West Germany	5.0	63	2.0	3.0
	N 106 (3)	West Germany	5.0	58	2.0	2.0
	N 120 (3)	West Germany	5.0	63	3.0	3.5
	N 124 (3)	West Germany	5.0	70	4.0	4.5
	N 125 (3)	West Germany	5.0	68	3.5	3.0
	Oasis (2)	Netherlands	5.0	68	2.5	3.0
	Regand (1)	West Germany	5.0	53	1.0	1.5
	Satin (2)	Sweden	5.0	73	4.5	4.0
	Singsas (3)	Norway	5.0	68	2.5	2.5
	WWRs 107 (3)	Sweden	5.0	60	2.5	2.0
	WWRs 108 (3)	Sweden	5.0	55	2.5	2.5
	WWRs 110 (3)	Sweden	5.0	58	2.5	3.0
	WWRs 111 (3)	Sweden	5.0	58	1.5	1.5
	WWRs 112 (3)	Sweden	5.0	70	3.0	3.5
	WWRs 113 (3)	Sweden	5.0	60	2.5	3.0
	WWRs 114 (1)	Sweden	5.0	63	2.5	3.5

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

Cultivar Screening Trial
Seeding Year: 1982

Species	Cultivar	Origin	Hardiness	Height (cm)	Seed Yield Rating	Herbage Yield Rating
Fescue, Tall (<i>Festuca arundinacea</i> Schreb.)						
	Alta*	United States	5.0	85	1.5	1.5
Orchardgrass (<i>Dactylis glomerata</i> L.)						
	Barata	Netherlands	4.0	88	1.0	2.0
	Comet	United Kingdom	5.0	100	2.0	3.0
	Conrad	United States	2.5	30	0	1.0
	Dakta	Denmark	5.0	98	1.5	2.5
	Hayking	Japan	5.0	103	3.0	3.5
	ISI80 A	Netherlands	5.0	93	2.0	3.0
	ISI80 B	Netherlands	4.5	98	1.0	2.5
	ISI80 C	Netherlands	4.5	93	2.0	4.0
	Kay*	Canada	5.0	110	3.5	4.0
	Lucyle	France	5.0	100	2.0	2.5
	Mobite	Netherlands	5.0	105	3.0	3.0
	Orion	United States	5.0	110	4.5	4.0
	Sparta	Denmark	5.0	95	1.0	2.5
Ryegrass, Perennial (<i>Lolium perenne</i> L.)						
	Amigo	Netherlands	2.5	45	2.0	2.5
	Arka	Poland	2.5	55	1.0	2.5
	Arno	Netherlands	3.0	45	2.0	3.0
	Artal 4n	Netherlands	2.0	50	2.0	2.5
	Barbados	West Germany	2.0	45	1.5	1.5
	Barcelona	West Germany	2.5	45	1.0	2.0
	Barcentra 4n	Netherlands	2.0	45	1.0	1.0
	Barlano	Netherlands	2.0	48	1.5	1.5
	Bastion 4n	Netherlands	1.5	55	1.0	1.5
	Blazer	United States	3.0	40	3.0	2.5
	Borvi	Denmark	2.0	48	1.5	2.0
	Bravo	Netherlands	2.0	48	1.5	2.0

Cultivar Screening Trial
Seeding Year: 1982

Species	Cultivar	Origin	Hardiness	Height (cm)	Seed Yield Rating	Herbage Yield Rating
Ryegrass, Perennial (<i>Lolium perenne</i> L.), cont'd.						
	Callan	United Kingdom	1.5	53	2.0	1.0
	Capper	Netherlands	2.5	48	1.0	1.0
	Causeway	United Kingdom	1.5	45	1.5	1.0
	Citadel 4n	Netherlands	3.0	50	2.0	2.0
	Dasher	United States	3.5	43	3.0	2.0
	Diplomat	United States	4.0	48	4.0	2.5
	Donata	Netherlands	3.0	40	1.0	1.5
	Ensilo	Netherlands	2.5	45	2.0	2.5
	Fantoom 4n	Netherlands	2.5	50	1.5	2.0
	Fiesta	United States	3.0	50	3.0	2.5
	Friend	Japan	1.0	53	1.5	2.0
	G-658	Hungary	2.5	48	3.5	3.5
	Godik	Denmark	3.0	55	2.5	2.5
	Gunne	Sweden	3.0	53	3.0	3.0
	Hornet	United Kingdom	1.0	43	1.0	1.0
	Hubal	Netherlands	2.5	48	1.5	1.5
	Jackpot		2.5	45	1.0	1.5
	Lilotta	West Germany	3.0	48	2.5	2.5
	Lisuna	West Germany	4.0	50	3.0	3.0
	Lucretia	West Germany	3.0	45	1.5	2.0
	Magister	Netherlands	2.0	45	1.0	1.5
	Mirvan	Denmark	2.0	50	2.0	2.0
	Modus 4n	Netherlands	2.0	55	1.5	2.0
	Montana	Netherlands	1.5	43	1.0	1.5
	NK 200	United States	4.5	53	4.0	3.5
	Norlea*	Canada	4.0	53	4.0	3.0
	Omega	United States	2.5	43	2.5	2.0
	Panache	Netherlands	1.5	48	1.5	1.5
	Prana 4n	Netherlands	1.5	50	1.5	1.5
	Ranger	Netherlands	2.5	45	2.5	2.5
	Rathlin	United Kingdom	2.5	53	1.5	2.5
	Semperweide	Netherlands	3.0	50	2.5	2.5

Cultivar Screening Trial
Seeding Year: 1982

Species	Cultivar	Origin	Hardiness	Height (cm)	Seed Yield Rating	Herbage Yield Rating
Ryegrass, Perennial (<i>Lolium perenne</i> L.), cont'd.						
	Sisu	Denmark	2.5	55	2.5	3.0
	Sommora	Netherlands	2.0	48	1.5	1.5
	Sportiva	Netherlands	1.0	50	1.0	1.0
	Trani	Denmark	1.5	45	1.5	2.5
	Trimmer	Netherlands	3.5	45	1.0	2.0
	Variant	Netherlands	3.0	55	1.5	3.0
	Yorktown	United States	3.0	43	3.0	2.5
	Yorktown II	United States	3.5	43	2.5	1.5
Timothy (<i>Phleum pratense</i> L.)						
	Adda	Iceland	5.0	80	5.0	4.0
	Bar Phl 78-70	Netherlands	5.0	68	3.0	2.5
	Bar phl 78-71	Netherlands	5.0	90	3.5	3.0
	Climax*	Canada	5.0	90	4.5	4.5
	CV 0502	Iceland	5.0	70	1.5	1.5
	Jogeva 54	Russia	5.0	83	4.0	3.5
	LI Syn 1	West Germany	5.0	83	4.5	4.0
	LI Syn 3	West Germany	5.0	83	4.0	4.0
	Mahndorfer Lieschgras	West Germany	5.0	85	5.0	4.5
	Mentor	Netherlands	5.0	95	4.0	4.0
	Php 204	Netherlands	5.0	63	4.0	3.0
	RG3-77	West Germany	5.0	88	3.5	4.0
	SV 0906	Sweden	5.0	88	4.5	4.5
	SV 0907	Sweden	5.0	93	4.5	5.0
	SV 0909	Sweden	5.0	75	3.5	3.5
	SV 0910	Sweden	5.0	85	4.0	4.0
	Tusso	West Germany	5.0	78	4.5	2.5
	Vik 9	Russia	5.0	90	4.0	3.5
	WWT 94	Sweden	5.0	83	3.0	4.0
	WWT 95	Sweden	5.0	83	3.5	3.5

Cultivar Screening Trial
Seeding Year: 1982

Species	Cultivar	Origin	Hardiness	Height (cm)	Seed Yield Rating	Herbage Yield Rating
Wheatgrass, Northern (<i>Agropyron dasystachyum</i> Hook. Scribn.)	Elbee	Canada	5.0	105	5.0	3.5