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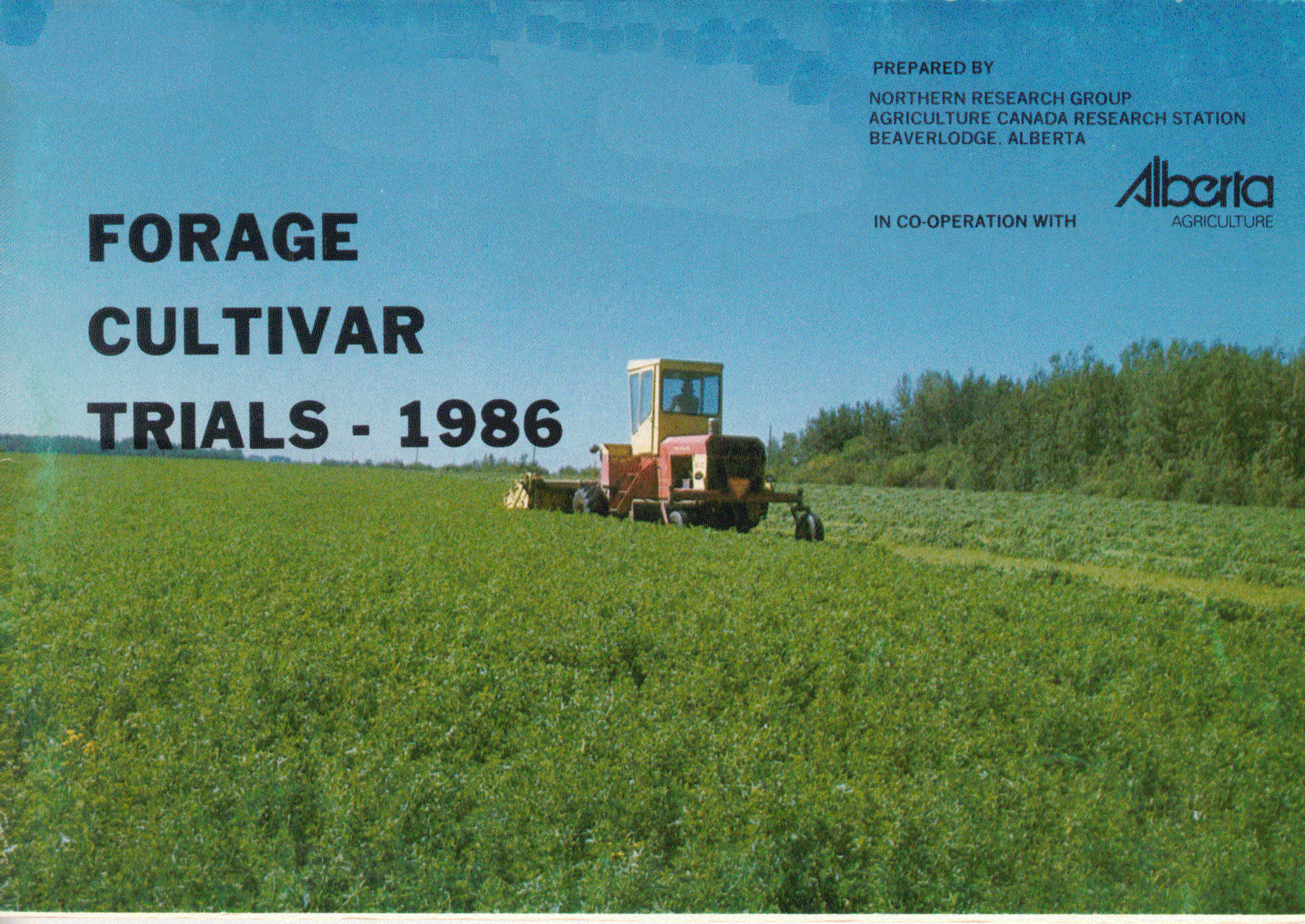
NORTHERN RESEARCH GROUP
AGRICULTURE CANADA RESEARCH STATION
BEAVERLODGE, ALBERTA

IN CO-OPERATION WITH Alberta AGRICULTURE

FORAGE CULTIVAR TRIALS - 1986



FORAGE CULTIVAR TRIALS

H.G. Najda

1986

FOREWORD

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

Section A

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

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

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

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

Section B

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

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

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

Section C

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

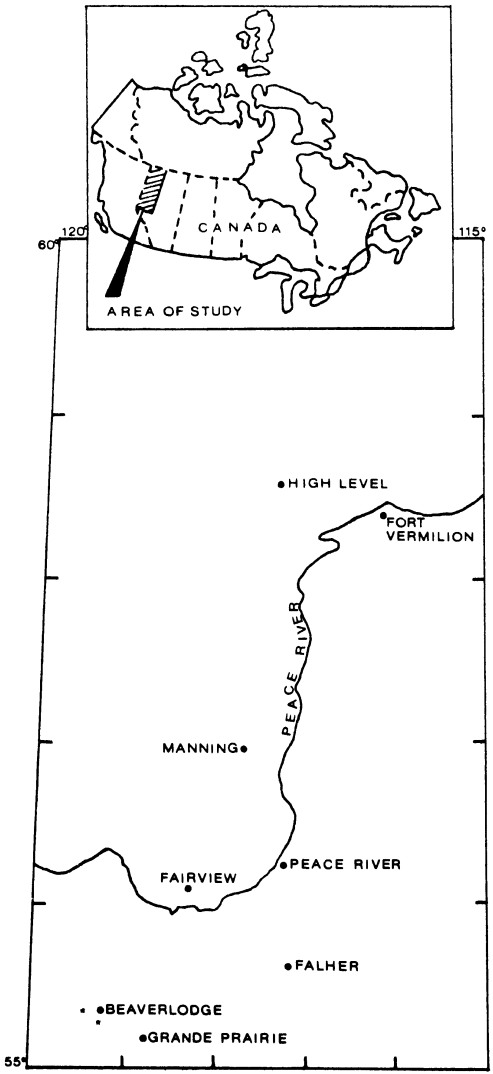
Environmental data prepared by Mr. Peter Mills, Beaverlodge Research Station.

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

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

H. Najda
Forage Agronomist
Agriculture Canada, Research Station
Box 29
Beaverlodge, AB
Canada T0H 0C0
Telephone (403) 354-2212

Cover Photo: Farm scene courtesy of the Alberta Photograph Library



ENVIRONMENTAL DATA FOR SELECTED SITES IN THE STUDY AREA

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

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Red Fescue

Test Site: Beaverlodge Research Station
Seeding Year: 1984

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

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

Red Fescue

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

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

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

Red Fescue

Test Site: Fort Vermilion Experimental Farm
Seeding Year: 1984

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

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

Red Fescue

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

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

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

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

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

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

(a) Not seeded
(b) Seed not harvested

Red Fescue

Test Site: Beaverlodge Research Station
Seeding Year: 1984

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

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

Red Fescue

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

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

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

Red Fescue

Test Site: Fort Vermilion Experimental Farm
Seeding Year: 1984

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

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

Red Fescue

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

Cultivar		Origin	1st Herbage Yield						2nd Herbage Yield					
			Day Cut		(DM) t/ha		% of Boreal		Day Cut		(DM) t/ha		% of Boreal	
			1985	1986	1985	1986	1985	1986	1985	1986	1985	1986	1985	1986
Beauty	(1)	**Netherlands**	Jul 2	Jun 16	0.02	2.73	20	55	Aug 20	Aug 21	0.08	0.54	27	50
Boreal*	(3)	Canada	Jul 2	Jun 16	0.10	4.99	100	100	Aug 20	Aug 21	0.30	1.08	100	100
B 7733	(3)	**Canada**	Jul 2	Jun 16	0.09	4.87	90	98	Aug 20	Aug 21	0.44	0.93	147	86
Carlawn	(3)	Canada	Jul 2	Jun 16	0.11	4.53	110	91	Aug 20	Aug 21	0.37	0.82	123	76
Commodore	(3)	**Netherlands**	Jul 2	Jun 16	0.06	4.75	60	95	Aug 20	Aug 21	0.33	1.21	110	112
G	(2)	Hungary	Jul 2	Jun 16	0.09	6.07	90	122	Aug 20	Aug 21	0.48	1.42	160	131
Islandic	(3)	**Netherlands**	Jul 2	Jun 16	0.09	5.85	90	117	Aug 20	Aug 21	0.66	1.17	220	108
Leik	(3)	Norway	Jul 2	Jun 16	0.29	4.64	290	93	Aug 20	Aug 21	0.72	0.58	240	54
Robot	(3)	**United Kingdom**	Jul 2	Jun 16	0.18	4.80	180	96	Aug 20	Aug 21	0.65	1.05	217	97
Satin	(2)	Sweden	Jul 2	Jun 16	0.10	4.63	100	93	Aug 20	Aug 21	0.49	1.50	163	139
Zernickower	(3)	**East Germany**	Jul 2	Jun 16	0.07	5.24	70	105	Aug 20	Aug 21	0.46	1.18	153	109
Mean					0.10	4.83					0.45	1.04		
L.S.D. (P = .05)					0.06	0.81					0.19	0.42		

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

Summary of Red Fescue Herbage Yields
1984 Seeding Year - 1985 Harvest
(Yields are shown as % of Boreal)

Cultivar		Origin	B'lodge A		B'lodge 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
Beauty	(1)	Netherlands	22	26	49	53	(a)		53	86	20	27	(a)		36	48
Boreal*	(3)	Canada	100	100	100	100			100	100	100	100			100	100
B 7733	(3)	Canada	156	141	116	120			96	102	90	147			115	128
Carlawn	(3)	Canada	160	89	163	139			93	94	110	123			132	111
Commodore	(3)	Netherlands	110	95	99	108			74	92	60	110			86	101
G	(2)	Hungary	80	99	125	120			112	134	90	160			102	128
Islandic	(3)	Netherlands	114	155	129	165			83	128	90	220			104	167
Leik	(3)	Norway	198	156	149	188			98	100	290	240			184	171
Perelle	(2)	France	18	38	17	49			29	94	0	0			16	60
Robot	(3)	United Kingdom	154	142	135	153			82	98	180	217			138	153
Satin	(2)	Sweden	60	116	84	149			68	144	100	163			78	143
Zernickower	(3)	East Germany	212	157	184	151			83	126	70	153			137	147
Boreal Yield in (DM) t/ha			0.50	0.91	0.75	0.85			3.21	1.56	0.10	0.30			1.14	0.91

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

(a) Not seeded

Summary of Red Fescue Herbage Yields
1984 Seeding Year - 1986 Harvest
(Yields are shown as % of Boreal)

Cultivar		Origin	B'lodge A		B'lodge 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
Beauty	(1)	Netherlands	46	84	66	97	(a)		70	78	55	50	(a)		59	77
Boreal*	(3)	Canada	100	100	100	100			100	100	100	100			100	100
B 7733	(3)	Canada	99	67	118	114			141	128	98	86			114	99
Carlawn	(3)	Canada	97	77	110	126			108	108	91	76			102	97
Commodore	(3)	Netherlands	92	83	114	118			112	109	95	112			103	106
G	(2)	Hungary	118	113	146	127			137	144	122	131			131	129
Islandic	(3)	Netherlands	113	117	127	140			100	137	117	108			114	126
Leik	(3)	Norway	121	58	134	93			179	77	93	54			132	71
Perelle	(2)	France	64	91	71	109			110	127	-	-			82	109
Robot	(3)	United Kingdom	94	84	120	115			121	125	96	97			108	105
Satin	(2)	Sweden	88	133	110	147			117	126	93	139			102	136
Zernickower	(3)	East Germany	126	75	133	123			146	141	105	109			128	112
Boreal Yield in (DM) t/ha			2.97	1.17	3.96	1.64			1.45	1.58	4.99	1.08			3.34	1.37

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

(a) Not seeded

Timothy

Test Site: Beaverlodge Research Station
Seeding Year: 1984

Cultivar	Origin	Hardiness	Height (cm)	Date Ripe 1985	Date Ripe 1986	Seed Yield kg/ha 1985	Seed Yield kg/ha 1986	% of Climax 1985	% of Climax 1986
Adda	Iceland	9.0	59	Aug 8	Aug 8	537	508	187	308
Climax*	Canada	9.0	61	Aug 8	Aug 15	287	165	100	100
G	Hungary	9.0	57	Aug 6	Aug 8	354	311	123	188
Hokusyu	Japan	9.0	57	Aug 8	Aug 21	239	168	83	102
Jogeva 54	Russia	9.0	61	Aug 6	Aug 8	375	208	131	126
Korpa	Iceland	9.0	58	Aug 8	Aug 8	537	405	187	245
Mentor	Netherlands	9.0	62	Aug 8	Aug 8	528	265	184	161
Nosappu	Japan	9.0	60	Aug 6	Aug 8	267	169	93	102
Vik 9	Russia	9.0	58	Aug 8	Aug 8	336	220	117	133
Mean						385	269		
L.S.D. (P = .05)						81	97		

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

Adda	Iceland	9.0	62	Aug 8	Aug 14	680	547	192	229
Climax*	Canada	9.0	64	Aug 8	Aug 18	355	239	100	100
G	Hungary	9.0	62	Aug 6	Aug 12	455	376	128	157
Hokusyu	Japan	9.0	64	Aug 8	Aug 22	229	263	65	110
Jogeva 54	Russia	9.0	58	Aug 6	Aug 14	278	301	78	126
Korpa	Iceland	9.0	60	Aug 6	Aug 12	721	467	203	195
Mentor	Netherlands	9.0	58	Aug 8	Aug 12	577	364	163	152
Nosappu	Japan	9.0	59	Aug 6	Aug 12	285	249	80	104
Vik 9	Russia	9.0	57	Aug 6	Aug 12	300	225	85	94
Mean						431	337		
L.S.D. (P = .05)						154	100		

Timothy

Test Site: Fort Vermilion Experimental Farm
Seeding Year: 1984

Cultivar	Origin	Hardiness	Height (cm)	Date Ripe 1985	Date Ripe 1986	Seed Yield kg/ha 1985	Seed Yield kg/ha 1986	% of Climax 1985	% of Climax 1986
Adda	**Iceland**	**9.0**	**78**	**Aug 6**	**Aug 5**	**964**	**339**	**357**	**269**
Climax*	Canada	9.0	73	Aug 6	Aug 5	270	126	100	100
G	**Hungary**	**9.0**	**75**	**Aug 6**	**Aug 5**	**482**	**151**	**179**	**120**
Hokusyu	Japan	9.0	73	Aug 6	Aug 5	302	105	112	83
Jogeva 54	**Russia**	**9.0**	**76**	**Aug 6**	**Aug 5**	**562**	**199**	**208**	**156**
Korpa	Iceland	9.0	81	Aug 6	Aug 5	1126	341	417	271
Mentor	**Netherlands**	**9.0**	**75**	**Aug 6**	**Aug 5**	**719**	**286**	**266**	**227**
Nosappu	Japan	9.0	81	Aug 6	Aug 5	447	182	166	144
Vik 9	**Russia**	**9.0**	**77**	**Aug 6**	**Aug 5**	**640**	**200**	**237**	**159**
Mean						612	214		
L.S.D. (P = .05)						223	64		

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

Adda	**Iceland**	**9.0**	**62**	**Aug 6**	**Aug 11**	**336**	**819**	**273**	**181**
Climax*	Canada	9.0	64	Aug 8	Aug 8	123	452	100	100
G	**Hungary**	**8.8**	**63**	**Aug 6**	**Aug 11**	**192**	**678**	**156**	**150**
Hokusyu	Japan	7.8	67	Aug 8	Aug 8	112	604	91	134
Jogeva 54	**Russia**	**8.8**	**60**	**Aug 6**	**Aug 14**	**171**	**565**	**139**	**125**
Korpa	Iceland	8.8	61	Aug 8	Aug 11	306	772	249	171
Mentor	**Netherlands**	**9.0**	**63**	**Aug 8**	**Aug 14**	**313**	**664**	**254**	**147**
Nosappu	Japan	8.0	61	Aug 6	Aug 11	158	592	128	131
Vik 9	**Russia**	**9.0**	**61**	**Aug 6**	**Aug 14**	**157**	**460**	**128**	**102**
Mean						208	623		
L.S.D. (P = .05)						97	167		

Summary of Timothy Seed Yields
1984 Seeding Year
(Yields are shown as % of Climax)

Cultivar	Origin	B'lodge A		B'lodge B		Falher	Fort Vermilion		Gimle		High Level	All Locations (Average)	
		1985	1986	1985	1986		1985	1986	1985	1986		1985	1986
Adda	**Iceland**	**187**	**308**	**192**	**229**	**(a)**	**357**	**269**	**273**	**181**	**(a)**	**252**	**247**
Climax*	Canada	100	100	100	100		100	100	100	100		100	100
G	**Hungary**	**123**	**188**	**128**	**157**		**179**	**120**	**156**	**150**		**147**	**154**
Hokusyu	Japan	83	102	65	110		112	83	91	134		88	107
Jogeva 54	**Russia**	**131**	**126**	**78**	**126**		**208**	**156**	**139**	**125**		**139**	**133**
Korpa	Iceland	187	245	203	195		417	271	249	171		264	221
Mentor	**Netherlands**	**184**	**161**	**163**	**152**		**266**	**227**	**254**	**147**		**217**	**172**
Nosappu	Japan	93	102	80	104		166	144	128	131		117	120
Vik 9	**Russia**	**117**	**133**	**85**	**94**		**237**	**159**	**128**	**102**		**142**	**122**
Climax Yield in kg/ha		287	165	355	239		270	126	123	452		259	246

(a) Not seeded

Timothy

Test Site: Beaverlodge Research Station
Seeding Year: 1984

Cultivar	Origin	1st Herbage Yield						2nd Herbage Yield					
		Day Cut		(DM) t/ha		% of Climax		Day Cut		(DM) t/ha		% of Climax	
		1985	1986	1985	1986	1985	1986	1985	1986	1985	1986	1985	1986
Adda	Iceland	Jun 18	Jun 16	1.44	2.71	155	96	Aug 21	Aug 21	0.95	0.80	74	48
Climax*	Canada	Jun 18	Jun 16	0.93	2.81	100	100	Aug 21	Aug 21	1.29	1.68	100	100
G	Hungary	Jun 18	Jun 16	1.10	2.93	118	104	Aug 21	Aug 21	1.38	1.44	107	86
Hokusyu	Japan	Jun 18	Jun 16	0.66	2.14	71	76	Aug 21	Aug 21	1.13	1.32	88	79
Jogeva 54	Russia	Jun 18	Jun 16	0.92	2.82	99	100	Aug 21	Aug 21	1.31	0.98	102	58
Korpa	Iceland	Jun 18	Jun 16	0.96	3.00	103	107	Aug 21	Aug 21	1.10	0.85	85	51
Mentor	Netherlands	Jun 18	Jun 16	1.41	2.75	152	98	Aug 21	Aug 21	1.26	0.81	98	48
Nosappu	Japan	Jun 18	Jun 16	0.96	2.50	103	89	Aug 21	Aug 21	1.20	1.50	93	89
Vik 9	Russia	Jun 18	Jun 16	1.28	2.49	138	89	Aug 21	Aug 21	1.04	0.73	81	43
Mean				1.07	2.68					1.18	1.12		
L.S.D. (P = .05)				0.36	0.43					0.30	0.42		

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

Adda	Iceland	Jun 17	Jun 17	1.46	3.64	92	78	Aug 19	Aug 18	1.01	1.31	70	60
Climax*	Canada	Jun 17	Jun 17	1.59	4.65	100	100	Aug 19	Aug 18	1.45	2.19	100	100
G	Hungary	Jun 17	Jun 17	1.52	4.20	96	90	Aug 19	Aug 18	1.17	1.81	81	83
Hokusyu	Japan	Jun 17	Jun 17	0.64	3.18	40	68	Aug 19	Aug 18	1.08	2.26	74	103
Jogeva 54	Russia	Jun 17	Jun 17	1.06	3.76	67	81	Aug 19	Aug 18	0.99	1.84	68	84
Korpa	Iceland	Jun 17	Jun 17	1.61	3.72	101	80	Aug 19	Aug 18	1.14	1.35	79	62
Mentor	Netherlands	Jun 17	Jun 17	1.75	4.00	110	86	Aug 19	Aug 18	1.24	1.42	86	65
Nosappu	Japan	Jun 17	Jun 17	1.14	3.68	72	79	Aug 19	Aug 18	1.18	2.04	81	93
Vik 9	Russia	Jun 17	Jun 17	1.22	3.76	77	81	Aug 19	Aug 18	0.80	1.67	55	76
Mean				1.33	3.84					1.12	1.76		
L.S.D. (P = .05)				0.46	0.61					0.27	0.47		

Timothy

Test Site: Fort Vermilion Experimental Farm
Seeding Year: 1984

Cultivar	Origin	1st Herbage Yield						2nd Herbage Yield					
		Day Cut		(DM) t/ha		% of Climax		Day Cut		(DM) t/ha		% of Climax	
		1985	1986	1985	1986	1985	1986	1985	1986	1985	1986	1985	1986
Adda	Iceland	Jun 10	Jun 9	2.74	1.52	147	116	Aug 13	Aug 19	2.18	0.77	123	39
Climax*	Canada	Jun 10	Jun 9	1.87	1.31	100	100	Aug 13	Aug 19	1.77	1.97	100	100
G	Hungary	Jun 10	Jun 9	2.42	1.74	129	133	Aug 13	Aug 19	2.05	1.66	116	84
Hokusyu	Japan	Jun 10	Jun 9	1.32	0.96	71	73	Aug 13	Aug 19	1.40	1.56	79	79
Jogeva 54	Russia	Jun 10	Jun 9	2.04	1.17	109	89	Aug 13	Aug 19	1.65	1.42	93	72
Korpa	Iceland	Jun 10	Jun 9	2.66	1.52	142	116	Aug 13	Aug 19	1.98	0.76	112	39
Mentor	Netherlands	Jun 10	Jun 9	2.31	1.41	124	108	Aug 13	Aug 19	1.88	0.90	106	46
Nosappu	Japan	Jun 10	Jun 9	1.82	1.46	97	111	Aug 13	Aug 19	1.89	1.16	107	59
Vik 9	Russia	Jun 10	Jun 9	2.41	1.34	129	102	Aug 13	Aug 19	1.95	0.74	110	38
Mean				2.18	1.38					1.86	1.21		
L.S.D. (P = .05)				0.26	0.38					0.40	0.50		

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

Adda	Iceland	Jul 2	Jun 16	0.81	4.10	202	93	Aug 20	Aug 21	0.63	1.04	74	36
Climax*	Canada	Jul 2	Jun 16	0.40	4.41	100	100	Aug 20	Aug 21	0.85	2.90	100	100
G	Hungary	Jul 2	Jun 16	0.51	4.51	128	102	Aug 20	Aug 21	0.98	1.51	115	52
Hokusyu	Japan	Jul 2	Jun 16	0.26	3.22	65	73	Aug 20	Aug 21	0.63	2.44	74	84
Jogeva 54	Russia	Jul 2	Jun 16	0.46	4.33	115	98	Aug 20	Aug 21	0.67	2.12	79	73
Korpa	Iceland	Jul 2	Jun 16	0.62	4.71	155	107	Aug 20	Aug 21	0.60	1.85	71	64
Mentor	Netherlands	Jul 2	Jun 16	0.82	4.18	205	95	Aug 20	Aug 21	0.94	1.11	111	38
Nosappu	Japan	Jul 2	Jun 16	0.30	3.93	75	89	Aug 20	Aug 21	0.76	2.29	89	79
Vik 9	Russia	Jul 2	Jun 16	0.62	4.38	155	99	Aug 20	Aug 21	0.84	1.66	99	57
Mean				0.54	4.20					0.77	1.88		
L.S.D. (P = .05)				0.24	0.53					0.25	0.83		

Summary of Timothy Herbage Yields
1984 Seeding Year - 1985 Harvest
(Yields are shown as % of Climax)

Cultivar	Origin	B'lodge A		B'lodge 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
Adda	**Iceland**	155	74	92	70	(a)		147	123	202	74	(a)		149	85
Climax*	Canada	100	100	100	100			100	100	100	100			100	100
G	**Hungary**	118	107	96	81			129	116	128	115			118	105
Hokusyu	Japan	71	88	40	74			71	79	65	74			62	79
Jogeva 54	**Russia**	99	102	67	68			109	93	115	79			98	86
Korpa	Iceland	103	85	101	79			142	112	155	71			125	87
Mentor	**Netherlands**	152	98	110	86			124	106	205	111			148	100
Nosappu	Japan	103	93	72	81			97	107	75	89			87	93
Vik 9	**Russia**	138	81	77	55			129	110	155	99			125	86
Climax Yield in (DM) t/ha		0.93	1.29	1.59	1.45			1.87	1.77	0.40	0.85			1.20	1.34

(a) Not seeded

Summary of Timothy Herbage Yields
1984 Seeding Year - 1986 Harvest
(Yields are shown as % of Climax)

Cultivar	Origin	B'lodge A		B'lodge 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
Adda	**Iceland**	**96**	**48**	**78**	**60**	**(a)**		**116**	**39**	**93**	**36**	**(a)**		**96**	**46**
Climax*	Canada	100	100	100	100			100	100	100	100			100	100
G	**Hungary**	**104**	**86**	**90**	**83**			**133**	**84**	**102**	**52**			**107**	**76**
Hokusyu	Japan	76	79	68	103			73	79	73	84			73	86
Jogeva 54	**Russia**	**100**	**58**	**81**	**84**			**89**	**72**	**98**	**73**			**92**	**72**
Korpa	Iceland	107	51	80	62			116	39	107	64			103	54
Mentor	**Netherlands**	**98**	**48**	**86**	**65**			**108**	**46**	**95**	**38**			**97**	**49**
Nosappu	Japan	89	89	79	93			111	59	89	79			92	80
Vik 9	**Russia**	**89**	**43**	**81**	**76**			**102**	**38**	**99**	**57**			**93**	**54**
Climax Yield in (DM) t/ha		2.81	1.68	4.65	2.19			1.31	1.97	4.41	2.90			3.30	2.19

(a) Not seeded

Red Clover

Test Site: Beaverlodge Research Station
Seeding Year: 1984

Cultivar	Origin	Hardiness	Height (cm)	Date Ripe 1985	Date Ripe 1986	Seed Yield kg/ha 1985	Seed Yield kg/ha 1986	% of Altaswede 1985	% of Altaswede 1986
Altaswede*	Canada	8.0	48	Sep 24	Oct 6	580	241	100	100
Fanny 4n	Sweden	7.5	45	Sep 24	Oct 6	369	128	64	53
Fox	France	1.3	40	Sep 24	-	88	-	15	-
Hedda 4n	Sweden	6.8	52	Sep 24	Oct 6	338	165	58	68
Kora	Sweden	9.0	47	Sep 24	Oct 6	435	176	70	73
Matri 4n	East Germany	6.0	44	Sep 24	Oct 6	175	90	30	37
Molly 4n	Sweden	4.0	42	Sep 24	Oct 6	175	63	30	26
Napoca 4n	Romania	3.5	42	Sep 24	Oct 6	205	61	35	25
Norlac	Canada	8.5	40	Sep 24	Oct 6	495	213	85	88
Renova	Switzerland	2.5	35	Sep 24	Oct 6	147	12	25	5
Mean						301	128		
L.S.D. (P = .05)						200	61		

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

Altaswede*	Canada	8.0	51	Sep 24	Oct 6	305	249	100	100
Fanny 4n	Sweden	3.8	44	Sep 24	Oct 6	122	75	40	30
Fox	France	0	-	-	-	0	-	0	-
Hedda 4n	Sweden	4.5	52	Sep 24	Oct 6	130	87	43	35
Kora	Sweden	7.5	49	Sep 24	Oct 6	213	173	70	69
Matri 4n	East Germany	1.0	43	Sep 24	Oct 6	7	9	2	4
Molly 4n	Sweden	2.8	41	Sep 24	Oct 6	30	29	10	12
Napoca 4n	Romania	0	-	-	-	0	-	0	-
Norlac	Canada	8.3	41	Sep 24	Oct 6	318	227	104	91
Renova	Switzerland	0	-	-	-	0	-	0	-
Mean						161	121		
L.S.D. (P = .05)						100	55		

Red Clover

Test Site: Fort Vermilion Experimental Farm
Seeding Year: 1984

Cultivar	Origin	Hardiness	Height (cm)	Date Ripe 1985	Date Ripe 1986	Seed Yield kg/ha 1985	Seed Yield kg/ha 1986	Seed Yield % of Altaswede 1985	Seed Yield % of Altaswede 1986
Altaswede*	Canada	7.4	51	Sep 9	Sep 22	350	198	100	100
Fanny 4n	Sweden	7.3	54	Sep 9	Sep 22	372	186	106	94
Fox	France	2.2	64	Sep 9	Sep 22	126	-	36	-
Hedda 4n	Sweden	7.2	64	Sep 9	Sep 22	333	269	95	136
Kora	Sweden	5.9	64	Sep 9	Sep 22	536	50	153	25
Matri 4n	East Germany	6.5	56	Sep 9	Sep 22	229	238	65	120
Molly 4n	Sweden	4.9	59	Sep 9	Sep 22	385	78	110	39
Napoca 4n	Romania	5.7	61	Sep 9	Sep 22	226	-	65	-
Norlac	Canada	6.6	50	Sep 9	Sep 22	491	329	140	166
Renova	Switzerland	4.7	55	Sep 9	Sep 22	125	-	36	-
Mean						317	193		
L.S.D. (P = .05)						125	164		

Summary of Red Clover Seed Yields
1984 Seeding Year
(Yields are shown as % of Altaswede)

Cultivar	Origin	B'lodge A		B'lodge B		Falher	Fort Vermilion		Gimle	High Level	All Locations (Average)	
		1985	1986	1985	1986		1985	1986			1985	1986
Altaswede*	**Canada**	**100**	**100**	**100**	**100**	**(a)**	**100**	**100**	**(b)**	**(a)**	**100**	**100**
Fanny 4n	Sweden	64	53	40	30		106	94			70	59
Fox	**France**	**15**	**-**	**0**	**-**		**36**	**-**			**17**	**-**
Hedda 4n	Sweden	58	68	43	35		95	136			65	80
Kora	**Sweden**	**70**	**73**	**70**	**69**		**153**	**25**			**98**	**56**
Matri 4n	East Germany	30	37	2	4		65	120			32	54
Molly 4n	**Sweden**	**30**	**26**	**10**	**12**		**110**	**39**			**50**	**26**
Napoca 4n	Romania	35	25	0	-		65	-			33	25
Norlac	**Canada**	**85**	**88**	**104**	**91**		**140**	**166**			**110**	**115**
Renova	Switzerland	25	5	0	-		36	-			20	5
Altaswede Yield in kg/ha		580	241	305	249		350	198			412	229

(a) Not seeded
(b) Complete winterkill

Red Clover

Test Site: Beaverlodge Research Station
Seeding Year: 1984

Cultivar	Origin	1st Herbage Yield						2nd Herbage Yield					
		Day Cut		(DM) t/ha		% of Altaswede		Day Cut		(DM) t/ha		% of Altaswede	
		1985	1986	1985	1986	1985	1986	1985	1986	1985	1986	1985	1986
Altaswede*	Canada	Jun 26	Jul 2	2.20	2.53	100	100	Sep 12	Oct 6	2.49	1.08	100	100
Fanny 4n	Sweden	Jun 26	Jul 2	1.13	2.47	51	98	Sep 12	Oct 6	3.14	1.34	126	124
Fox	France	Jun 26	-	0.03	-	1	-	Sep 12	-	0.43	-	17	-
Hedda 4n	Sweden	Jun 26	Jul 2	1.03	3.40	47	134	Sep 12	Oct 6	2.79	1.29	112	119
Kora	Sweden	Jun 26	Jun 26	0.82	3.45	37	136	Sep 12	Oct 6	3.09	1.01	124	94
Matri 4n	East Germany	Jun 26	Jun 26	0.79	0.98	36	39	Sep 12	Oct 6	3.06	1.47	123	136
Molly 4n	Sweden	Jun 26	Jun 26	0.58	0.54	26	21	Sep 12	Oct 6	3.31	0.93	133	86
Napoca 4n	Romania	Jun 26	Jul 2	0.37	0.26	17	10	Sep 12	Oct 6	2.85	0.89	114	82
Norlac	Canada	Jun 26	Jun 26	0.70	2.80	32	111	Sep 12	Oct 6	2.01	0.87	81	81
Renova	Switzerland	Jun 26	Jul 2	0.08	0.09	4	4	Sep 12	Oct 6	1.07	0.39	43	36
Mean				0.77	1.84					2.42	1.03		
L.S.D. (P = .05)				1.04	0.91					1.17	0.48		

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

Altaswede*	Canada	Jul 2	Jul 2	0.46	3.98	100	100	Sep 24	Oct 6	1.37	2.09	100	100
Fanny 4n	Sweden	Jul 2	Jul 2	0.43	3.18	93	80	Sep 24	Oct 6	0.97	1.56	71	75
Hedda 4n	Sweden	Jul 2	Jul 2	0.58	2.73	126	69	Sep 24	Oct 6	1.07	1.56	78	75
Kora	Sweden	Jul 2	Jul 2	0.82	3.15	178	79	Sep 24	Oct 6	1.20	1.61	88	77
Matri 4n	East Germany	Jul 2	Jul 2	0.06	0.24	13	6	Sep 24	Oct 6	0.15	0.32	11	15
Molly 4n	Sweden	Jul 2	Jul 2	0.26	1.17	57	29	Sep 24	Oct 6	0.65	1.08	47	52
Norlac	Canada	Jul 2	Jul 2	0.80	3.18	174	80	Sep 24	Oct 6	0.85	1.27	62	61
Mean				0.34	2.52					0.90	1.36		
L.S.D. (P = .05)				0.36	1.33					0.64	0.78		

Red Clover

Test Site: Fort Vermilion Experimental Farm
Seeding Year: 1984

Cultivar	Origin	1st Herbage Yield						2nd Herbage Yield					
		Day Cut		(DM) t/ha		% of Altaswede		Day Cut		(DM) t/ha		% of Altaswede	
		1985	1986	1985	1986	1985	1986	1985	1986	1985	1986	1985	1986
Altaswede*	**Canada**	**Jun 24**	**Jul 7**	**3.92**	**3.22**	**100**	**100**	**Sep 9**	**Sep 22**	**2.39**	**4.01**	**100**	**100**
Fanny 4n	Sweden	Jun 24	Jul 7	3.21	3.55	82	110	Sep 9	Sep 22	2.75	6.49	115	162
Fox	**France**	**Jun 24**	**-**	**0.35**	**-**	**9**	**-**	**Sep 9**	**-**	**1.44**	**-**	**60**	**-**
Hedda 4n	Sweden	Jun 24	Jul 7	5.21	3.79	133	118	Sep 9	Sep 22	2.91	6.43	122	160
Kora	**Sweden**	**Jun 24**	**Jul 7**	**2.34**	**1.07**	**60**	**33**	**Sep 9**	**Sep 22**	**2.29**	**3.40**	**96**	**85**
Matri 4n	East Germany	Jun 24	Jul 7	2.98	1.21	76	38	Sep 9	Sep 22	2.26	3.70	95	92
Molly 4n	**Sweden**	**Jun 24**	**-**	**2.76**	**-**	**70**	**-**	**Sep 9**	**-**	**2.67**	**-**	**112**	**-**
Napoca 4n	Romania	Jun 24	Jul 7	2.38	0.78	61	24	Sep 9	Sep 22	3.00	1.75	126	44
Norlac	**Canada**	**Jun 24**	**Jul 7**	**4.15**	**2.69**	**106**	**84**	**Sep 9**	**Sep 22**	**2.00**	**4.64**	**84**	**116**
Renova	Switzerland	Jun 24	-	1.10	-	28	-	Sep 9	-	2.46	-	103	-
Mean				2.84	2.33					2.42	4.34		
L.S.D. (P = .05)				0.93	2.27					0.95	3.38		

Summary of Red Clover Herbage Yields
1984 Seeding Year - 1985 Harvest
(Yields are shown as % of Altaswede)

Cultivar	Origin	B'lodge A		B'lodge 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	100	100	(a)		100	100	(b)		(a)		100	100
Fanny 4n	Sweden	51	126	93	71			82	115					75	104
Fox	**France**	1	17	0	0			9	60					3	26
Hedda 4n	Sweden	47	112	126	78			133	122					102	104
Kora	**Sweden**	37	124	178	88			60	96					92	103
Matri 4n	East Germany	36	123	13	11			76	95					42	76
Molly 4n	**Sweden**	26	133	57	47			70	112					51	97
Napoca 4n	Romania	17	114	0	0			61	126					26	80
Norlac	**Canada**	32	81	174	62			106	84					104	76
Renova	Switzerland	4	43	0	0			28	103					11	49
Altaswede Yield in (DM) t/ha		2.20	2.49	0.46	1.37			3.92	2.39					2.19	2.08

(a) Not seeded
(b) Complete winterkill

Summary of Red Clover Herbage Yields
1984 Seeding Year - 1986 Harvest
(Yields are shown as % of Altaswede)

Cultivar	Origin	B'lodge A		B'lodge 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	100	100	(a)		100	100	(b)		(a)		100	100
Fanny 4n	Sweden	98	124	80	75			110	162					96	120
Fox	**France**	-	-	-	-			-	-					-	-
Hedda 4n	Sweden	134	119	69	75			118	160					107	118
Kora	**Sweden**	136	94	79	77			33	85					83	85
Matri 4n	East Germany	39	136	6	15			38	92					28	81
Molly 4n	**Sweden**	21	86	29	52			-	-					25	69
Napoca 4n	Romania	10	82	-	-			24	44					17	63
Norlac	**Canada**	111	81	80	61			84	116					92	86
Renova	Switzerland	4	36	-	-			-	-					4	36
Altaswede Yield in (DM) t/ha		2.53	1.08	3.98	2.09			3.22	4.01					3.24	2.39

(a) Not seeded
(b) Complete winterkill

B

Cultivar Screening Trial
Seeding Year: 1984

Species	Cultivar	Origin	Hardiness	Height (cm)	Seed Yield Rating		Herbage Yield Rating	
Alfalfa (*Medicago sativa* L.)					1985	1986	1985	1986
	Adriana	Italy	4.9	58	2.3	4.0	3.0	4.0
	Alize	France	4.7	71	2.7	5.0	3.7	4.0
	Answer	United States	5.0	70	2.0	3.5	3.3	4.3
	Apica	Canada	5.0	77	4.0	4.7	4.0	5.0
	Beaver*	Canada	5.0	57	1.7	4.7	2.7	3.3
	Buffalo	United States	4.3	64	1.3	2.7	2.3	3.0
	Cody	United States	4.9	65	2.3	3.7	2.0	3.7
	Dell'Italia Centrale	Italy	3.0	69	1.3	2.7	2.3	1.3
	Diablo Verde	United States	1.9	65	0.7	1.7	1.7	1.0
	Dunavka	Bulgaria	5.0	59	2.0	2.7	3.0	3.0
	Equipe	Italy	4.9	52	1.0	2.3	2.7	3.0
	Ezzelina	Italy	4.4	63	2.7	3.0	3.0	3.7
	Falkiner	Australia	3.7	50	1.0	1.0	2.7	2.3
	Gladiator	United States	5.0	57	1.7	2.3	3.0	3.0
	Glory	Canada	4.9	71	2.7	4.7	3.7	4.7
	Grasslands Oranga	New Zealand	3.2	64	3.7	3.7	3.0	3.0
	Hunter	Canada	5.0	62	1.7	3.7	2.7	3.7
	Hunterfield	Australia	1.0	63	0.7	1.7	1.0	0.3
	Hunter River	Australia	1.6	46	1.0	1.0	1.3	0.7
	Hyliki	Greece	4.9	59	1.0	3.0	3.0	3.7
	Hypati	Greece	4.9	71	1.3	3.3	3.0	4.0
	ICO-2	United States	4.9	65	2.0	2.7	3.0	3.7
	ICO-3	United States	4.7	57	1.7	3.3	3.0	2.7
	ICO-16	United States	5.0	58	1.3	2.7	3.0	3.7
	L-720	United States	5.0	75	2.7	5.0	3.3	4.7
	LS-C25	United States	4.9	68	2.7	3.7	3.0	4.3
	LS-1920	United States	4.0	73	2.7	3.0	2.3	2.7
	L.99/100 Florida	Italy	4.4	68	1.7	3.3	3.7	3.7
	L.202 Bresaola	Italy	4.5	71	2.7	4.0	3.0	4.0
	La Bella Campagnola	Italy	4.0	62	1.3	2.3	3.0	2.3
	La Berica	Italy	3.9	67	2.0	2.7	2.7	3.0

Species	Cultivar	Origin	Hardiness	Height (cm)	Seed Yield Rating		Herbage Yield Rating	
Alfalfa (Medicago sativa L.) cont'd					1985	1986	1985	1986
	Lahontan	United States	4.7	67	2.3	4.3	3.0	3.7
	Lifeuil	France	4.3	60	1.3	3.0	2.0	2.7
	Mamuntanas	Italy	3.0	62	2.7	2.7	2.0	2.0
	Maxidor	United States	1.5	51	1.0	1.0	1.3	0.7
	Medijana	Yugoslavia	4.5	65	2.0	4.3	2.7	4.3
	Mesilla	United States	2.0	60	1.3	1.7	1.3	1.0
	Moapa	United States	1.0	70	0.3	1.0	0.3	0.3
	Nomad	United States	4.9	56	2.7	4.0	2.3	3.3
	Nova	Australia	4.0	58	1.3	1.3	3.3	2.0
	Peak	United States	5.0	63	1.7	2.3	3.0	3.7
	Phytor	United States	4.9	64	2.0	3.3	2.7	3.3
	Pleven 6	Bulgaria	4.7	72	2.3	4.0	3.0	3.7
	Primal	United States	4.9	67	1.0	3.7	3.7	4.3
	Prosementi Bologna	Italy	4.7	79	3.3	4.3	3.0	4.3
	Rere	New Zealand	3.4	54	1.0	2.7	3.0	2.7
	Robot	Italy	4.5	64	1.0	3.3	3.0	3.7
	Sette	Italy	3.7	65	2.7	2.7	3.3	2.3
	Sheffield	Australia	2.7	55	3.0	2.7	2.3	2.0
	Siriver	Australia	1.3	68	0.3	1.3	0.7	0.7
	Springfield	Australia	1.5	50	1.0	1.3	1.3	1.0
	Szarvasi 2	Hungary	4.7	65	2.3	2.3	3.3	3.3
	Szarvasi 4	Hungary	4.9	60	1.7	2.3	3.0	3.3
	Trek	Canada	4.9	67	3.0	4.0	3.7	3.7
	Turrena	Italy	2.6	62	1.3	1.7	2.0	1.7
	Vista	United States	5.0	65	2.3	3.3	3.3	4.0
	Wakefield	Australia	2.4	60	2.0	2.3	2.0	1.7
	W.H. Nova	West Germany	5.0	60	1.0	3.0	3.3	3.7
	524	United States	4.7	61	3.0	3.3	3.0	3.3
	526	United States	5.0	61	1.7	3.7	3.3	4.0
	532	United States	4.7	61	1.3	2.3	2.0	3.0
	*Beaver (Yield in kg/ha)				42	462		

Species	Cultivar	Origin	Hardiness	Height (cm)	Seed Yield Rating		Herbage Yield Rating	
Birdsfoot Trefoil (*Lotus corniculatus* L.)					1985	1986	1985	1986
	Carroll	United States	2.9	39	2.0	5.0	2.0	3.7
	Cree	Canada	1.7	30	2.0	3.3	1.0	2.0
	Leo*	Canada	2.3	37	2.3	5.0	2.3	3.7
	Mirabel	Canada	2.0	34	2.0	5.0	1.3	2.7
	* Leo (Yield in kg/ha)				104	439		
Fescue, Meadow (*Festuca pratensis* Huds.; *F. elatior* auct.)								
	Aberystwyth S.215	United Kingdom	4.0	56	2.3	3.5	2.0	4.0
	Balder	Denmark	4.0	57	2.7	3.0	2.7	4.5
	BAR 79-72S	Netherlands	4.7	55	2.3	3.5	2.3	4.0
	BAR 79-72T	Netherlands	4.7	55	3.7	3.5	3.3	4.5
	BAR 79-74I	Netherlands	4.3	50	2.7	2.5	2.3	3.5
	BY 1	Canada	4.7	60	3.3	3.5	3.3	4.0
	Fesko	West Germany	4.0	59	2.7	3.5	2.7	4.5
	Lifelix	West Germany	4.7	54	2.3	3.0	2.3	4.0
	Listella	West Germany	4.7	55	3.3	3.5	3.3	4.0
	Mimer*	Sweden	3.0	58	4.0	3.0	2.3	4.0
	Ovari	Hungary	5.0	55	3.3	2.5	3.3	4.0
	Paltar	Romania	4.0	60	2.3	2.5	2.3	3.5
	Senu	Sweden	5.0	62	3.7	3.5	3.3	4.5
	Westa 4n	Poland	3.7	61	2.3	3.5	2.7	4.0
	* Mimer (Yield in kg/ha)				592	460		
Fescue, Red (*Festuca rubra* L.)								
	BAR FRR RC1 (3)	Netherlands	5.0	45	3.7	5.0	3.0	3.3
	BAR FRR RC2 (3)	Netherlands	5.0	48	3.3	4.7	3.3	3.3
	BAR FRC 79-LAU (1)	Netherlands	5.0	32	1.3	3.0	1.3	2.0
	Boreal* (3)	Canada	5.0	48	3.0	5.0	2.7	3.7
	Borfesta (2)	East Germany	5.0	40	2.0	4.0	2.7	3.0
	ERG 436 (1)	Netherlands	5.0	31	2.3	3.0	1.7	2.7
	G (2)	Hungary	5.0	49	2.3	5.0	2.7	4.3
	Magenta (1)	Netherlands	5.0	35	1.0	3.7	1.0	2.0

Species	Cultivar		Origin	Hardiness	Height (cm)	Seed Yield Rating		Herbage Yield Rating	
Fescue, Red (Festuca rubra L.) cont'd						1985	1986	1985	1986
	Muse	(1)	**France**	5.0	33	1.0	3.0	1.3	1.7
	Perelle	(2)	France	5.0	33	1.0	2.7	1.7	2.0
	Premiere	(1)	**Netherlands**	5.0	34	1.0	3.0	1.7	1.7
	Rabo	(1)	East Germany	5.0	38	1.7	4.7	1.7	3.0
	Soprano	(1)	**France**	5.0	29	1.7	2.7	1.7	1.3
	Tantop	(1)	West Germany	5.0	36	1.0	2.7	1.3	1.7
	Virtus	(2)	**West Germany**	5.0	36	1.3	3.3	2.3	2.3
	* Boreal (Yield in kg/ha)					360	1154		
	(1) Rhizomes absent or rudimentary								
	(2) Slender rhizomes								
	(3) Strong rhizomes								
	(4) Unclassified								
Fescue, Tall (Festuca arundinacea Schreb.)									
	Arola		**West Germany**	5.0	63	3.0	4.0	3.0	4.0
	BAR 315		Netherlands	5.0	80	4.0	3.0	4.0	4.0
	Brookston		**United States**	5.0	68	3.0	4.0	3.0	3.0
	Buffalo		France	4.0	68	2.0	3.0	3.0	3.0
	Festorina		**Netherlands**	5.0	81	3.0	4.0	3.0	5.0
	Houndog		United States	5.0	66	2.0	3.0	3.0	5.0
	Kentucky 31*		**United States**	5.0	73	5.0	4.0	5.0	5.0
	Lince		Italy	3.0	81	1.0	4.0	2.0	4.0
	Orino		**Netherlands**	5.0	74	3.0	4.0	3.0	4.0
	Pandur		Romania	4.0	61	1.0	3.0	1.0	4.0
	Parnas		**Romania**	4.0	68	1.0	4.0	2.0	4.0
	* Kentucky 31 (Yield in kg/ha)					661	449		
Fescue x Ryegrass Hybrid (Festuca pratensis L. x Lolium perenne L.)									
	Kemal*		**United States**	4.0	55	3.3	2.0	3.0	3.0
	Prior		United Kingdom	4.0	59	3.3	2.0	3.3	3.0
	* Kemal (Yield in kg/ha)					452	168		

Species	Cultivar	Origin	Hardiness	Height (cm)	Seed Yield Rating		Herbage Yield Rating	
Orchard Grass (Dactylis glomerata L.)					1985	1986	1985	1986
	Abar	**Poland**	2.0	75	0.3	2.5	1.7	3.0
	Amba	Denmark	2.7	71	0.7	2.5	1.7	3.5
	Dika	**Poland**	2.7	67	0.7	3.5	1.7	4.0
	Dora	Italy	1.7	68	0.3	2.5	1.3	3.0
	Goliat	**Romania**	2.7	75	0.7	2.5	2.0	3.5
	Gorom	Romania	3.0	66	0.7	3.7	1.7	4.0
	ISI-81-1	**United States**	2.7	79	0.7	2.5	1.7	3.0
	Jesper	Denmark	1.7	80	0.3	1.5	1.0	1.5
	Kay*	**Canada**	3.7	68	1.7	3.0	2.3	4.3
	Lidacta	West Germany	2.0	63	0	1.5	0.7	1.5
	Lodola	**Italy**	2.3	74	0.7	2.5	1.7	3.0
	Loke	Sweden	2.3	74	0.7	3.0	2.0	2.5
	Motterwitzer	**East Germany**	3.0	68	1.0	3.0	1.7	3.5
	Nera	Poland	2.7	80	0.3	2.0	1.3	2.5
	Poiana	**Romania**	2.3	80	0.7	1.5	1.3	2.5
	Satra	Poland	3.3	68	1.0	2.7	2.7	4.0
	* Kay (Yield in kg/ha)				77	217		
Ryegrass, Perennial (Lolium perenne L.)								
	A 193/83	**Hungary**	4.7	46	5.0	5.0	3.0	3.3
	Anduril	Denmark	3.0	50	2.7	3.3	2.3	2.7
	Baca	**Czechoslovakia**	2.7	43	2.3	3.0	2.0	3.0
	Baranna	Netherlands	4.0	36	2.7	2.7	2.3	3.0
	Barclay	**Netherlands**	3.7	40	1.7	3.0	1.7	1.3
	Bardonna	West Germany	3.0	39	2.3	2.0	1.7	2.3
	Bartony	**Netherlands**	3.7	42	2.0	2.7	1.7	1.7
	BAR LP 79F	Netherlands	2.7	38	1.3	2.3	1.3	1.3
	BAR LP 80ZA	**Netherlands**	2.7	44	1.7	2.0	1.3	1.7
	BAR LP 410	Netherlands	3.0	34	1.7	2.0	1.3	1.7
	Belida	**Denmark**	1.7	40	0.7	0.7	0.3	1.0
	Bellatrix	Netherlands	3.3	44	2.0	3.7	2.0	1.7
	Bonita 4n	**West Germany**	3.3	42	2.7	2.7	2.3	3.3
	BT-1	United States	4.0	37	3.3	3.0	2.3	2.3
	Butterfly	**West Germany**	3.7	47	3.0	3.3	2.7	2.7

Species	Cultivar	Origin	Hardiness	Height (cm)	Seed Yield Rating		Herbage Yield Rating	
Ryegrass, Perennial (Lolium perenne L.) cont'd					1985	1986	1985	1986
	Chevron	United Kingdom	1.3	40	0.7	1.0	0.7	1.0
	Citation	United States	2.7	33	1.7	2.0	1.3	2.3
	Condesa 4n	Netherlands	1.7	51	1.3	2.3	1.0	1.3
	Contender	United Kingdom	3.7	49	2.7	3.3	2.3	2.0
	Corona	West Germany	3.0	37	1.0	2.3	1.0	1.3
	Darbo	Denmark	3.0	44	2.3	2.7	2.3	2.7
	Diana	West Germany	3.3	46	2.0	2.0	1.7	1.3
	Elka	Netherlands	3.0	37	1.0	3.0	1.0	1.0
	Game	Netherlands	3.7	38	3.0	3.0	2.0	3.0
	Gazon	Poland	4.0	52	2.7	4.7	2.7	2.7
	Idole	France	1.7	30	0.3	0.7	0.3	0.3
	Kerem	West Germany	3.7	48	2.7	3.7	2.3	3.0
	LD 2343	Denmark	2.3	45	1.3	2.0	1.3	1.7
	LD 2344	Denmark	3.7	48	2.0	3.0	2.3	1.3
	LD 2408	Denmark	2.3	53	2.7	3.7	2.7	2.7
	Lidura	West Germany	2.7	40	1.7	2.3	1.0	2.3
	Lihersa	West Germany	2.7	46	2.3	3.7	2.0	2.7
	Lilope	West Germany	3.0	42	2.7	3.3	1.7	2.0
	Limedia	West Germany	2.7	44	2.3	3.0	2.0	2.7
	Liperlo	West Germany	2.0	45	1.0	1.3	0.7	1.0
	Liprior	West Germany	2.3	45	2.0	2.0	1.3	1.7
	Lorina	West Germany	2.0	32	1.0	2.3	1.0	1.0
	Magella	Netherlands	3.3	45	3.0	3.0	2.7	2.7
	Maprima	East Germany	2.7	49	1.3	2.3	1.7	1.7
	Marietta	West Germany	2.7	36	1.3	2.3	1.3	1.3
	Marta	Romania	3.7	48	2.7	3.3	2.3	2.7
	Monta	Netherlands	1.3	38	0.3	1.0	0.3	1.0
	Moranta	Netherlands	1.7	41	1.0	1.3	0.7	1.7
	Morgana	Netherlands	1.3	43	0.7	0.7	0.7	1.0
	Norlea*	Canada	4.3	52	3.3	3.3	3.0	3.0
	Pamir	Italy	1.7	40	0.7	1.0	0.3	0.7
	Pennant 4n	United Kingdom	2.0	47	1.7	2.3	1.3	2.3
	Perfect	Netherlands	2.3	43	1.7	1.7	1.0	0.7
	Perray	West Germany	3.0	45	1.7	2.0	1.7	1.3
	Pippin	Denmark	3.0	47	1.3	3.0	1.7	2.3
	Pleno	Denmark	1.3	43	0.3	1.0	0.3	0.7

Species	Cultivar	Origin	Hardiness	Height (cm)	Seed Yield Rating		Herbage Yield Rating	
Ryegrass, Perennial (Lolium perenne L.) cont'd					1985	1986	1985	1986
	Premier	United States	3.7	41	3.0	3.7	1.7	4.0
	Rapid	Romania	2.3	46	1.7	1.0	1.0	1.3
	Rapsod	Romania	3.0	48	2.0	2.3	1.3	2.3
	Saione	Denmark	2.0	47	0.7	2.0	1.3	0.7
	Senator	West Germany	1.7	43	1.0	2.0	1.0	1.7
	Servo	Sweden	5.0	49	3.7	5.0	3.0	3.3
	Svea	Sweden	4.7	50	4.3	5.0	3.0	4.0
	Tando	West Germany	3.0	38	2.0	3.0	1.0	2.0
	Tonga 4n	Denmark	2.3	43	2.0	2.3	1.7	2.3
	Tresor	Netherlands	2.7	39	1.0	2.0	1.3	1.7
	* Norlea (Yield in kg/ha)				456	450		
Timothy (Phleum pratense L.)								
	BAR 81-3	Netherlands	5.0	74	4.0	4.7	4.0	4.0
	BAR 82-4	Netherlands	5.0	74	3.3	5.0	3.3	3.7
	Climax*	Canada	5.0	76	4.0	4.7	4.0	4.3
	Php 10	Netherlands	5.0	72	4.0	5.0	3.7	4.7
	Php 11	Netherlands	5.0	70	4.0	5.0	3.3	4.7
	Php 137.82	Netherlands	5.0	69	4.3	4.3	3.3	4.3
	Php 157.82	Netherlands	5.0	69	3.3	4.7	3.3	3.7
	Z 3011	West Germany	5.0	71	4.0	4.7	3.7	4.3
	* Climax (Yield in kg/ha)				402	453		

Cultivar Screening Trial
Seeding Year: 1985

Species	Cultivar	Origin	Hardiness	Height (cm)	Seed Yield Rating	Herbage Yield Rating
Alfalfa (Medicago sativa L.)						
	Alegro	France	5.0	80	4.3	4.0
	Amador	United States	3.0	68	2.7	2.0
	Beaver*	Canada	5.0	70	5.0	3.3
	Blazer	United States	5.0	78	4.3	4.0
	BY 2	Canada	5.0	75	3.7	4.0
	Classic	United States	5.0	78	4.7	4.0
	Fundulea 652	Romania	5.0	78	3.3	4.0
	Gloria	Romania	5.0	78	3.7	3.7
	Heinrichs	Canada	5.0	77	3.7	4.0
	Joaquin II	United States	5.0	73	3.0	3.0
	Kiliana	West Germany	5.0	78	4.0	3.7
	Lovetch	Bulgaria	5.0	70	3.7	3.3
	Lutetia	Romania	5.0	75	5.0	3.3
	Magnum	United States	5.0	80	4.7	4.0
	Matador	United States	2.3	73	2.0	1.7
	New Mexico 11-1	United States	3.0	70	2.3	1.7
	Preserve	United States	5.0	80	3.7	4.0
	Rangelander	Canada	5.0	70	5.0	3.7
	Rayen	Chile	2.3	63	1.3	1.3
	Regal	United States	5.0	78	4.7	4.0
	Spectrum	United States	5.0	80	4.7	3.7
	Star	France	5.0	73	4.3	4.0
	Trident	United States	5.0	70	3.7	3.7
	Trifecta	Australia	2.7	72	2.0	1.7
	Turbo	United States	5.0	73	3.7	3.3
	Warrior	United States	5.0	72	3.7	4.0
	WWB 8	Sweden	5.0	80	4.7	4.0
	WWB 9	Sweden	5.0	68	3.0	3.3
	WWB 10	Sweden	5.0	70	3.0	3.3
	120	United States	5.0	77	3.0	3.7
	*Beaver (Yield in kg/ha)				833	

Species	Cultivar	Origin	Hardiness	Height (cm)	Seed Yield Rating	Herbage Yield Rating
Birdsfoot Trefoil (*Lotus corniculatus* L.)						
	Leo*	**Canada**	3.7	50	5.0	3.7
	Quimey	Chile	0	0	0	0
	Szabolcsi 1	**Hungary**	2.7	42	3.3	3.3
	*Leo (Yield in kg/ha)				750	
Alsike Clover (*Trifolium incarnatum* L.)						
	Aurora*	**Canada**	4.0	42	4.7	2.7
	Frida	Sweden	4.7	43	5.0	3.0
	SV 0244	**Sweden**	4.0	45	4.7	2.7
	*Aurora (Yield in kg/ha)				341	
Red Clover (*Trifolium pratense* L.)						
	Altaswede*	**Canada**	4.3	75	5.0	4.0
	GKT Tetra 4n	Hungary	2.3	57	3.0	2.0
	Prosper	**United States**	3.3	42	3.7	2.3
	Rajah	Denmark	4.0	65	5.0	3.7
	Ruttinova	**Switzerland**	2.3	50	2.3	1.7
	Verdi	France	2.0	57	2.3	1.0
	*Altaswede (Yield in kg/ha)				512	
White Clover (*Trifolium repens* L.)						
	Ala	**Poland**	4.3	20	4.7	2.3
	G 66	Hungary	4.0	30	4.0	1.7
	Luclair	**France**	3.7	25	3.0	1.0
	Lune de Mai	France	4.3	23	3.7	1.7
	Lustar	**France**	3.7	23	2.7	1.0
	Major	France	3.3	22	2.3	1.0
	Makibasiro	**Japan**	3.7	18	2.3	1.0
	Merwi	Belgium	4.3	22	3.0	1.7
	Nora*	**Sweden**	4.7	20	4.0	2.3

Species	Cultivar	Origin	Hardiness	Height (cm)	Seed Yield Rating	Herbage Yield Rating
White Clover (*Trifolium repens* L.) cont'd						
	Radi	Poland	4.3	28	4.0	2.0
	Rema	Poland	4.7	27	5.0	2.3
	Rivendel	Denmark	4.7	18	4.0	2.3
	Ross	Ireland	3.7	25	1.7	1.0
	Sandra	Sweden	4.3	23	4.0	2.3
	*Nora (Yield in kg/ha)				266	
Bromegrass (*Bromus inermis* Leysser)						
	Bravo	Canada	5.0	110	5.0	5.0
	Carlton*	Canada	5.0	110	5.0	5.0
	*Carlton (Yield in kg/ha)				1205	
Meadow Fescue (*Festuca pratensis* Huds.; *F. elatior* auct.)						
	Barmondo	Netherlands	5.0	70	5.0	5.0
	Bartran	Netherlands	5.0	63	5.0	5.0
	Benfesta	East Germany	5.0	75	5.0	5.0
	Maiko	Denmark	5.0	73	5.0	5.0
	Merifest	Belgium	5.0	62	5.0	5.0
	Mimer*	Sweden	5.0	68	5.0	5.0
	*Mimer (Yield in kg/ha)				1230	
Red Fescue (*Festuca rubra* L.)						
	Bar FRC 510 (1)	Netherlands	5.0	33	4.0	3.0
	Barnica (1)	Netherlands	5.0	38	4.3	3.0
	Baruba (1)	Netherlands	5.0	37	2.3	2.3
	Boreal* (3)	Canada	5.0	55	5.0	4.0
	Club (1)	France	5.0	37	3.7	3.0
	Epsom (1)	Netherlands	5.0	38	3.3	2.7
	Ferota (1)	Czechoslovakia	5.0	38	4.3	2.7

Species	Cultivar		Origin	Hardiness	Height (cm)	Seed Yield Rating	Herbage Yield Rating
Red Fescue (Festuca rubra L.) cont'd							
	Flemo	(3)	Netherlands	5.0	57	5.0	4.0
	Ombra	(1)	United States	5.0	48	4.0	3.0
	Recent	(2)	Netherlands	5.0	45	3.0	3.3
	Rufilla	(2)	Netherlands	5.0	53	3.0	3.3
	Testop	(2)	West Germany	5.0	47	3.3	3.0
	Tiptop	(1)	West Germany	5.0	38	3.0	2.0
	Venus	(1)	Netherlands	5.0	38	4.0	3.0
	WWRS 124	(3)	Sweden	5.0	52	4.3	4.0
	WWRS 125	(3)	Sweden	5.0	55	4.3	4.0
	WWRS 127	(3)	Sweden	5.0	42	4.3	3.0
	WWRS 128	(3)	Sweden	5.0	53	4.3	3.7
	*Boreal (Yield in kg/ha)					850	
	(1) Rhizomes absent or rudimentary						
	(2) Slender Rhizomes						
	(3) Strong Rhizomes						
	(4) Unclassified						
Tall Fescue (Festuca arundinacea Schreb.)							
	Cigale		France	5.0	65	3.7	4.7
	Kentucky 31*		United States	5.0	78	5.0	4.7
	Luther		France	5.0	85	3.7	4.7
	Mustang		United States	4.7	75	3.7	4.3
	*Kentucky 31 (Yield in kg/ha)					505	
Orchard Grass (Dactylis glomerata L.)							
	Filippa		Denmark	5.0	75	1.0	3.7
	Kay*		Canada	5.0	77	3.0	5.0
	Niva		Czechoslovakia	5.0	72	1.0	3.3
	Pennlate		United States	0	0	0	0
	Remanso		Netherlands	2.7	67	1.0	2.0
	*Kay (Yield in kg/ha)					213	

Species	Cultivar	Origin	Hardiness	Height (cm)	Seed Yield Rating	Herbage Yield Rating
Reed Canarygrass (*Phalaris arundinacea* L.)						
	Castor*	Canada	5.0	112	2.3	2.3
	Motterwitzer	East Germany	5.0	107	2.3	2.3
	*Castor (Yield in kg/ha)				84	
Timothy (*Phleum pratense* L.)						
	Alma	Finland	5.0	78	4.0	4.3
	Climax*	Canada	5.0	82	4.0	4.3
	EPHP 102	Netherlands	5.0	80	4.0	4.7
	EPHP 112	Netherlands	5.0	75	4.0	4.7
	EPHP 122	Netherlands	5.0	80	4.0	4.3
	Kunpu	Japan	5.0	73	3.7	4.7
	Lirocco	West Germany	5.0	77	3.7	4.3
	Mariposa	Canada	5.0	77	3.7	3.7
	M3-8897	United Kingdom	5.0	72	4.0	2.7
	PHP 12	Netherlands	5.0	77	3.7	4.0
	PHP 14	Netherlands	5.0	78	4.0	3.0
	RVP 02	Belgium	5.0	72	3.3	4.3
	RVP 03	Belgium	5.0	68	4.0	5.0
	Thibet	Netherlands	5.0	82	4.0	3.7
	Winmor	United States	5.0	92	4.0	4.3
	Wugra	East Germany	5.0	77	4.0	4.7
	WWT 100	Sweden	5.0	77	4.0	4.7
	Z 3022	West Germany	5.0	77	4.0	4.0
	*Climax (Yield in kg/ha)				374	

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SUMMARY OF FORAGE SEED YIELDS IN NORTHERN ALBERTA

Species	Cultivar		Origin	B'lodge A	B'lodge B	Falher	Fort Vermilion	Gimle	High Level	All Locations
Bromegrass, Smooth (Bromus inermis Leyss.) Yields shown as % of Carlton										
	Baylor		United States	68(3)*	55(3)	73(3)	72(3)		56(3)	65(15)
	Beacon		United States	65(5)			45(2)	62(2)		60 (9)
	Blair		United States	42(3)	41(3)	43(3)	52(3)		40(3)	44(15)
	Carlton		Canada	100(8)	100(6)	100(6)	100(8)	100(2)	100(3)	100(33)
	Jubilee		Canada	60(5)	55(3)	52(3)	51(5)	64(2)	51(3)	55(21)
	Lyon		United States	46(3)	70(3)	68(3)	52(3)			59(12)
	Magna		Canada	86(3)	92(6)	99(6)	108(6)		96(3)	98(24)
	Orfeu		Romania	81(6)	91(3)	94(3)	79(3)		107(3)	89(18)
	Regar(1)		United States	47(3)	50(6)	45(6)	38(6)		38(3)	44(24)
	Signal		Canada	124(8)	118(3)	105(3)	123(5)	157(2)	117(3)	123(24)
	Svaja		Sweden	81(5)	78(3)	71(3)	69(5)	65(2)	64(3)	72(21)
	Tempo		Canada	54(6)	56(6)	51(6)	67(6)			57(24)
	Carlton (Yield in kg/ha)			691(8)	624(6)	611(6)	563(8)	248(2)	601(3)	598(33)

(1) Meadow Bromegrass - (Bromus biebersteinii Roem et Schult.)
* Data years

Species	Cultivar		Origin	B'lodge A	B'lodge B	Falher	Fort Vermilion	Gimle	High Level	All Locations
Fescue, Red (Festuca rubra L.) Yields shown as % of Boreal										
	Agram	(1)	Netherlands	46(5)	28(6)	24(6)	29(4)			31(21)
	Atlanta	(1)	Netherlands	34(5)	21(3)	20(3)	24(2)			24(13)
	Ballade	(2)	France	9(3)	16(3)	8(3)	17(2)		8(2)	11(13)
	Banner	(4)	United States	56(5)	37(6)	43(6)	34(4)		21(2)	41(23)
	Bastide	(2)	France	20(6)	19(6)	9(6)	4(4)		11(2)	14(24)
	Beauty	(1)	Netherlands	29(2)	42(2)		42(2)	61(1)		41 (7)
	Bingo	(1)	Netherlands	21(3)	30(3)	22(3)	51(2)			29(11)
	Boreal	(3)	Canada	100(12)	100(8)	100(6)	100(8)	100(3)	100(2)	100(39)
	Cascade	(4)	United States		23(3)	21(3)	18(2)			21 (8)
	Checker	(4)	United States	50(3)	29(3)	26(3)	36(2)			35(11)
	Chiwago	(2)	West Germany	36(2)						36 (2)
	Commodore	(3)	Netherlands	61(2)	82(2)		50(2)	73(1)		66 (7)
	Dawson	(2)	Netherlands		39(3)	43(2)	21(2)			35 (7)

Species	Cultivar		Origin	B'lodge A	B'lodge B	Falher	Fort Vermilion	Gimle	High Level	All Locations
	Diamond	(1)	Netherlands	50(2)	24(3)	27(3)	18(2)			29(10)
	Eboli	(1)	Denmark	15(2)						15 (2)
	Encota	(1)	Netherlands		18(3)	22(3)	20(2)			20 (8)
	Engina	(3)	Netherlands	73(3)	112(3)	67(3)	71(2)			82(11)
	Ensylva	(3)	Netherlands	33(6)	45(6)	25(6)	33(4)		42(2)	35(24)
	Envira	(3)	Netherlands	72(6)	93(6)	92(6)	69(4)		114(2)	85(24)
	Enzet	(3)	Netherlands	93(6)	91(6)	82(6)	74(4)		130(2)	90(24)
	Epaulette	(2)	United Kingdom	11(3)	14(3)	11(3)	13(2)		11(2)	12(13)
	Falter	(1)	West Germany	10(2)						10 (2)
	Faramir	(2)	Denmark	22(2)						22 (2)
	Fortress	(3)	United States	51(6)	73(6)	47(6)	42(4)		58(2)	55(24)
	Frida	(1)	Netherlands	17(3)	28(3)	34(2)	25(2)			25(10)
	Futuro	(3)	West Germany	21(2)						21 (2)
	G	(2)	Hungary	80(2)	83(2)		78(2)	80(1)		80 (7)
	Gavotte	(1)	Netherlands	18(2)						18 (2)
	Hackle	(2)	United Kingdom	11(3)	9(3)	4(3)	8(2)		3(2)	7(13)
	Hawk	(2)	United Kingdom	75(2)						75 (2)
	Highlight	(1)	Netherlands		29(3)	30(3)	24(2)			28 (8)
	Ivalo	(1)	Denmark	32(2)	29(6)	19(6)	26(4)			26(18)
	Keszthelyi	2(2)	Hungary	45(3)	63(6)	57(6)	32(4)		43(2)	51(21)
	Koket	(1)	Netherlands		40(3)	30(3)	29(2)			34 (8)
	Leik	(3)	Norway	90(7)	82(5)	66(3)	130(6)	79(3)	121(2)	96(26)
	Lifalla	(1)	West Germany		30(3)	33(3)	21(2)			29 (8)
	Lirota	(1)	West Germany	13(2)						13 (2)
	Lirouge	(1)	West Germany	19(3)	17(6)	18(6)	29(4)			20(19)
	Lobi	(1)	West Germany	36(2)						36 (2)
	Luster	(1)	Netherlands	18(5)	27(3)	15(3)	35(4)	38(2)		25(17)
	Manoir	(2)	France	9(3)	25(3)	7(3)	11(2)			13(11)
	Menuet	(1)	Netherlands		28(3)	31(3)	21(2)			27 (8)
	Merlin	(2)	United Kingdom	13(3)	20(3)	10(3)	8(2)			13(11)
	Moncorde	(3)	Netherlands	55(6)	61(6)	50(6)	61(4)		40(2)	56(24)
	Oasis	(2)	Netherlands	20(9)	26(6)	31(5)	13(6)	32(2)		23(28)
	Odra	(1)	West Germany		35(3)	46(3)	38(2)			40 (8)
	Oriflamme	(2)	United Kingdom	18(3)	21(3)	17(3)	31(2)		54(2)	26(13)
	Parita	(1)	Netherlands	28(3)	29(3)	30(3)	59(2)			34(11)
	Perelle	(2)	France	14(2)	14(2)		10(2)			13 (6)
	Pernille	(3)	Denmark	37(3)	43(6)	35(6)	30(4)		54(2)	38(21)
	Pollux	(3)	Denmark		70(6)	62(6)	45(4)		63(2)	61(18)

Species	Cultivar		Origin	B'lodge A	B'lodge B	Falher	Fort Vermilion	Gimle	High Level	All Locations
	Puma	(1)	Denmark	32(6)	31(6)	25(6)	31(4)			30(22)
	Rapid	(3)	Netherlands	61(3)	87(6)	80(6)	64(4)		116(2)	80(21)
	Rasengold	(1)	West Germany		43(3)	44(3)	28(2)			40 (8)
	Reptans	(3)	Sweden	68(6)	76(3)	80(3)	75(2)		92(2)	76(16)
	Roland 21	(3)	West Germany	50(6)	72(3)	71(3)	50(2)		68(2)	60(16)
	Rolax	(1)	Belgium		48(3)	37(3)	28(2)			39 (8)
	Rubina Roskilde	(3)	Denmark	58(3)						58 (3)
	Satin	(2)	Sweden	22(2)	26(2)		20(2)	26(1)		23 (7)
	Scarlet	(1)	Netherlands	42(5)	31(6)	28(6)	41(4)			35(21)
	Solfege	(1)	France	25(2)						25 (2)
	Sonnet	(2)	Netherlands	13(3)	18(3)	7(3)	11(2)			12(11)
	Tamara	(1)	Denmark		36(3)	39(3)	34(2)			37 (8)
	Tatjana	(1)	Denmark	30(3)	40(6)	43(5)	47(4)			41(18)
	Tridano	(3)	Denmark	56(2)						56 (2)
	Valaska	(4)	Czechoslovakia	42(5)	23(3)	27(3)	45(4)	44(2)		37(17)
	Veni	(1)	Denmark	31(6)	38(6)	38(6)	31(4)			35(22)
	Waldorf	(1)	Netherlands		28(3)	24(3)	26(2)			26 (8)
	Zernickower	(3)	East Germany	77(7)	95(5)	64(3)	73(6)	88(3)	131(2)	83(26)
	Boreal (Yield in kg/ha)			469(12)	642(8)	511(6)	618(8)	898(3)	390(2)	570(39)

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

Timothy (Phleum pratense L.) Yields shown as % of Climax

	Adda	Iceland	248(2)	211(2)		313(2)	227(2)		250 (8)
	Alpage	France	109(5)	101(3)	137(3)	113(5)	116(2)	99(3)	112(21)
	Barmidi	Netherlands	71(3)	76(3)	71(2)	36(1)			69 (9)
	Barmoti	Netherlands		125(3)	121(2)	85(2)			112 (7)
	Bartimi	Netherlands	125(3)	112(6)	119(5)	112(5)		83(3)	111(22)
	Barvanti	Netherlands	74(3)	61(3)	62(2)	22(2)			57(10)
	Basho	Canada	65(6)	77(6)	62(5)	46(3)		40(3)	62(23)
	Bilbo	Denmark	119(6)	117(3)	130(3)	121(3)		129(3)	123(18)
	Bodin	Norway		155(3)	177(2)	168(2)			165 (7)
	Bottnia II	Sweden	173(6)	125(6)	164(5)	232(5)		285(3)	185(25)

Species	Cultivar	Origin	B'lodge A	B'lodge B	Falher	Fort Vermilion	Gimle	High Level	All Locations
	Bounty	Canada	70(3)	71(3)	72(2)	117(3)		72(3)	81(14)
	Castella	Netherlands	76(3)						76 (3)
	Champ	Canada	109(3)	79(3)	75(2)	84(3)		71(3)	84(14)
	Clair	United States	78(3)						78 (3)
	Climax	Canada	100(12)	100(8)	100(5)	100(9)	100(4)	100(3)	100(41)
	Engmo	Norway	185(6)	138(6)	180(5)	239(5)		264(3)	193(25)
	Erecta	Belgium	124(3)	95(6)	104(5)	81(5)		125(3)	102(22)
	Farol	Netherlands		76(3)	59(2)				69 (5)
	Forus	Norway		115(3)	117(2)	106(2)			113 (7)
	G	Hungary	156(2)	143(2)		150(2)	153(2)		151 (8)
	Georgikon	Hungary		110(3)	147(2)	99(2)			117 (7)
	Goliath	Netherlands	115(6)	105(6)	123(5)	112(5)		156(3)	119(25)
	Grindstad	Norway		122(3)	88(2)	99(2)			106 (7)
	Hokuo	Japan	94(3)	92(3)	60(2)	76(2)			83(10)
	Hokusyu	Japan	115(7)	84(5)	190(3)	106(7)	92(4)	169(3)	118(29)
	Itasca	Sweden	79(3)	75(3)	84(3)	100(3)		101(3)	88(15)
	Korpa	Iceland	241(7)	153(8)	203(5)	249(9)	191(4)	270(3)	215(36)
	Ludor	France	52(5)	50(3)	58(3)	58(5)	61(2)	56(3)	55(21)
	Melora	Netherlands	113(5)	81(3)	105(3)	81(5)	88(2)	90(3)	94(21)
	Mino	Denmark	91(6)	91(6)	77(5)	65(5)		117(3)	86(25)
	Motim	Netherlands	89(3)	69(3)	94(2)	42(2)			75(10)
	Motterwitzer	East Germany	121(3)						121 (3)
	Nosappu	Japan	144(7)	113(5)	123(3)	135(7)	122(4)	117(3)	128(29)
	Otto	Finland	164(3)	134(6)	198(5)	194(5)		203(3)	176(22)
	Phlewiola	West Germany		86(3)	98(2)	104(2)			95 (7)
	Polka	United Kingdom	113(6)	101(3)	121(3)	128(3)		90(3)	111(18)
	Purlieu	United Kingdom	84(6)	96(3)	122(3)	87(3)		92(3)	94(18)
	Ramona	Netherlands		47(6)	10(2)	30(1)			37 (9)
	Rasant	West Germany	165(6)	140(6)	214(5)	161(5)		216(3)	174(25)
	Richmond	Canada	100(3)	107(6)	108(5)	97(5)		105(3)	104(22)
	Salvo	Canada	74(7)	68(3)	56(3)	62(5)	60(2)	60(3)	65(23)
	Tammisto	Finland		126(3)	168(2)	157(2)			147 (7)
	Tarmo	Finland		139(3)	167(2)	108(2)			138 (7)
	Tiiti	Finland	195(3)	128(3)	247(3)	266(3)		222(3)	212(15)
	Timfor	United States	92(3)	89(3)	96(2)	64(2)			86(10)
	Topas Otofte	Denmark	126(6)	105(6)	76(4)	120(5)		127(3)	111(24)
	Verdant	United States	109(6)	102(6)	116(5)	101(5)		120(3)	108(25)
	Climax (Yield in kg/ha)		300(12)	285(8)	138(5)	218(9)	308(4)	119(3)	247(41)

Species	Cultivar	Origin	B'lodge A	B'lodge B	Falher	Fort Vermilion	Gimle	High Level	All Locations
Clover, Red (Trifolium pratense L.) Yields shown as % of Altaswede									
	Aberystwyth S.123	United Kingdom		27(2)	47(2)				37 (4)
	Altaswede	Canada	100(8)	100(8)	100(6)	100(8)	100(2)		100(32)
	Astra 4n	United Kingdom		35(2)	26(3)	33(3)			31 (8)
	Bjorn	Sweden	76(5)	78(6)	70(6)	86(6)			78(23)
	Deben 4n	United Kingdom	17(2)						17 (2)
	Diper	France	29(2)						29 (2)
	Fanny 4n	Sweden	59(2)	35(2)		100(2)			65 (6)
	Florex	United States	67(4)	77(3)	20(2)	47(2)	77(2)		61(13)
	Florie	United States	46(4)	60(3)	19(2)	32(2)	45(2)		43(13)
	Fox	France	15(1)	0(1)		36(1)			17 (3)
	Gollum	Denmark	92(4)	87(3)	28(2)	49(2)	82(2)		73(13)
	Granta	United Kingdom	66(2)	29(4)	17(2)	0(2)			28(10)
	Grasslands Pawera	New Zealand	32(3)	41(3)	4(1)	0(1)			28 (8)
	Gumpensteiner	Austria	41(3)	22(5)	9(2)	4(2)			22(12)
	Hamidori 4n	Japan		5(2)					5 (2)
	Hedda 4n	Sweden	63(2)	39(2)		116(2)			73 (6)
	Heges Hohenheimer	West Germany		0(1)		0(1)			0 (2)
	Janbo 4n	West Germany	20(2)						20 (2)
	Kenstar	United States	27(2)						27 (2)
	Kora	Sweden	72(2)	70(2)		89(2)			77 (6)
	Krano Pajbjerg	Denmark	126(3)	97(6)	55(5)	36(2)			82(16)
	Kvarta	Czechoslovakia	28(2)						28 (2)
	Lossam 4n	France	22(2)	12(2)	3(2)	0(1)			11 (7)
	Marcom	France		3(2)		0(1)			2 (3)
	Marino	East Germany	51(4)	36(3)	17(2)	41(2)	44(2)		40(13)
	Matri 4n	East Germany	34(2)	3(2)		93(2)			43 (6)
	Molly 4n	Sweden	28(2)	11(2)		75(2)			38 (6)
	Mont-Calme	Switzerland	46(3)	22(5)	9(2)	14(2)			25(12)
	Napoca 4n	Romania	30(2)	0(1)		65(1)			31 (4)
	Norlac	Canada	102(7)	105(8)	88(6)	120(8)			101(29)
	Norseman 4n	United Kingdom		0(1)		0(1)			0 (2)
	Pacific	Canada	80(2)	33(3)	0(1)	3(2)			33 (8)
	Palna	Denmark	102(4)	82(3)	23(2)	25(2)	87(2)		71(13)
	Patavium	Italy	51(2)	38(2)	1(2)	0(1)			26 (7)
	Perenta 4n	East Germany	30(3)	16(6)	13(2)	18(3)			19(14)
	Quin	United Kingdom	29(2)						29 (2)

Species	Cultivar	Origin	B'lodge A	B'lodge B	Falher	Fort Vermilion	Gimle	High Level	All Locations
	Quinequeli	Chile	43(2)	51(2)	0(1)	0(1)			31 (6)
	Red Head 4n	West Germany		0(1)					0 (1)
	Redman	United States	42(2)						42 (2)
	Renova	Switzerland	15(2)	0(1)		36(1)			13 (4)
	Sally 4n	Sweden	40(2)	62(6)	26(6)	44(3)			44(17)
	Sara 4n	Sweden	40(4)	86(3)	27(3)	49(3)	50(2)		50(15)
	Start	Czechoslovakia	41(2)						41 (2)
	Temara 4n	Switzerland	13(2)	16(3)	4(2)	0(1)			10 (8)
	Tripo 4n	Norway		54(3)	56(3)				55 (6)
	Triton 4n	Sweden	47(2)						47 (2)
	Altaswede (Yield in kg/ha)		326(8)	337(8)	214(6)	622(8)	324(2)		382(32)