



FORAGE CULTIVAR EVALUATION

The Manitoba Forage Council operates the Forage Cultivar Evaluation Program. Management of the program is through an industry team approach. Producers, seed trade, extension and researchers are involved in the forage evaluation management committee.

Forage cultivar evaluation is coordinated with similar programs in Saskatchewan and Alberta, allowing for sharing of test data.

Forage evaluation is conducted at three sites in

Manitoba – Arborg, Neepawa and St. Pierre Jolys (formerly Steinbach). Cooperation and support from program partners have allowed the efficient operation of testing in 2002.

The objective of the evaluation program is to provide information to Manitoba's forage and forage seed producers and industry partners on the performance of forage cultivars under Manitoba conditions. The program measures dry matter yields under a three-cut system over three produc-

tion years and has developed test procedures to evaluate persistence, winter-hardiness and grazing tolerance.

The Manitoba Forage Council publishes results from the forage evaluation trials with detailed information on forage production. These reports are available from Manitoba Agriculture and Food at rep offices, crop specialists, grassland specialists, Manitoba Forage Seed Association or the Manitoba Forage Council.

Support for Forage Cultivar Evaluation was obtained from various sectors of the agricultural industry. In appreciation of their partnership in this program, the following sponsors are acknowledged:

Agricultural Research and Development Initiative
Covering New Ground – Agricultural Sustainability Initiative
Manitoba Agriculture and Food

Manitoba Forage Council
Manitoba Forage Seed Association
Manitoba Rural Adaptation Council
Parkland Crop Diversification Foundation

Agricore United/Proven Seed
S.S. Johnson Seeds
University of Manitoba – Plant Science Dept.
The Western Forage Variety Testing System

ALFALFA

Variety	Use ³	Type ⁴	Hardiness ⁵	Fall ⁶ Dormancy	Manitoba Mean % of Beaver		Yield at test sites % of Beaver					Source ⁹			
							Arborg	Brandon ⁷	Neepawa	Steinbach-St. Pierre ⁸					
5312	H	F,V	G	3	104	(13) [†]	103	(7)	–	102	(3)	109	(3)	11	
5454	H	F,V	G	4	103	(10)	110	(5)	–	95	(3)	99	(2)	11	
Absolute	H	F,V	G	2	105	(25)	107	(5)	104	(13)	99	(3)	–	1	
AC Blue J	H	F,V	G	–	97	(26)	99	(10)	99	(5)	94	(3)	99	(3)	15
AC Caribou	H	F,V	G	–	105	(13)	104	(5)	104	(4)	109	(3)	111	(1)	2
AC Grazeland Br [®]	P,H	F	G	2	99	(9)	97	(3)	–	–	96	(3)	104	(3)	10
AC Longview	H	–	G	–	105	(11)	112	(6)	–	–	93	(1)	97	(4)	19
Algonquin	H	V	G	–	96	(72)	100	(19)	101	(19)	99	(8)	97	(5)	13
AmeriStand 201+Z	H,P	F,V	E	2	101	(12)	–	–	–	–	100	(9)	104	(3)	1
Apica	H	F	F	3	104	(50)	105	(6)	103	(21)	110	(3)	–	16,19	
Beaver	H	F,V	G	–	100	–	100	(63)	100	(28)	100	(30)	100	(12)	13
Centurion	H	V	G	3	101	(16)	100	(9)	–	–	105	(2)	101	(1)	8
Crown II	H	F,V	G	3	109	(20)	110	(7)	107	(6)	109	(6)	–	4	
Echo	H	F,V	F	4	103	(9)	107	(3)	101	(6)	–	–	–	8	
Hornet	H	F	F	–	109	(13)	113	(6)	–	–	96	(3)	112	(4)	19
Magnum III Wet	H,P	–	G	3	106	(11)	112	(4)	–	–	106	(3)	112	(4)	2
OAC Minto	H	F,V	G	–	111	(42)	101	(4)	114	(19)	–	–	91	(1)	2
Quattro HR	H	V	G	–	106	(9)	109	(2)	–	–	104	(5)	–	10	
Trident II	H	F,V	F	3	102	(12)	98	(4)	–	–	105	(8)	–	3	
Creeping Rooted Types¹															
Heinrichs	P,H	V	E	1	97	(45)	92	(17)	99	(9)	105	(8)	95	(5)	1
Pickseed 3006	P,H	F,V	G	2	95	(9)	90	(3)	–	–	94	(3)	102	(3)	10
Rambler	P	V	E	1	95	(156)	93	(53)	94	(23)	95	(21)	98	(12)	13
Rangelander	P,H	V	E	1	98	(54)	95	(16)	95	(20)	101	(3)	102	(3)	15
Runner	P,H	V	E	1	97	(8)	110	(2)	90	(4)	100	(2)	–	8	
Spredor 3	P,H	F,V	E	1.5	100	(10)	91	(3)	101	(1)	104	(5)	99	(1)	1
Multifoliolate Types²															
Gala	H	V	G	2	103	(11)	103	(7)	106	(1)	104	(3)	109	(2)	1
Pickseed 8920MF	H	F	G	3	104	(14)	102	(5)	102	(4)	112	(3)	98	(2)	10
Limited data for the following marketed varieties⁴															
53Q60	H	F,V	G	3	97	(6)	–	–	–	–	96	(3)	100	(3)	11
54V54	H	F,V	G	4	99	(3)	106	(1)	–	–	92	(1)	100	(1)	11
Abacus	H	–	G	3	–	–	–	–	–	–	–	–	–	4	
Able	H,P	F,V	G	2.5	99	(5)	100	(3)	–	–	–	–	97	(2)	10
Accel	H	–	G	4	–	–	–	–	–	–	–	–	–	4	
AlfaLeaf	H	F	F	4	110	(5)	119	(2)	–	–	104	(3)	–	6	
DeepKrown	H,P	–	G	3	–	–	–	–	–	–	–	–	–	5	

FORAGE CROPS

ALFALFA (continued)

Variety	Use ³	Type ⁴	Hardiness ⁵	Fall ⁶ Dormancy	Manitoba Mean % of Beaver	Yield at test sites % of Beaver				Source ⁹
						Arborg	Brandon ⁷	Neepawa	Steinbach-St. Pierre ⁸	
Haygrazer	P,H	V	F	4	102 (7)	–	–	107 (4)	94 (3)	8
Profit	H	F,V	G	3	111 (7)	–	–	–	92 (1)	2
Rhino	H	V	G	3	–	–	–	109 (2)	–	8
Survivor	H,P	–	G	3	–	–	–	–	–	2
Ultra	H	F	F	3	105 (5)	100 (2)	–	108 (3)	–	5
Multifoliate Types²										
Class	H	F	F	3	103 (5)	90 (2)	–	112 (2)	–	19
Forerunner	H	F,V	G	2	102 (4)	97 (1)	–	108 (3)	–	5
Geneva	H	V	G	4	115 (5)	109 (1)	–	94 (2)	113 (2)	1
Multi 5301	H	V	E	3	106 (6)	–	–	97 (3)	104 (3)	7,9
Multistar	H	V	F	3	102 (8)	96 (2)	105 (4)	101 (2)	–	1,8
Pickseed 2065MF	H	F,V	E	3.7	98 (7)	99 (2)	–	94 (2)	100 (3)	10
Pickseed 8925MF	H	–	E	3	–	–	–	–	–	10
Ultrastar	H	V	–	3	–	–	–	–	–	1,8
WinterGold	H	V	G	4	96 (6)	–	–	90 (3)	103 (3)	1
Check – Beaver Average Yield 7673 lb/ac (8607 kg/ha) over 201 site years										

- ¹ Creeping rooted alfalfa types are more flood and drought tolerant than taprooted types. Creeping rooted types offer better hardiness and will better tolerate grazing pressure.
- ² Multifoliate varieties have the genetic potential to produce more than 3 leaflets per leaf resulting in a higher leaf to stem ratio. This trait is influenced by environmental conditions with optimum growing conditions exhibiting the highest expression.
- ³ Use Classes: H – Hay use, these varieties have been developed for maximum yield, do not have good persistence under grazing; P – Pasture use, these varieties have been developed with a growth habit allowing for some tolerance of grazing; P,H – Dual purpose types, developed for both hay and pasture use.
- ⁴ Type: F – Flemish type alfalfa (*M. sativa*) originated in northern France. They are purple flowered and are early-growing. V – Variegated type alfalfas are derived from crosses between flemish and falcata types. F,V – Mixed type exhibits both flemish and variegated characteristics.
- ⁵ Hardiness: is the ability of plants to survive the winter and to be productive the next year. Ratings based on comparison of winter hardiness with check variety, Beaver. F – Fair winter hardiness, will be significantly less winter hardy than check; G – Good Winter hardiness, will have similar winter hardiness to check E – Excellent, will have winter hardiness significantly better than the check – Beaver.
- ⁶ Fall Dormancy (FD) indicates the varieties characteristic to go dormant in fall i.e. a FD 9 would be growing vigorously in fall whereas a FD 2 would have little growth evident. Alfalfa varieties with fall dormancy ratings of 1 through 4 are considered adequately winter hardy for Manitoba conditions while those of 6 or higher may not be well adapted.
- ⁷ Brandon was discontinued in 1995 as a forage variety testing site. Represents varieties or sites with limited testing – this data should be used with caution.
- ⁸ The Steinbach site was moved to St. Pierre in 1999.
- ⁹ Seed sources, see supplier list following forage tables.
- [†] Numbers in brackets are actual site years available for comparison with check. Results are more dependable where there are a greater number of site years.
- [‡] Represents varieties or sites with limited testing – this data should be used with caution.

ANNUAL FORAGES

Variety	Manitoba Mean				Yield at Test Sites % of check ¹						Source ³
	% of check ²	Arborg	Boissevain	Dauphin	Fork River	Hamiota	Melita	Minnedosa	Transcona		
BARLEY											
AC Lacombe☉	101 (19) [†]	106 (3)	100 (3)	–	102 (1)	91 (4)	105 (4)	107 (2)	96 (2)	15	
CDC Sisler☉	98 (11)	123 (1)	97 (2)	–	70 (1)	94 (2)	97 (2)	103 (2)	95 (1)	1	
CDC Yorkton☉	102 (12)	116 (2)	108 (2)	–	88 (1)	95 (2)	102 (2)	112 (2)	75 (1)	1	
Dillon☉	97 (13)	111 (3)	90 (2)	–	89 (1)	85 (3)	94 (2)	100 (2)	89 (1)	1	
Merit☉	97 (12)	121 (2)	95 (2)	–	109 (1)	87 (2)	92 (2)	104 (2)	69 (1)	1	
Robust	95 (15)	105 (2)	85 (1)	–	88 (1)	86 (4)	97 (4)	105 (2)	95 (1)	4	
Sommerville	100 (12)	106 (1)	106 (2)	94 (1)	87 (1)	87 (2)	100 (2)	112 (2)	96 (1)	6	
Viriden	100 (16)	100 (4)	100 (2)	100 (1)	100 (1)	100 (2)	100 (2)	100 (2)	100 (2)	15	
Westford	98 (17)	105 (2)	103 (3)	–	65 (1)	100 (4)	99 (4)	103 (2)	80 (1)	1	
HULLESS BARLEY											
AC Bacon	99 (11)	140 (1)	116 (2)	–	83 (1)	94 (2)	87 (2)	93 (2)	76 (1)	15	
CDC Freedom	95 (11)	106 (1)	92 (2)	–	113 (1)	84 (2)	88 (2)	105 (2)	79 (1)	15	
Limited data for the following marketed varieties[‡]											
Falcon☉	76 (2)	102 (1)	–	–	–	–	–	–	50 (1)	12	
OATS											
AC Assiniboia☉	92 (12)	113 (2)	123 (2)	–	57 (1)	83 (2)	78 (2)	96 (2)	62 (1)	1,3	
AC Medallion	90 (11)	157 (1)	95 (2)	–	82 (1)	80 (2)	79 (2)	94 (2)	57 (1)	4	
AC Pinnacle☉	96 (11)	157 (1)	107 (2)	–	65 (1)	99 (2)	76 (2)	98 (2)	72 (1)	14	
CDC Pacer	95 (11)	170 (1)	103 (2)	–	84 (1)	87 (2)	80 (2)	97 (2)	65 (1)	14	
Dumont	85 (17)	126 (2)	82 (3)	–	87 (1)	83 (4)	69 (4)	94 (2)	58 (1)	15	
Triple Crown☉	98 (16)	172 (1)	101 (3)	–	97 (1)	95 (4)	84 (4)	103 (2)	69 (1)	19	

ANNUAL FORAGES (continued)

Variety	Manitoba Mean			Yield at Test Sites % of check ¹							Source ³
	% of check ²	Arborg	Boissevain	Dauphin	Fork River	Hamiota	Melita	Minnedosa	Transcona		
Limited data for the following marketed varieties[†]											
CDC Boyer	81 (6)	107 (1)	71 (1)	–	–	95 (2)	60 (2)	–	–	15	
Magnum	53 (2)	–	51 (1)	–	–	–	55 (1)	–	–	13	
PEAS											
40-10	78 (9)	75 (3)	56 (1)	–	32 (1)	93 (1)	151 (1)	–	73 (2)	14	
Limited data for the following marketed varieties[†]											
Trapper	70 (6)	93 (2)	49 (1)	–	–	59 (1)	–	–	62 (2)	2	
Victoria	31 (3)	26 (1)	–	–	21 (1)	–	–	–	33 (1)	19	
Whero	50 (3)	39 (1)	–	–	86 (1)	–	–	–	34 (1)	19	
TRITICALE											
AC Alta	90 (11)	125 (1)	94 (2)	–	99 (1)	82 (2)	78 (2)	79 (2)	83 (1)	12	
AC Certa	99 (11)	142 (1)	106 (2)	–	73 (1)	79 (2)	81 (2)	103 (2)	87 (1)	12	
Banjo	93 (17)	124 (2)	83 (3)	–	96 (1)	93 (4)	88 (4)	96 (2)	68 (1)	14	
SANDRO	91 (11)	124 (1)	95 (2)	–	90 (1)	93 (2)	76 (2)	78 (2)	80 (1)	19	
Standswell	87 (12)	99 (2)	93 (2)	–	47 (1)	75 (2)	85 (2)	114 (2)	67 (1)	18	
Limited data for the following marketed varieties[†]											
Pronghorn	101 (7)	108 (1)	81 (1)	–	–	99 (2)	93 (2)	–	137 (1)	12	
Limited data for the following marketed varieties[†]											
ANNUAL RYEGRASS											
Italian											
Barmultra	–	–	–	–	–	–	–	–	–	1	
Maris Ledger	100	Average yield 2882 lb/ac (3235 kg/ha) over 3 site years								13	
Westerwold											
Aubade	100	Average yield 3373 lb/ac (3787 kg/ha) over 5 site years								2	
Botrus	–	–	–	–	–	–	–	–	–	19	
Elunaria	–	–	–	–	–	–	–	–	–	8	
Sabroso	–	–	–	–	–	–	–	–	–	1	

¹ Each test site has limited testing – this data should be used with caution.

² Except for Annual Ryegrass Virden is the check variety; Average yield of 6236 lb/ac (7001 kg/ha) over 16 site years.

³ Seed sources, see supplier list following forage tables.

[†] Numbers in brackets are actual site years available for comparison with check. Results are more dependable where there are a greater number of site years.

[‡] Represents varieties or sites with limited testing – this data should be used with caution.

Ⓢ Indicates a variety that is protected by Plant Breeder's rights.

OTHER LEGUME SPECIES

Variety	Use ¹	Hardiness ²	Manitoba Mean % of Check	Notes	Source ³
BIRDSFOOT TREFOIL					
Leo	P	G	100 (20) [†]		13
Limited data for the following marketed varieties[†]					
AC Langille	P	G	95 (5)		1
Bull	P	G	97 (3)		10
Empire	P	F	87 (4)		13
OAC Bright	P	E	96 (3)		10
Upstart	P	G	102 (5)		10
Check – Leo Average Yield 5610 lb/ac (6299 kg/ha) over 20 site years					
ALSIKE CLOVER					
Frida	P		–		19
CICER MILKVETCH					
Oxley II	P	E	–		19
Windsor	P	E	120 (6)		1
Check – Oxley Average Yield 4940 lb/ac (5546 kg/ha) over 9 site years					
RED CLOVER					
Belle	H,P		–	double cut	10
Concorde	H,P		–	double cut	10
Prima	H,P		–	double cut	10
TR 2000	H,P		–	double cut	10
SWEET CLOVER					
Norgold	H		100 (1)	yellow blossom, low coumarin	15
Yukon	H		102 (1)	yellow blossom	13
Check – Norgold Yield 4254 lb/ac (4772 kg/ha) over 1 site year					
SAINFOIN					
Nova	H		96 (8)		19
Check – Melrose Average Yield 4862 lb/ac (5449 kg/ha) over 8 site years					

¹ Use Classes: H – Hay use P – Pasture.

² Hardiness: Ratings based on winter hardiness with check variety. F – Fair winter hardiness G – Good winter hardiness E – Excellent winter hardiness.

³ Seed sources, see supplier list following forage tables.

[†] Numbers in brackets are actual site years available for comparison with check. Results are more dependable where there are a greater number of site years.

[‡] Represents varieties or sites with limited testing – this data should be used with caution.

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