

FORAGE CROP INVESTIGATIONS - ONTARIO

1973 Report on Field Trials of Varieties and Mixtures



Research Station, Ottawa

Experimental Farm, Kapuskasing

Experimental Farm, Thunder Bay

Kemptville College of Agricultural Technology, Kemptville

New Liskeard College of Agricultural Technology, New Liskeard

Ontario Agricultural College, University of Guelph, Guelph

Ridgetown College of Agricultural Technology, Ridgetown

FOREWORD

This report has been prepared by the members of the Ontario Forage Crops Committee, and it intended for the use of the members and others interested in the forage program in Ontario. Included herein are data from trials established at the seven research stations listed on the cover. Generally, only data collected in 1973 are included, although in some cases, data from previous years are included also. Thus, the data found herein should not be considered as complete.

In 1973, no tests were conducted on the following species: birdsfoot trefoil, white clovers, meadow fescue. No promising new varieties in these species were available, so no trials were established in 1972.

Ontario Forage Crops Committee

Chairman - W.R. Childers, Forage Section, Ottawa Research Station
Secretary - H.E. Wright, C.A.T., Kemptville.

1973 Co-ordinators

<u>Name</u>	<u>Species</u>
Dr. H. Baenziger, Forage Crops Section Ottawa Research Station Canada Agriculture Central Experimental Farm Ottawa, Ontario K1A 0C6	Alfalfa, White & Red Clover
Dr. F.S. Warren, Agronomy Section Ottawa Research Station Canada Agriculture Central Experimental Farm Ottawa, Ontario K1A 0C6	Brome, Miscellaneous grasses (Reed canary, fescue etc.)
Dr. W.R. Childers, Chief, Forage Section Ottawa Research Station Canada Agriculture Central Experimental Farm Ottawa, Ontario K1A 0C6	Orchardgrass
Mr. H.E. Wright Kemptville College of Agr. Technology Kemptville, Ontario K0G 1J0	Trefoil
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Management Studies
Special Species - Sainfoin and
Crown Vetch

Prof. R.S. Fulkerson, Professor
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Special Species - Kale, Rape

Additional copies of this report may be obtained from Crop Science Department,
University of Guelph,
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Provincial Alfalfa Trials 1971-73

Standard Varieties

<u>1971</u>	<u>1972</u>	<u>1973</u>
Vernal	Vernal	Vernal
Iroquois	Iroquois	Iroquois
Weevlcheck	Weevlcheck	Weevlcheck
Atra 55	WL215	WL215
K8-607	Titan	Titan
WL216	WL202	WL202
WL217	WL210	WL210
Algonquin	Algonquin	Algonquin
	EA21	EA21
	Klondike	520
	M7-5	M7-5
		Aztec
		Valor
		Kodiak

Early (Flemish) Varieties

Saranac	Saranac	Saranac
WL308	Angus	Angus
Superstan	Thor	Thor
BW9	Anchor	Anchor
T3X-405	EA91	EA91
WL309	WL309	RP103
Angus	BW9	Nuggett
Z-9062	Americana	
530		

Test Locations

Ridgetown	Ridgetown	Ridgetown
Kapuskasing	Guelph	Ottawa
Thunder Bay	Ottawa	New Liskeard
	New Liskeard	
	Kapuskasing	
	Thunder Bay	

Early Alfalfa Tests

1971 seedings, 1973 yields, 2-year means

Ridgetown (1021)

	Cut 1	Cut 2	Cut 3	Total 1973	2-year mean
Saranac	4815	2497	2503	9815	10353
WL308	4909	2431	2411	9751	10298
Superstan	4633	2324	2574	9531	10327
BW9	4588	2939	2547	10074	10659
Angus	5256	2576	2427	10259	10870
WL309	4755	2621	2784	10160	10490
T3X-405	4874	2549	2573	9996	10475
Z-9026	4361	1419	1709	7489	8431
530	4768	2734	2598	10100	10629
C.V.	10.45%	9.27%	7.35%	5.17%	
L.S.D.	N.S.	266	211	585	

Kapuskasing (6455)

Saranac	2109	1624	3733	3924
WL308	1816	1463	3279	3617
Superstan	1940	1905	3845	4224
BW9	1851	1661	3512	4017
Angus	1608	1540	3148	4115
WL309	1600	1470	3070	3495
T3X-405	1789	1624	3413	3968
Z-9026	2006	1796	3802	3557
530	1530	1460	2990	4122
C.V.		18.75%	22.28%	
L.S.D.	N.S.	361	N.S.	

Thunder Bay (7048)

Saranac	3615	1874	5489	5729
WL308	3449	1519	4968	5283
Superstan	3432	1857	5289	5366
BW9	3465	1907	5372	5277
Angus	3641	1779	5420	5072
WL309	3704	1690	5394	5459
T3X-405	3642	1748	5390	5447
Z-9026	3857	1072	4929	5046
530	3756	1852	5608	5551
C.V.	8.44%	11.42%	6.17%	
L.S.D.	N.S.	227	383	

Summary Early Alfalfa 1971 Seedings

	Ridgetown (1021) 2-year mean	Kapuskasing (6455) 2-year mean	Thunder Bay (7048) 2-year mean	Mean 6 Station yrs.
Saranac	10353	3924	5729	6669
WL308	10298	3617	5283	6399
Superstan	10327	4224	5366	6639
BW9	10659	4017	5277	6651
Angus	10870	4115	5072	6686
WL309	10490	3495	5459	6481
T3X405	10475	3968	5447	6630
Z9026	8431	3557	5046	5678
530	10629	4122	5551	6767

Early Alfalfa
1972 seedings, 1973 yields

Ridgetown (1025)

	Cut 1	Cut 2	Cut 3	Total
Saranc	4636	2718	2304	9658
Anchor	4572	2867	2192	9631
Thor	4989	2986	2546	10521
BW9	4514	3048	2590	10152
Angus	5532	2635	2292	10459
WL309	4557	2843	2507	9907
EA91	4976	2847	2649	10472
Americana	4202	2388	2486	9076
C.V.	8.55%	7.54%	11.32%	4.19%
L.S.D.	597	310	N.S.	616

Guelph (2540)

Saranac	3169	2628	1880	7677
Anchor	2966	2371	1783	7120
Thor	2995	2474	2048	7517
BW9	2907	2680	1940	7527
Angus	2967	2513	2228	7708
WL309	2901	2217	1802	6920
EA91	2968	2354	1822	7144
Americana	2899	2279	1824	7002
C.V.	8.98%	12.96%	13.74%	7.28%
L.S.D.	N.S.	N.S.	N.S.	N.S.

Early Alfalfa
1972 seedings, 1973 yields

New Liskeard (8004)

	Cut 1	Cut 2	Total
Saranac	3673	2334	6007
Anchor	3954	2291	6245
Thor	4317	2421	6738
BW9	3831	2176	6007
Angus	3939	2251	6190
WL309	3828	2142	5970
EA91	3455	2328	5783
Americana	3837	2222	6059
C.V.	14.07%	9.8%	10.30%
L.S.D.	N.S.	N.S.	N.S.

Kapuskasing (6480)

Saranac	3596	2355	5951
Anchor	3823	2278	6101
Thor	3533	2327	5860
BW9	3712	2251	5963
Angus	3785	2766	6551
WL309	3112	2549	5661
EA91	3780	2435	6215
Americana	3149	2448	5597
C.V.	19.28%	12.07%	14.64%
L.S.D.	N.S.	N.S.	N.S.

Thunder Bay (7057)

Saranac	3529	1137	4666
Anchor	3959	1193	5152
Thor	3825	1177	5002
BW9	3340	1401	4741
Angus	3483	1306	4789
WL309	3394	1098	4492
EA91	3239	1050	4289
Americana	3371	1258	4629
C.V.	12.78%	7.88%	9.29%
L.S.D.	N.S.	111	514

Early Alfalfa

1972 seeding 1973 yields

Ottawa

	Cut 1	Cut 2	Cut 3	Total
Saranac	3311	1317	2431	7059
Anchor	3192	1531	2825	7548
BW9	3070	1435	2369	6874
Angus	3535	1485	2554	7574
WL309	3262	1311	2649	7222
EA91	3490	1209	2325	7024
Americana	3008	1311	2649	6968
Thor	3797	1691	3064	8552
C.V.	12.2%	13.3%	11.9%	10%
L.S.D.	N.S.	278	459	N.S.

Summary Early Alfalfa

1972 seeding, 1973 yields

1. Mean yields of all varieties by locations:

Ridgetown	9985
Guelph	7262
Ottawa	7353
New Liskeard	6125
Kapuskasing	5987
Thunder Bay	4762

2. Mean yields of varieties over all locations (6 station-years)

Saranac	6836
Anchor	6966
Thor	7365
BW9	6877
Angus	7212
WL309	6695
EA91	6821
Americana	6555

Standard Alfalfa

1971 seedings, 1973 yields, 2-year means

Ridgetown (1022)

	Cut 1	Cut 2	Cut 3	Total 1973	2-year mean
Algonquin	4597	2275	2380	9252	9920
Iroquois	4696	2376	2382	9454	10361
Vernal	4843	2073	2321	9237	9852
Weevilcheck	4750	2461	2435	9646	10211
Atra 55	4985	2435	2501	9921	10475
K8-607	4496	2075	2117	8688	9397
WL216	4665	2385	2489	9539	10075
WL217	4678	2568	2578	9824	10351
C.V.	8.49%	6.13%	8.38%	5.09	
L.S.D.	N.S.	168	236	564	

Kapuskasing (6455)

Algonquin	2030	1867	3897	4284
Iroquois	2146	1729	3875	4276
Vernal	1843	1743	3586	4198
Weevilcheck	1867	1703	3570	4022
Atra 55	1755	1685	3440	3938
WL216	1915	1692	3607	3907
WL217	2222	1648	3870	3953
C.V.	28.89%	21.68%	23.03	
L.S.D.	N.S.	N.S.	N.S.	

Thunder Bay (7048)

Algonquin	3943	1779	5722	5542
Iroquois	3662	1800	5462	5382
Vernal	3855	1580	5435	5435
Weevilcheck	3535	1641	5176	5180
Atra 55	3694	1843	5537	5687
WL216	3488	1552	5040	5192
WL217	3575	1639	5214	5267
C.V.	10.70%	11.50%	7.93%	
L.S.D.	N.S.	N.S.	N.S.	

Summary Standard Alfalfa 1971 Seedings

	Ridgetown (1022)	Kapuskasing (6455)	Thunder Bay (7048)	Mean 6 station yrs.
	2-yr. mean	2-yr. mean	2-yr. mean	
Algonquin	9920	4284	5542	6582
Iroquois	10361	4276	5382	6673
Vernal	9852	4198	5435	6495
Weevilcheck	10211	4022	5180	6471
Atra 55	10475	3938	5687	6700
WL216	10075	3907	5192	6391
WL217	10351	3953	5267	6524

Standard Alfalfa

1972 seedings, 1973 yields

Ridgetown (1027)

	Cut 1	Cut 2	Cut 3	Total
Algonquin	3919	2938	2680	9537
EA21	3725	3059	2620	9404
Klondike	4079	2826	2519	9424
M7-5	4094	2881	2565	9540
Iroquois	3875	3020	2577	9472
Vernal	4017	2853	2615	9485
Weevlcheck	4252	3012	2718	9982
WL215	4137	2990	2548	9675
Titan	3689	2891	2707	9287
WL202	4054	2863	2400	9317
WL210	4063	2847	2781	9691
C.V.	8.17%	6.33%	7.08%	3.87
L.S.D.	N.S.	N.S.	N.S.	N.S.

Guelph (2541)

Algonquin	3127	1937	1966	7030
EA21	3099	2120	2075	7294
Klondike	3006	2215	2136	7357
M7-5	3140	1906	1832	6878
Iroquois	3217	2224	1952	7393
Vernal	3143	1785	1715	6643
Weevlcheck	3139	1901	1899	6939
WL215	3239	1807	1711	6757
Titan	3125	1915	1833	6873
WL202	2981	1950	1756	6687
WL210	3100	1896	1907	6903
C.V.	5.52%	10.75%	8.07%	5.17%
L.S.D.	N.S.	271	195	462

New Liskeard (8004)

Algonquin	4364	2485	6849
EA21	4388	2633	7021
Klondike	4063	2513	6576
M7-5	3755	2429	6184
Iroquois	4179	2521	6700
Vernal	4190	2510	6700
Weevlcheck	3581	2202	5783
WL215	4065	2315	6380
Titan	4140	2300	6440
WL202	3906	2357	6263
WL210	3541	2347	5888
C.V.	14.51%	14.12%	13.27%
L.S.D.	N.S.	N.S.	N.S.

Standard Alfalfa

1972 seedings, 1973 yields

Kapuskasing (6456)

	Cut 1	Cut 2	Cut 3	Total
Algonquin	3389	2392		5781
EA21	3403	2488		5891
Klondike	4134	2796		6930
M7-5	3820	2750		6570
Iroquois	4331	3234		7565
Vernal	3198	2381		5579
Weevlcheck	3831	2985		6816
WL215	3638	2344		5982
Titan	2823	2302		5125
WL202	3377	2559		5936
WL210	3642	2412		6054
C.V.	18.58%	15.57%		15.88%
L.S.D.	N.S.	586		N.S.

Thunder Bay (7065)

Algonquin	4406	1773		6179
EA21	4361	1774		6135
Klondike	4758	1598		6356
M7-5	4102	1572		5674
Iroquois	4593	1738		6331
Vernal	4138	1653		5791
Weevlcheck	4023	1672		5695
WL215	4494	1605		6099
Titan	3946	1603		5549
WL202	4039	1733		5772
WL210	3973	1608		5581
C.V.	12.40%	8.07%		8.72%
L.S.D.	N.S.	N.S.		601

Ottawa

Algonquin	3626	1846	2683	8155
EA21	2837	1464	2498	6799
Klondike	3329	1731	2466	7526
N7-5	3202	1537	2421	7160
Iroquois	3418	1809	2790	8017
Vernal	3107	1448	2616	7171
Weevlcheck	2812	1578	2734	7124
WL215	3247	1548	2457	7252
Titan	2677	1350	2441	6468
WL202	3222	1495	2673	7390
WL210	2940	1622	3074	7636
C.V.	13.5%	13.2%	13.9%	10.7%
L.S.D.	N.S.	304	N.S.	N.S.

Summary Standard Alfalfa

1972 seeding, 1973 yields

1. Mean yields of all varieties by locations

Ridgetown	9528
Guelph	6987
Ottawa	7366
New Liskeard	6435
Kapuskasing	6202
Thunderbay	5939

2. Mean yields of varieties over all locations (6 Station-years)

Algonquin	7255
EA21	7091
Klondike	7362
N7-5	7001
Iroquois	7580
Vernal	6895
Weevilcheck	7057
WL215	7024
Titan	6624
WL202	6894
WL210	6942

Test of Alfalfa cultivars for Resistance to Bacterial Wilt

Ottawa 1973

The test included 39 entries, many of which will probably be proposed for testing in the provincial yield trials. Infection was very severe, and mean ratings are somewhat higher than in past years.

BBWW1	1.72	EA91	2.40
BW13	1.79	Kodiac	2.44
Maris Phoenix	2.00	Vista	2.47
Angus	2.02	530	2.47
Nuggett	2.04	Americana	2.49
Gladiator	2.06	Superstan	<u>2.52</u>
RP-103	2.13	Saranac	2.57
K1-11	2.17	P-18	2.71
Valor	2.17	Bonus	2.95
WL311	2.18	Sabilt	3.18
Aztec	2.20	Kisvardai	3.31
Algonquin	2.23	Maris Kabul	3.33
Tempo	2.23	9-IV	3.44
Klondike	2.24	5-IV	3.63
K3-8	2.27	Gemini	3.68
BW12	2.31	Everest	3.78
WL215	2.32	Synalfa	4.04
Pacer	2.32	Orca	4.06
EA21	2.34		
M7-5	2.35	C.V. = 5.77%	
Vernal	2.39	L.S.D. = .48	

As indicated in past years, the absolute values of ratings cannot necessarily be compared from one year to the next as the severity of infection may vary. This test, as previous ones identifies some very susceptible strains (the last nine or ten) some intermediates and some resistant ones. As usual, varieties which were entered in this trial for the first time will be tested again next year. The only exceptions to this are highly susceptible varieties.

1973 Provincial Red Clover Trials

1972 seeding, 1973 yields

Guelph (2542, 2543)

Early varieties:	Cut 1	Cut 2	Total
Date Cut	June 21	Aug. 8	
Ottawa	2742	2450	5192
Hungaropoli	3102	1891	4993
N7-130	2904	2158	5062
N7-131	2711	2251	4962
Ottawa 4n	2730	2251	4981
C.V.	10.99%	13.82%	10.01%
L.S.D.	N.S.	N.S.	N.S.

Late varieties

Date cut	July 13
Altaswede	4717
Rea	4325
Bora	4366
Krano	4397
Brilta	4181
Tripo	4211
Hera	4215
C.V.	14.5%
L.S.D.	N.S.

Ottawa

Early varieties:

Ottawa	2809	3233	6042
Hungaropoli	3051	2856	5907
N7-130	2915	2377	5292
N7-131	3372	2488	5860
Ottawa 4n	2522	2731	5253

Late varieties:

Altaswede	2630	2063	4693
Rea	3059	2082	5141
Bora	3028	1892	4920
Krano	3182	1855	5037
Britta	3455	2343	5798
Tripo	2660	1776	4436
Hera	2437	2272	4709
L.S.D.	728	583	902
C.V.	15%	15%	10%

Kapuskasing (6553)

Early varieties:

	Cut 1	Cut 2	Total
Ottawa	1233	2912	4145
Hungaropoli	2208	2932	5140
N7-130	2396	2961	5357
N7-131	1833	2719	4552
Ottawa 4n	1996	3128	5124

Late varieties:

Altaswede	3283	2227	5510
Rea	2356	2611	4967
Bora	3353	3178	6531
Krano	2971	3091	6062
Britta	2947	2616	5563
Tripo	2844	2326	5170
Hera	2387	2653	5040
C.V.	15.18%	14.31%	10.65%
L.S.D.	541	571	805

Thunder Bay (7063)

Early varieties:

Ottawa	2748	681	3429
Hungaropoli	4203	978	5181
N7-130	3710	678	4388
N7-131	3453	784	4237
Ottawa 4n	3624	848	4472

Late varieties:

Altaswede	4773	324	5097
Rea	4352	250	4602
Bora	4442	183	4625
Krano	4380	244	4624
Britta	4116	271	4387
Tripo	5376	255	5631
Hera	4895	299	5194
C.V.	13.47%	24.39%	12.96%
L.S.D.	807	169	867

New Liskeard (9001) (1 cut only)

Early varieties:

Ottawa	4049
Hungaropoli	4256
N7-130	3741
N7-131	3277
Ottawa 4n	3976

Late varieties:

Altaswede	3956
Rea	3421
Bora	3574
Krano	3918
Britta	4202
Tripo	4065
Hera	3989
C.V.	15.71%
L.S.D.	N.S.

Bromegrass

Hay yields from 1972 seedings of the Provincial Bromegrass Test were reported from 6 locations. Low C.V.'s were calculated for all tests and significant differences between entries at 5 locations. On the average yield differences were small, with only 500 lb/a spread between the 5 higher yielding entries. Saratoga was again the higher yielder.

A single test was reported with yields in 1973 from 1971 seeding. Larger differences in yield were found between Saratoga and other entries.

For 1973 seeding, 5 locations received seed of 11 entries including: Baylor, Saratoga, Redpatch, Carlton, S7380, Ott. Syn D-9, Ott. Syn D-1, S 7306-2, Beacon, Barton and New Magna.

The selection Ott. Syn D-9 yielded 1180 lb. (475 lb/a) of Breeder seed at Ottawa.

No changes have been suggested for the recommendations in Publication 296.

F.S. Warren,
Coordinator.

29.10.73

Expt. 1028

Provincial Bromegrass Test

Ridgetown, Ontario

1973 Hay yields from 1972 seeding

Variety or strain	Yield DM lb/a		
	Cut 1	Cut 2	Total
Baylor	4448	2794	7242
Saratoga	5680	3232	8911
Redpatch	5722	3247	8969
Brandon 988	5210	2906	8116
S 7380	5834	2704	8538
S 7695	5232	3131	8363
D-9	5809	3035	8844
D-2	6086	2872	8958
mean	5503	2990	8493
L.S.D. (5%)	575.0	293.4	649.2
C.V. (%)	7.10	6.67	5.19

Expt. 8202

Provincial Bromegrass Test

New Liskeard, Ontario

1973 Hay yields from 1972 seeding

Variety or strain	Yield DM lb/a		
	Cut 1	Cut 2	Total
Baylor	4967	2890	7857
Saratoga	5928	3024	8952
Redpatch	5242	3281	8523
Brandon 988	4527	3160	7687
S 7380	4943	3305	8248
S 7695	5588	3387	8975
D-9	4607	3170	7777
D-2	5182	3359	8541
mean	5123	3197	8320
L.S.D. (5%)	N.S.	N.S.	941.3
C.V. (%)	13.03	7.18	7.69

Expt. 2718

Provincial Bromegrass Test

Guelph, Ontario

1973 Hay yields from 1972 seeding

Variety or strain	Yield DM lb/a		
	Cut 1	Cut 2	Total
Baylor	5641	1591	7232
Saratoga	6638	1801	8440
Redpatch	5989	1608	7598
Brandon 988	5925	1349	7274
S 7380	6368	1133	7501
S 7695	6334	1519	7853
D-9	6104	1515	7618
D-2	5655	1330	6985
mean	6082	1481	7563
L.S.D. (5%)	N.S.	249.6	763.7
C.V. (%)	7.73	11.45	6.86

Expt. 4027

Provincial Bromegrass Test

Ottawa, Ontario

1973 Hay Yields from 1972 seeding

Variety or strain	Yield DM lb/a		
	Cut 1	Cut 2	Total
Baylor	4810	1162	5972
Saratoga	5268	1354	6622
Redpatch	5206	1677	6884
Brandon 988	5116	1643	6760
S 7380	5288	1188	6477
S 7695	5494	1341	6835
D-9	5083	1169	6252
D-2	5458	1323	6782
mean	5216	1357	6573
L.S.D. (5%)	N.S.	N.S.	N.S.
C.V. (%)	8.69	26.06	8.36

Expt. 6004

Provincial Bromegrass Test

Kapuskasing, Ontario

1973 Hay yields from 1972 seeding

Variety or strain	Yield DM lb/a		
	Cut 1	Cut 2	Total
Baylor	3648	3104	6752
Saratoga	3351	2608	5958
Redpatch	3168	2511	5679
Brandon 988	2269	2443	4712
S 7380	4321	2636	6957
S 7695	3251	2747	5998
D-9	2993	2527	5519
D-2	1637	2545	4183
mean	3080	2640	5720
L.S.D. (5%)	681.2	N.S.	824.7
C.V. (%)	15.03	13.96	9.80

Expt 7058

Provincial Bromegrass Test

Thunder Bay, Ontario

1973 Hay yields from 1972 seeding

Variety or strain	Yield D.M. lb/a		
	Cut 1	Cut 2	Total
Baylor	3921	2426	6346
Saratoga	3954	2722	6676
Redpatch	3640	2450	6090
Brandon 988	3482	2153	5635
S 7380	4138	2101	6239
S 7695	3779	2261	6040
D-9	4412	2454	6866
D-2	3858	1785	5643
mean	3898	2294	6192
L.S.D. (5%)	N.S.	300.9	817.8
C.V. (%)	13.09	8.91	8.97

Provincial Bromegrass Tests

F 5

Six Locations Summary

1973 Hay yields from 1972 seedings

Total yield D.M. lb/a 2 cuts

Variety or strain Expt. No.	Ridgetown 1028	Guelph 2718	Ottawa 4027	Kapuskasing 6004	Thunder Bay 7058	New Liskeard 8202	Mean
Baylor	7242	7232	5972	6752	6346	7857	6900
Saratoga	8911	8440	6622	5958	6676	8952	7593
Redpatch	8969	7598	6884	5679	6090	8523	7291
Brandon 988	8116	7274	6760	4712	5635	7687	6697
S 7380	8538	7501	6477	6957	6239	8248	7327
S 7695	8363	7853	6835	5998	6040	8975	7344
D-9	8844	7618	6252	5519	6866	7777	7146
D-2	8958	6985	6782	4183	5643	8541	6849
mean	8493	7563	6573	5720	6192	8320	7144
L.S.D. (5%)	649.2	763.7	N.S.	824.7	817.8	941.3	313
C.V. (%)	5.19	6.86	8.36	9.80	8.97	7.69	7.6

Expt. 2709

Brome grass Test

Guelph, Ontario

1973 Hay yields from 1971 seeding

Variety or
strain

Yield DM lb/a

	Cut 1	Cut 2	Total
Polar	6727	2517	9245
G 3333	8256	2547	10803
Saratoga	8482	2790	11273
Baylor	8126	1811	9937
Camp BPX No. 3	7249	2656	9905
mean	7768	2464	10232
L.S.D. (5%)	842.1	N.S.	1103.7
C.V. (%)	9.0	19.3	8.95

Exp. 2718 Bromegrass. Seeded 1972

<u>Variety</u>	<u>I.V.D. - Cut 1, 1973</u>
Baylor	68.9
Saratoga	68.9
Redpatch	64.8
D-9	66.1
S7380	65.4
S7695	65.0
D-2	64.9
Brandon 988	63.9
Mean	66.0
C.V. (%)	2.1
L.S.D. (5%)	2.1

Ontario Provincial Orchard Grass Test 1973

<u>Code</u>	<u>Variety</u>	<u>Origin</u>
003	Kay	Ottawa
004	Frode	
006	Rideau	Ottawa
014	Tardus 11	Sweden
016	Nordstern	Northrup King
027	Hallmark	U.C.O.
029	Kall	
041	Dart—	Oseco
022	Majestic	Maple Leaf Mills
001	Juno	Ottawa
036	K8-120	Northrup King
037	K8-123	Northrup King
038	K8-117	Northrup King
039	K8-118	Northrup King
042	366-4-47/72	Oseco
024	Ina	Guelph
043	Kitamidori	Japan

Locations: Ottawa
Guelph
Thunder Bay

Plot size - 5' x 20'

Reps - 4

Rate of seeding / acre 10 lbs. / acre

Rate / Plot 10.5 grams

Please use above code when reporting data

ORCHARDGRASS
1973

Currently in 296 we have Tardus II and Frode in the early group, and Kay and Rideau in the later group.

We have five strains that were recommended for licensing by this group, only one of which has reported sufficient seed for us to consider for the recommended list. This list of licensed varieties is as follows:

Recommended for Licensing

Majestic (Late)	1970
Nordstern "	1971
Hallmark (E)*	1971
Ina "	1971
Juno "	1972 - seed increase under way.

*U.C.O. reports a minimum of 15,000 lbs of seed available for the spring of 1974. Data re forage yields is presented to support recommendation of the variety Hallmark at this meeting.

The early strains Napier, Kall, and the four K8 strains from Northrup-King look very promising.

This is the first time for a number of years that we have Frode and Tardus II in comparisons with the new round of strains.

The data in Tables I, II and III support the recommendation of Hallmark for listing in 296.

W.R. Childers
Orchardgrass Coordinator

ONTARIO

TABLE 1.

1973 Summary for decision re Hallmark (Early Group)

Seeded 1972 - 15 Sta. Years

Variety	Ridgetown	Guelph	Ottawa	New Liskeard	Kapuskasing	Thunder Bay	6 Station Mean
Hallmark	8037	7158	7988	8154	4939	5598	6979
Frode	6750	6878	7181	7578	5484	5725	6599
Tardus II	8119	5827	7702	7083	5217	5137	6514

TABLE 2.

1972 Summary - Seeded in 1970

							3 Station Mean
Hallmark				8017	5223	6968	6736
Juno				7795	4975	6292	6354
Ino				7890	5569	6381	6613

TABLE 3.

1971 Summary - Seeded in 1970

							6 Station Mean
Hallmark	5490	10219	7173	5201	7390	6322	6966
Juno	5147	10204	6623	5419	8018	5859	6878
Ina	5406	9929	6044	5252	7133	5728	6582



UNITED CO-OPERATIVES OF ONTARIO

151 CITY CENTRE DRIVE, P.O. BOX 527, MISSISSAUGA, ONTARIO, CANADA, L5A 3A4
PHONE: (416) 270-3560. CABLE: FARMCO, TORONTO

July 17, 1973.

Dr. W.R. Childers,
Head Forage Crop Section,
Research Branch,
Ottawa Research Station,
Agriculture Canada,
Ottawa, Ontario.
K1A 0C6

Dear Walt:

With regard to Hallmark Orchardgrass, the seed supply that we will have available for sale this coming year will be a minimum of 15,000 lbs. As a matter of interest this figure is approximately equal to our sales of Frode Orchardgrass.

Sincerely,

A handwritten signature in dark ink, appearing to read 'Don Cotton', with a stylized flourish at the end.

Don Cotton,
Agronomist,
Crop Products Department.

/sg

Expt. 1023

Provincial Orchard Grass Test 1973

No. 2

Ridgetown, Ontario

Yield from 1971 seeding

dry matter lbs/acre

Variety	1972	1973		Total
	Cut 1	Cut 1	Cut 2	
Juno	4921ab	5131a	2779ab	7910a
Kay	4763b	4390cd	2324d	6714d
Prode	4918ab	4894abc	2846ab	7740ab
Rideau	4567bc	4650abcd	2615bc	7265bcd
Napier	5348a	4948ab	2942a	7890a
Kall	4899ab	5168a	2630bc	7798ab
Unke	4664bc	4675abcd	2863ab	7538abc
Mullus	4433bc	4581bcd	2488cd	7069cd
Elite 99	4525bc	4381cd	2597bcd	6978d
Lemba	4211c	4567bcd	2483cd	7050cd
Holstenkamp	4512bc	4239d	2607bc	6846d
K8-120	4720bc	4719abcd	2472cd	7191cd
K8-123	4884ab	4718abcd	2338d	7056cd
C.V.	8.45	8.49	7.83	5.75
L.S.D.	460.86	460.73	236.43	485.67

Thunder Bay

Yield from 1971 seeding

dry matter lbs/acre

Variety	1972			1973			2 Year Mean
	Cut 1	Cut 2	Total	Cut 1	Cut 2	Total	
Juno	3890abc	1193	5084	3679bc	1135d	4814bc	4949
Kay	3993ab	1331	5324	4413a	1173bcd	5586a	5455
Frode	3741bc	1448	5190	3681bc	1417abcd	5098ab	5144
Rideau	3713bc	1450	5164	4031ab	1281bcd	5312ab	5238
Napier	3689bc	1593	5278	3707bc	1689a	5396ab	5337
Kall	3909abc	1480	5389	3520cd	1269bcd	4789bc	5589
Unke	3305bc	1336	4641	2770ef	1479abcd	4249c	4445
Mullus	3504bc	1405	4909	2819ef	1518abc	4337c	4623
Elite 99	3502bc	1360	4863	2685f	1535ab	4220c	4542
Lemba	4483a	1343	5827	3121dc	1301bcd	4422c	5125
Holstenkamp	4110a	1649	5760	4429a	1295bcd	5724a	5742
K8-120	3692bc	1322	5015	4111ab	1157cd	5268ab	5142
K8-123	3915abc	1428	5344	4347a	1156cd	5503a	5424
C.V.	13.17	24.28	13.54	9.26	20.32	9.40	
L.S.D.	587.65	N.S.	N.S.	389.40	314.17	540.76	

Provincial Orchard Grass

No. 4

Summary of 1971 Seeding

		Ridgetown 1973	Thunder Bay 1973	2 Station Mean
Juno	E	7910	4814	6362
Kay	L	6714	5586	6150
Frode	E	7740	5098	6419
Rideau	L	7265	5312	6289
Napier	E	7890	5396	6643
Kall	E	7798	4789	6344
Unke	E	7538	4249	5894
Mullus	E	7069	4337	5703
Elite 99	E	6978	4220	5599
Lemba	E	7050	4422	5736
Holstenkamp	L	6846	5724	6285
K8-120	E	7191	5268	6230
K8-123	E	7056	5503	6280

RIDGETOWN, ONT.

ONTARIO ORCHARD GRASS TEST 1973

Hay yields from 1972 seeding

Yield in dry matter lbs/acre

Variety	Cut 1		Cut 2		Total	
Kay	4543	cd	2156	cdef	6699	fg
Frode	4415	d	2335	bcde	<u>6750</u>	fg
Rideau	5339	abc	2371	bcde	7710	abcde
Napier	5195	abcd	2681	ab	7877	abc
Tardus	5635	a	2484	abc	8119	a
Nordstern	5482	ab	1999	ef	7480	abcdef
Hallmark	5251	abcd	2785	a	8037	ab
Kall	5336	abc	2462	abc	7799	abc
Flaxmere	4974	abcd	2386	bcd	7360	abcdef
K8-120	4798	abcd	2059	def	6857	defg
K8-123	4446	cd	1935	f	6380	g
K8-117	5684	a	2057	def	7741	abcd
K8-118	4629	bcd	2210	cdef	6839	efg
Ferdia	4671	bcd	2169	cdef	6841	efg
Unke	4865	abcd	2259	cdef	7125	cdefg
Mullus	5055	abcd	2401	bcd	7456	abcdef
Elite 99	4931	abcd	2259	cdef	7190	bcdefg
Lemba	<u>4799</u>	abcd	<u>2253</u>	cdef	<u>7052</u>	cdefg
L.S.D.	754.84		316.12		766.73	
C.V.	10.58		9.67		7.37	

GUELPH, ONT.

ONTARIO ORCHARD GRASS TEST 1973

Hay yields from 1972 seeding

Yield in dry matter lbs/acre

Variety	Cut 1	Cut 2	Total
Kay	4604 bcd	2078 cd	6682 ab
Frode	4665 bcd	2213 bc	6878 ab
Rideau	4451 bcde	2198 bc	6649 abc
Napier	4065 def	2501 ab	6566 abcd
Tardus	3929 ef	1898 cde	5827 cd
Nordstern	4977 ab	1473 f	6450 bcd
Hallmark	4529 bcde	2629 a	7158 ab
Kall	4253 cde	2168 bcd	6421 bcd
Flaxmere	4013 def	2209 bc	6722 cd
K8-120	5389 a	1937 cde	7326 a
K8-123	4813 abc	1988 cde	6801 ab
K8-117	5403 a	1687 ef	7090 ab
K8-118	5323 a	1842 de	7165 ab
Ferdia	3594 f	2183 bc	5777 d
C.V.	8.85	10.17	7.60
L.S.D.	578.29	301.09	722.04

ONTARIO ORCHARDGRASS TEST 1973

Hay yields from 1972 seeding

Yield in dry matter lbs/acre

Variety	Cut 1	Cut 2	Total
Kay	4312	1718 c	6030
Frode	4755	2426 ab	7181
Rideau	4647	1980 abc	6628
Napier	5358	2568 a	7926
Tardus II	5494	2207 abc	7702
Nordstern	4682	2321 ab	7003
Hallmark	5546	2442 ab	7988
Kall	5797	2243 abc	8040
Flaxmere	5210	1889 bc	7098
K8-120	5879	1859 bc	7738
K8-123	6229	2279 abc	8508
K8-117	5752	2261 abc	8013
K8-118	4687	2016 abc	6703
Ferdia	5065	1910 bc	6974
Unke	5555	2398 ab	7952
Mullus	5744	2259 abc	8002
Elite	4449	2330 ab	6779
Lemba	4764	2126 abc	6890
L.S.D.	N.S.	489.19	N.S.
C.V.	17.54	15.79	14.9

NEW LISKEARD, ONT.

ONTARIO ORCHARDGRASS TEST 1973

Hay yields from 1972 seeding

Yield in dry matter lbs/acre

Variety	Cut 1	Cut 2	Total
Kay	5323 ab	3218	8542 ab
Frode	4111 cd	3467	<u>7578</u> bc
Rideau	4188 cd	3358	7546 bc
Napier	4689 bcd	3051	7740 bc
Tardus II	3848 d	3234	7083 c
Nordstern	4498 bcd	3167	7665 bc
Hallmark	4762 abcd	3392	8154 abc
Kall	4710 bcd	3106	7816 bc
Flaxmere	4339 cd	3341	7680 bc
K8-120	5615 a	3659	9274 a
K8-123	5019 abc	3145	8163 abc
K8-117	4683 bcd	3507	8189 abc
K8-118	4615 bcd	3594	8209 abc
Ferdia	4095 cd	3506	7601 bc
Unke	4009 d	3140	7149 c
Mullus	4107 cd	3014	7121 c
Elite 99	3-95 d	2941	6936 c
Lemba	4487 bcd	3227	<u>7715</u> bc
L.S.D.	784.06		1090.00
C.V.	12.21		9.82

ONTARIO ORCHARDGRASS TEST 1973

Hay yields from 1972 seeding

Yield in dry matter lbs/acre

Variety	Cut 1	Cut 2	Total
Kay	2765 abc	3125	5890
Frode	2127 abcde	3356	<u>5484</u>
Rideau	2319 abcde	3255	5574
Napier	1619 bcde	3313	4932
Tardus II	1736 bcde	3481	5217
Nordstern	1015 e	2808	3823
Hallmark	1671 bcde	3268	4939
Kall	2560 abcd	3294	5854
Flaxmere	1254 de	3654	4907
K8-120	3070 ab	3432	6502
K8-123	2166 abcde	3647	5813
K8-117	2254 abcde	3453	5707
K8-118	3344 a	3370	6715
Ferdia	1813 bcde	3341	5154
Unke	1756 bcde	3138	4894
Mullus	1803 bcde	3243	5046
Elite 99	1548 cde	3208	4756
Lemba	1868 bcde	3340	<u>5208</u>
L.S.D.	1236.82	N.S.	N.S.
C.V.	42.58	17.77	23.41

THUNDER BAY, ONT.

ONTARIO ORCHARDGRASS TEST 1973

Hay yields from 1972 seeding

Yield in dry matter lbs/acre

Variety	Cut 1	Cut 2	Total
Kay	4886 a	1441	6327 ab
Frode	3786 bcde	1939	<u>5725</u> abc
Rideau	3771 bcde	1670	5442 abcd
Napier	3565 cdef	1963	5528 abcd
Tardus II	3044 efgh	2093	5137 cd
Nordstern	4272 abcd	2068	6339 ab
Hallmark	3454 defg	2144	5598 abc
Kall	3631 bcde	1660	5291 bcd
Flaxmere	2457 fgh	2066	4523 de
K8-120	4223 abcd	1906	6129 ab
K8-123	4574 abc	1908	6482 a
K8-117	4661 ab	1633	6294 ab
K8-118	4554 abc	1581	6135 ab
Ferdia	2083 h	1569	3652 e
Unke	3631 bcde	1947	5578 abc
Mullus	2575 fgh	1939	4514 de
Elite 99	3123 efg	1837	4960 cd
Lemba	3704 bcde	1933	<u>5637</u> abc
L.S.D.	913.67	N.S.	898.44
C.V.	17.49	16.49	11.43

ONTARIO
SUMMARY OF ORCHARD GRASS TEST
1973

Variety	Ridgetown	Guelph	Ottawa	New Liskeard	Kapuskasing	Thunder Bay	6 Station Mean	
Kay	6699	6682	6030	8542	5890	6327	6695	L
Frode	6750	6878	7181	7578	5484	5725	<u>6599</u>	E
Rideau	7710	6649	6628	7546	5574	5442	6592	L
Napier	7877	6566	7926	7740	4932	5528	6761	E
Tardus	8119	5827	7702	7083	5217	5137	6514	E
Nordstern	7480	6450	7003	7665	3822	6339	6460	L
Hallmark	8037	7158	7988	8154	4939	5598	6979	E
Kall	7799	6421	8040	7816	5854	5291	6870	E
Flxmere	7360	6722	7098	7680	4907	4523	6298	E
K8-120	6857	7326	7738	9274	6502	6129	7304	E
K8-123	6380	6801	8508	8163	5813	6482	7024	E
K8-117	7741	7090	8013	8189	5707	6294	7172	E
K8-118	6839	7165	6703	8209	6715	6135	6961	E
Ferdia	6841	5777	6974	7601	5154	3652	6000	
*Unke	7125		7952	7149	4894	5578	6540	E
*Mullus	7456		8002	7121	5046	4514	6428	E
*Elite 99	7190		6779	6936	4756	4960	6124	E
*Lemba	<u>7052</u>		6890	7715	5208	5637	6500	E

*5 Station mean

Orchardgrass. Guelph

<u>Variety</u>	<u>I.V.D. - 1st Cut,</u>	
	<u>Exp. 2704 - 1972</u>	<u>Exp. 2720 - 1973</u>
Frode	67.1	71.6
Kay	63.6	76.1
Rideau	62.5	76.0
Tardus II	-	76.7
Kall	-	79.0
Hallmark	-	78.2
Napier	68.4	77.2
Flaxmere	-	74.9
K8-123	68.4	76.9
Ferdia	-	74.7
K8-118	-	74.5
K8-117	-	72.4
Nordstern	-	72.3
K8-120	66.8	70.8
Mean	66.7	75.1
C.V. (%)	2.7	3.2
L.S.D. (5%)	2.1	3.5

Timothy Variety Trials

Five varieties of timothy are recommended in 1973 - Champ, Climax, Itasca, Milton and Toro. In the yield summaries (Tables 1 and 2), all varieties were equal to Climax in yield, except Toro was significantly below Climax in the first cut (Table 2), but was equal to Climax in the season's total. Toro and Champ are the two earliest maturing varieties under test, and both produced significantly more aftermath than Climax.

Of the varieties in the current tests, 3 were considered unworthy of recommendation at last year's meeting. These 3 are: Musiline, Oakmere and Vanadis. Data obtained in 1973 confirm this decision as all three yielded significantly less than Climax.

Three varieties, first seeded in 1971, must be considered for possible recommendation. These three are: S3-9 (Ottawa #9), N-7-125, and Vallo.

S3-9 (Ottawa #9). In the 1971 and 1972 tests this variety has an average yield equal to Climax. We now have 15 Test-Years data on this variety. In the first cut it yielded less than Climax in 4 test-years, and the same as Climax in 11. For seasonal production, it yielded more than Climax in 2, less in 1, and the same in 12. At Guelph, the variety has headed 1-2 days earlier than Champ and 8-9 days earlier than Climax. This variety appears worthy of recommendation.

Vallo: This variety was not included in the 1972 tests, as no seed was received. The variety has been consistently equal to Climax, but more data is necessary for a final decision.

N-7-125

The average yield of this variety is the same as Climax. For first cut, it has yielded more than Climax in one test-year, and the same as Climax in 14 test-years. At Guelph, it has headed 1-2 days earlier than Climax. N-7-125 appears worthy of recommendation.

Of the varieties first seeded in 1972, only Timfor (N-7-128) yielded more than Climax.

B.R. Christie
Coordinator

November, 1973

Table 1

Timothy Varieties, Seeded in 1971, Ontario

Yield (lbs. D.M./acre)

<u>Variety</u>	<u>1972¹⁾</u>		<u>1973²⁾</u>		<u>1972-73</u>	
	<u>Cut 1</u>	<u>Total</u>	<u>Cut 1</u>	<u>Total</u>	<u>Cut 1</u>	<u>Total</u>
Climax	5240	7720	6040	7560	5640	7640
Champ	5030	8150	5890	7850	5460	8000
Milton	5200	8060	6020	7640	5610	7850
Vanadis	4750	7170	5540	7080	5150	7120
Melusine	4120	6230	5440	6930	4780	6580
S3-9	5020	8150	5780	7760	5400	7950
Vallo	5160	7850	5910	7510	5530	7680
N-7-125	5340	8380	6140	7750	5740	8060
Mean	4980	7710	5850	7510	5410	7610
C.V. (%)	13.3	10.5	8.2	7.6	10.4	9.8
L.S.D. (5%)	410	660	280	330	350	430

1) In 1972, data for Cut 1 obtained from Pidgetown, Guelph, Kemotville, Ottawa and Thunder Bay. Total yield is based on two cuts at Guelph, Kemotville and Thunder Bay.

2) In 1973, data were obtained from Pidgetown, Guelph, Ottawa and Thunder Bay.

Comments: Averaged across locations, no variety significantly outyielded the check variety Climax.

The varieties Vanadis and Melusine yielded significantly less than Climax. All other varieties are considered to be equal to Climax in yielding ability.

These tests will be terminated this fall (1973).

Table 2

Timothy Varieties, Seeded 1972, OntarioYield (lbs. D.M./acre)-1973¹⁾

<u>Variety</u>	<u>Cut 1</u>	<u>Total</u>
Climax	5500	7890
Champ	5210	8070
Itasca	5670	8170
Milton	5510	8070
Toro	5140	8080
Vanadis	4910	7130
N-7-125	5440	7990
Ottawa #9 (S3-9)	5200	8100
Barmere	4510	6043
Glasnevin	4740	6750
Heilbrink	5100	7720
N-7-126	5480	7920
Oakmere	4440	6060
T-49	5070	7160
T-93	5440	7640
Timfor (N-7-128)	5550	8350
Mean	5230	7670
C.V. (%)	12.3	9.8
L.S.D.	340	400

1) Data obtained from Ridgertown, Guelph, Kemptville, Ottawa, Kapuskasing, Thunder Bay and New Liskeard.

Comments: The first five varieties are currently recommended in Ontario. In these tests tests, Toro yielded significantly less than Climax in the first cut. However, in previous tests this variety has been equal or superior to Climax.

The variety Timfor yielded significantly more forage than Climax over the season.

The following varieties yielded significantly less forage than Climax: Barmere, Vanadis, Glasnevin, Oakmere and T-49.

The variety Heilbrink yielded significantly less than Climax in the first cut only.

Table 3 Exp. 4104: Ottawa, Seeded 1970

<u>Variety</u>	<u>Cut 1</u>	<u>Yield - 1973</u>		<u>1971-73 Cut 1</u>
		<u>Cut II</u>	<u>Total</u>	
Climax	5360	1440	6800	4780
Kampe II	4960	1430	6390	4473
Toro	5120	1520	6640	4373
Oakmere	5060	1140	6200	4230
Itasca	4980	1530	6510	4520
Barenza	5090	1290	6380	4390
Melusine	5330	1480	6810	4480
Vanadis	5130	1410	6540	4560
Bounty	5330	1480	6810	4810
Mean	5150	1410	6560	
C.V. (%)	8.0	14.2	7.1	
L.S.D.	N.S.	240	N.S.	

Table 4 Exp. 1024: Ridgetown - Seeded 1971

<u>Variety</u>	<u>Yield 1973</u>			<u>Yield (1972-73) Cut 1</u>
	<u>Cut 1</u>	<u>Cut 2</u>	<u>Total</u>	
Climax	5670	1430	7100	5630
Champ	5020	1790	6810	5070
S3-9	5700	1660	7360	5360
Vanadis	5390	1640	7033	5240
Melusine	5620	1080	6700	5230
Vallo	5780	1480	7260	5660
N7-125	5770	1220	6990	5580
Milton	5570	1440	7010	5550
Mean	5560	1470	7030	5410
C.V.	8.0	13.1	7.6	
L.S.D.	N.S.	230	N.S.	

Table 5 Exp. 2705: Guelph - Seeded 1971

<u>Variety</u>	<u>Yield - 1973</u>			<u>Total Seasonal Yield</u>	
	<u>Cut 1</u>	<u>Cut 2</u>	<u>Total</u>	<u>1972</u>	<u>1972-73</u>
Climax	7410	1530	8940	9100	9020
Milton	7400	1720	9120	9330	9230
Champ	7540	2000	9540	9070	9310
S3-9	6620	1980	8600	8640	8620
Vanadis	6940	1420	8360	8280	8320
Melusine	5650	1480	7130	6880	7000
Vallo	7250	1230	8480	8820	8640
N7-125	7530	1570	9100	9280	9190
T-10	7130	1520	8650	8590	8620
Mean	7050	1600	8650	8670	8660
C.V. (%)	8.0	9.4	6.6	9.0	
L.S.D. (5%)	660	180	670	900	

Other data - 1973

<u>Variety</u>	<u>Spring Vigour¹⁾</u> (May 24)	<u>Date Headed</u>
S3-9	3.0	June 21
Champ	5.0	June 23
Vanadis	4.0	June 27
N7-125	5.0	June 28
Climax	5.0	June 29
Milton	4.0	June 29
Musiline	3.5	June 29
T-10	5.0	June 29
Vallo	5.0	July 2

1) Rating: 1 (good) to 9 (poor)

Table 6 Exp. 4110 Ottawa, Seeded 1971

<u>Variety</u>	<u>Yield 1973</u>			<u>Yield</u> <u>1972-73</u>
	<u>Cut 1</u>	<u>Cut II</u>	<u>Total</u>	<u>Cut 1</u>
Climax	5350	1650	7000	4980
Champ	5450	2010	7460	5020
S3-9	5740	1880	7620	5340
Vanadis	5210	1480	6690	5360
Melusine	5790	1660	7450	5330
Vallo	5480	2090	7570	4820
N7-125	5740	1990	7730	5040
Milton	5580	1790	7370	5140
59-67	5800	1760	7560	4970
Mean	5570	1810	7380	4930
C.V.	8.6	24.5	8.7	
L.S.D.	N.S.	N.S.	N.S.	

Table 7 Exp. 7050: Thunder Bay Seeded 1971

<u>Variety</u>	<u>Yield 1973</u>			<u>Yield 72-73</u>
	<u>Cut I</u>	<u>Cut II</u>	<u>Total</u>	<u>Total</u>
Climax	5740	1480	7220	5980
Champ	5540	2060	7600	6660
S3-9	5060	2390	7450	6320
Vanadis	4620	1620	6240	5540
Melusine	4690	1760	6450	5540
Vallo	5130	1640	6770	5870
N-7-125	5540	1650	7190	6360
Milton	5530	1520	7050	5960
Mean	5230	1760	6990	6030
C.V.	8.8	19.9	7.6	
L.S.D.	540	410	630	

Table 8 Exp: 1029 Ridgetown Seeded 1972

Variety	Yield - 1973		
	Cut I	Cut II	Total
Climax	6030	1500	7530
Milton	5830	1780	7610
Champ	5410	2380	7790
Itasca	6300	1660	7960
Toro	5890	2510	8400
Vanadis	5120	1220	6340
Oakmere	4380	810	5190
N7-125	5770	1700	7470
N7-126	5650	1600	7250
Timfor	5610	1660	7270
Heilbrink	5270	1900	7170
Glasnevin	4760	1220	5980
T 93	5570	1090	6660
T 49	5300	1290	6590
Ottawa #9	5670	2160	7830
Barmere	4770	1430	6200
Mean	5460	1620	7080
C.V.	8.4	15.0	8.7
L.S.D.	650	350	880

Table 9 Exp: 2719 Guelph Seeded 1972

Variety	Yield - 1973		
	Cut I	Cut II	Total
Climax	6480	1630	8110
Milton	6240	1880	8120
Champ	6280	2360	8640
Ottawa #9	6810	1880	8690
Itasca	5120	2330	7450
Toro	6690	1600	8290
Vanadis	4460	1150	5610
Oakmere	6340	1960	8300
N7-125	6720	1730	8450
N7-126	6840	2290	9130
Timfor	6250	2220	8470
Heilbrink	5470	1320	6790
Glasnevin	6960	1380	8340
T-93	5950	1210	7160
T-49	6320	2360	8680
Mean	6200	1820	8020
C.V. (%)	8.7	11.8	6.6
L.S.D. (5%)	770	310	760

Other Data - 1973

<u>Variety</u>	<u>Date Headed</u>
Toro	June 18
Ottawa #9	June 21
Barmere	June 22
Heilbrink	June 22
Champ	June 22
Itasca	June 24
Vanadis	June 27
N7-125	June 28
Timfor	June 28
Climax	June 30
Milton	June 30
T-49	June 30
T-30	June 30
N7-126	July 2
Glasnevin	July 4
Oakmere	July 7

Table 10 Exp: 3721 Kemptville Seeded 1972

<u>Variety</u>	<u>Yield 1973</u>		
	<u>Cut I</u>	<u>Cut II</u>	<u>Total</u>
Climax	4940	3480	8420
Milton	4980	3440	8420
Champ	4390	3390	7780
Itasca	4800	3480	8280
Toro	4980	4200	9180
Vanadis	4040	3410	7450
Oakmere	3390	3720	7110
N7-125	4530	3580	8120
N7-126	4610	3550	8160
Timfor	4570	3680	8260
Heilbrink	4310	3750	8060
Glasnevin	4340	3680	8020
T-93	5070	3270	8340
T-49	4470	3130	7600
Ottawa #9	4490	3770	8260
Barmere	4670	3140	7810
Mean	4540	3540	8080
C.V.	13.6	16.1	9.5
L.S.D.	N.S.	N.S.	N.S.

Table 11 Exp: 4026 Ottawa Seeded 1972

<u>Variety</u>	<u>Yield 1973</u>		
	<u>Cut I</u>	<u>Cut II</u>	<u>Total</u>
Climax	5520	1770	7290
Milton	7490	1900	9390
Champ	6790	2380	9170
Itasca	6960	1860	8820
Toro	6590	2250	8840
Vanadis	5880	1830	7710
Oakmere	5730	1250	6980
N7-125	6020	2130	8150
N7-126	6800	2100	8900
Timfor	7050	2090	9140
Heilbrink	7030	1730	8760
Glasnevin	5610	1820	7430
T-93	6320	1930	8250
T-49	6090	2000	8090
Ottawa #9	6630	2590	9220
Barmere	5020	2000	7020
Mean	6340	1980	8320
C.V.	13.9	26.6	13.3
L.S.D.	1260	N.S.	1580

Table 12 Exp: 6036 Kapuskasing Seeded 1972

<u>Variety</u>	<u>Yield - 1973</u>		
	<u>Cut I</u>	<u>Cut II</u>	<u>Total</u>
Climax	3720	2320	6040
Milton	3420	2680	6100
Champ	3250	2540	5790
Itasca	3830	2400	6230
Toro	3260	2600	5860
Vanadis	3230	2240	5470
Oakmere	3190	1170	4360
N7-125	3820	2490	6310
N7-126	3400	2550	5950
Timfor	3660	2820	6480
Heilbrink	3470	2730	6200
Glasnevin	3250	1820	5070
T-93	3480	2560	6040
T-49	3300	1880	5180
Ottawa #9	3350	2630	5980
Barmere	3330	1000	1330
Mean	3250	2280	5530
C.V.	14.1	13.6	10.9
L.S.D.	660	440	860

Table 13 Exp: 7060 Thunder Bay Seeded 1972

<u>Variety</u>	<u>Yield 1973</u>		
	<u>Cut I</u>	<u>Cut II</u>	<u>Total</u>
Climax	5760	2260	8020
Milton	5270	2700	7970
Champ	5170	3320	8490
Itasca	5858	2630	8480
Toro	4750	3060	7810
Vanadis	4590	2520	7110
Oakmere	4920	1190	6110
N7-125	5640	2700	8340
N7-126	5360	2030	7390
Timfor	5000	3110	8110
Heilbrink	4460	2980	7440
Glasnevin	4950	1570	6520
T-93	5320	2200	7520
T-49	5020	2170	7190
Ottawa #9	4610	3240	7850
Barmere	5420	2540	7960
Mean	5130	2510	7640
C.V.	8.0	13.4	6.3
L.S.D.	580	480	680

Table 14 Exp: 8404 New Liskeard Seeded 1972

<u>Variety</u>	<u>Yield 1973</u>		
	<u>Cut I</u>	<u>Cut II</u>	<u>Cut III</u>
Climax	6060	3800	9860
Milton	5330	3520	8850
Champ	5160	3720	8880
Itasca	5130	3580	8710
Toro	5410	3630	9040
Vanadis	4800	2770	7570
Oakmere	5010	2070	7080
N7-125	5980	3280	9260
N7-126	5810	3520	9330
Timfor	6150	3950	10100
Heilbrink	4880	3080	7960
Glasnevin	4770	2650	7420
T-93	5350	2970	8320
T-49	5360	2950	8310
Ottawa #9	5350	3570	8920
Barmere	3850	2090	5940
Mean	5280	3200	8480
C.V.	16.6	12.0	10.9
L.S.D.	N.S.	550	1320

Exp. 2705 Timothy. Guelph, Seeded 1971

<u>Variety</u>	<u>I.V.D. - Cut 1</u>		
	<u>1972</u>	<u>1973</u>	<u>Mean</u>
N7-125	64.9	65.4	65.2
Climax	62.2	67.3	64.8
Vanadis	63.2	65.6	64.4
Melusine	62.0	66.8	64.0
Vallo	62.2	65.6	64.4
Champ	61.3	66.0	63.6
T-10	61.9	65.2	63.6
S3-9 (Ottawa 9)	59.5	63.8	61.6
Milton	59.9	63.2	61.5
Mean	61.9	65.4	63.6
C.V. (%)	3.5	2.3	2.5
L.S.D. (5%)	2.5	1.8	2.0

Plots were cut: July 7, 1972
 July 5, 1973

None of the varieties were consistently better than Climax in I.V.D.
The varieties Milton and S3-9 were consistently lower than Climax in I.V.D.

Exp. 2719 Guelph, Seeded 1972

<u>Variety</u>	<u>I.V.D. - Cut 1</u>
Champ	67.6
Climax	66.8
Itasca	66.9
Milton	66.2
Toro	63.6
Glasnevin	70.9
Oakmere	70.7
T-93	69.2
N7-126	68.9
N7-125	68.7
T-49	68.5
Timfor	67.3
Vanadis	67.0
Heilbrenk	66.0
Barmere	63.9

Other Grasses

Reed canarygrass - Frontier and Rise reed canarygrass are the only "Other Grasses" listed in Publication 296. No requests for changes have been received.

Results for 1973 were reported for one test at Thunder Bay seeded in 1971. No new tests were sent out.

Table 1. Reed canarygrass - hay yield 1973 from 1971 seeding
Thunder Bay, Ontario

Variety or strain	Cut 1 lb/a	Cut 2 lb/a	Total lb/a
Frontier	5486	1133	6619
S6982	5005	1078	6083
Syn G	5141	1078	6220
Rise	5644	1138	6783
Grove	5139	1039	6179
Mean	5283	1094	6377
L.S.D. (5%)	N.S.	N.S.	N.S.

F.S. Warren,
Coordinator.

8.11.73