

# FORAGE CROP INVESTIGATIONS - ONTARIO

## 1971 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 is 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 1971 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 1971, no tests were conducted on the following species: birdsfoot trefoil, clovers, meadow fescue. No promising new varieties in these species were available, so no trials were established in 1970.

### Ontario Forage Crops Committee

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

### 1972 Co-ordinators

<u>Name</u>	<u>Species</u>
Dr. H. Baenziger, Forage Crops Section Ottawa Research Station Canada Agriculture, Research Central Experimental Farm Ottawa, Ontario K1A 0C6	Alfalfa, White & Red Clover
Dr. F. S. Warren, Agronomy Section Ottawa Research Station Canada Agriculture, Research Branch 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, Research Branch Central Experimental Farm Ottawa, Ontario K1A 0C6	Orchardgrass
Mr. H. E. Wright Kemptville College of Agr. Technology Kemptville, Ontario	Trefoil

Dr. B. P. Christie, Professor  
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Management Studies  
Special species - Sainfoin and  
Crown Vetch

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

# Alfalfa Seedings, 1969 - 1971

## Standard

1969	1970	1971*
Vernal	Vernal	Vernal
Iroquois	Iroquois	Iroquois
Atra 50	Atra 50	
Atra 55	Atra 55	Atra 55
De Kalb 123	De Kalb 123	
	Weevlc hek	Weevlc hek
	Dominor	
	K8-607	K8-607
	KO-6	
	WL 215	
	WL 216	WL 216
	WL 217	WL 217
		OR 16
		Kane

## Early

1969	1970	1971
Saranac	Saranac	Saranac
Du Puits		
Promor (N5-113)	Promor	
NK 150 (Thor)	Thor	
WL 306	WL 306	
RP 38 (Anchor)	Anchor	
De Kalb 153	De Kalb 153	
	WL 308	WL 308
	Superstan	Superstan
	BW 9	BW 9
	TX 202	T3X-405
	MX 82	
	Team	
	Tempo	
	BW 13	
		WL 309
		OD 17
		Z 9062
		<u>Pioneer 530</u>

\* Strains found to be low in wilt resistance were not reseeded in 1971

# Early Alfalfa

Yield in lb. D.M. per acre

<u>Ridgetown (1015)</u>	1969 seeding			1970 data
	Cut 1	Cut 2	Cut 3	Total
Saranac	4884	3289	3004	11,177
Du Puits	5105	3598	3129	11,832
Anchor (RP-38)	5079	3495	2980	11,554
WL 306	4928	3390	3150	11,468
NK 150	5043	3514	3064	11,621
Promor	5309	3480	3085	11,874
De Kalb 153	4758	3265	3013	11,036
Mean	5015	3432	3060	11,508
C.V.	7	6	4	4
L.S.D.	N.S.	N.S.	N.S.	533

<u>Ridgetown (1017)</u>	1970 seeding			1971 data
	Cut 1	Cut 2	Cut 3	Total
Saranac	4041	2727	2011	8779
Warrior	4630	2954	2242	9826
R.P. 38	4154	2960	2013	9128
WL 306	4301	2910	2840*	10,051
NK 150	4448	2742	1944	9134
Promor	4118	2878	2164	9160
De Kalb 153	3918	2714	2295	8926
WL 308	4197	2633	2495	9326
Superstan	4234	2807	2348	9388
TX 202	4198	3093	2448	9740
MX-82	3762	2990	2211	8963
BW 9	4529	2928	1751	9209
Team	4250	2263	1951	8464
Tempo	4477	2534	2233	9243
Mean	4233	2795	2210	9238
C.V.	8	7	15	7
L.S.D.	407	227	390	692

\* unexplained

# Standard Alfalfa

Yield in lb. D.M. per acre

<u>Ridgetown</u> (1016)	1969 seeding			1970 data
	Cut 1	Cut 2	Cut 3	Total
Iroquois	4590	3110	2597	10,298
Vernal	4887	3047	2295	10,229
Atra 50	5163	3362	2847	11,372
Atra 55	4755	3617	2871	11,243
De Kalb 123	4420	3238	2598	10,256
Mean	4763	3274	2641	10,679
C.V.	10	5	5	5
L.S.D.	N.S.	183	155	623

<u>Ridgetown</u> (1018)	1970 seeding			1971 data
	Cut 1	Cut 2	Cut 3	Total
Iroquois	3931	1914	1743	7588
Vernal	4392	1782	1688	7879
Atra 50	4482	1912	1748	8142
Atra 55	4420	1835	1746	8000
De Kalb 123	3863	1813	1910	7586
Weevlchek	4444	1682	1798	7924
Dominor	4044	1794	2851*	8689
K8-607	3784	1675	1647	7106
KO-6	3964	1823	1774	7561
WL-215	4183	1787	2012	7982
WL-216	4053	1686	1782	7521
WL-217	4082	1724	2692*	7807
Mean	4137	1786	1804	7726
C.V.	8	15	17	8
L.S.D.	375	315	362	739

\* unexplained

# Early Alfalfa

Yield in lb. D.M. per acre

Guelph (2531)

1969 seeding

1970-71 data

1970

1971

	Cut 1	Cut 2	Cut 3	Total	Cut 1	Cut 2	Cut 3	Total
Saranac	4022	2462	2658	9142	3989	2867	1965	8822
Du Puits	4350	2574	2798	9723	3894	2905	2116	8916
R.P. 38	3920	2518	2724	9162	3810	2848	2088	8746
WL 306	3727	2398	2324	8449	3586	2744	2040	8370
NK 150	3923	2579	2652	9153	3651	2721	1996	8368
Promor	3992	2603	2486	9080	4096	3054	2104	9253
De Kalb 153	3703	2259	2317	8278	3818	2634	1892	8344
Mean	3947	2484	2565	8998	3835	2825	2028	8688
C.V.	11	7	11	6	12	10	10	9
L.S.D.	N.S.	213	342	678	555	350	242	895

Guelph (2541)

1970 seeding

1971 data

	Cut 1	Cut 2	Cut 3	Total
Saranac	3588	2826	3207	9620
R.P. 38	3573	3103	2846	9522
WL-306	3338	2658	2684	8679
NK-150	4054	3039	3022	10,115
Promor	4053	2946	2995	9994
Dekalb 153	3656	3051	2929	9636
Warrior	4105	2983	2766	9855
WL-308	3411	2810	2774	8995
Superstan	4105	3079	2918	10,102
TX-202	3401	2951	2801	9152
MX-82	2951	2485	2859	8295
BW-9	3532	2921	2884	9337
Team	3830	2884	2706	9420
Donpo	3641	3032	2915	9588
BW-13	3328	2702	2647	8677
Mean	3638	2898	2864	9399
C.V.	17	10	7	9
L.S.D.	727	330	217	950



# Standard Alfalfa

Yield in lb. D.M. per acre

## Guelph (2532)

### 1969 seeding

### 1970-71 data

	1970				1971			
	Cut 1	Cut 2	Cut 3	Total	Cut 1	Cut 2	Cut 3	Total
Iroquois	4142	2363	2143	8648	3632	2517	1611	7814
Vernal	4478	2349	1971	8799	3449	2679	1588	8649
Weevlchek	4497	2361	2029	8887	4317	2885	1795	9077
Atra 50	4308	2402	2147	8857	3607	2672	1937	8216
Atra 55	4049	2277	2111	8437	3375	2860	2099	8334
De Kalb 123	4257	2108	2048	8413	3118	2486	1686	8172
Mean	4288	2309	2074	8673	3433	2692	1786	7911
C.V.	8	6	6	4	8	13	8	6
L.S.D.	N.S.	167	N.S.	N.S.	313	414	171	520

## Guelph (2540)

### 1970 seeding

### 1971 data

	Cut 1	Cut 2	Cut 3	Total
Iroquois	3315	2661	2206	8181
Vernal	3225	2809	1936	7969
Weevlchek	3323	3072	2371	8665
Atra 50	3413	2759	2172	8344
Atra 55	3676	2975	2301	8952
De Kalb 123	3307	2772	2130	8209
Dominor	2976	2718	2338	8032
K8-607	3002	2480	1924	7406
KO-6	3080	2733	2199	8011
WL 215	3569	2784	1957	8309
WL 216	3617	2616	2209	8441
WL 217	3251	2875	2397	8524
Mean	3309	2771	2175	8256
C.V.	12	11	11	7
L.S.D.	458	346	274	733



# Late Alfalfa

Yield in lb. D. M. per acre

<u>Guelph 2533</u>	1970				1971			
	Cut 1	Cut 2	Cut 3	Total	Cut 1	Cut 2	Cut 3	Total
Beaver	5300	2472	1633	9404	3235	2316	1331	6882
Vernal	5592	2688	1994	10275	3005	2728	1570	7303
Travois	5464	2401	1576	9441	2926	2874	1213	6814
Teton	5460	2522	1936	9919	2856	2665	1748	7269
Roamer	5804	2137	1278	9219	2949	2161	860	5970
Norseman	5610	2265	1508	9384	2626	2373	1131	6129
Ladak	5033	2364	1445	8842	2781	2288	1169	6237
Mean	5466	2407	1624	9498	2911	2458	1289	6658
C.V.	7	9	6	5	8	16	12	9
L.S.D.	N.S.	255	108	527	282	476	182	677

# Teweles Hybrids

Yield in lb. D.M. per acre

<u>Guelph 2534</u>	1970				1971			
	Cut 1	Cut 2	Cut 3	Total	Cut 1	Cut 2	Cut 3	Total
T1	3823	2273	2545	8643	3239	2827	2264	8330
T2	4208	2441	2553	9203	3152	2878	2256	8286
T3	4308	2492	2350	9150	3354	2778	2116	8248
T4	4393	2525	2573	9492	3467	3206	2653	9326
T5	4638	2692	2563	9894	3511	3095	2285	8891
T6	4217	2546	2482	9246	3537	2939	2273	8750
Saranac	4663	2504	2384	9552	3692	2967	2332	8991
Vernal	4896	2534	2024	9460	3263	2850	1989	8101
Mean	4393	2501	2435	9330	3402	2942	2271	8615
C.V.	7	8	6	4	13	6	5	6
L.S.D.	374	172	178	483	521	197	230	660

# Standard Alfalfa

Yield in lbs. D.M. per acre

<u>Kemptville</u> (3001)	1970 seeding		1971 data
	Cut 1	Cut 2*	Total
Iroquois	5099	349	5447
Vernal	5718	521	6239
Atra 50	5670	442	6112
Atra 55	4610	510	5120
De Kalb 123	5260	423	5684
Weevlchek	5403	487	5889
Dominor	5550	780	6331
K8607	4902	471	5373
WL-215	5682	631	6313
WL-216	5406	629	6036
WL-217	4945	514	5459
Mean	5294	523	5818
C.V.	11	27	11
L.S.D.	841	201	829

\* extreme drought in June, July, Aug.

# Early Alfalfa

Yield in lb. D.M. per acre

<u>Kemptville</u> (3002)	1970 seeding		1971 data
	Cut 1	Cut 2*	Total
Saranac	4460	546	5005
Warrior	4294	506	4800
R.P. 38	4598	518	5115
WL-306	4283	408	4690
NK 150	4530	468	4998
Promor	4417	523	4941
De Kalb 153	3999	360	4359
WL-308	4129	417	4547
Superstan	4697	472	5169
TX 202	4414	496	4909
MX 82	4015	537	4552
BW 9	4193	307	4500
Tempo	4220	454	4673
Mean	4327	462	4789
C.V.	13	25	12
L.S.D.	815	164	814

# Early Alfalfa

Yield in lb. D.M. per acre

Ottawa (4060)

1969 seeding

1970-71 data

1970

1971

	Cut 1	Cut 2	Cut 3	Total	Cut 1	Cut 2	Cut 3	Total
Soranac	4590	3115	1543	9248	4796	2569	2127	9493
Du Puits	4756	2892	1476	9123	4767	2829	2298	9894
R.P. 38	4595	3054	1353	9002	4568	2796	2370	9732
WL-306	4687	2958	1453	9099	4783	2865	2520	10,168
NK 150	3960	2870	1492	8323	5061	2753	2272	10,087
Promor	4910	2948	1447	9306	4836	2590	2266	9692
De Kalb 153	4061	2984	1242	8288	4643	2740	2301	9682
Mean	4508	2974	1429	8913	4779	2735	2308	9821
C.V.	12	11	15	7	11	13	11	7
L.S.D.	459	N.S.	N.S.	758	643	410	304	819

# Standard Alfalfa

Yield in lb. D.M. per acre

## Ottawa (4059)

1969 seeding

1970-71 data

1970

1971

	Cut 1	Cut 2	Cut 3	Total	Cut 1	Cut 2	Cut 3	Total
Iroquois	4847	3254	1809	9910	5286	2416	1755	9456
Vernal	4843	3373	1622	9839	4913	2425	1804	9141
Atra 50	4831	3621	1806	10,259	5204	2649	2150	10,004
Atra 55	4205	3186	1730	9121	5004	2507	2109	9620
De Kalb 123	4819	3319	1713	9851	5063	2466	1779	9307
Mean	4709	3350	1736	9796	5094	2492	1919	9505
C.V.	10	15	8	8	8	6	8	5
L.S.D.	N.S.	N.S.	N.S.	N.S.	N.S.	175	178	604

## Ottawa (4063 & 4063A)

1970 seeding

1971 data

Pasture (4 rep)

Hay (2 rep)

	Cut 1	Cut 2	Cut 3	Total	Cut 1	Cut 2	Cut 3	Total
Iroquois	2738	2085	1629	6452	2716	2501	1179	6395
Vernal	2636	1812	1739	6187	3135	3237	1365	7738
Atra 50	2428	1652	1721	5801	2808	2570	1080	6457
Atra 55	2403	1538	1564	5505	3502	2996	1385	7884
De Kalb 123	2309	1510	1525	5345	3517	2752	1352	7621
Weevichek	2030	1437	1659	5126	4189	2788	1432	8409
Dominor	1934	1219	1481	4634	2511	2198	1156	5865
K8-607	2502	1532	1385	5419	3191	2647	1389	7226
WL-215	2685	1742	1489	5916	3990	2694	1259	7942
WL-216	2609	1626	1550	5785	2766	2543	1303	6611
WL-217	2533	1440	1400	5373	3051	2603	1330	6984
Mean	2437	1599	1558	5595	3216	2684	1294	7194
C.V.	12	21	8	10	18	12	11	13
L.S.D.	404	492	180	781	1875	727	325	210

# Early Type Alfalfa

## Kapuskasing 1970 Seeding

Yields in pounds of D.M. per acre

Test 6478

	1971		
	Cut 1	Cut 2	Total
Saranac	3384	1818	5202
Warrior	3295	1747	5041
RP 38	3360	1790	5150
WL 306	3052	1745	4798
NK 150	3193	2005	5198
Promor	2971	1705	4676
De Kalb 153	3559	1470	5029
WL 308	3212	1721	4933
Superstan	3269	1803	5072
TX 202	3414	1583	4996
MX 82	3010	1689	4699
BW 9	3340	1840	5180
Tempo	2971	1710	4682
Mean	3233	1741	5575
C.V.	16	12	11
L.S.D.	750	300	860

# Standard Type Alfalfa

## Kapuskasing 1970 Seeding

Yields in pounds of D.M. per acre

Test 6454

	1971		
	Cut 1	Cut 2	Total
Iroquois	3404	1861	5265
Vernal	3742	1913	5655
Atra 50	3754	1405	5159
Weevlcheck, Syn W	3536	1957	5493
Dominor	3631	1525	5156
K8-607	3054	1621	4675
KO-6	3734	1627	5361
WL-215	3461	1865	5326
WL-216	3393	1875	5268
Mean	3580	1713	5293
C.V.	15	20	11
L.S.D.	784	498	873

# Early Alfalfa

Yield in lb. D.M. per acre

## Thunder Bay (7035)

### 1969 seeding

### 1970-71 data

	1970			1971		
	Cut 1	Cut 2	Total	Cut 1	Cut 2	Total
Saranac	4169	2501	6670	4388	1770	6158
Du Puits	3830	2584	6414	4347	1880	6235
R.P. 38	3971	2545	6515	3952	1885	5836
WL 306	4014	2340	6354	4353	1748	6101
NK 150	3967	2642	6609	4437	1870	6303
Promor	3741	2656	6397	4434	1846	6045
De Kalb 153	4271	2391	6662	4408	1733	6141
Mean	3994	2522	6517	4297	1820	6116
C.V.	7	5	5	9	5	6
L.S.D.	336	141	N.S.	460	112	425

## Thunder Bay (7043)

### 1970 seeding

### 1971 data

	Cut 1	Cut 2	Total
Saranac	4179	1996	6175
Warrior	3976	2073	6050
RP 38	4108	2208	6316
WL 306	3784	2059	5842
NK 150	4153	1963	6117
Promor	3978	1957	5935
De Kalb 153	3809	1924	5733
WL 308	4427	1846	6272
Superstan	4297	2006	6302
TX 202	3919	2012	5931
MX 82	4008	1857	5865
BW 9	4051	2108	6159
Tempo	3506	1836	5342
Mean	4041	1988	5972
C.V.	9	11	8
L.S.D.	439	253	565

# Standard Alfalfa

Yield in lbs. D.M. per acre

Thunder Bay (7035)	1969 seeding			1970-71 data		
	1970			1971		
	Cut 1	Cut 2	Total	Cut 1	Cut 2	Total
Iroquois	4168	2460	6627	4285	1699	5983
Vernal	4430	2623	7053	4515	1537	6052
Atra 50	4152	2555	6707	4498	1798	6297
Atra 55	4122	2595	6717	4228	1854	6082
De Kalb 123	3775	2482	6257	4347	1628	5975
Mean	4129	2542	6672	4374	1703	6077
C.V.	7	5	5	8	7	6
L.S.D.	359	N.S.	408	N.S.	148	N.S.

<u>Thunder Bay (7043)</u>	1970 seeding		1971 data
	Cut 1	Cut 2	Total
Iroquois	4270	2065	6335
Vernal	4431	1560	5991
Atra 50	4447	1934	6381
Atra 55	4590	1747	6336
De Kalb 123	4168	1731	5899
Weevlchek	3964	1644	5609
Dominor	4168	1730	5892
K8-607	3964	1478	5464
WL-216	4066	1785	5851
WL-217	4174	1908	6083
Mean	4225	1758	5983
C.V.	12	10	10
L.S.D.	611	215	672



# Alfalfa Variety Test

Yield in lb. D.M. per acre

New Liskeard (8002)

1969 seeding

1970-71 data

	1970			1971		
	Cut 1	Cut 2	Total	Cut 1	Cut 2	Total
Saranac	3181	2444	5625	4356	2363	6719
Vernal	3478	2338	5806	4396	2467	6858
Ladak	3380	2127	5507	4114	2216	6330
Norseman	3438	2122	5560	4526	2411	6937
Beaver	3658	2137	5795	4522	1748	6270
Roumer	3680	1891	5571	4299	2260	6558
Teton	3481	2338	5819	4353	2230	6583
Travois	3557	2034	5591	3945	2394	6339
Mean	3482	2178	5660	4313	2261	6574
C.V.	6	9	5	9	23	12
L.S.D.	N.S.	292	N.S.	555	775	1147

# Early Alfalfa

Yields in lb. D.M. per acre

<u>New Liskeard</u> (8003)	1970 seeding		1971 data
	Cut 1	Cut 2	Total
Saranac	4244	2650	6893
Warrior	4277	2842	7118
WL 308	4110	2655	6764
Superstan	4075	2815	6889
TX 202	4045	2704	6749
MX 82	3903	2632	6535
BW 9	4167	2502	6669
Mean	4117	2685	6802
C.V.	9	9	5
L.S.D.	450	294	421

# Standard Alfalfa

Yield in lb. D.M. per acre

<u>New Liskeard</u> (8003)	1970 seeding		1971 data
	Cut 1	Cut 2	Total
Iroquois	4232	2845	7076
Vernal	4242	2794	7036
Weevlchek	4093	2765	6852
Dominor	3849	2564	6413
K8-607	4108	2820	6927
KO-6	4114	2575	6690
WL-216	4387	2685	7071
WL-217	4260	2755	7015
Mean	4161	2725	6886
C.V.	10	8	7
L.S.D.	472	254	555

# Ottawa Research Station

## Agronomy Section

Alfalfa - Hardiness index of varieties and strains as measured by fall growth at  
Ottawa, 1971

<u>1969 Planting</u>		<u>1970 Planting</u>		<u>1971 Planting</u>	
Variety	Index*	Variety	Index	Variety	Index
Iroquois	5	BW 9	4	Vernal	6
Atra 50	4	WL 216	5	Iroquois	6
DuPuits	4	Saranac	4	WL 216	5
WL 303	4	WL 308	4	WL 217	5
WL 210	4	MX 82	4	Weevlchek	5
Promor	4	Dekalb 123	5	Atra 55	6
Dekalb 153	3	WL 306	4	K8-607	6
WL 305	5	Team	5	OR-16	6
Dekalb 123	5	Promor	4	Saranac	5
Pioneer 522	5	Atra 55	5	WL 308	5
Glacier	3	Weevlchek	5	WL 309	5
WL 306	3	TX 202	3	Superstan	5
RP 38	4	Dominor	5	T3X-405	4
Titan	4	N5-150	4	Z9062	7
WL 202	5	WL 217	5	Pioneer 530	6
NK 508	4	Tempo	4	BW 9	4
Norseman	7	Warricr	4	OD-17	6
Atra 55	3	Vernal	6		
Pioneer 525	5	Atra 50	4		
Beaver	6	WL 215	5		
Scout	4	Superstan	5		
NK 510	3	K8 6C7	5		
Vernal	5	Dekalb 153	4		
150 A	4	Anchor	5		
Roamer	8	Iroquois	5		
Saranac	4				

\* 1 most growth, 9 least

# Test of Alfalfa Strains for resistance to Bacterial Wilt

Forage Crops Section, Ottawa Research Station, 1971

The 1971 test included 18 entries in 5 replications. It was needed June 4, 1971, one 5" pot per strain per replicate. The test was thinned to 15 seedlings per pot. The material was inoculated according to the procedure described by Cormack et al. on August 31/71, and the evaluation was performed on December 8th. The strains are listed in decreasing order of resistance to bacterial wilt (mean ratings for 5 replicates). The significance ranges for the 1% level are included.

OD-17	1.40	a
Vernal	1.49	a
OR-16	1.53	a
Saranac	1.59	a
Weevilcheck	1.60	a
Iroquois	1.60	a
WL 309	1.60	a
WL 216	1.65	a
WL 217	1.72	ab
K-8	1.74	abc
Atra	1.79	abc
BW9	1.90	abc
WL 308	2.16	bcd
Superstan	2.22	cde
TSX-405	2.43	def
Pioneer 530	2.46	def
Z9062	2.66	ef
Ontario Variegated	2.83	f

## A.O.V.

	s.s.	d.f.	E.M.S.	F
Strains	16.28	17	.9576	13.20**
Reps	.95	4	.2375	3.27*
Error	4.93	68	.0725	

C.V. = 14.09%

The inoculant for this test was supplied by Dr. E.J. Hawk, Plant Pathologist, C.D.A. Research Station, Lethbridge, Alta. and his cooperation is most valuable to us.

This test identifies a group of strains with excellent resistance to bacterial wilt (the first eight or 10), a group which lacks resistance (the last 4 or 6) and a few intermediates which might be useful for short rotations provided their yield potential is very good.

# STANDARD ALFALFA SEASONAL YIELDS

	Ridgetown		Guelph		Ottawa		Kemptville		Thunder Bay		Kapuskasing	
Year of seeding	'69	'70	'69	'70	'69	'70	'69	'70	'69	'70	'69	'70
Year of harvest	'70	'71	'71	'71	'70	'71,P	'71,H	'71	'71	'71	'71	'71
Iroquois	10,298	7588	8648	7814	8181	9910	9456	6452	6395	5447	6627	5983
Vernal	10,229	7879	8799	8649	7969	9839	9141	6187	7738	6239	7053	6052
Atra 50	11,372	8142	8857	8216	8344	10259	10004	5801	6457	6112	6707	6297
Atra 55	11,243	8000	8437	8334	8952	9121	9620	5505	7884	5120	6717	6082
De Kalb 123	10,256	7586	8413	8172	8209	9851	9307	5345	7621	5684	6257	5975
Mean	10,679	7839	8673	8237	8331	9796	9506	5858	7219	5720	6672	6078
C.V.	5	8	4	6	7	8	5	10	13	11	5	6
L.S.D.	623	739	N.S.	520	733	N.S.	604	781	N.S.	829	408	448

## Provincial means

'69 <sup>1</sup>	'70 <sup>2</sup>	'69 <sup>3</sup>
'70	'71	'71

Year of seeding  
Year of harvest

Iroquois	8871	6535	7751	1. Mean or Ridgetown, Guelph, Ottawa, Thunder Bay.
Vernal	8980	6912	7947	2. Mean of Ridgetown, Guelph, Ottawa (Hay), Thunder Bay,
Atra 50	9296	6766	8172	Kemptville, Kapuskasing.
Atra 55	8879	7035	8012	3. Mean of Guelph, Ottawa, Thunder Bay.
De Kalb 123	8694	6691	7818	
Mean	8945	6788	7940	
C.V.				
L.S.D.				

## Wilt reaction<sup>4</sup>

Atra 50	moderate to good	moderately fall dormant but severe injury
Atra 55	moderate	moderately fall dormant but severe injury
De Kalb 123	moderate to good	fall dormant but severe injury

# EARLY ALFALFA SEASONAL YIELDS

Year of Seeding Year of Harvest	Ridgetown		Guelph		Ottawa		Kemptville		Thunder Bay		Kapuskasing	
	'69	'70	'69	'70	'69	'70	'70	'71	'69	'70	'69	'70
Saranac	11,177	8779	9142	8822	9248	9493	5005	6158	6175	5202		
Du Puits	11,832		9723	8916	9123	9894		6414	6235			
R.P. 38 (Anchor)	11,554	9128	9162	8746	9002	9732	5115	6516	5836	6316		
WL 306	11,468	10,051	8449	8370	9099	10,168	4690	6354	6101	5842		
NK 150 (Thor)	11,621	9134	9153	8368	10,115	8323	10,087	6609	6303	6117		
Promor	11,874	9160	9080	9253	9994	9306	4941	6397	6045	5935		
De Kalb 153	11,036	8926	8278	8344	9636	8288	4359	6662	6141	5733		
Mean	11,508	9029	8998	8688	9594	8913	4851	6517	6117	6020		
C.V.	4	7	6	9	9	7	12	5	6	8		
L.S.D.	533	692	678	895	950	758	814	N.S.	425	565		

## Provincial Means

Year of Seeding Year of Harvest	'69	'70	'71	'70	'71	'70	'71	Hardiness <sup>4</sup>	
	'69	'70	'71	'70	'71	'70	'71	Wilt Reaction <sup>4</sup>	
Saranac	9059	8191	6956	8158				R.P. 38	Good
Du Puits	9273			8348				WL 306	Moderate
R.P. 38 (Anchor)	9058	8322	7046	8105				NK 150	Moderate
WL 306	8843	8191	6812	8213				Promor	Moderate
NK 150	8926	8455	7112	8253				De Kalb 153	Poor
Promor	9164	8363	6941	8330					
De Kalb 153	8566	8098	6736	8056					
Mean	8984	8270	6934	8209					
C.V.									
L.S.D.									

1. Mean of Ridgetown, Guelph, Ottawa, Thunder Bay.
2. Ridgetown, Guelph, Thunder Bay.
3. Mean of Ridgetown, Guelph, Thunder Bay, Kapuskasing, Kemptville.
4. Mean of Guelph, Ottawa, Thunder Bay.

BROME GRASS

We have four varieties on the recommended list in Publication 296, Baylor, Saratoga and Redpatch are recommended above all other varieties, while Lincoln, a southern type brome grass is also listed.

No new data on brome grass is available. The Plant Products September, 1971 report indicates that there are 400,000 lbs. of Saratoga available, 360,000 of other varieties, (supposedly, Redpatch, Baylor and Lincoln would be included). There are also 600,000 lbs. of Magna and 1.4 million lbs of Carlton, northern type brome grass.

We had a submission from a Canadian company asking us to include the Magna variety on the Ontario list because they felt that southern brome grass seed could be in short supply. I wrote to Mr. Eros to get his idea of the brome situation in the trade and he replied - 'in my opinion at the moment, September 27, 1971, there will be sufficient supplies of certified seed of the recommended varieties Saratoga, Redpatch and Baylor'.

Based on yield data submitted at our meeting last year, we turned down Magna. There is a possibility of discussing putting Magna on as an alternative to northern brome, Carlton or Commercial. Magna does almost as well as the southern bromes in the northern part of the province. I do not know how high Magna would be priced.

W.R. Childers



ONTARIO CROP RECOMMENDATION COMMITTEE 1970  
 SUPPLEMENTARY TABLE FOR EVALUATION OF MAGNA BROME GRASS

ONTARIO

1968

Dry matter lbs/acre

Variety	Ottawa	Kemptville	Kapuskasing	Guelph	New Liskeard	Ft. William	Mean 6 Station Years
Saratoga	7366	9299	9770	8454	5663	6298	7808
Redpatch	7214	9731	9931	7835	6774	6203	7948
Magna	5323	9556	9292	7733	6525	6023	7409
Baylor				9763		6472	

SUPPLEMENTARY TABLE FOR EVALUATION OF MAGNA BROME GRASS

QUEBEC

Dry Matter kg/hectare

Variety	*Laval					
	Macdonald Coll. 1969	Lennoxville 1969	Pasture 66-69	Pasture 1969	Hay La Pocatiere 1969	Pocatiere 66-69
Saratoga	6811	11285	7725	5168	8737	10412
Baylor	6977	11546		5506	8864	9996
Redpatch	6756	10672	7782	5092	8196	11568
Magna	6423	10425	7336	4909	8032	

\*Pasture 4 cuts

## KAPUSKASING 1971

6001

Brome Grass Variety Trial 1966 Seeding

Yield in Pounds of D.M./Acre

Variety	Cut 1	Cut 11	Total
S-6324	4500	3520	8020
Magna (S-6325)	4008	3264	7272
S-6363	4312	3161	7473
S-6733	4152	3210	7362
B.S.G. 1 (Syn-2)	4463	3675	8138
Brandon 988	4289	3780	8069
Brandon 1000	4364	3533	7897
Baylor	4361	3479	7840
Saratoga	4260	3371	7631
Redpatch	4365	3652	8017
Syn. D-1	4206	3260	7466
Mean	4298	3446	7744
C.V.	10.01	12.04	
L.S.D.	499	469	

## ORCHARD GRASS

There are three varieties on the recommended list published in 1966. Frode and Tardus II medium early and Rideau, a later maturing variety. The variety Kay was recommended for licensing by this Committee in 1969 with a view to placing it on the recommended list when seed was available. One company indicates that considerable seed will be available for spring, 1972. Another company indicated they had 5 tons available. There were 200 acres in Cardston, Alberta, but I am not sure how much seed was harvested.

We have 3 years data available for the provincial test seeded in 1969 and 1970. We will take a look at a screening trial at Ottawa also.

The Committee has been requested to consider two new varieties in which companies are interested in getting recommendations for licensing.

1. O.S.G. 7 medium early variety - Maple Leaf Mills
2. N-1-77 late maturity - National M.K.

W.R. Childers

Expt. 1020

## PROVINCIAL ORCHARD GRASS TEST

RIDGETOWN, ONTARIO

SEEDED 1970

Yield in dry matter lbs/acre and kg/ha

Name	Mat.	Cut 1		Cut 2		Total	
		lb/ac.	kg/ha	lb/ac	kg/ha	lb/ac	kg/ha
Flaxmere	L	1165	e 1306	3248 a	3641	4413	cd 4948
Mullus	L	1847	c 2071	3310 a	3711	5158	ab 5783
Ottawa Strain K	L	1868	c 2094	2702 b	3029	4570	cd 5124
OSG 5	L	1621	cd 1817	2843 ab	3188	4465	cd 5005
Elite 99	E	1755	cd 1967	3291 a	3690	5046	ab 5657
Hallmark	E	2341	ab 2624	3149 ab	3530	5490	a 6154
Unke	E	2186	b 2450	3184 ab	3570	5371	a 6021
Lemba	L	1244	e 1395	2931 ab	3286	4176	d 4681
Rideau	L	1661	cd 1862	2851 ab	3196	4512	cd 5058
OSG 7	E	2462	a 2760	2944 ab	3300	5406	a 6061
N-1-77	L	1560	d 1749	3124 ab	3502	4685	bc 5252
Ottawa P-1	E	2430	ab 2724	2716 b	3045	5147	ab 5769
L.S.D.		233.04		420.80		442.36	
C.V.		10.94		12.05		7.87	

A. McLaren

Expt. 2696

## PROVINCIAL ORCHARD GRASS TEST

GUELPH, ONTARIO

SEDED 1970

Yield in dry matter lbs/acre and kg/ha

Name	Mat.	Cut 1		Cut 2		Total	
		lb/ac	kg/ha	lb/ac	kg/ha	lb/ac	kg/ha
Rideau	L	6538 bcd	7330	3236 b	3628	9775 bcde	10958
Kay	L	7080 ab	7936	3378 b	3787	10458 ab	11724
Hallmark	E	6331 cde	7098	3887 a	4358	10219 abc	11456
OSG 7	E	6422 cde	7199	3506 ab	3931	9929 abcde	11131
OSG 5	L	7240 a	8116	2858 c	3204	10099 abcd	11321
Ottawa P-1	E	6721 abc	7534	3483 ab	3904	10204 abc	11439
N-1-77	L	7147 ab	8012	3405 b	3818	10553 a	11830
Unke	E	6182 cde	6930	3510 ab	3935	9693 cde	10865
Mullus	L	5848 ef	6555	3570 ab	4002	9418 def	10558
Elite	E	5892 def	6605	3426 b	3841	9319 ef	10447
Flaxmere	L	6032 def	6762	3414 b	3827	9446 def	10589
Lemba	L	5475 f	6137	3331 b	3734	8606 f	9872
L.S.D.		581.34		362.97		646.08	
C.V.		7.86		9.20		5.69	

B.R. Christie

Expt. 3004

## PROVINCIAL ORCHARD GRASS TEST

KEMPTVILLE, ONTARIO

SEEDED 1970

Yield in dry matter lbs/acre and kg/ha

Name	Mat.	Cut 1		Cut 2		Total	
		lb/ac	kg/ha	lb/ac	kg/ha	lb/ac	kg/ha
Hideau	L	3320 ab	3722	915 ab	1026	4236 ab	4748
Kay	L	3674 a	4118	876 abc	982	4550 a	5100
Hallmark	E	3591 a	4025	948 ab	1063	4539 a	5089
OSG 7	E	3662 a	4105	840 abc	941	4502 a	5047
OSG 5	L	3145 ab	3525	432 d	484	3577 bc	4010
Ottawa P-1	E	3703 a	4151	689 bcd	773	4393 ab	4925
N-1-77	L	3614 a	4052	529 cd	593	4144 ab	4645
Unke	E	3698 a	4145	712 bcd	798	4410 a	4944
Mullus	L	3366 ab	3774	850 abc	953	4217 ab	4727
Elite 99	E	3105 abc	3480	685 bcd	768	3790 abc	4249
Flaxmere	L	2847 bc	3191	1199 a	1345	4046 ab	4536
Lemba	L	2524 c	2830	721 bcd	808	3246 c	3638
L.S.D.		578.24		424.36		717.10	
C.V.		11.95		28.70		12.01	

C. Moore

Expt. 4103

## PROVINCIAL ORCHARD GRASS TEST

OTTAWA, ONTARIO

SEEDED 1970

Yield in dry matter lbs/acre and kg/ha

Name	Mat.	Cut 1		Cut 2		Total	
		lb/ac	kg/ha	lb/ac	kg/ha	lb/ac	kg/ha
Rideau	L	4672	5237	1785	2001	6457 abcd	7239
Kay	L	5180	5806	1679	1882	6858 ab	7688
Hallmark	E	4728	5300	2425	2719	7153 a	8018
OSG 7	E	4295	4815	1749	1961	6044 cd	6776
OSG 5	L	4487	5029	1933	2167	6420 abcd	7196
Ottawa P-1	E	4759	5335	1864	2090	6623 abcd	7425
N-1-77	L	4820	5403	1929	2163	6749 abc	7566
Unke	E	4571	5124	1963	2201	6534 abcd	7325
Mullus	L	4369	4898	2104	2358	6473 abcd	7256
Elite	E	4070	4562	1832	2054	5902 d	6616
Flaxmere	L	3879	4349	2278	2554	6157 bcd	6902
Lemba	L	4316	4838	2031	2277	6347 bcd	7115
L.S.D.		517.05		482.65		637.56	
C.V.		9.92		21.28		8.53	

W.R. Childers



Expt. 8503

## PROVINCIAL ORCHARD GRASS TEST

NEW LISKEARD, ONTARIO

SEEDED 1970

Yield in dry matter lbs/acre and kg/ha

Name	Mat.	Cut 1		Cut 2		Total	
		lb/ac	kg/ha	lb/ac	kg/ha	lb/ac	kg/ha
Lemba	L	1790	e 2007	2076	2327	3867	e 4335
Unke	E	2384	c 2673	2552	2861	4937	abcd 5534
OSG 5	L	2447	c 2743	2077	2329	4525	cde 5072
Key	L	3286	a 3684	2194	2460	5481	a 6144
Mullus	L	2191	cde 2456	2502	2804	4693	bcd 5261
N-1-77	L	2245	cde 2517	2257	2530	4502	cde 5047
Hallmark	E	2655	bc 2976	2546	2854	5201	abc 5830
Flaxmere	L	1831	de 2053	2494	2796	4326	de 4850
OSG 7	E	2601	bc 2916	2650	2971	5252	ab 5887
Rideau	L	2503	bc 2805	2332	2614	4835	abcd 5420
Ottawa P-1	E	2997	ab 3360	2421	2715	5419	a 6075
Elite 99	E	2335	cd 2618	2314	2594	4650	bcd 5213
L.S.D.		475.62		392.71		622.46	
C.V.		16.89		14.36		11.21	

A. Skepasts

Expt. 7045

## PROVINCIAL ORCHARD GRASS TEST

THUNDER BAY, ONTARIO

SEEDED 1970

Yield in dry matter lbs/acre and kg/ha

Name	Mat.	Cut 1		Cut 2		Total		kg/ha		
		lb/ac	kg/ha	lb/ac	kg/ha	lb/ac	kg/ha			
Rideau	L	3779	bed	4236	1971	b	2209	5750	bed	6446
Kay	L	4176	ab	4682	1815	bc	2034	5991	ab	6716
Hallmark	E	4079	ab	4572	2242	a	2514	6322	a	7087
OSG 7	E	3493	ode	3915	2234	a	2505	5728	bed	6421
OSG 5	L	4332	a	4856	2045	ab	2293	6377	a	7149
Ottawa P-1	E	3862	bc	4329	1996	b	2238	5859	bc	6568
N-1-77	L	4440	a	4977	1726	c	1935	6167	ab	6913
Unke	E	3483	cde	3905	1934	bc	2168	5418	cd	6073
Mullus	L	3333	e	3737	1990	b	2231	5324	d	5968
Elite	E	3427	de	3841	1933	bc	2167	5360	d	6009
Lemba	L	3435	de	3851	1936	bc	2170	5372	d	6022
L.S.D.		361.35		209.28		412.61				
C.V.		8.19		9.09		6.14				

W.B. Towill

6080

## PROVINCIAL ORCHARD GRASS TRIAL 1970 Seeding

KAPUSKASING 1971

Yield in pounds of D.M./acre

Variety	Cut 1		Cut 11		Total	
	N-75	N-150	N-75	N-150	N-75	N-150
Rideau	3342	3875	3009	4119	6351	7994
Strain K	3433	4143	2742	3830	6175	7973
Hallmark	3279	3242	3225	4148	6504	7390
OSG 7	3305	3661	3301	3472	6606	7133
OSG 5	3270	3493	3084	3802	6355	7295
Ottawa P-1	2941	4133	2868	3885	5809	8018
N-1-77	2880	2826	2957	3600	5837	6426
Unke	3219	2890	2840	3872	6059	6762
Mullus	2913	3020	2729	3995	5642	7015
Elite 99	2799	2856	2628	3984	5427	6040
Flaxmere	1997	2370	2980	3624	4977	5994
Lemba	2873	2853	3054	3938	5927	6791
Mean	3021	3280	2951	3856	5972	7136
C.V. %	4.19 for N		34.84 for N		13.81 for N	
C.V. %	7.60 for V		15.70 for V		8.46 for V	
L.S.D.	275 for N		1553 for N		1520 for N	
L.S.D.	418 for V		588 for V		782 for V	

Expt. 2684

## ORCHARD GRASS HAY TEST

GUELPH, ONTARIO

SEEDED 1969

Yield in dry matter lbs/acre and kg/ha

Name	Mat.	Cut 1		Cut 2		Total	
		lb/ac	kg/ha	lb/ac	kg/ha	lb/ac	kg/ha
Rideau	L	6330 b	7096	2539 cde	2847	8870 bc	9943
Hallmark	E	4608 c	5166	3659 a	4102	8268 cd	9268
Kay	L	6710 b	7522	2672 bc	2995	9382 ab	10517
OSG 7	E	5184 c	5811	2842 b	3186	8027 d	8998
Bumper	L	6314 b	7078	2334 ef	2616	8648 bcd	9694
OSG 5	L	7442 a	8343	2264 f	2538	9707 a	10881
N-1-77	L	6876 ab	7708	2434 def	2729	9311 ab	10437
Holstenkamp		6306 b	7069	2618 cd	2935	8925 bc	10005
L.S.D.		644.55		207.82		681.50	
C.V.		8.84		6.64		6.54	

B.R. Christie

Expt 4107

## ORCHARD GRASS HAY TEST

OTTAWA, ONTARIO

SEEDED 1969

Yield in dry matter lbs/acre and kg/ha

Name	Mat.	Cut 1		Cut 2		Total	
		lb/ac	kg/ha	lb/ac	kg/ha	lb/ac	kg/ha
Ottawa P-1	E	3420	3834	2207	2475	5628	6309
Rideau	L	3637	4076	2138	2397	5776	6475
N-1-77	L	3965	4445	2162	2424	6128	6869
OSG 5	L	3980	4462	2625	2942	6605	7405
Bumper	L	3832	4295	2032	2278	5864	6573
Hallmark	E	4373	4902	1752	1964	6125	6866
Key	L	4207	4717	2096	2350	6304	7067
OSG 7	E	3805	4266	2252	2525	6058	6791
L.S.D.		821.89		1143.31		1600.44	
C.V.		16.24		40.85		20.36	

\*Volunteer alfalfa make these data invalid

W.R. Christie

Expt. 8502

## ORCHARD GRASS HAY TEST

NEW LISKEARD, ONTARIO

SEDED 1969

Yield in dry matter lbs/acre and kg/ha

Name	Mat.	Cut 1		Cut 2		Total	
		lb/ac	kg/ha	lb/ac	kg/ha	lb/ac	kg/ha
N-1-77	L	2252	2525	2268	cd 2542	4520 b	5067
Bumper	L	2084	2337	2062	d 2311	4147 b	4649
Kay	L	2372	2659	2092	d 2345	4464 b	5005
OSG 5	L	1901	2140	2071	d 2322	3981 b	4462
OSG 7	E	2001	2243	2954 a	3311	4955 b	5555
Hallmark	E	3333	3737	2717 ab	3046	6051 a	6783
Rideau	L	1980	2220	2382	bcd 2671	4363 b	4891
Ottawa P-1	E	2094	2348	2443 bc	2738	4538 b	5087
L.S.D.		928.42		325.82		1087.36	
C.V.		35.15		11.71		20.05	

A. Skepasts

Expt. 7033

## ORCHARD GRASS HAY TEST

THUNDER BAY, ONTARIO

SEEDED 1969

Yield in dry matter lbs/acre and kg/ha

Name	Mat.	Cut 1		Cut 2		Total	
		lb/ac	kg/ha	lb/ac	kg/ha	lb/ac	kg/ha
Ridesu	L	6581 bc	7377	1032 b	1157	7614	8535
Hallmark	E	6128 c	6870	1379 a	1546	7508	8417
OSG 7	E	7576 a	8493	945 b	1059	8521	9552
OSG 5	L	6776 abc	7596	920 b	1031	7696	8627
Ottawa P-1	E	6239 c	6994	983 b	1102	7223	8097
Key	L	7254 ab	8132	989 b	1108	8243	9241
Bumper	L	6945 abc	7785	815 b	913	7760	8699
N-1-77	L	6732 abc	7546	914 b	1025	7646	8571
L.S.D.		799.16		237.25		821.50	
C.V.		10.06		10.29		9.01	

W.B. Towill

Expt. 6076

## ONTARIO ORCHARD GRASS TRIAL 1969 SEEDING

KAPUSKASING 1971

Yields in pounds of D.M./acre

Variety	Cut 1		Cut 2		Total	
	75-N	150-N	75-N	150-N	75-N	150-N
Bumper	2666	3916	3081	4005	5747	7921
N-1-77	2931	3926	3397	4018	6328	7944
Strain K	3364	4098	3639	3735	7003	7833
OSG 5	2464	3788	3640	3917	6104	7705
OSG 7	3086	3915	4094	3906	7180	7821
Hallmark	3033	4075	3959	3738	6992	7813
Ridesu	2523	4057	4197	4241	6720	8298
Ottawa P-1	3209	4200	4083	3964	7292	8164
Mean	2909	3997	3761	3941	6670	7938
C.V. %	17.66 for N		16.16 for N			
C.V. %	7.57 for V		8.60 for V			
L.S.D.	758 for N		772 for N			
L.S.D.	309 for V		391 for V			



Expt. 4106

## ORCHARDGRASS PROVINCIAL TEST

OTTAWA, ONT.

SEEDED 1968

Yield in dry matter lbs/acre and kg/ha

Name		Cut 1		Cut 2		Total	
		lb/ac	kg/ha	lb/ac	kg/ha	lb/ac	kg/ha
N-1-77	L	3886	4356	1458	1634	5344	5990
Masshardy	L	4081	4574	1466	1643	5547	6218
Bumper	L	3847	4312	1295	1452	5142	5764
Key	L	4068	4560	1525	1709	5593	6269
Frode -	E	3841	4305	1565	1754	5405	6059
OSG 5	L	3786	4244	1500	1681	5286	5926
Rideau	L	3691	4138	1220	1367	4911	5505
Ottawa P-1	E	4218	4728	1545	1732	5763	6461
Pennlate	L	4031	4519	1425	1598	5456	6116
OSG 9	E	3654	4097	1340	1502	4652	5215
L.S.D. 5%		494.82		390.79		754.74	
C.V.		10.85		23.37		12.19	

W.R. Childers

Expt. 4105

## ORCHARD GRASS STRAIN TEST

OTTAWA, ONT.

SEEDED 1966

Yield in dry matter lbs/acre and kg/ha

Name	Mat.	Cut 1		Cut 2		Total	
		lb/ac	kg/ha	lb/ac	kg/ha	lb/ac	kg/ha
Kay	L	3758 b	4213	921	1032	4679 b	5246
Bumper	L	3037 cd	3405	874	980	3911 cd	4384
OG P-1	E	4340 a	4866	1108	1242	5449 a	6108
Rideau	L	3470 bc	3890	992	1113	4463 bc	5003
Frode	E	3910 ab	4383	1076	1206	4986 ab	5590
OSG 5	L	2761 d	3095	931	1044	3692 d	4139
Pemlate	L	3505 bc	3929	1037	1162	4542 bc	5092
Hercules	E	3919 ab	4393	875	981	4794 b	5374
L.S.D. 5%		463.94		243.35		604.88	
C.V.		11.03		21.26		11.31	

W.R. Childers

Expt. 4109

## ORCHARD GRASS INTRODUCTION TEST

OTTAWA, ONTARIO

SEDED 1970

Yield in dry matter lbs/acre and kg/ha

Variety	Mat.	Mean Cut 1		Mean Cut 2		Total Cuts 1 and 2	
		lb/ac	kg/ha	lb/ac	kg/ha	lb/ac	kg/ha
Rideau	L	4722 a	5289	1569	1756	6291 a	7046
P.O.-1	E	4585 ab	5135	1414	1584	5998 ab	6718
Dactimo	L	4031 abc	4515	1413	1583	5445 bc	6098
Dact. G-1	L	3874 c	4339	1612	1805	5486 bc	6144
Modic	E	3827 c	4286	1620	1814	5447 bc	6101
Scotia	E	3907 bc	4376	1392	1559	5298 bc	5934
Z 9010	E	4170 abc	4670	1729	1936	5900 abc	6608
Riskilda	E	4466 abc	5002	1532	1716	5999 ab	6719
C.V.		13.18		15.77		9.70	
S.E.		217.73		N.S.		227.04	

W.R. Childers

## PROVINCIAL ORCHARD GRASS TEST

SEEDED 1970

Varieties x Locations Mean

4 reps 2 cuts 11 varieties

Name	Mat.	Ridgetown	Elore	Kemptville	Ottawa	Thunder Bay	New Liskeard	Mean
Rideau	L	4375	9769	4236	6633	5802	4560	5896
Kay	L	4330	10485	4550	6692	6074	5373	6251
Hallmark	E	5225	10426	4539	7213	6198	5053	6442
OSG 7	E	5427	10137	4502	5664	5652	4929	6052
OSG 5	L	4426	10475	3577	6186	6443	4497	5934
Ottawa P-1	E	5159	10277	4393	6552	5944	5357	6280
N-1-77	L	4630	10926	4144	6566	6359	4099	6121
Unke	E	5266	9946	4410	6324	5207	4962	6019
Mullus	L	5032	9405	4217	6338	5254	4657	5817
Elite 99	E	5010	9135	3790	5784	5429	4328	5579
Lembe	L	4151	8733	3246	6139	5355	4095	5286

## ORCHARD GRASS LAY TEST

SEEDED 1969

Varieties x Locations Mean

5 reps 2 cuts 7 varieties

Name	Lat.	Elora	Ottawa	Thunder Bay	New Liskeard	Mean
Rideau	L	9019	5776	7984	4451	6807
FFR SYN E	E	8448	6125	7785	5269	6907
Strain K	L	9398	6304	8638	4703	7261
OSG 7	E	8205	6050	8421	5082	6942
Bumper	L	8819	5864	7720	4321	6681
OSG 5	L	10078	6605	7411	4135	7057
N-1-77	L	9317	6128	7769	4771	6996

## SUPPLEMENTARY TABLE NO. 0.5.G. 7

Yield in dry matter lbs/acre

[illegible]

## ONTARIO

## SUPPLEMENTARY TABLE RE NL77 (NORTHWESTERN)

1970 Yield in dry matter lbs/acre

## SEEDED 1969

Variety	Ridgetown	Guelph	Kemptville	Ottawa	Thunder Bay	New		7 Station Mean
						Liskeard	Kapuskasing	
Rideau	6898	8729	6629	1923	5956	3633	5728	5642
Kay	7654	8682	6631	2771	5833	3627	6012	5807
NL77	7801	8598	7072	3102	6064	3638	5789	6081

4 Station  
Mean6 Station  
Mean

## SEEDED 1970

Rideau	3019	5776	7984	4451	6807
Kay	9398	6304	8638	4703	7261
NL77	9317	6128	7769	4771	6996

  

Rideau	4375	9769	4236	6633	5802	4560	5896
Kay	4330	10485	4550	6692	6074	5373	6251
NL77	4630	10926	4144	6566	6359	4099	6121

## ORCHARDGRASS - I.V.D.

*Guelph*

<u>Variety</u>	<u>Cut 1</u> <u>1969</u>	<u>Cut 1</u> <u>1970</u>	<u>Cut 1 - 1971</u>	
			<u>Seeded</u> <u>1969</u>	<u>Seeded</u> <u>1970</u>
Frode	69.4	-	-	-
Rideau	66.6	63.8	60.3	59.8
Kay	67.3	66.3	63.0	62.1
Bumper	68.3	64.5	62.4	-
O.S.G.-5	70.4	64.5	58.3	59.3
Ottawa P-1	71.5	-	-	59.7
Pennlate	62.5	-	-	-
Chantemille	69.9	-	-	-
Clatsap	69.8	-	-	-
N-1-77	62.2	63.3	61.0	61.6
Masshardy	67.2	-	-	-
Holstenkamp	-	64.7	64.7	-
Hallmark	-	-	64.8	59.3
O.S.G.-7	-	-	66.3	61.9
Unke	-	-	-	60.2
Mullus	-	-	-	62.5
Elite	-	-	-	60.9
Flaxmere	-	-	-	61.3
Lemba	-	-	-	60.5
Mean	68.1	64.5	62.8	60.8
L.S.D. (to .05)	1.4	1.6	2.8	2.0



## TIMOTHY

We have three varieties currently on the recommended list, Climax, a medium Late variety; Milton, approximately 3-5 days earlier than Climax and the variety Champ, 5-7 days earlier than Climax.

The seed situation in timothy is plentiful all along the line. There are 3.5 million lbs. of common timothy seed. Approximately 2.6 million of registered Climax and 1.5 million of Champ, no data is available on Milton.

We have 3 years data on our new provincial trials. We have requests for support for licensing 3 varieties which have been recently tested. We will also discuss the new screening trial at Ottawa.

The three varieties which we have been requested to consider at this time are -

1. Kampe II, a Wiebulls variety which is 3-5 days earlier than Climax, has long leaves and some lodging this year at Ottawa.
2. Toro - same maturity as Champ, taller, larger stems, grows very rapidly in early June. Has short leaves at top which make it appear stemy.
3. Itasca - similar in maturity to Climax, leafy and good stand. This variety was bred in Minnesota and has been on their recommended list for a number of years.

Expt. 1019

## TIMOTHY PROVINCIAL TEST

RIDGETOWN, ONT.

SEEDED 1970

Yield in dry matter lbs/acre and kg/ha

Name	Cut 1		Cut 2		Total	
	lb/acre	kg/ha	lb/acre	kg/ha	lb/acre	kg/ha
Barenza	3519 c	3945	1603 d	1797	5123 de	5743
Itasca	3631 c	4070	1766 bed	1980	5397 cd	6050
Toro	3879 ab	4348	2021 ab	2265	5900 a	6614
Vanadis	3557 c	3988	1735 cd	1946	5293 d	5934
Kampe II	3724 bc	4175	1871 abc	2097	5595 bc	6273
Climax	3950 ab	4428	1901 abc	2131	5851 ab	6559
Musiline	3491 c	3913	1672 cd	1875	5164 de	5788
Bounty	4006 a	4491	1790 bed	2006	5796 ab	6497
Oakmere	2784 d	3121	2121 a	2377	4906 e	5499
L.S.D. 5%	216.77		234.36		275.23	
C.V.	5.14		10.97		4.33	

A. McLaren

Expt. 2697

## TIMOTHY PROVINCIAL TEST

GUELPH, ONT.

SEEDED 1970

Yield in dry matter lbs/acre and kg/ha

Name	Cut 1		Cut 2		Total	
	lb/acre	kg/ha	lb/acre	kg/ha	lb/acre	kg/ha
Bounty	7378 a	8271	2501 d	2804	9879 b	11075
Barenza	7451 a	8353	1961 e	2198	9412 bc	10551
Kampe II	7139 ab	8003	2472 d	2772	9612 bc	10775
Climax	7309 a	8193	2911 c	3264	10221 ab	11457
Itasca	7463 a	8367	3531 b	3958	10995 a	12325
L-84 (Toro)	6708 ab	7520	4020 a	4506	10729 a	12027
Vanadis	7264 ab	8143	2541 d	2849	9806 bc	10993
Musiline	6701 ab	7512	2230 de	2500	8932 c	10012
Oakmere	6355 b	7124	1113 f	1247	7468 d	8372
L.S.D. 5%	755.36		368.12		799.04	
C.V.	9.14		12.20		7.08	

B.R. Christie

Expt. 4104

## TIMOTHY PROVINCIAL TEST

OTTAWA, ONT.

SEEDED 1970

Yield in dry matter lbs/acre and kg/ha

Name	Cut 1		Cut 2		Total	
	lb/acre	kg/ha	lb/acre	kg/ha	lb/acre	kg/ha
Climax	4437	4973	1841	2064	6278	7038
Bounty	4584	5139	1627	1824	6211	6963
Vanadis	4570	5123	1700	1906	6271	7030
Tore	4031	4518	2088	2340	6118	6858
Kempe II	4332	4857	1594	1899	6027	6756
Barenza	4085	4579	1688	1892	5773	6471
Itasca	4186	4693	2150	2410	6336	7103
Musiline	4201	4710	2106	2361	6307	7070
Oakmere	4336	4861	1673	1875	6009	6736
L.S.D. 5%	547.12		428.40		682.54	
C.V.	10.89		19.96		9.52	

W.R. Childers

Expt. 8403

## TIMOTHY PROVINCIAL TEST

NEW LISKEARD, ONT.

SEEDED 1970

Yield in dry matter lbs/acre and kg/ha

Name	Cut 1		Cut 2		Total	
	lb/acre	kg/ha	lb/acre	kg/ha	lb/acre	kg/ha
Climax	2630 ab	2948	2037 a	2283	4667 a	5232
Bounty	2556 b	2865	2061 a	2311	4618 a	5177
V-nedis	2822 ab	3164	1772 b	1986	4595 a	5151
Toro	3005 ab	3368	2235 a	2505	5240 a	5874
Kampe II	2968 ab	3327	1699 b	1904	4667 a	5231
Barenza	3090 a	3464	1681 b	1885	4772 a	5349
Itasca	3009 ab	3373	2192 a	2457	5201 a	5830
Musiline	1984 c	2224	1744 b	1956	3729 b	4180
Ockmere	1664 c	1865	1626 b	1823	3291 b	3689
L.S.D. 5%	446.73		256.37		582.48	
C.V.	14.53		11.60		11.02	

A. Skepasts

Expt. 7044

## TIMOTHY PROVINCIAL TEST

THUNDER BAY, ONT.

SEEDED 1970

Yield in dry matter lbs/acre and kg/ha

NAME	Cut 1		Cut 2		Total	
	lb/acre	kg/ha	lb/acre	kg/ha	lb/acre	kg/ha
Climax	5796 ab	6497	546 d	612	6342 b	7109
Bounty	5648 ab	6331	729 c	818	6378 b	7149
Vanadis	5176 bc	5802	932 b	1045	6108 b	6848
Toro	5899 ab	6613	1601 a	1795	7500 a	8408
Kampe II	5454 abc	6114	915 b	1026	6370 b	7141
Barenz	6106 a	6845	660 cd	740	6766 ab	7585
Itasca	6145 a	6889	704 cd	789	6849 ab	7678
Musiline	5381 abc	6032	600 cd	672	5981 b	6705
Oakmere	4686 c	5253	278 e	311	4964 c	5565
L.S.D. 5%	811.94		162.53		785.78	
C.V.	12.46		18.00		10.59	

W.B. Towill

Expt. 6034

## PROVINCIAL TIMOTHY TRIAL 1970 Seeding

KAPUSKASING 1971

Yields in Pounds of D.M./Acre

Variety	Cut 1		Cut 2		Total	
	75N	150N	75N	150N	75N	150N
Climax	4271	4577	2529	3020	6800	7597
Bounty	3789	4300	2325	2722	6114	7022
Vanadis	4233	4524	2567	2678	6800	7203
Toro	4169	4162	2907	3299	7076	7461
Kampe II	4218	4326	2129	2763	6347	7089
Berenzo	4163	4869	2285	2786	6448	7655
Itasca	4400	4536	3003	3773	7402	8309
Musilene	3837	4222	2411	2495	6248	6718
Oakmere	3737	3807	2028	2351	5759	6158
Mean	4090	4369	2465	2876	6555	7246
C.V. %	9.09 for N		17.06 for H			
C.V. %	7.75 for V		14.56 for V			
L.S.D.	450 for N		533 for N			
L.S.D.	371 for V		440 for V			

Expt. 2685

## ONTARIO TIMOTHY HAY TEST

GUELPH, ONT.

SEEDED 1969

Yield in dry matter lbs/acre and kg/ha

Name	Cut 1		Cut 2		Total	
	lb/ac	kg/ha	lb/ac	kg/ha	lb/ac	kg/ha
Bounty	6785	7606	2233 c	2503	9018 bc	10110
Barenza	6796	7619	1796 d	2014	8593 cd	9633
Kempe II	6555	7349	2246 c	2518	8802 cd	9867
Climax	6975	7819	3190 b	3576	10166 a	11396
Itasca	7064	7918	2904 b	3256	9968 ab	11174
L-84	6510	7298	3555 a	3985	10065 a	11283
59-67	6088	6825	1715 d	1922	7803 d	8748
L.S.D. 5%	864.10		349.27		981.09	
C.V.	10.98		11.77		9.05	

B.R. Christie



Expt. 4108

## ONTARIO TIMOTHY HAY TEST

OTTAWA, ONT.

SEEDED 1969

Yield in dry matter lbs/acre and kg/ha

Name	Cut 1		Cut 2		Total	
	lb/acre	kg/ha	lb/acre	kg/ha	lb/acre	kg/ha
Climax	4652 a	5215	3041	3409	7694	8625
Bounty	4548 a	5098	3220	3609	7768	8708
Itasca	4315 ab	4837	3450	3867	7765	8705
Barenz	3771 b	4227	3416	3829	7187	8057
Kempe	4086 ab	4581	3269	3664	7355	8245
L-84	4216 ab	4726	3749	4203	7966	8930
Vetrovsky	4277 ab	4794	3771	4227	8048	9022
Musiline	4076 ab	4569	3240	3632	7316	8202
L.S.D. 5%	524.53		527.08		720.67	
C.V.	10.55		13.25		8.05	

W. R. Childers

Expt. 8402

## ONTARIO TIMOTHY HAY TEST

NEW LISKEARD, ONT.

SEEDED 1969

Yield in dry matter lbs/ acre and kg/ha

Name	Cut 1		Cut 2		Total	
	lb/acre	kg/ha	lb/acre	kg/ha	lb/acre	kg/ha
Itasca	2428 c	2722	1846	2069	4275 bc	4792
Borena	2664 abc	2987	1444	1618	4109 c	4606
Kompe II	2928 a	3283	1582	1774	4511 abc	5057
Climax	2798 ab	3137	2051	2299	4850 ..	5437
Bounty	2623 bc	2940	2038	2285	4662 ab	5226
L-84	2885 ab	3234	1908	2138	4793 ab	5373
L.S.D. 5%	246.12		457.54		506.69	
C.V.	7.60		21.23		9.40	

A. Skopasts

Expt. 7034

## ONTARIO TIMOTHY HAY TEST

THUNDER BAY, ONT.

SEEDED 1969

Yield in dry matter lbs/acre and kg/ha

Name	Cut 1		Cut 2		Total		1970 Total	2 yr Mean
	lb/acre	kg/ha	lb/acre	kg/ha	lb/acre	kg/ha		
Climax	7202 abc	8073	383 cd	429	7585 bc	8503	6829 abc	7207
Bounty	8018 a	8989	310 d	348	8329 ab	9337	6260 c	7295
L-84	7689 ab	8620	1150 a	1289	8840 a	9910	7261 a	8050
Kempe II	6285 c	7046	551 bc	618	6837 c	7664	6609 abc	6723
Barenza	7188 abc	8058	224 d	251	7413 bc	8310	6307 bc	6860
Itasca	6762 bc	7581	601 b	674	7364 bc	8255	7069 ab	7216
L.S.D. 5%	953.00		207.73		994.84			
C.V.	11.14		32.53		10.82			

W.B. Towill

Expt. 6029

ONTARIO TIMOTHY TRIAL 1969 SEEDLING

KAMUSKASING 1971

Yield in pounds of D.M./acre

Variety	Cut 1		Cut 2		Season's Total	
	N-75	N-150	N-75	N-150	N-75	N-150
Itasca	4942	4448	2434	3723	7376	8571
Brenzo	4392	4518	2381	3669	6773	8187
Kampe II	4627	4377	2607	3213	7235	7590
Climax	4579	4643	2998	3279	7577	7922
Bounty	4185	4643	2553	3574	6738	8116
L-84 (Toro)	4457	4588	2775	4091	7232	8679
Mean	4531	4603	2625	3592	7155	8194
C.V. %	4.19 for N		34.84 for N		13.81 for N	
C.V. %	7.60 for V		15.70 for V		8.46 for V	
L.S.D.	275 for N		1553 for N		1520 for N	
L.S.D.	418 for V		588 for V		782 for V	

Expt. 4110

## TIMOTHY INTRODUCTIONS 1970

OTTAWA, ONTARIO

SEEDED 1970

Yield in dry matter lbs/acre and kg/ha

Variety	Mean Cut 1		Mean Cut 2		Total Cuts 1 & 2	
	lb/acre	kg/ha	lb/acre	kg/ha	lb/acre	kg/ha
Sportim	4204 abcd	4710	1758 cd	1969	5963 c	6679
T 2	4882 a	5469	1984 cd	2222	6867 ab	7691
T 3	4605 ab	5159	2295 bc	2572	6902 ab	7794
T 4	4436 abc	4969	2055 bcd	2302	6492 bc	7271
Z 9011	3767 cd	4220	2537 b	2843	6305 bc	7162
Timo	4387 abc	4913	1730 d	1938	6118 c	6852
Lonsburger	3603 d	4035	2302 bc	2579	5906 c	6615
Champ	4021 bcd	4505	3246	3635	7268 a	8140
Eskimo	3755 cd	4206	2154 bcd	2412	5910 c	6619
C.V.	13.67		18.60		8.30	
S.E.	233.58		169.23		217.38	

W.R. Childers

Expt. 6027

## TIMOTHY VARIETY TRIAL 1967 SEEDING

KAPUSKASING 1971

Yield in pounds of D.M./acre

Variety	Cut 1	Cut 11	Season's Total
TM-60-104	4458	2917	7375
TM-60-101	4819	3153	7977
Topaz	4077	2619	6696
Tiger	3700	2736	6436
Cub	3869	2545	6414
Panther	3705	2722	6427
Lofer	3590	2359	5949
Climax	4529	2963	7492
Bounty	4375	3533	7908
Champ	4634	3302	7936
Labelle	4421	2851	7272
Climax F-2	4437	2874	7311
Heidemij	3938	2605	6543
Erecta	4075	2532	6607
Clair	4246	3603	7849
Mean	4191	2888	7079
C.V.	7.97	20.72	
L.S.D.	384	677	

Expt. 6026

TENTH HAY TRIAL 1964 SEEDING

KANSAS 1971

Yields in pounds of D.M./acre

Variety	Cut 1	Cut 11	Total
Wisc T-1	3558	2119	5677
Libelle	3735	2795	6530
Essex	3203	2365	5568
Clair	3460	3330	6790
Bounty	3777	2201	5978
Milton	3903	2727	6630
Climax	3320	2947	6267
Astra	3331	2615	5946
Champ	3436	3014	6450
Climax Check	3948	2438	6386
Drummond	3323	2242	5565
Mean	3590	2618	6208
C.V. %	5.02	13.58	
L.S.D.	306	605	

Expt. 6026 A

TEOTHY HAY TRIAL 1964 SEEDING

KAPUSKASING 1971

Yield in pounds of D.M./acre

Variety	Cut I	Cut II	Cut III	Cut IV	Total
T - 1	1665	1564	1509	1389	6127
Labelle	1637	1110	1814	1382	5943
Essex	1486	1517	1598	1231	5832
Cloir	1601	644	1976	1506	5727
Bounty	1513	1304	1746	1438	6001
Milton	1739	1165	1728	1436	6068
Climax	1578	1281	1816	1398	6073
Astro-T-41	1580	1389	1485	1393	5847
Champ	1538	1008	1871	1002	5419
Climax Check	1550	1299	1714	1253	5816
Drummond	1450	1355	1425	968	5198
Mean	1576	1240	1698	1309	5823
C.V.	9.66	13.30	9.66	16.95	
L.S.D.	259	281	279	378	



Expt. 6028

## TIMOTHY PASTURE TRIAL 1964 SEEDING

KAPUSKASING 1971

Yield in pounds of D.M./acre

Variety	Cut 1	Cut 11	Total
Drummond	3439	2339	5778
Climax Check	3869	2856	6725
Ottawa P-2	4388	3938	8326
Heidenij	2819	2215	5034
Champ, Ott. P-1	4290	3426	7716
King	2634	2075	4709
Ottawa P-3	3814	3953	7767
Climax	4011	3014	7025
Mean	3658	2977	6635
C.V. %	7.67	12.63	
L.S.D.	491	658	

Expt. 6028 A

TIMOTHY PASTURE TRIAL 1964 SEEDING

KAPUSKASING 1971

Yield in pounds of D.M./acre

Variety	Cut 1	Cut 11	Cut 111	Cut 1V	Season's Total
Drummond	1344	1438	1313	1351	5446
Climax Check	1410	1424	1491	1413	5738
Ottawa P-2	1523	1239	1920	1407	6089
Heidemij	1094	1467	1333	1453	5347
Champ-Ott-P-1	1672	1064	1902	1646	6284
King	1016	1412	1339	2065	5832
Ottawa-P-3	1494	1158	1915	1419	5986
Climax	1448	1220	1381	1243	5292
Mean	1375	1303	1574	1400	5652
C.V.	22.60	16.40	13.56	20.99	
L.S.D.	544	374	374	515	

Timothy Seed Yields - Guelph 1971  
(O.E.C.D. and Other Cultivars)

Experiment 1

Seeded - 21 inch row, 100 feet long, May, 1970.  
Harvested - 3 samples each 10 feet long.

Cultivar	Country	Seedling <sup>1</sup> vigor	Date Harvested	Yield lbs/ac
S352	Great Britain	3	Aug. 9	640
Eskimo	Holland	5	Aug. 9	586
Kairyoshu	Japan	3	Aug. 6	554
No. 90	Great Britain	4	Aug. 18	515
Vetrovsky	Czechoslovakia	4	Aug. 16	471
Vandis	Sweden	4	Aug. 12	453
Erecta	Belgium	4	Aug. 12	451
Levosko	Czechoslovakia	3	Aug. 6	445
Melusine	France	4	Aug. 9	438
Topas	Denmark	3	Aug. 18	436
Odenwelder	Germany	3	Aug. 4	424
Bermoti	Holland	3	Aug. 12	409
Pajbjerg	Denmark	4	Aug. 12	381
Kampe II	Sweden	2	Aug. 12	348
Bounty	Canada	4	Aug. 16	328
Clair	U.S.A.	4	Aug. 4	319
Lofer	Holland	4	Aug. 23	295
Champ	Canada	4	Aug. 6	288
Evergreen	Sweden	4	Sept. 3	188
Olympic	Holland	4	Sept. 10	162
Simo	Holland	3	Sept. 10	162
King	Holland	5	Sept. 3	147
Combi	Holland	5	Sept. 10	140
Sceempter	Holland	4	Sept. 10	131
Bariton	Holland	4	Sept. 3	123
Oakmere	Great Britain	5	Sept. 10	122
Sport	France	4	Aug. 30	55
Pastino	Holland	5	Sept. 10	44
Climax <sup>2</sup>	Canada	3	Aug. 12	379

1 - Rating 1 good, 5 poor  
2 - Adjoining test.

Experiment 2

Seeded - 5 - 14 inch rows per plot, 25 feet long, May 1970, 4  
replications, randomized complete block  
Harvested - 3 rows - 15 feet long per plot.

<u>Cultivar</u>	<u>Country</u>	<u>Date harvested</u>	<u>Yield lbs/ac</u>
Climax	Canada	Aug. 12	379
Toro	Italy	Aug. 4	400
S51	Great Britain	Aug. 18	238
Pecora	France	Aug. 23	194
S48	Great Britain	Sept. 3	82
S50	Great Britain	Aug. 23	106

L.S.D. at .05 is 40 lbs.  
C.V. 20.9%

## SUMMARY OF TIMOTHY DATA 1970

Variety	Ridgetown	Guelph	Kemptville	Ottawa	Thunder Bay	New Liskeard	Kapuskasing	7 Station Mean
Climax	9104	9939	8447	3222	6829	4337	5208	6726
Bounty	8475	9360	7707	3212	6260	4026	4987	6293
L-84	9409	9628	8868	3363	7261	4356	5168	6864
Kempe II	8161	8931	7383	3195	6609	3781	4361	6132
Barmoti	7573	8640	7939	3464	6307	4252	4585	6108
Itasca	9339	9688	8999	3385	7069	4255	5472	6886

Variety	2 yr. Mean Guelph	4 Yr Mean Thunder Bay	Hay Kapuskasing	Hay	3 Year Mean Hay
Champ	8788	4150	6367	4029	8955
Spath	8256				
Climax	8536	4416	6319	4414	9406
Landsburger	8292				
Wis. T-1			6366	4784	
Topaz	8236	4314			8615
Essex			5953	4243	
Bounty	7882	4265	6085	4298	9382
Astra			6044	4045	
Labelle	7936	4018	6166	4419	9087
Milton			6444	4677	
Drummond	7493		6049	3842	
Barmoti	7541				
Clair		4807	5696	4229	8499
Lofar		3393			8284
Climax F2		4352		3867	9539
TM60-104		4070			8974
TM60-101		4440			9488
Cub		4113			8313
Erecta		4261			8658
Heiderij		4191			8675
Panther		3727			8520
Tiger		3691			8392

## TIMOTHY - I.V.D.

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GRAPH

<u>Variety</u>	<u>Cut 1 1969</u>	<u>Cut 1 - 1970</u>		<u>Cut 1 - 1971</u>	
		<u>Seeded 1968</u>	<u>Seeded 1969</u>	<u>Seeded 1969</u>	<u>Seeded 1970</u>
Champ	63.7*	59.4	-	-	-
Climax	62.4	60.0	60.3	61.8	-
Drummond	66.4*	61.2	-	-	-
Labelle	63.3	58.8	-	-	-
Bounty	63.3	59.8	61.0	-	-
Topaz	63.6*	60.4	-	-	-
Barenza	66.6*	61.9*	62.2*	62.4	59.9
Landsberger	64.1*	60.1	-	-	-
Spath	64.5*	60.4	-	-	-
Kampe II	-	-	64.2*	62.7	59.5
Itasca	-	-	57.8 <sup>a</sup>	-	57.3
Toro	-	-	59.3	61.4	56.8
59-67	-	-	60.2	58.9 <sup>a</sup>	-
Vanadis	-	-	-	-	59.3
Musiline	-	-	-	-	58.9
Oakmere	-	-	-	-	61.3
Mean	64.2	60.2	60.7	61.4	59.0
L.S.D.	1.2	1.3	1.5	1.0	1.6

## Other Grasses

F.S. Warren  
Coordinator

No data were received from any trials of other grasses in 1971. Some small lots of reed canarygrass seed were sent to cooperators but no uniform tests were established. No new varieties were received for testing.