

FORAGE INTRODUCTIONS

PUBLICATION No. NRG 74-16

1974

**NORTHERN RESEARCH GROUP
CANADA AGRICULTURE RESEARCH BRANCH
RESEARCH STATION, BEAVER LODGE, ALBERTA**

FORAGE INTRODUCTIONS

C. R. Elliott and M. E. Hiltz

1974

FOREWORD

This is our sixth report on the performance of introduced cultivars of grasses and legumes. All available data are included thus this report replaces all others.

Data are obtained from single plots comprising 5 rows, 30.5 cm (1 foot) apart and 6.1 metres (20 feet) long. Two rows are harvested for herbage and the remaining 3 for seed. Each cultivar is seeded in 3 successive years and each seeding is retained for 3 harvest years. Weeds are controlled by both mechanical and chemical means. Plots are fertilized annually. Irrigation is employed only in the year of seeding if required to ensure complete stands. While many observations are recorded, emphasis is placed on winter hardiness and seed yield.

Key to Symbols

Rating 1 to 9 (9 best), - (not rated)
cm - centimeters (1 inch = 2.54 cm)
kg/ha - kilograms per hectare

lb/acre - pounds per acre
D.C. = double cut
S.C. = single cut

Tetra = tetraploid
Dip. = diploid

INDEX

GRASSES	Page	GRASSES	Page	GRASSES	Page
Bentgrass -Colonial	3	Hair Grass, Early	12	Wheatgrass - Beardless	24
-Creeping	3	Needlegrass	12	-Crested-Agropyron cristatum	24
-Velvet	3	Oatgrass -Tall	12	-A. desertorum	24
Bluegrass -Canada	3	-Yellow	12	-Intermediate	24
-Kentucky	3	Orchardgrass	12	-Pubescent	25
-Rough	5	Redtop -(Agrostis alba L.)	13	-Slender	25
-Upland	5	-(A. gigantea)	13	-Streambank	25
Bromegrass	5	-(A. stolonifera)	13	-Tall	25
Dogtail, Crested	6	Reed Canarygrass	13	LEGUMES	
Fescue -Chewings	6	Altai wild ryegrass	13	Alfalfa	26
-Creeping Red	7	Russian wildrye	14	Clover -Alsike	28
-Meadow	8	Ryegrass -Annual	14	-Arrowleaf	28
-Hair	10	-Biennial	15	-Red	29
-Hard	10	-Perennial	16	-White	31
-Shade	10	Timothy -(P. bertolonii, P. nodosum)	21	Sainfoin	33
-Sheep	10	-(P. pratense)	21	Trefoil	33
-Tall	11			Vetch -Annual	34
Foxtail -Creeping	11			-Crown	34
-Meadow	12			-Milk	34

G R A S S E S

3)

Species	Cultivar	Origin	Hardi- ness Herbage Yield (rating)	Seed Ripe da.,mo.	Data Years	Seed Yields				Ht. cm	Comments
						lb/acre		kg/ha			
						avg	high	avg	high		
Bentgrass, Colonial (<i>Agrostis tenuis</i>)											
	Astoria	U.S.A.	8	4	15/8	5	55	101	62	113	-
	Boral	Sweden	9	3	12/8	12	170	395	190	442	47
	Exeter	Canada	5	2	7/8	8	90	309	101	346	33
	Highland	U.S.A.	7	3	15/8	5	44	73	49	82	-
	Orbica	Netherlands	8	2	5/8	3	107	148	120	166	27
	Saboval	Gt. Britain	8	2	6/8	4	130	375	146	420	33
	Utverk	Iceland	8	2	7/8	6	132	277	148	310	34
	Varmlandsk	Sweden	8	4	15/8	6	139	250	156	280	35
Bentgrass, Creeping (<i>A. palustris</i>)											
	Penncross	U.S.A.	5	2	5/8	13	65	267	73	299	25
	Seaside	U.S.A.	8	5	15/8	7	63	132	71	148	-
Bentgrass, Velvet (<i>A. canina</i>)											
	Aca 61	Germany	7	1	1/8	2	35	71	39	80	40
	Rusta	Netherlands	7	1	1/8	1	43	43	48	48	30
Bluegrass, Canada (<i>Poa compressa</i>)											
	Canon	Canada	9	4	7/8	9	371	685	416	767	54
	Common	Canada	9	4	30/7	5	122	242	137	271	-
Bluegrass, Kentucky (<i>P. pratensis</i>)											
	Adorno	Netherlands	9	3	22/7	6	236	589	264	660	52
	Altra C1	U.S.A.	9	4	20/7	10	204	528	229	592	43
	Arista	Netherlands	9	3	23/7	8	349	983	391	1101	40
	Atlas	Sweden	9	6	20/7	8	317	518	355	580	79
	Barkenta	Netherlands	9	3	26/7	8	226	523	253	586	44
	Baron	Netherlands	9	3	26/7	8	470	984	526	1102	36
	Campus	Germany	9	3	23/7	8	193	449	216	503	46

Species	Cultivar	Origin	Hardi- ness Herbage Yield (rating)	Seed Ripe da.,mo.	Data Years	Seed Yields				Ht. cm	Comments	
						lb/acre		kg/ha				
						avg	high	avg	high			
	Captan	Netherlands	9	5	20/7	8	396	701	444	785	60	
	Cheri	Sweden	9	3	24/7	8	404	816	453	914	41	
	Common	Canada	9	5	20/7	25	115	587	129	658	53	
	Cougar	U.S.A.	9	3	27/7	12	221	733	248	821	32	
	Delft	Netherlands	9	4	20/7	8	256	645	287	722	51	
	Delta	Canada	9	6	24/7	6	170	561	191	629	58	
	Dryland	Canada	9	3	20/7	6	63	133	71	149	45	
	E.F.S.64	Denmark	9	5	19/7	8	246	430	276	482	63	
	Eagle	Netherlands	9	3	21/7	3	153	420	171	470	42	
	Eska 46	Germany	9	4	20/7	9	162	357	181	400	51	
	Fylking	U.S.A.	9	3	20/7	11	63	274	71	307	34	
	Kahnstein	Denmark	9	4	19/7	8	328	946	367	1060	60	
	Karcage	Hungary	9	3	21/7	3	73	178	82	199	60	
	Kenblue	U.S.A.	9	5	21/7	3	298	669	334	749	65	
	Merion	U.S.A.	9	3	26/7	34	95	297	106	333	46	
	Marvel	Belgium	9	3	22/7	8	206	615	231	689	56	
	Newport	U.S.A.	9	5	30/7	7	105	246	118	276	51	
	Norma Otofte	Denmark	9	4	19/7	8	319	1038	357	1163	61	
	Nugget	U.S.A.	9	3	24/7	9	139	240	155	269	30	
	Olympris	Germany	9	4	24/7	8	315	651	353	729	49	
	Otofte	Denmark	9	4	19/7	8	302	964	338	1080	62	
	Park	U.S.A.	9	5	22/7	27	134	448	150	502	58	
	Prato	Netherlands	9	3	22/7	10	205	461	230	517	32	
	Primo	Sweden	9	5	24/7	8	324	719	363	805	55	
	Sobra	Sweden	9	4	18/7	8	271	571	304	640	56	
	Soma Hunsballe	Denmark	9	5	21/7	8	340	1060	381	1187	58	
	Spaths Hohenheimer	Germany	9	3	25/7	8	274	496	307	556	49	
	Stensballe	Denmark	9	5	19/7	8	257	765	288	857	65	
	Stola 310	Germany	9	4	22/7	3	126	290	141	325	60	
	Sydsport	Sweden	9	4	20/7	8	303	580	339	650	63	
	T-No.34	Denmark	9	5	16/7	3	156	235	175	263	49	
	Troy	U.S.A.	9	3	22/7	3	271	669	304	749	63	
	Union	Germany	9	5	19/7	8	241	763	270	855	67	
	Windsor	U.S.A.	9	4	20/7	8	248	709	278	794	59	

Species	Cultivar	Origin	Hardi- ness Herbage Yield (rating)	Seed Ripe da.,mo.	Data Years	Seed Yields				Ht. cm	Comments	
						lb/acre		kg/ha				
						avg	high	avg	high			
Bluegrass, Rough (<i>P. trivialis</i>)												
	Dasas	Denmark	9	4	19/7	8	346	1086	388	1216	61	
	Monopoly	Netherlands	9	3	27/7	9	229	477	256	534	57	
Bluegrass, Upland (<i>P. glaucantha</i>)												
	Draylar	U.S.A.	9	3	8/8	9	224	463	251	463	39	
Bromegrass (<i>Bromus inermis</i>)												
	Achenbach	U.S.A.	9	4	16/8	3	222	324	249	363	-	Southern
	Anto	Poland	9	7	11/8	6	282	718	316	805	86	Northern
	Barton	U.S.A.	9	7	21/8	1	512	512	573	573	100	
	Baylor	U.S.A.	9	6	14/8	9	436	805	488	902	94	Southern
	Beacon	U.S.A.	9	7	21/8	1	789	789	884	884	105	
	Blair	U.S.A.	9	6	14/8	9	407	791	456	886	95	Southern
	Carlton	Canada	9	6	15/8	33	470	1016	526	1138	90	Northern
	Deborah	England	8	1	29/8	1	677	677	758	758	55	
	Frigga	Sweden	9	6	14/8	8	521	1010	584	1131	98	Northern
	"G"	Hungary	9	7	16/8	11	389	736	436	824	100	
	Lancaster	U.S.A.	9	6	15/8	11	419	813	469	911	95	Southern
	Landrace	Hungary	9	7	16/8	6	412	602	461	674	100	
	Lincoln	U.S.A.	9	5	15/8	13	395	951	442	1065	98	Southern
	Lyon	U.S.A.	9	4	17/8	3	251	345	281	386	-	Southern
	Magna	Canada	9	8	13/8	12	739	1246	828	1396	100	Intermediate
	Manchar	U.S.A.	9	7	12/8	32	270	1238	302	1388	89	Intermediate
	Parkland	Canada	9	5	16/8	3	165	229	185	267	-	
	Polar	U.S.A.	9	7	15/8	15	426	948	477	1063	90	Northern
	Redpatch	Canada	9	8	12/8	11	287	599	321	671	96	Southern
	Regar	U.S.A.	9	7	3/8	6	432	848	484	950	98	
	Sac	U.S.A.	9	7	12/8	9	225	565	252	633	94	Southern
	Saratoga	U.S.A.	9	7	13/8	13	200	533	224	597	94	Southern
	"ZK"	Czech.	9	6	11/8	6	310	749	348	840	100	Northern

(6)

Species	Cultivar	Origin	Hardi- ness Herbage Yield (rating)	Seed Ripe da.,mo.	Data Years	Seed Yields				Ht. cm	Comments
						lb/acre		kg/ha			
						avg	high	avg	high		
Dogstail, Crested (<i>Cynosurus cristatus</i>)											
	Credo Sceempter	Netherlands	4	1	2/8	5	98	103	110	115	45
	SWM	New Zealand	5	1	2/8	5	140	151	157	169	43
Fescue, Chewings (<i>Festuca rubra</i> var. <i>Communtata</i>)											
	Amboise	France	9	2	25/7	6	265	677	297	758	50
	Atlanta	Netherlands	9	1	31/7	1	32	32	36	36	30
	Barfalla	Netherlands	9	4	24/7	12	173	729	194	816	48
	Cascade	U.S.A.	9	5	26/7	8	308	757	345	848	58
	Cebeco	Netherlands	9	3	26/7	9	113	332	127	372	51
	Cottage	France	8	2	18/7	9	166	910	186	1019	47
	Dawson	Netherlands	9	4	22/7	12	154	692	173	775	54
	Encota	Netherlands	9	5	22/7	12	252	857	282	960	50
	Erika	Sweden	9	4	25/7	12	216	850	242	952	55
	Famosa	Belgium	9	4	27/7	8	261	681	292	763	49
	Faramir	Denmark	7	1	29/7	1	2	2	2	2	30
	Flevo	Netherlands	9	4	22/7	9	221	928	248	1039	55
	Golfrood	Netherlands	9	5	24/7	16	125	594	140	667	45
	Highlight	Netherlands	9	4	22/7	21	218	866	244	970	45
	Jamestown	U.S.A.	9	4	27/7	8	353	960	395	1075	55
	Koket	Netherlands	9	4	25/7	9	246	599	276	671	55
	Lifalla	Germany	9	3	22/7	9	261	942	292	1055	52
	Linora	Germany	9	4	22/7	11	170	642	190	719	52
	Lirouge	Germany	9	4	22/7	9	241	706	270	791	52
	Menuet	Netherlands	9	3	30/7	4	207	462	232	517	52
	Oase	Netherlands	9	5	21/7	14	103	254	115	285	52
	Odra	Germany	8	3	27/7	3	326	708	365	793	60
	Rolax	Belgium	9	4	25/7	12	189	581	212	651	55
	Waldorf	Netherlands	9	3	27/7	3	325	597	364	669	50

Species	Cultivar	Origin	Hardi- ness Herbage Yield (rating)	Seed Ripe da.,mo.	Data Years	Seed Yields				Ht. cm	Comments	
						lb/acre avg high		kg/ha avg high				
Fescue, Creeping Red (F. rubra)												
	Agio	Netherlands	9	5	28/7	9	285	958	319	1073	55	(Pruinosa)
	Arctared	U.S.A.	9	6	20/7	12	308	960	345	1076	56	
	Bargena	Netherlands	9	6	26/7	12	198	533	222	597	55	
	Bergere	France	9	5	26/7	12	222	658	249	737	58	
	Bergond	Denmark	8	1	5/8	1	16	16	18	18	45	
	Blere	France	9	5	30/7	6	258	574	289	643	69	
	Boreal	Canada	9	5	28/7	25	505	1767	566	1981	59	
	Chaumont	France	7	1	1/8	3	22	59	25	66	38	
	Cheverny	France	9	4	29/7	4	157	535	176	599	55	
	Dasas	Denmark	9	5	28/7	8	298	601	334	673	65	
	Duraturf	Canada	9	6	30/7	14	418	934	469	1047	64	
	Durlawn	Canada	9	5	28/7	8	395	679	442	760	61	
	Echo	Denmark	9	6	26/7	12	331	619	370	694	63	
	Elco	Denmark	9	5	26/7	12	327	882	366	988	62	
	Elite	Denmark	9	5	29/7	12	316	800	354	897	67	
	Engina	Netherlands	9	2	5/8	1	260	260	291	291	55	
	F.R.R./H67	Netherlands	9	3	25/7	9	144	594	161	665	52	
	Gracia	Netherlands	9	5	26/7	15	157	480	176	538	52	
	Grampian	Gt. Britain	9	2	25/7	1	16	16	18	18	50	
	Illahee	U.S.A.	9	5	31/7	12	250	515	280	577	-	
	Jade	Netherlands	9	4	1/8	1	167	167	187	187	45	
	Kos	Poland	9	4	27/7	9	278	805	311	902	52	
	Laverdure	France	9	1	5/8	1	25	25	28	28	55	
	Leo	Poland	9	4	29/7	9	200	761	224	852	54	
	Levoscka	Czech.	9	6	26/7	9	337	1195	377	1340	55	
	Liebenziger	Germany	9	4	27/7	11	363	869	407	973	59	
	Loken	Norway	9	2	1/8	1	43	43	48	48	60	
	Noro	Germany	9	1	30/7	1	9	9	10	10	40	
	Novorubra	Netherlands	9	5	1/8	17	246	820	276	918	53	
	Oberhaunstadter	Germany	9	5	26/7	12	277	793	310	888	63	
	Odenrot	Germany	9	5	26/7	12	324	910	363	1019	60	
	Olds	Canada	9	7	31/7	23	463	1718	519	1926	62	

(Pruinosa)

Species	Cultivar	Origin	Hardi- ness (rating)	Herbage Yield (rating)	Seed Ripe da.,mo.	Data Years	Seed Yields				Ht. cm	Comments
							lb/acre		kg/ha			
							avg	high	avg	high		
	Pennlawn	U.S.A.	9	7	31/7	12	214	534	240	599	-	
	Polar	Sweden	9	5	25/7	11	205	802	230	898	58	
	Polo	Denmark	9	6	26/7	12	345	727	386	814	63	
	Rainer	U.S.A.	9	6	31/7	5	259	440	290	493	-	
	Rapid	Netherlands	9	5	26/7	12	452	1056	506	1183	59	
	Rassengold	Germany	9	5	27/7	9	281	798	315	894	61	
	Reptans	Sweden	9	6	28/7	17	379	1325	425	1485	56	
	Roda	Netherlands	9	3	31/7	6	163	389	183	436	54	
	Roemer	Germany	9	4	26/7	15	230	759	258	850	56	
	Roland 21	Germany	9	7	27/7	11	436	1472	488	1650	63	
	Roznovsky	Czech.	9	6	26/7	9	302	982	338	1101	58	
	Rubin	Sweden	9	6	27/7	15	267	777	299	870	61	
	Rubina	Denmark	9	5	27/7	9	298	843	334	944	60	
	Ruby	Netherlands	9	6	25/7	8	392	1509	439	1692	50	
	Rudax	Belgium	9	4	24/7	3	345	670	386	750	55	
	Runa	Sweden	9	7	29/7	3	269	554	301	621	-	
	Runo	Poland	9	5	27/7	9	316	805	354	902	61	
	S-59	Gt. Britain	9	5	21/7	9	101	500	113	561	47	
	Stensballe	Denmark	9	5	29/7	8	355	889	398	996	66	
	Svalbard	-	9	2	5/8	1	46	46	52	52	50	
	Taborska	Czech.	9	6	25/7	9	246	1204	276	1350	55	
	Taca	Denmark	9	6	27/7	18	338	818	379	916	66	
	Turf	Sweden	9	5	26/7	21	368	1101	412	1233	63	
	Viking	Sweden	9	8	29/7	3	136	406	152	455	-	
	Wilton	Sweden	9	4	24/7	8	170	686	190	768	59	
	Wintergreen	U.S.A.	9	4	23/7	9	215	589	241	589	47	
Fescue, Meadow (F. pratensis, F. elatior)												
	Admira	Netherlands	9	5	29/7	8	476	649	533	727	69	
	B 14	Yugoslavia	9	6	29/7	8	694	1150	777	1288	79	
	Barbarossa	Netherlands	9	6	28/7	14	422	1278	473	1433	70	
	Barenbrug Pasture	Netherlands	9	6	29/7	6	630	1120	706	1254	73	
	Barkas	Netherlands	9	5	30/7	7	429	1045	481	1170	73	
	Belimo	Netherlands	9	5	28/7	18	445	1054	498	1182	70	
	Bergamo	Netherlands	9	5	28/7	24	345	1008	386	1129	67	

Species	Cultivar	Origin	Hardi- ness	Herbage Yield	Seed Ripe	Data Years	Seed Yields				Ht. cm	Comments
							lb/acre		kg/ha			
			(rating)		da.,mo.		avg	high	avg	high		
	Boris	Sweden	9	7	1/8	1	996	996	1116	1116	80	
	Bottnia II	Sweden	9	7	29/7	8	579	1079	649	1208	69	
	Bundy	Netherlands	9	5	29/7	8	593	909	664	1018	74	
	Comtessa	Netherlands	9	4	29/7	8	652	1010	730	1131	76	
	Cosmos II	Germany	9	5	28/7	15	341	521	382	584	75	
	Daphne	France	9	4	28/7	9	364	816	408	914	73	
	Dina	Poland	9	5	28/7	9	302	887	338	994	70	
	Dufa	Netherlands	9	5	28/7	18	300	1060	336	1188	73	
	Embela	Netherlands	9	5	28/7	8	507	905	568	1014	73	
	Ensign	Canada	9	8	1/8	9	462	765	518	858	-	
	Fepra	Sweden	9	5	29/7	8	616	1120	690	1254	78	
	Fero Otofte	Denmark	9	6	29/7	8	475	843	532	944	77	
	Fiola	Germany	9	7	29/7	8	595	1010	666	1131	77	
	"G"	Hungary	9	8	24/7	6	694	1010	777	1131	78	
	Garanta	Netherlands	9	5	26/7	15	481	1342	539	1503	75	
	Irene	Sweden	9	6	28/7	9	470	1378	527	1545	73	
	Janetzki O.S.G.	Germany	9	7	29/7	8	648	1255	726	1406	76	
	Largo	Netherlands	9	6	29/7	8	768	1364	860	1528	77	
	Levocska	Czech.	9	6	28/7	9	407	1173	456	1315	73	
	Loken	Norway	9	5	28/7	12	332	622	372	697	79	
	Marbury	Gt. Britain	9	5	28/7	12	366	808	410	906	73	
	Merbeem	Belgium	9	6	25/7	11	542	1271	607	1424	69	
	Mewa	Poland	9	6	28/7	9	321	969	360	1086	75	
	Mimer	Sweden	9	5	29/7	32	568	1490	636	1670	73	
	Naiade	France	9	4	30/7	9	574	1019	643	1141	72	
	Ola	Poland	9	6	28/7	9	289	892	324	1000	70	
	Otofte	Denmark	9	6	29/7	8	624	917	699	1027	80	
	Paavo	Finland	9	6	31/7	12	458	813	513	911	88	
	Perdita	Gt. Britain	9	7	2/8	1	1145	1145	1282	1282	70	
	Rego	Denmark	9	7	2/8	1	882	882	988	988	70	
	Rossa	Netherlands	9	5	28/7	12	449	765	503	857	75	
	Roznovska	Czech.	9	6	28/7	9	411	1392	460	1560	73	
	S-53	Gt. Britain	9	5	28/7	9	246	716	276	803	63	
	S-215	Gt. Britain	9	5	29/7	8	629	1026	705	1149	75	
	Sena	Sweden	9	5	28/7	12	446	1022	499	1145	76	
	Senu	Denmark	9	5	29/7	8	672	1109	753	1242	76	

Species	Cultivar	Origin	Hardi- ness (rating)	Herbage Yield (rating)	Seed Ripe da.,mo.	Data Years	Seed Yields				Ht. Comments cm
							lb/acre		kg/ha		
							avg	high	avg	high	
	Sequano	France	9	6	28/7	9	436	1248	489	1399	71
	SK-6	Poland	9	6	28/7	9	344	697	385	781	71
	Tammisto	Finland	9	7	29/7	8	580	917	650	1027	81
	Trader	Canada	9	6	28/7	9	322	1065	361	1194	75
	Trifolium	Denmark	9	6	29/7	8	689	1072	772	1201	76
	Wehrdaer	Germany	9	5	28/7	12	414	914	464	1024	72
	Wendelmoed	Netherlands	9	5	28/7	12	272	789	305	884	72
	Winge	Germany	9	5	29/7	8	437	820	489	918	73
Fescue, Hair (F. capillata inc. ovina tenuifolia)											
	Barok	Netherlands	9	3	21/7	12	205	903	230	1011	35
	Cebeco S.70-2	Netherlands	9	1	22/7	6	32	78	36	87	22
	Novina	Netherlands	9	2	22/7	8	127	605	142	678	32
	Sima	Poland	9	2	22/7	12	150	836	168	936	33
Fescue, Hard (F. ovina var. duriuscula)											
	Azay	France	9	1	29/7	3	75	137	84	153	32
	Biljart	Netherlands	9	4	21/7	16	271	1184	304	1326	47
	Carot	Netherlands	9	5	21/7	9	379	713	425	799	51
	Cebeco H2-71-4	Netherlands	9	2	23/7	3	203	279	227	313	50
	Durar	U.S.A.	9	7	25/7	13	345	1049	386	1175	63
	Mecklenburgischer	Germany	9	5	22/7	3	723	781	810	875	55
	S-1748	Canada	9	7	25/7	8	631	1241	707	1390	68
	Sevo	Belgium	9	5	24/7	6	427	857	478	960	51
Fescue, Shade (F. heterophylla)											
	Chambord	France	8	2	30/7	4	127	315	142	353	58
	Sawa	Poland	9	3	25/7	9	142	525	159	588	51
Fescue, Sheep (F. ovina)											
	Felia	Belgium	9	2	21/7	9	183	864	205	968	35
	Fertalia	Belgium	9	1	22/7	3	414	987	464	1105	35

Species	Cultivar	Origin	Hardi- ness Herbage Yield (rating)	Seed Ripe da.,mo.	Data Years	Seed Yields				Ht. cm	Comments	
						lb/acre		kg/ha				
						avg	high	avg	high			
	"G"	Hungary	9	4	22/7	3	625	855	700	958	47	
	Ovina	Netherlands	8	1	22/7	3	26	34	29	38	30	
	P-274	U.S.A.	9	4	29/7	4	365	864	409	968	48	
	Vendome	France	9	4	22/7	4	549	1369	615	1533	40	(pseudovina)
Fescue, Tall (F. arundinacea)												
	Alta	U.S.A.	8	4	31/7	25	287	721	321	808	82	
	Backafall	Sweden	8	4	30/7	11	212	473	237	530	80	
	Clarine	France	9	5	9/8	1	501	501	561	561	90	
	Demeter	Australia	9	5	31/7	8	459	923	514	1033	81	
	Fawn	U.S.A.	6	4	31/7	8	331	1110	371	1244	66	
	Festal	Netherlands	8	5	1/8	8	473	969	530	1085	81	
	Festival	France	9	4	4/8	3	567	718	635	804	77	
	Fortune	U.S.A.	6	7	14/8	2	493	691	552	774	65	
	"G"	Hungary	9	6	2/8	3	609	749	682	839	85	
	Goar	U.S.A.	9	1	5/8	1	364	364	408	408	80	
	Kenmont	U.S.A.	9	6	31/7	8	392	859	439	962	88	
	Kenwall	U.S.A.	9	5	31/7	8	343	775	384	868	80	
	Ky.31	U.S.A.	9	5	31/7	8	495	939	554	1051	82	
	Ludelle	France	9	2	5/8	1	132	132	148	148	80	
	Ludion	France	8	5	1/8	8	292	632	327	708	77	
	Manade	France	6	5	31/7	6	255	530	286	594	50	
	Motail	Netherlands	9	7	31/7	6	461	957	516	1072	95	some snow mold resistance
	Rozelle	Gt. Britain	9	5	29/7	8	440	797	493	893	76	
	S.170	Gt. Britain	7	3	30/7	9	214	580	240	650	76	
Foxtail, Creeping (Alopecurus arundinaceus)												
	Garrison	Canada	9	4	7/7	15	131	509	147	570	80	

Species	Cultivar	Origin	Hardi- ness Herbage Yield (rating)	Seed Ripe da.,mo.	Data Years	Seed Yields				Ht. cm	Comments
						lb/acre		kg/ha			
						avg	high	avg	high		
Foxtail, Meadow (<i>A. pratensis</i>)											
	Common	Canada	9	5	6/7	9	267	552	299	618	77
	Dan	Poland	9	5	5/7	9	223	314	250	352	74
	Oregon	U.S.A.	9	5	7/7	12	226	330	253	370	79
	Polano	Poland	9	4	5/7	9	141	411	158	460	76
	Rhona	Germany	9	4	7/7	9	168	259	188	290	74
Hair Grass, Early (<i>Aira praecox</i>)											
	Snarrot	-	8	2	5/8	3	143	272	160	305	65
Needlegrass (<i>Stipa viridula</i>)											
	Mandan	U.S.A.	9	4	27/7	6	389	620	436	694	95
Oatgrass, Tall (<i>Arrhenatherum elatius</i>)											
	Arel 41	Germany	9	8	19/7	3	378	391	423	438	113
	Armo	Netherlands	8	4	15/7	8	196	439	220	492	98
	Barricade	Netherlands	8	4	21/7	8	152	350	170	392	92
	Odenwalder	Germany	8	4	20/7	8	172	301	193	337	100
	Remus	Poland	6	4	25/7	8	83	208	93	233	90
	SK-5	Poland	7	3	20/7	9	93	200	104	224	90
	Tualatin	-	9	5	20/7	6	268	445	300	498	107
	Wena	Poland	7	3	20/7	8	99	158	111	177	86
Oatgrass, Yellow (<i>Trisetum flavescens</i>)											
	Common	Germany	8	3	26/7	4	66	141	74	158	69
	Spath's Hohenheimer	Germany	8	3	23/7	7	153	516	171	578	63
	Triset 51	Germany	8	3	21/7	9	96	254	108	285	66
Orchardgrass (<i>Dactylis glomerata</i>)											
	Aries	France	6	3	1/8	5	127	368	142	413	68
	Chinook	Canada	8	4	31/7	14	117	393	131	440	72

Species	Cultivar	Origin	Hardi- ness Herbage Yield (rating)	Seed Ripe da.,mo.	Data Years	Seed Yields				Ht. cm	Comments	
						lb/acre		kg/ha				
						avg	high	avg	high			
	Fala	Poland	9	4	29/7	9	161	354	180	397	70	
	Hercules	Canada	6	2	6/8	3	83	148	93	166	-	
	Holstenkamp	Germany	8	4	29/7	3	101	150	113	168	85	
	Marton vassaria	Czech.	8	4	29/7	6	93	213	104	239	70	
	Roznovska	Czech.	9	5	29/7	9	101	229	113	256	70	
	T.No.15	Denmark	7	4	29/7	6	74	133	83	149	68	
	T.No.16	Denmark	7	3	29/7	6	124	276	139	309	73	
	T.No.17	Denmark	6	3	29/7	5	102	213	114	239	73	
	Tardus II	Sweden	7	5	29/7	12	132	334	148	374	73	
	Taurus	France	6	3	29/7	8	24	93	27	104	65	
Redtop (<i>Agrostis alba</i> L.)												
	Reton	Canada	7	3	13/8	10	244	644	273	721	61	
Redtop (<i>A. gigantea</i>)												
	Chanteloup	France	8	1	31/7	1	37	37	41	41	40	
	N.F.G.	Germany	6	3	13/8	8	288	686	323	768	59	
	V. Kamekes	Germany	7	3	12/8	9	158	396	177	444	54	
Redtop (<i>A. stolonifera</i>)												
	Smaragd	Sweden	5	1	10/8	8	30	77	34	86	20	
Red Canarygrass (<i>Phalaris arundinacea</i>)												
	Castor	Canada	9	5	27/7	3	104	206	117	231	103	
	Frontier	Canada	9	7	26/7	16	28	114	31	128	89	
	Luba	Poland	9	7	26/7	9	20	85	22	95	89	
Altai wildrye (<i>elymus angustus</i>) - U.S.S.R.												
			9	4	15/8	9	64	220	72	246	87	

Species	Cultivar	Origin	Hardi- ness (rating)	Herbage Yield (rating)	Seed Ripe da.,mo.	Data Years	Seed Yields				Ht. cm	Comments
							lb/acre		kg/ha			
							avg	high	avg	high		
Russian wildrye (<i>E. junceus</i>)												
	Mayak	Canada	9	3	3/8	3	163	473	183	530	85	
	Sawki	Canada	9	4	2/8	25	267	985	299	1104	88	
	Vinall	U.S.A.	9	3	3/8	8	171	589	192	660	91	
Ryegrass, Annual (<i>Lolium multiflorum</i>) The following cultivars were seeded in early spring (first week of May) at 5 kg/ha. All data were collected the year of seeding.												
	Baroldi	Netherlands	-	7	21/8	4	488	579	547	649	65	tetra
	Barwoltra	Germany	-	6	6/9	4	611	864	684	968	65	
	Billion	Germany	-	7	7/9	4	572	915	641	1025	70	
	Eclata	Netherlands	-	-	5/9	2	714	1027	800	1150	83	
	Gulf	U.S.A.	-	5	7/9	3	712	1024	797	1147	70	
	Hesa	Germany	-	5	30/8	3	447	866	501	970	73	
	Hg 7222	Sweden	-	5	13/8	1	890	890	997	997	60	
	Lema	Germany	-	5	13/8	1	1094	1094	1225	1225	60	
	Lemtal R.V.P.	Belgium	-	5	1/9	3	128	197	143	221	63	
	Lutil	France	-	4	24/8	1	154	154	173	173	55	
	Magnolia	U.S.A.	-	-	28/8	1	1432	1432	1604	1604	63	
	Million	Netherlands	-	2	25/8	3	756	1531	847	1715	60	
	Mowester	Poland	-	6	26/8	4	845	1200	946	1344	61	
	Optima	Netherlands	-	4	13/8	1	576	576	645	645	60	
	Ostsaat-Volkenrode	Germany	-	4	28/8	3	941	1902	1054	2130	70	
	Rita	France	-	-	6/9	1	350	350	392	392	60	
	Rina	France	-	2	31/8	2	186	300	208	336	50	
	Roznovsky (West.)	Czech.	-	7	26/8	4	776	907	869	1016	68	
	Roznovsky (Italian)	Czech.	-	-	8/9	2	85	100	95	112	70	
	Stormont Ibex	Gt. Britain	-	4	13/8	2	356	562	399	629	65	
	Tama	New Zealand	-	4	25/8	3	620	824	694	923	63	
	Tewema	Belgium	-	4	24/8	1	422	422	473	473	60	
	Tewera	Netherlands	-	8	8/9	5	590	899	661	1007	65	tetra
	Vertas	Netherlands	-	8	6/9	4	634	885	710	991	65	tetra
	Weldra	Netherlands	-	3	25/8	3	776	1523	869	1706	63	
	Westerwolds raaigras	Netherlands	-	-	30/8	2	838	1275	939	1428	69	
	Wewo	Netherlands	-	-	26/8	2	1061	1672	1188	1873	78	
	Witala	Germany	-	4	31/8	2	186	300	208	336	55	
	Woldi	Netherlands	-	2	29/8	3	797	1632	893	1828	65	

Species	Cultivar	Origin	Hardi- ness Herbage Yield (rating)	Seed Ripe da.,mo.	Data Years	Seed Yields				Ht. cm	Comments
						lb/acre		kg/ha			
						avg	high	avg	high		
Ryegrass, Biennial (<i>L. multiflorum</i>)			The following cultivars were seeded in mid-summer (first week of July) at 5 kg/ha. All data were collected the year after seeding.								
	Barmultra	Germany	6	5	14/8	3	513	746	575	836	63
	Baroldi	Netherlands	3	2	16/8	2	133	182	149	204	63
	Barwoltra	Germany	7	3	14/8	4	308	473	345	530	63
	Billion	Germany	7	3	12/8	4	291	396	326	444	63
	Birca Trifolium	Denmark	7	5	21/8	2	448	893	502	1000	70
	Celtic	Ireland	6	5	13/8	4	549	1207	615	1352	67
	Combata	Netherlands	5	3	16/8	2	329	552	369	618	48
	Dasas E.F. 486	Denmark	5	2	18/8	2	174	276	195	309	58
	Eclata	Netherlands	4	3	16/8	2	251	276	281	309	60
	Ellesmere	Gt. Britain	5	3	13/8	4	435	994	487	1113	67
	Gero Otofte	Denmark	9	9	21/8	2	817	830	915	930	80
	Gulf	U.S.A.	6	2	11/8	3	121	362	136	405	40
	Hesa	Germany	3	4	14/8	3	600	1020	672	1142	60
	Hg 7222	Sweden	7	4	15/8	4	342	430	383	482	65
	Imperial	Sweden	6	3	15/8	4	327	422	366	473	58
	Itaque	France	3	3	16/8	3	214	288	240	323	53
	Lema	Germany	2	3	14/8	3	347	533	389	597	63
	Lental R.V.P.	Belgium	8	5	15/8	4	531	888	595	995	63
	Llor	Czech.	4	3	18/8	2	271	475	304	532	55
	Lomi	Denmark	6	4	18/8	2	486	876	544	981	58
	Lutil	France	6	3	21/8	2	190	336	213	376	60
	Magnolia	U.S.A.	2	5	13/8	2	442	833	495	933	53
	Meritra	Belgium	7	6	21/8	2	404	674	453	755	85
	Milamo	Netherlands	6	2	16/8	4	179	223	201	250	57
	Mowester	Poland	1	1	6/8	3	27	46	30	52	55
	Nachwirsfro	Germany	6	5	23/8	2	345	689	386	772	53
	Novita	Sweden	5	3	15/8	3	420	792	470	887	58
	Optima	Netherlands	5	4	16/8	2	414	511	464	572	63
	Ostraat-Volkenrode	Germany	1	2	16/8	2	230	242	258	271	43
	Otofte	Denmark	7	5	15/8	4	536	811	600	908	77
	Paroa	New Zealand	7	3	15/8	4	349	588	391	659	55
	Prima Roskilde	Denmark	5	2	13/8	4	298	562	334	629	68
	Rita	France	3	2	23/8	2	42	84	47	94	50

Species	Cultivar	Origin	Hard- ness (rating)	Herbage Yield	Seed Ripe da.,mo.	Data Years	Seed Yields				Ht. cm	Comments
							lb/acre avg	high	kg/ha avg	high		
	Rina	France	3	1	23/8	2	37	74	41	83	45	
	Romo	Netherlands	7	8	21/8	2	505	936	567	1048	85	tetra
	Roznovsky (West.)	Czech.	1	1	16/8	2	80	118	90	132	55	
	Roznovsky (Italian)	Czech.	7	5	15/8	4	514	900	576	1008	65	
	S.22	Gt. Britain	7	3	13/8	5	362	919	405	1029	72	
	SK-7	Poland	2	2	11/8	3	253	458	283	513	58	
	Sabalan	Gt. Britain	5	5	14/8	4	307	461	344	516	72	
	Sola	Netherlands	7	6	15/8	3	409	578	458	647	53	
	Stormont Ibex	Gt. Britain	6	4	16/8	2	627	665	702	745	55	
	Tama	New Zealand	7	3	12/8	4	345	458	386	513	57	
	Terli	Netherlands	5	5	14/8	4	328	578	367	647	77	
	Tetila	Netherlands	6	6	16/8	3	479	938	537	1051	63	tetra
	Tetraflorum	Germany	6	5	18/8	2	556	1075	623	1204	63	tetra
	Tetrone	Germany	8	7	16/8	5	673	773	754	866	71	tetra
	Tewema	Belgium	9	4	21/8	2	419	610	469	683	70	
	Tewera	Netherlands	7	3	14/8	3	311	370	348	414	63	tetra
	Tiara	Netherlands	9	4	13/8	5	438	840	491	941	68	
	Tur	Poland	3	3	11/8	3	327	588	366	659	58	
	Vertas	Netherlands	7	4	14/8	3	402	454	450	509	60	tetra
	Weldra	Netherlands	2	1	16/8	2	104	125	117	140	63	
	Westerwold Hybrid	Netherlands	9	8	21/8	2	819	847	917	949	73	
	Westerwold raaigras	Netherlands	1	2	16/8	2	161	209	180	234	50	
	Wewo	Netherlands	1	1	16/8	2	109	192	122	215	60	
	Witala	Germany	3	2	16/8	3	127	242	142	271	52	
	Woldi	Netherlands	1	2	16/8	2	293	442	328	495	65	

Ryegrass, Perennial (L. perenne)

The following cultivars were seeded in both early spring and mid-summer. In both instances they responded as biennials (produced seed only in the year after seeding and then died).

Agresso	Netherlands	9	9	18/8	4	855	1159	958	1298	66	
Animo	Netherlands	8	9	18/8	4	802	986	898	1104	66	
Argo	Poland	8	8	22/8	7	859	1606	962	1799	56	
Atempo	Netherlands	9	9	18/8	4	951	1301	1065	1457	69	
Barenza	Netherlands	8	5	23/8	5	622	802	697	898	53	
Barlatra	Netherlands	8	8	22/8	4	687	1027	769	1150	63	
Barlenna	Netherlands	8	8	17/8	5	706	1226	791	1373	53	
Barpastra	Netherlands	9	8	'8	4	697	1054	781	1181	65	

Species	Cultivar	Origin	Hardi- ness Herbage Yield (rating)	Seed Ripe da.,mo.	Data Years	Seed Yields				Ht. cm	Comments	
						lb/acre		kg/ha				
						avg	high	avg	high			
	Barstella	Netherlands	8	7	21/8	4	511	629	572	705	60	
	Barvestra	Netherlands	9	7	19/8	5	326	502	365	562	60	
	Bocage	France	8	9	18/8	4	757	1015	848	1137	63	
	Caprice	Netherlands	8	7	17/8	5	611	998	684	1118	54	
	Combi	Netherlands	9	9	18/8	4	782	895	876	1002	59	
	Compas	Netherlands	8	6	19/8	4	565	826	633	925	51	
	Cropper	Netherlands	8	7	16/8	4	361	533	404	597	53	
	Dasas	Denmark	8	9	16/8	4	983	1198	1101	1342	66	
	Delta	Sweden	8	7	14/8	4	814	1272	912	1425	58	
	Devon Eaver	Gt. Britain	7	6	18/8	3	494	799	553	895	43	
	Doublet	Netherlands	8	9	16/8	4	974	1234	1091	1382	60	
	Dux Otofte	Denmark	7	9	21/8	4	729	1085	817	1215	60	
	Endura	Netherlands	9	9	18/8	4	657	970	736	1086	63	
	Fingal	Ireland	8	9	23/8	2	892	1123	999	1258	65	
	Fortis	Netherlands	8	9	18/8	4	844	1212	945	1357	66	
	Georgikon	-	6	8	22/8	4	634	794	710	889	53	
	Glasnevin	Ireland	9	9	18/8	4	627	1164	702	1304	61	
	Gremie	Netherlands	7	4	16/8	4	332	432	372	484	50	
	Hatchmere	Gt. Britain	9	8	11/8	4	578	1226	647	1373	58	
	Havier	Germany	8	9	23/8	4	723	1200	810	1344	66	
	Hora	Netherlands	7	8	19/8	4	499	859	559	962	59	
	Hubal	Netherlands	8	8	17/8	4	711	917	796	1027	54	
	Hunsballe	Denmark	9	9	18/8	4	1151	1466	1289	1642	68	
	Karcagi	Hungary	8	9	16/8	5	1134	1464	1270	1640	60	
	Lamora	Netherlands	8	6	21/8	7	470	742	526	831	54	
	Lenta	Denmark	9	9	16/8	4	1177	1764	1318	1976	71	
	Lembkes	Germany	7	9	15/8	4	851	1181	953	1323	56	
	Linn	U.S.A.	8	8	14/8	5	701	996	785	1116	53	
	Manhattan	U.S.A.	7	8	18/8	4	674	1198	755	1342	54	
	Medea	Aus.	9	9	23/8	2	1225	1555	1372	1742	53	
	Mossa	Netherlands	9	9	23/8	2	950	1202	1064	1346	65	
	NK-100	U.S.A.	8	9	18/8	6	671	1262	752	1413	61	
	NK-200	U.S.A.	8	8	15/8	4	718	1157	804	1296	60	
	Naki	Poland	9	9	23/8	2	834	1121	934	1256	58	
	Norlea	Canada	9	9	21/8	10	944	1762	1057	1973	61	
	Odengrum	Germany	9	9	23/8	2	783	958	877	1073	60	
	Odstein	Germany	8	7	17/8	4	775	1236	868	1384	60	

Species	Cultivar	Origin	Hardi- ness (rating)	Herbage Yield	Seed Ripe da.,mo.	Data Years	Seed Yields				Ht. cm	Comments
							lb/acre		kg/ha			
							avg	high	avg	high		
	Oregon Common	U.S.A.	8	6	17/8	7	481	1025	539	1148	53	
	Oriel	Ireland	8	7	14/8	4	753	1049	843	1175	46	
	Pax Otofte	Denmark	8	7	17/8	4	610	804	683	901	58	
	Pelo	Netherlands	8	6	21/8	7	454	958	509	1073	57	
	Pennfine	-	7	6	18/8	4	372	638	417	715	43	
	Perma	Netherlands	8	9	18/8	4	745	1027	834	1150	61	
	Pickmere	Gt. Britain	8	9	17/8	4	820	1178	918	1319	60	
	Premo	Netherlands	8	6	15/8	4	462	629	517	705	53	
	Presto	Denmark	8	7	12/8	4	664	914	744	1024	59	
	Primevere	France	8	5	14/8	4	413	535	463	599	53	
	Printo	Germany	8	7	14/8	4	698	890	782	997	51	
	R.V.P. Pasture	Belgium	8	2	13/8	5	274	463	307	519	57	
	Raidor	France	9	7	12/8	4	474	552	531	618	55	
	Real	France	8	9	18/8	4	737	962	825	1077	56	
	Reveille	Netherlands	8	6	25/8	4	396	619	444	693	59	tetra
	Roznovsky	Czech.	7	5	17/8	7	475	775	532	868	57	
	Ruanui	New Zealand	9	6	13/8	4	589	869	660	973	55	
	S.23	Gt. Britain	8	9	19/8	4	652	955	730	1070	58	
	S.24	Gt. Britain	8	5	18/8	4	503	794	563	889	50	
	S.101	Gt. Britain	8	9	19/8	4	693	1008	776	1129	54	
	S.321	Gt. Britain	8	8	19/8	4	825	1310	924	1467	49	
	Sabel	Gt. Britain	7	4	15/8	4	255	540	286	605	61	tetra
	Sceempter pasture	Netherlands	8	9	19/8	5	775	1476	868	1653	56	
	Scotia	Gt. Britain	8	9	19/8	4	811	1817	903	2035	50	
	Semperweide	Netherlands	8	9	23/8	2	828	1078	927	1207	70	
	Spirit	Netherlands	8	9	21/8	4	775	1176	868	1317	66	
	Sprinter	Netherlands	8	7	19/8	4	399	619	447	693	54	
	Splendor	Netherlands	8	9	18/8	4	920	1142	1030	1279	56	
	Sportiva	Netherlands	8	6	18/8	4	498	674	558	755	58	
	Stadion	Netherlands	9	6	14/8	4	355	545	398	610	55	
	Stensballe	Denmark	8	9	16/8	4	1060	1562	1187	1749	61	
	Stormont Zephyr	Gt. Britain	8	5	17/8	4	299	365	335	409	50	
	Taptoe	Netherlands	8	9	21/8	4	639	1025	716	1148	64	tetra
	Terhoy	Netherlands	8	8	22/8	4	438	734	491	822	60	
	Terpas	Netherlands	7	9	21/8	4	401	533	449	597	61	
	Verna	Denmark	8	9	12/8	4	1088	1502	1219	1682	65	

Species	Cultivar	Origin	Hardi- ness (rating)	Herbage Yield	Seed Ripe da.,mo.	Data Years	Seed Yields				Ht. Comments
							lb/acre avg	lb/acre high	kg/ha avg	kg/ha high	cm
	Vigor	Belgium	9	9	23/8	2	766	1068	858	1196	63
	Viktoria	Denmark	8	9	16/8	4	954	1310	1069	1467	64
	Viris	Sweden	8	9	19/8	6	913	1656	1023	1855	58
	Viva	Sweden	9	9	14/8	4	1054	1392	1181	1559	61
	Weiris	Germany	9	9	23/8	2	1061	1370	1188	1534	60

Ryegrass, Perennial (L. perenne)

The following cultivars were retained for at least two data years following the year of seeding.

Agresso	Netherlands	4	7	13/8	4	310	710	347	795	65	
Animo	Netherlands	3	7	13/8	4	376	826	421	925	65	
Argo	Poland	6	4	23/8	11	353	984	395	1102	54	
Atempo	Netherlands	4	7	13/8	4	373	876	418	981	68	
Barenza	Netherlands	4	4	19/8	4	262	802	293	898	52	
Barlatra	Netherlands	4	5	21/8	4	193	386	216	432	60	
Barlenna	Netherlands	4	3	13/8	4	200	605	224	678	53	
Barpastra	Netherlands	4	5	21/8	4	211	439	236	492	63	
Barstella	Netherlands	3	6	19/8	4	253	629	283	705	58	
Barvestra	Netherlands	3	4	21/8	4	136	305	152	342	58	
Bocage	France	3	7	13/8	4	320	842	358	943	63	
Caprice	Netherlands	3	5	13/8	4	374	998	419	1118	53	
Combi	Netherlands	4	7	13/8	4	386	895	432	1002	60	
Compas	Netherlands	3	5	13/8	4	304	703	341	787	58	
Cropper	Netherlands	3	4	11/8	4	122	278	137	312	48	
Dasas	Denmark	3	6	9/8	4	398	883	446	989	65	
Delta	Sweden	3	4	6/8	4	341	876	382	981	60	
Devon Eaver	Gt. Britain	2	2	13/8	2	87	173	97	194	40	
Doublet	Netherlands	3	6	11/8	4	366	761	410	852	53	
Dux Otofte	Denmark	2	5	21/8	4	274	672	307	753	53	
Endura	Netherlands	4	5	13/8	4	375	970	420	1086	60	
Fortis	Netherlands	3	6	13/8	4	298	739	334	828	63	
Georgikon	-	4	5	21/8	4	258	583	289	653	53	
Glasnevin	Ireland	4	5	13/8	4	349	790	391	885	60	
Gremie	Netherlands	2	3	11/8	4	130	338	146	379	47	
Hatchmere	Gt. Britain	4	7	11/8	4	414	1226	464	1373	60	
Havier	Germany	3	4	26/8	4	141	290	158	325	63	tetra
Hora	Netherlands	2	3	21/8	4	162	394	181	441	60	
Hubal	Netherlands	3	5	11/8	4	292	622	327	697	50	

Species	Cultivar	Origin	Hardi- ness (rating)	Herbage Yield	Seed Ripe da.,mo.	Data Years	Seed Yields				Ht. Comments cm
							lb/acre avg	high	kg/ha avg	high	
	Hunsballe	Denmark	4	6	13/8	4	486	1073	544	1202	55
	Karcagi	Hungary	3	7	11/8	4	584	1332	654	1492	65
	Lamora	Netherlands	4	3	20/8	10	213	741	239	830	49
	Lenta	Denmark	3	7	11/8	4	461	989	516	1108	65
	Lembkes	Germany	3	6	8/8	4	343	725	384	812	53
	Linn	U.S.A.	3	4	9/8	6	253	749	283	839	46
	Manhattan	U.S.A.	3	4	13/8	4	271	605	304	678	58
	NK-100	U.S.A.	4	4	16/8	8	215	470	241	526	60
	NK-200	U.S.A.	3	6	8/8	4	337	780	377	874	60
	Norlea	Canada	7	4	21/8	22	314	1245	352	1394	52
	Odstein	Germany	3	3	13/8	4	182	374	204	419	55
	Oregon Common	U.S.A.	4	3	15/8	10	167	416	187	466	53
	Oriel	Ireland	3	5	8/8	4	357	888	400	995	45
	Pax Otofte	Denmark	3	4	13/8	4	223	542	250	607	50
	Pelo	Netherlands	4	3	10/8	10	159	444	178	497	54
	Pennfine	-	3	3	15/8	4	155	403	174	451	40
	Perma	Netherlands	4	6	13/8	4	306	730	343	818	58
	Pickmere	Gt. Britain	3	5	16/8	4	325	778	364	871	58
	Premo	Netherlands	3	4	8/8	4	252	629	282	705	55
	Presto	Denmark	3	4	2/8	4	282	593	316	664	60
	Primevere	France	3	4	8/8	4	175	451	196	505	50
	Printo	Germany	3	5	8/8	4	295	619	330	693	50
	R. V. P. Pasture	Belgium	4	2	14/8	10	138	463	155	519	57
	Raidor	France	3	4	2/8	4	224	523	251	586	58
	Real	France	3	6	13/8	4	317	725	355	812	58
	Reveille	Netherlands	3	3	28/8	4	97	252	109	282	53 tetra
	Roznovsky	Czech.	5	4	21/8	12	235	775	263	868	54
	Ruanui	New Zealand	3	4	6/8	4	239	653	268	731	58
	S.23	Gt. Britain	3	4	15/8	4	238	583	267	653	53
	S.24	Gt. Britain	3	3	15/8	4	153	307	171	344	50
	S.101	Gt. Britain	3	5	15/8	4	225	516	252	578	53
	S.321	Gt. Britain	3	5	15/8	4	258	720	289	806	48
	Sabel	Gt. Britain	3	3	8/8	4	177	540	198	605	60 tetra
	Sceempter pasture	Netherlands	3	4	16/8	7	222	569	249	637	55
	Scotia	Gt. Britain	3	5	15/8	4	207	449	232	503	50

Species	Cultivar	Origin	Hardi- ness (rating)	Herbage Yield	Seed Ripe da.,mo.	Data Years	Seed Yields				Ht. cm	Comments
							lb/acre		kg/ha			
							avg	high	avg	high		
	Spirit	Netherlands	3	6	19/8	4	287	624	321	699	65	
	Sprinter	Netherlands	3	4	15/8	4	133	350	149	392	53	
	Splendor	Netherlands	3	7	13/8	4	376	842	421	943	55	
	Sportiva	Netherlands	3	5	13/8	4	271	674	304	755	60	
	Stadion	Netherlands	3	3	8/8	4	109	302	122	338	53	
	Stensballe	Denmark	3	6	11/8	4	327	720	366	806	58	
	Stormont Zephyr	Gt. Britain	3	3	13/8	4	234	305	262	342	48	
	Taptoe	Netherlands	3	5	21/8	4	162	379	181	425	58	tetra
	Terhoy	Netherlands	3	4	21/8	4	153	312	171	349	58	
	Terpas	Netherlands	2	4	19/8	4	136	350	152	392	58	
	Verna	Denmark	3	7	2/8	4	396	826	444	925	65	
	Viktorja	Denmark	3	7	11/8	4	344	713	385	799	65	
	Viris	Sweden	4	4	23/8	9	291	907	326	1016	58	
	Viva	Sweden	4	7	8/8	4	458	998	513	1118	65	
Timothy (<i>Phleum bertolonii</i> , <i>P. nodosum</i>)												
	Evergreen (New)	Sweden	8	6	20/8	3	363	555	407	622	58	
	Evergreen (Old)	Sweden	8	6	22/8	12	335	569	375	637	64	
	Holes	Germany	8	1	28/8	1	21	21	24	24	40	
	Match	Netherlands	7	2	20/8	3	151	396	169	444	40	
	Phl-10	Netherlands	8	3	19/8	3	310	580	347	650	43	
	S-50	Gt. Britain	8	3	22/8	15	142	321	159	360	48	
	Sport	France	8	4	25/7	9	170	494	191	554	43	
Timothy (<i>Phleum pratense</i>)												
	Argi	Denmark	9	7	12/8	8	319	533	357	597	81	
	Astra	Sweden	9	7	11/8	9	206	414	231	464	71	
	B-10	Yugoslavia	9	7	11/8	8	338	468	379	524	77	
	Bariton	Netherlands	9	8	25/8	8	180	242	202	271	71	
	Barmere	Gt. Britain	9	7	11/8	8	342	669	383	749	81	
	Barmoti	Netherlands	9	7	12/8	19	376	727	421	842	76	
	Bodin	Norway	9	8	11/8	8	484	779	542	872	81	
	Bottnia II	Sweden	9	9	11/8	8	499	839	559	940	81	
	Bounty	Canada	9	6	14/8	12	203	379	227	425	78	
	Castella	Netherlands	9	7	28/8	1	724	724	811	811	80	

Species	Cultivar	Origin	Hardi- ness (rating)	Herbage Yield	Seed Ripe da., mo.	Data Years	Seed Yields				Ht. cm	Comments
							lb/acre avg	high	kg/ha avg	high		
	Champ	Canada	9	6	12/8	9	195	453	218	508	70	
	Clair	U.S.A.	9	6	15/8	3	54	92	61	103	-	
	Climax	Canada	9	7	15/8	46	308	820	345	919	89	
	Comet	Netherlands	9	8	29/8	8	197	309	221	346	69	
	Daeno	Denmark	9	7	11/8	9	247	578	277	648	74	
	Dolema	Germany	9	9	12/9	1	544	544	609	609	85	
	Drummond	Canada	9	7	17/8	13	262	605	294	678	71	
	Engmo	Norway	9	8	17/8	5	405	739	454	828	-	
	Erecta	Belgium	9	8	10/8	31	279	642	313	720	71	
	Eskimo	Netherlands	9	7	9/8	9	288	621	323	696	72	
	Farol	Netherlands	9	7	20/8	9	215	424	241	475	72	
	Foka	Poland	9	6	9/8	9	283	580	317	650	75	
	Forus	Norway	9	8	11/8	8	409	610	458	683	80	
	"G"	Hungary	9	8	12/8	8	379	660	424	739	88	
	Georgikon	-	9	8	13/8	6	440	757	493	848	82	
	Glasnevin Gem	Ireland	9	6	15/8	15	212	419	237	470	75	
	Grassland Kahu	New Zealand	9	5	16/8	12	190	344	213	385	76	
	Grindstad	Norway	9	8	11/8	8	399	551	447	617	81	
	Heidemij	Netherlands	9	6	20/8	18	217	510	243	572	66	
	Heilbink	Germany	9	7	11/8	8	372	491	417	550	76	
	Herma	Netherlands	9	9	21/8	1	610	610	683	683	95	
	Hokuc	Japan	9	6	10/8	3	158	240	177	269	76	
	Intenso	Netherlands	9	6	28/8	10	164	357	184	400	61	
	Itasca	Sweden	9	9	14/8	3	405	464	454	520	92	
	Jacoba	Netherlands	9	9	14/8	3	530	590	594	661	80	
	Kampe II	Sweden	9	8	9/8	9	265	542	297	608	76	
	King	Netherlands	9	6	24/8	18	206	701	231	786	61	
	Kor	Poland	9	5	10/8	8	227	647	254	725	73	
	Korpa	Iceland	9	4	10/8	3	493	829	552	928	80	
	Landsberger	Germany	9	5	10/8	12	272	537	305	601	76	
	Lavenauer	Germany	9	7	11/8	8	341	631	382	707	79	
	Levocska	Czech.	9	6	8/8	9	263	644	295	722	73	
	Lischower	Germany	9	9	12/8	3	464	573	520	642	85	
	Lofar	Netherlands	9	7	17/8	12	208	507	233	568	66	
	Lorain	U.S.A.	9	7	25/8	9	261	672	293	753	76	
	Mahndorfer	Germany	9	8	11/8	8	381	592	427	663	80	
	Maintenon	France	9	5	15/8	8	234	380	262	426	79	
	Maris Polka	Gt. Britain	9	9	1/8	1	535	535	599	599	90	

Species	Cultivar	Origin	Hardi- ness (rating)	Herbage Yield	Seed Ripe da.,mo.	Data Years	Seed Yields				Ht. cm	Comments
							lb/acre		kg/ha			
							avg	high	avg	high		
	Maris Pisliew	Gt. Britain	9	9	21/8	1	482	482	540	540	90	
	Melusine	France	9	6	11/8	8	174	249	195	279	79	
	Milton	Canada	9	8	12/8	6	375	587	420	657	85	
	Mirage	Netherlands	9	9	19/8	3	425	533	476	597	88	
	Motterwitzer	Germany	9	7	10/8	9	344	500	385	560	79	
	Murra	Netherlands	9	7	13/8	3	314	398	352	446	90	
	"N"	France	9	7	12/8	3	433	480	485	538	87	
	N.F.G.	Germany	9	6	10/8	9	389	797	436	893	79	
	"O"	France	9	9	12/8	3	389	489	436	548	87	
	Oakmere	Gt. Britain	9	5	29/8	12	149	451	167	506	72	
	Oberhaunstadter	Germany	9	8	11/8	8	409	681	458	763	76	
	Odenwalder	Germany	9	6	7/8	9	278	717	312	804	68	
	Olympia	Netherlands	9	7	30/8	8	192	304	215	341	68	
	Omnia	Sweden	9	7	12/8	12	343	702	385	787	71	
	Fajbjerg 75	Denmark	9	8	17/8	1	404	404	453	453	85	
	Para	Poland	9	6	10/8	9	372	793	417	889	74	
	Pastremo	Netherlands	9	6	29/8	15	162	558	181	625	71	
	Pecora	France	9	6	20/8	11	256	443	287	497	66	
	Pergo	Denmark	9	6	10/8	9	188	453	211	508	68	
	Phlewiola	Germany	9	6	10/8	12	275	453	308	507	81	
	Reichersberger	Austria	9	8	11/8	8	323	548	362	614	82	
	Rotenberg	Sweden	9	9	12/8	8	411	788	460	883	83	
	S-48	Gt. Britain	9	5	31/8	10	232	724	260	812	56	
	S-51	Gt. Britain	9	6	12/8	8	268	430	300	482	75	
	S-321	Gt. Britain	9	9	17/8	1	494	494	553	553	90	
	S-352	Gt. Britain	9	6	11/8	9	275	430	308	482	78	
	SK-45	Poland	9	7	8/8	9	290	581	325	651	75	
	Scotia	Gt. Britain	9	6	14/8	12	256	425	287	476	76	
	Scots	Gt. Britain	9	9	12/8	3	537	605	601	678	85	
	Sempoku	Japan	9	8	12/8	6	372	526	417	589	82	
	Spaths	Germany	9	6	9/8	12	305	480	342	538	76	
	T-48	Sweden	9	6	16/8	9	230	528	258	592	74	
	Taca Trifolium	Netherlands	9	8	11/8	8	297	439	334	492	82	
	Tammisto	Finland	9	9	13/8	6	608	889	681	996	85	
	Tapio	Hungary	9	8	12/8	6	510	855	571	958	86	

Species	Cultivar	Origin	Hardi- ness Herbage Yield (rating)	Seed Ripe da.,mo.	Data Years	Seed Yields		kg/ha		Ht. cm	Comments
						lb/acre avg	high	avg	high		
	Tarmo	Finland	9	8	12/8	6	572	861	641	964	83
	Teith	Gt. Britain	9	6	11/8	9	297	811	333	909	74
	Timo	Netherlands	9	4	17/8	9	197	541	221	606	66
	Tiran	Netherlands	9	8	16/8	8	176	238	197	267	71
	Topas	Denmark	9	9	11/8	8	436	670	488	750	86
	Toro	Italy	9	7	8/8	11	268	480	300	538	71
	Vallo	Sweden	9	8	11/8	8	442	841	495	942	81
	Vanadis	Sweden	9	7	12/8	11	319	590	358	661	73
	Verdant	U.S.A.	9	7	14/8	9	320	686	359	769	85
	Vetrovsky	Czech.	9	7	8/8	9	294	633	329	710	74
	Winda	Netherlands	9	6	12/9	1	180	180	202	202	70
Wheatgrass, Beardless (<i>Agropyron inerme</i>)											
	Whitmar	U.S.A.	9	3	15/8	3	228	448	255	502	78
Wheatgrass, Crested (<i>A. cristatum</i>)											
	Fairway	Canada	9	6	20/8	22	412	958	461	1074	62
	Muzla	Czech.	9	4	17/8	9	478	825	535	925	60
Wheatgrass, Crested (<i>A. desertorum</i>)											
	Nordan	U.S.A.	9	6	22/8	6	419	798	469	894	77
	Parkway	Canada	9	6	18/8	3	794	1006	889	1127	75
	Summit	Canada	9	6	23/8	22	327	643	366	721	70
Wheatgrass, Intermediate (<i>A. intermedium</i>)											
	Amur	U.S.A.	9	8	7/9	6	726	1220	813	1366	121
	Chief	Canada	9	8	8/9	24	473	853	530	955	109
	Greenar	U.S.A.	9	8	3/9	8	310	669	347	750	111
	Slate	U.S.A.	9	7	6/9	8	390	787	437	882	111

Species	Cultivar	Origin	Hardi- ness Herbage Yield (rating)	Seed Ripe da.,mo.	Data Years	Seed Yields				Ht. cm	Comments
						lb/acre avg	lb/acre high	kg/ha avg	kg/ha high		
Wheatgrass, Pubescent (<i>A. trichophorum</i>)											
	Greenleaf	Canada	9	8	7/9	14	377	888	422	995	107
	Mandan	U.S.A.	9	7	1/9	14	354	800	396	897	100
	Topar	U.S.A.	9	6	5/9	8	435	840	487	941	99
Wheatgrass, Slender (<i>A. trachycaulum</i>)											
	Primar	U.S.A.	9	6	17/8	9	357	530	400	594	92
	Revenue	Canada	9	5	15/8	10	607	914	680	1024	88
Wheatgrass, Streambank (<i>A. riparium</i>)											
	Sodar	U.S.A.	9	4	8/8	25	242	1255	271	1406	65
Wheatgrass, Tall (<i>A. elongatum</i>)											
	Orbit	Canada	9	4	12/9	14	352	640	394	717	106

LEGUMES

Species	Cultivar	Origin	Hardi- ness Herbage Yield (rating)	Seed Ripe da.,mo.	Data Years	Seed Yields		Ht.		Comments
						lb/acre avg	kg/ha high	cm		
Alfalfa (<i>Medicago sativa</i>)		(Cultivars designated by "*" were NOT pollinated by leaf-cutter bees (<i>Megachile rotundata</i>).)								
	522	U.S.A.	9	8	22/9	3	281	642	315	719 70
	525	U.S.A.	9	7	22/9	3	285	650	319	728 70
	Alfa	Sweden	7	5	13/9	11	107	436	120	489 56 *
	Alfa II	Sweden	8	5	22/9	8	248	614	278	688 62
	Algonquin	Canada	9	9	25/9	1	299	299	335	335 70
	Anchor	U.S.A.	8	6	24/9	6	222	478	249	535 68
	Angus	Canada	9	9	25/9	1	160	160	179	179 75
	Apex	Sweden	9	6	13/9	9	96	231	108	259 61 *
	Beaver	Canada	8	6	18/9	27	294	661	329	740 68
	Boreale	France	8	5	22/9	3	165	360	185	403 68
	Cardinal	France	8	7	22/9	3	293	565	328	633 73
	Charta	Germany	7	5	24/9	8	226	482	253	540 58
	Dawson	U.S.A.	9	7	22/9	3	215	437	241	489 75
	Dekalb Strain	U.S.A.	9	5	16/9	10	234	234	262	262 48
	Drylander	Canada	9	7	22/9	3	351	717	393	803 73
	Elga	France	8	6	23/9	3	269	486	301	544 68
	Europe	France	8	5	14/9	9	75	226	84	253 61 *
	Eynsford	Gt. Britain	9	6	24/9	6	375	624	420	699 73
	F.D. 100	France	8	5	14/9	9	86	308	96	345 61 *
	Felu	Germany	9	7	22/9	3	467	774	523	867 72
	Francks Langmeiler	Germany	6	6	22/9	3	387	728	433	815 70
	Garisenda	-	9	8	25/9	1	86	86	96	96 70
	Gemini	France	6	5	22/9	3	185	140	207	157 70
	Glacier	France	9	7	22/9	3	311	781	348	875 70
	Grimm	Canada	9	7	25/9	1	256	256	287	287 65
	Grimm	U.S.A.	8	5	9/9	4	187	290	210	325 - *
	H.652	Romania	8	5	15/9	9	294	294	329	329 53
	Hodoninska	Czech.	7	5	15/9	8	38	94	43	105 56 *
	Hybride Milfeuil	France	8	6	22/9	3	228	499	255	559 73
	Iris	Denmark	6	6	24/9	6	285	930	319	1042 63
	Jokioinen	Finland	8	9	24/9	6	324	908	363	1017 62
	Kisvardai	Czech.	7	5	23/9	12	197	363	221	407 63

Species	Cultivar	Origin	Hardi- ness (rating)	Herbage Yield	Seed Ripe da.,mo.	Data Years	Seed Yields				Ht. cm	Comments
							lb/acre avg	high	kg/ha avg	high		
	Kleszozewska	Poland	9	5	15/9	8	57	102	64	114	48	*
	Ladak	Canada	8	6	8/9	13	86	180	96	202	58	*
	Luciole	France	8	6	22/9	3	229	498	257	558	70	
	Luna	Germany	7	7	22/9	3	306	608	343	681	68	
	M. Synalfa	Hungary	9	7	22/9	3	125	296	140	332	72	
	Magali	France	9	7	25/9	1	117	117	131	131	75	
	Maris Phoenix	Gt. Britain	7	5	24/9	6	221	544	248	609	63	
	Marton Vasaria	Czech.	7	5	22/9	12	104	235	117	263	59	
	Marusinskaja	Russia	8	6	22/9	3	288	515	323	577	68	
	Mega	Sweden	9	7	22/9	3	382	358	428	401	67	
	Miechowska	Poland	8	5	15/9	9	35	89	39	100	48	*
	Mitteldeutsche Rimpau	Germany	8	7	22/9	3	496	907	556	1016	73	
	Nagyszenasi	Czech.	8	5	21/9	11	140	215	157	241	61	
	Nitranka	Czech.	7	6	15/9	9	144	144	161	161	53	
	Orca	France	9	7	22/9	5	254	616	285	690	71	
	Ovari	Czech.	7	5	21/9	11	197	290	221	325	61	
	Prerovska	Czech.	7	6	15/9	9	280	280	314	314	53	
	Prima	France	8	5	22/9	3	131	288	147	323	67	
	Rambler	Canada	8	7	11/9	20	266	266	298	298	60	
	Rhizoma	Canada	7	5	5/9	15	151	358	169	401	-	*
	Roamer	Canada	8	6	22/9	12	222	445	249	498	60	
	Slovenska podunajska	Czech.	7	5	15/9	9	181	181	203	203	53	
	" trebisovska	Czech.	7	5	15/9	9	258	258	289	289	51	
	Talent	U.S.A.	5	4	24/9	9	47	181	53	203	55	
	Tapioszelei 1	Hungary	8	6	22/9	3	202	446	226	500	72	
	Taplani	Hungary	9	7	22/9	3	281	643	315	720	75	
	Titan	U.S.A.	9	8	22/9	3	432	870	484	974	72	
	Triesdorfer Luzerne	Germany	7	7	22/9	3	319	499	357	559	77	
	Tuna	Sweden	8	6	24/9	8	238	635	267	711	59	
	Vernal	U.S.A.	6	4	10/9	1	158	158	177	177	-	*
	Vertus	Sweden	9	6	22/9	3	127	590	142	661	68	
	Vojteska kasticka	Czech.	7	5	15/9	8	89	176	100	197	56	*
	" moravska	Czech.	7	5	15/9	9	291	291	326	326	51	
	" stripicka	Czech.	7	6	15/9	9	203	203	227	227	48	

Species	Cultivar	Origin	Hardi- ness (rating)	Herbage Yield	Seed Ripe da.,mo.	Data Years	Seed Yields				Ht. cm	Comments
							lb/acre avg	high	kg/ha avg	high		
	Warotte	France	7	6	22/9	5	299	682	335	764	74	
	WL 210	U.S.A.	7	5	26/9	9	113	130	127	146	56	
	WL 215	U.S.A.	7	6	26/9	9	183	445	205	498	57	
	WL 217	U.S.A.	7	5	24/9	8	209	501	234	561	64	
	WL 305	U.S.A.	7	6	26/9	9	87	128	97	143	61	
	WL 306	U.S.A.	7	6	25/9	9	123	208	138	233	57	
	WL 308	U.S.A.	7	6	24/9	8	161	405	180	454	63	
Clover, Alsike (<i>Trifolium hybridum</i>)												
	Alon	Canada	6	5	24/8	11	184	422	206	473	-	Dip.
	Aurora	Canada	7	5	25/8	37	288	675	323	757	35	"
	Birka	Sweden	7	5	28/8	8	305	733	342	821	42	"
	Dawn	Canada	9	7	26/8	3	316	501	354	561	38	Dip.
	Ermo Otofte	Denmark	9	5	26/8	3	233	370	261	414	42	"
	Eutetra	Germany	8	6	28/8	8	216	411	242	460	49	Tetra
	Iso	Finland	7	5	24/8	12	185	338	207	379	44	"
	Jeno Daehnfeldt	Denmark	9	7	26/8	3	241	349	270	391	38	Dip.
	Kurir	Sweden	8	3	24/8	8	225	475	252	532	28	"
	Meta Otofte	Denmark	9	7	26/8	3	139	194	156	217	40	"
	Odenwalder	Germany	5	6	24/8	14	234	645	262	722	38	Dip.
	Odersky	Czech.	6	3	25/8	2	95	126	106	141	25	"
	Otofte	Denmark	6	6	25/8	8	296	749	332	839	39	"
	Otofte 4 N	Denmark	6	7	24/8	11	245	640	274	723	50	Tetra
	Strain 11	Canada	5	5	23/8	11	257	693	288	776	35	Dip.
	Svea	Sweden	7	4	25/8	6	265	622	346	697	28	"
	Taborsky	Czech.	5	4	24/8	4	216	361	242	404	36	Dip.
	Tammisto	Finland	7	5	21/8	14	306	753	343	844	-	"
	Tetra	Sweden	7	6	24/8	27	227	502	254	563	41	Tetra
Clover, Arrowleaf (<i>T. vesiculosum</i>)												
	Amclo	U.S.A.	1	1	25/9	2	1	2	1	2	35	
	L68-9-071	U.S.A.	1	1	25/9	2	30	48	34	54	35	
	Meechee	U.S.A.	1	1	25/9	3	40	109	45	122	35	

Species	Cultivar	Origin	Hard- ness (rating)	Herbage Yield	Seed Ripe da.,mo.	Data Years	Seed Yields				Ht. cm	Comments
							lb/acre avg	high	kg/ha avg	high		
Clover, Red (T. pratense)												
	Alaskaland	U.S.A.	6	6	30/8	6	213	336	239	377	-	Dip. S.C.
	Altaswede	Canada	7	7	30/8	35	336	1048	376	1174	56	" "
	Attila	Netherlands	5	8	22/8	5	288	499	323	559	55	" D.C.
	Barfiola	Netherlands	4	5	28/8	9	102	205	114	230	56	Tetra D.C.
	Bjursele	Sweden	6	4	20/8	8	214	355	240	398	39	Dip. S.C.
	Bollsta	Norway	7	6	30/8	5	193	276	216	309	-	" "
	Bombi	Sweden	9	8	29/8	3	500	568	560	636	57	Dip.
	Bora Pajbjerg	Denmark	4	7	1/9	11	316	570	354	639	54	Dip. S.C.
	Britta	Sweden	6	9	1/9	10	308	562	345	629	56	" "
	Celtic	France	9	6	18/8	3	146	186	164	208	53	Dip.
	Cesky Krajovylx	Czech.	5	6	30/8	8	354	915	397	1025	49	Dip.S.C.
	Changins	Switzerland	5	5	22/8	8	184	483	206	541	50	" "
	Chesapeake	U.S.A.	9	7	23/8	3	369	522	413	585	48	Dip.
	Chlumecky	Czech.	4	6	23/8	9	200	557	224	624	54	Dip.S.C.
	Corona Otofte	Denmark	5	9	30/8	5	400	659	448	738	59	Dip.
	Cotswold	Gt.Britain	4	7	22/8	6	320	733	358	821	57	" "
	Divina	Sweden	6	6	31/8	8	379	1018	425	1140	49	" "
	Dollard	Canada	9	7	27/8	3	238	290	267	325	50	Dip.
	Elbo	Denmark	6	8	1/9	8	316	509	354	571	54	" "
	Emerson	U.S.A.	9	8	18/8	3	359	459	402	514	47	" "
	Essi	Sweden	6	5	18/8	6	312	550	349	617	49	Dip.
	Fetzers Kitzinger	Germany	2	3	13/8	6	50	302	56	339	-	Dip.S.C.
	Flamand	France	8	6	18/8	4	290	392	325	439	55	Dip.
	Gloria	Poland	4	4	22/8	7	233	640	261	717	43	Dip.S.C.
	Groninger	Netherlands	4	7	22/8	6	254	474	285	531	57	Dip.
	Hamidori	Japan	4	5	22/8	12	241	526	270	590	48	Dip.D.C.
	Heger Hohenheimer	Germany	4	3	11/8	6	103	219	115	246	38	" "
	Hera 4N	Denmark	4	8	2/9	5	213	499	239	559	60	Tetra
	Hermes	Sweden	6	8	2/9	8	400	773	448	866	59	Dip.
	Holy	Czech.	3	6	24/8	8	468	685	524	767	56	Dip.D.C.
	Hungarapoli	Hungary	5	4	14/8	8	102	263	114	295	51	Tetra D.C.
	Isella	Italy	4	5	18/8	3	315	570	353	638	48	Dip.
	Jicinsky	Czech.	4	5	23/8	8	217	448	243	502	51	Dip. S.C.
	Jokioinen	Finland	8	6	9/9	6	241	402	270	450	48	Dip.
	Krano	Denmark	9	8	1/9	3	465	522	521	585	58	Dip.

Species	Cultivar	Origin	Hardi- ness Herbage Yield (rating)	Seed Ripe da.,mo.	Data Years	Seed Yields				Ht. cm	Comments	
						lb/acre avg	high	kg/ha avg	high			
	Kuhn	Netherlands	3	5	20/8	6	206	547	231	613	46	Dip. D.C.
	Kustrash	Sweden	5	8	30/8	5	187	253	209	284	-	" S.C.
	Lakeland	U.S.A.	4	5	25/8	10	207	506	232	567	46	" D.C.
	Lasalle	Canada	5	4	27/8	11	106	147	119	165	-	" "
	Leisi	Switzerland	6	5	27/8	8	178	302	199	338	49	Dip.
	Lero	Germany	3	4	20/8	5	144	426	161	477	45	"
	Longevo	Italy	9	3	18/8	3	213	408	239	457	45	Dip.
	Lucrum	Germany	7	6	29/8	8	272	536	305	600	48	"
	Lutea	Germany	4	5	22/8	5	283	504	317	564	57	Dip.
	Maris Leda	Gt. Britain	4	5	22/8	6	186	280	208	314	58	Tetra
	Maris Nemar	Gt. Britain	9	7	18/8	3	577	747	646	837	50	Dip.
	Mekra	Germany	6	6	19/8	7	191	411	214	460	48	Dip. D.C.
	Molstad	Norway	6	6	1/9	14	289	497	324	557	51	" S.C.
	Odenwalder	Germany	6	5	15/8	7	183	472	205	529	43	" D.C.
	Offer	Sweden	5	6	30/8	7	228	299	256	336	-	" S.C.
	Orbit	U.S.A.	6	7	21/8	5	234	339	262	380	53	Dip.
	Ostsaat-Treu	Germany	6	7	19/8	9	375	806	420	904	49	Dip.D.C.
	Otofte 4N	Denmark	6	8	6/9	13	253	645	283	722	60	Tetra
	Otofte Early	Denmark	6	9	24/8	5	414	693	464	777	55	Dip.
	Otofte Half Late	Denmark	6	8	4/9	8	360	680	403	762	52	"
	Ottawa	Canada	6	5	28/8	13	153	379	171	424	46	Dip.D.C.
	Ottawa Tetra	Canada	8	5	19/8	3	138	157	155	176	47	Tetra
	Pales	France	9	8	18/8	3	469	514	525	576	48	Dip.
	Pelly	Sweden	9	8	27/8	3	280	349	314	391	58	"
	Podtatranska E	Czech.	5	6	17/8	7	299	525	335	589	51	Dip.
	Poly 4N	Sweden	6	5	1/9	5	163	230	183	258	55	Tetra
	Prerovsky dvonsecny	Czech.	6	5	21/8	8	204	425	229	476	43	Dip. D.C.
	Primus	Belgium	6	5	27/8	8	227	520	254	582	49	"
	Puma	Poland	9	6	18/8	3	366	498	410	558	52	"
	Rea	Sweden	6	5	27/8	24	177	457	198	512	63	Tetra S.C.
	Reichersberger	Austria	5	4	27/8	8	217	413	243	463	51	Dip.
	Reko	Sweden	6	7	4/9	7	293	390	328	437	56	"
	Remy	Germany	6	5	26/8	6	292	491	327	550	47	Dip.
	Renova	Switzerland	5	5	24/8	8	188	328	211	367	52	Dip. D.C.
	Resident Otofte	Denmark	5	8	5/9	8	309	643	346	720	55	Dip.
	Resistentia	Sweden	5	5	20/8	9	278	515	312	577	51	"
	Robina	Netherlands	6	5	8	9	217	488	243	547	50	Dip. S.C.

Species	Cultivar	Origin	Hard- ness (rating)	Herbage Yield	Seed Ripe da.,mo.	Data Years	Seed Yields				Ht. cm	Comments
							lb/acre		kg/ha			
							avg	high	avg	high		
	Robusta	Belgium	9	7	18/8	3	349	482	391	540	50	Dip.
	Ronda	Denmark	7	9	28/8	5	356	621	399	696	55	"
	Rotra R.V.P.	Belgium	5	5	22/8	6	118	320	132	358	57	Tetra
	S.123	Gt. Britain	2	3	14/8	-	-	-	-	-	-	Dip.
	S.151	Gt. Britain	6	6	1/9	6	283	662	317	741	54	"
	Sabtoron	Gt. Britain	6	5	25/8	6	263	693	295	776	51	Dip.
	Sapporo	Japan	4	3	22/8	7	69	231	77	259	35	Dip. D.C.
	Schnyder	Switzerland	5	6	24/8	8	305	722	342	809	41	" "
	Silo	Sweden	5	7	28/8	5	387	666	433	746	63	Dip.
	Skultuna	Sweden	7	7	9/9	7	254	474	284	531	59	"
	Sorby-Okna	Sweden	5	6	9/9	8	239	450	268	504	60	Dip.
	Tammisto	Finland	6	7	1/9	17	197	502	221	563	51	Dip. S.C.
	Tapioi	Hungary	9	6	19/8	3	218	330	244	370	50	Tetra
	Tenda	Denmark	5	7	12/9	8	353	624	395	699	57	Dip.
	Tepo	Finland	7	7	1/9	11	89	203	100	228	-	Tetra S.C.
	Teroba	Netherlands	5	4	20/8	7	84	170	94	190	49	Dip. S.C.
	Tetri	Netherlands	5	4	25/8	10	174	344	195	385	53	Tetra D.C.
	Titrus 71	Germany	5	6	23/8	5	289	463	324	519	57	Dip.
	Transilvania	Romania	5	5	20/8	10	212	426	237	477	50	Dip. S.C.
	Trebicky E	Czech.	5	5	21/8	8	235	493	263	552	52	" "
	Triel	France	9	7	18/8	3	377	435	422	487	50	Dip.
	Tripo	Norway	7	7	3/9	15	205	507	230	568	56	Tetra S.C.
	Trover	U.S.A.	5	9	1/9	5	369	611	413	684	59	Dip.
	Tuna	Sweden	6	7	30/8	5	221	349	248	391	-	Dip. S.C.
	Ultuna	Sweden	5	6	31/8	6	179	231	201	259	-	Dip. S.C.
	Ulva	Sweden	7	5	28/8	3	146	292	164	327	-	Tetra S.C.
	Vagge	Sweden	6	7	9/9	7	299	536	335	600	54	Dip.
	Valente	Italy	5	4	22/8	3	325	450	364	504	47	"
	Viglassla	Czech.	5	3	24/8	8	227	564	254	632	45	Dip. D.C.
	Viola	Poland	4	4	27/8	9	296	621	332	696	56	" "
	Violetta R.V.P.	Belgium	5	5	23/8	7	304	568	341	636	54	Dip.

Clover, White (*Trifolium repens*)

Aria	Netherlands	5	2	25/8	3	241	386	270	432	19	
Armada	Netherlands	6	2	25/8	12	171	425	192	476	18	
Barbian	Netherlands	7	-	23/8	8	117	222	131	249	14	

Species	Cultivar	Origin	Hardi- ness Herbage Yield (rating)	Seed Ripe da.,mo.	Data Years	Seed Yields				Ht. cm	Comments
						lb/acre avg	lb/acre high	kg/ha avg	kg/ha high		
	Beta	Sweden	8	2	23/8	8	179	491	201	550	15
	Blanca R.V.P.	Belgium	5	2	24/8	8	113	245	127	274	17
	Crau	France	7	2	24/8	7	93	190	104	213	18
	Cultura	Netherlands	7	2	24/8	12	137	381	153	427	17
	Daeno	Denmark	7	2	24/8	10	181	400	203	448	19
	Espanso Ladino	Italy	5	2	30/8	8	75	152	84	170	20
	Fries-Groninger	Netherlands	5	2	27/8	7	111	134	124	150	15
	Huia	New Zealand	7	1	24/8	7	66	113	74	127	14
	Kent Wild	Gt. Britain	6	1	21/8	11	107	307	120	344	12
	Kivi	Sweden	6	1	22/8	13	98	248	110	278	13
	Ladino Common	U.S.A.	4	3	22/8	10	61	222	68	249	15
	Ladino Gigante Lodigiano	Italy	9	4	29/8	3	76	101	85	113	20
	Lema	Sweden	8	2	22/8	8	122	274	137	307	15
	Lodi Otofte	Denmark	8	2	24/8	8	191	382	214	428	17
	Louisiana Sl	U.S.A.	4	2	27/8	6	57	115	64	129	15
	Mega	Denmark	9	4	29/8	3	247	281	277	315	19
	Merit	U.S.A.	4	2	28/8	9	57	133	64	149	16
	Milka	Denmark	6	2	23/8	11	138	358	154	401	14
	Milkanova	Denmark	8	2	23/8	8	110	230	123	258	15
	Mira Otofte	Denmark	8	2	24/8	8	141	307	158	344	18
	N.F.G. Gigant	Germany	6	2	25/8	13	124	307	139	344	17
	Nora	Sweden	6	3	22/8	29	150	352	168	395	15
	Otofte	Denmark	9	2	26/8	6	177	360	198	403	15
	Ovcak	Czech.	5	2	24/8	8	85	171	95	192	12
	Pertina	Netherlands	7	3	24/8	9	194	397	217	445	16
	Pilgrim	U.S.A.	4	2	24/8	5	30	48	34	54	12
	Podkowa	Poland	6	2	25/8	10	99	181	111	203	12
	Regal	U.S.A.	9	4	29/8	3	85	103	95	115	23
	Retor	Netherlands	9	2	24/8	7	162	390	181	437	17
	S.100	Gt. Britain	7	1	22/8	7	75	112	84	125	11
	S.184	Gt. Britain	7	1	22/8	7	103	228	115	255	9
	Sabeda	Gt. Britain	7	1	22/8	2	77	130	86	146	9
	Skultuna	Sweden	9	2	26/8	8	121	306	136	343	15
	Smalbladst	Denmark	8	1	20/8	7	151	384	169	430	14
	Steinacher	Germany	6	2	25/8	5	95	324	106	363	13
	Szarvasi 4	Hungary	8	2	1	6	79	128	89	143	19
	Tamar	Netherlands	4	2	29/8	4	122	312	137	349	17

Species	Cultivar	Origin	Hardi- ness (rating)	Herbage Yield	Seed Ripe da.,mo.	Data Years	Seed Yields				Ht. cm	Comments
							lb/acre avg	high	kg/ha avg	high		
	Tohoku 1	Japan	4	2	28/8	10	68	153	76	171	16	
	Tregor	France	6	1	21/8	10	80	204	90	228	13	
	Trevise	France	6	2	25/8	12	95	276	106	309	15	
	Vacares	France	6	2	28/8	7	118	228	132	255	13	
	Viglassla	Czech.	5	2	25/8	9	103	156	115	175	13	
	Von Kamekes	Germany	7	2	24/8	13	141	468	158	524	14	
	Wild English	Denmark	9	2	26/8	6	165	349	185	391	15	
	Wilkla	Netherlands	8	1	24/8	8	126	334	141	374	15	

Sainfoin (*Onobrychis viciaefolia*)

Busciansky	Czech	4	3	15/8	6	382	448	428	502	56	
Cotswold	Gt. Britain	6	5	16/8	7	344	734	385	822	48	
Eski	U.S.A.	5	5	12/8	13	354	619	397	693	63	
Fakir	France	7	5	17/8	7	419	534	469	598	67	
Giant English	Gt. Britain	6	4	14/8	5	321	548	360	614	55	
ICA 6	Romania	6	5	15/8	7	356	539	399	604	66	
Kampolti	Hungary	6	4	20/8	4	248	394	278	441	68	
Krasnodar	Russia	8	9	23/8	1	602	602	674	674	85	
Lunique	France	9	6	12/8	6	469	648	525	726	68	
Matra	Hungary	9	9	17/8	1	285	285	319	319	80	
Melrose	Canada	7	7	15/8	7	608	981	681	1099	73	
Perska	Poland	9	9	17/8	1	790	790	885	885	75	
Saro	Poland	6	3	10/8	14	167	483	187	541	65	
Visnovsky	Czech.	4	3	14/8	10	185	347	207	389	51	

Trefoil (*Lotus corniculatus*)

Cascade	U.S.A.	4	4	8/8	5	150	308	168	345	-	
Diana	Poland	9	8	19/8	3	489	954	548	1069	45	
Empire	U.S.A.	4	5	20/8	13	284	748	318	839	-	
Glauka	Germany	7	4	17/8	6	155	381	174	427	36	
Granger	U.S.A.	4	5	8/8	5	160	424	179	475	-	
Leo	Canada	7	5	19/8	27	410	990	459	1110	44	
Lot	Poland	9	8	19/8	3	378	778	423	871	42	
Maitland	Canada	5	6	17/8	10	338	962	379	1077	38	
Malejovsky	Czech.	6	7	18/8	10	270	755	302	846	43	

Species	Cultivar	Origin	Hardi- ness (rating)	Herbage Yield	Seed Ripe da.,mo.	Data Years	Seed Yields				Ht. cm	Comments
							lb/acre avg	kg/ha avg	lb/acre high	kg/ha high		
	Mansfield	U.S.A.	9	6	8/8	2	369	523	414	587	-	
	Odenwalder	Germany	7	5	15/8	7	367	774	411	867	36	
	Orsegi	Hungary	7	6	17/8	6	203	405	227	454	36	
	Otofte	Denmark	7	6	18/8	6	256	669	287	749	36	
	Roskilde	Denmark	8	6	18/8	6	285	742	319	831	37	
	Taborsky	Czech.	6	5	18/8	10	341	966	382	1082	41	
	Tana	U.S.A.	9	6	8/8	2	202	217	226	243	-	
	Trebicky E	Czech.	6	4	17/8	9	439	806	492	904	40	
	Viglassky	Czech.	7	4	17/8	9	289	560	324	628	35	
	Viking	U.S.A.	5	4	17/8	8	211	448	237	502	-	
Vetch, Annual (<i>Vicia sativa</i> L.)												
	Chlumecka panonska	-	-	8	26/9	1	114	114	128	128	-	
	Common	-	-	9	26/9	1	2196	2196	2460	2460	-	
	Detenicka panonska	-	-	6	26/9	1	64	64	72	72	-	
	Pisarecha Hladka	-	-	7	-	2	0	0	0	0	-	No flowering
	Prerovska Astra	-	-	8	26/9	1	2032	2032	2276	2276	-	
	Slovenska	-	-	9	-	1	0	0	0	0	-	No seed set
	Vega	-	-	9	26/9	1	1901	1901	2129	2129	-	
	Viglasska Rueda	-	-	8	26/9	1	2692	2692	3015	3015	-	
Vetch, Crown (<i>Coronilla varia</i> L.)												
	Chemung	U.S.A.	8	2	20/9	4	1	2	1	2	39	
	Emerald	U.S.A.	6	2	20/9	1	0	0	0	0	30	
	Penngift	U.S.A.	9	1	20/9	1	0	0	0	0	25	
Vetch, Milk (<i>Astragalus cicer</i> L.)												
	Oxley	Canada	6	1	20/9	1	64	64	72	72	20	
	Wyoming Cicer	Netherlands	6	1	20/9	1	38	38	43	43	25	