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2002 Red Clover Report

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Introduction

Red clover (*Trifolium pratense*) is a high-quality, short-lived, perennial legume that is used in mixed or pure stands for pasture, hay, silage, green chop, soil improvement, and wildlife habitat. This species is adapted to a wide range of climatic and soil conditions and therefore is versatile as a forage crop. Stands are generally productive for two or three years, with the highest yields occurring in the year following establishment. Red clover is used primarily as a renovation legume for grass pastures. It is a dominant forage legume in Kentucky because it is relatively easy to establish and has high forage quality, high yield, and animal acceptance.

Yield and persistence of red clover varieties are dependent on environment and pressure from diseases and insects. The most common red clover diseases in Kentucky are southern anthracnose, powdery mildew, sclerotinia crown rot, and root rots. High yield and persistence (as measured by percent stand) are two indications that a red clover variety is resistant to or tolerant of these diseases when grown in Kentucky.

This report provides current yield data on red clover varieties included in yield trials in Kentucky as well as guidelines for selecting red clover varieties.

Important Considerations in Selecting a Red Clover Variety

Local adaptation and persistence. The variety should be adapted to Kentucky as indicated by superior performance across years and locations in replicated yield trials such as those reported in this publication. High-yielding varieties are generally also those varieties that are the most persistent. Red clover generally produces measurable yields for three years, with the year of establishment considered as the first year. The highest yields occur in the year following establishment.

Seed quality. Buy high-quality seed that is high in germination and purity and free from weed seed. Buy certified seed or proprietary seed of an improved variety. An improved variety is one that has performed well in independent trials such as are reported in this publication. Other information on the label will include the test date, which must be within the previous nine months, the level of germination, and other crop and weed seed. Order seed well in advance of planting time to assure that it will be available when needed.

Description of the Tests

This report summarizes studies at Princeton (sown in 2000), four at Lexington (two sown in 2000, one in 2001, and one in 2002), one at Eden Shale (sown 2000), and one at Quicksand (sown 2001). The soils at Princeton (Crider), Lexington (Maury), and Quicksand (Pope) were well-drained silt loams. Eden Shale has a Nicholson silt loam soil. All are well suited to red clover production. Plots were 5 x 15 feet and were arranged in a randomized complete block design with four replications at every location.

Seedings were made at 12 pounds of seed per acre into a prepared seedbed using a disk drill. The first cutting in the seedling year was delayed to allow the red clover to completely reach maturity as indicated by full bloom, which generally occurs about 60 to 90 days after seeding. Otherwise, harvests were taken when the red clover was in the bud to early-flower stage using a sickle-type forage plot harvester. Fresh weight samples were taken at each harvest to calculate percent dry matter production. All tests for establishment, fertility, and harvest management were managed according to University of Kentucky Cooperative Extension Service recommendations. Weeds were controlled so as to not limit production or persistence.

Results and Discussion

Weather data for Quicksand, Eden Shale, Lexington, and Princeton are presented in Table 1. After a wet spring, the 2002 summer in Kentucky was the fourth driest and hottest on record. This adversely affected number of harvests and total yield for 2002.

Yield data (on a dry matter basis) are presented in Tables 2 through 8. Yields are given by cutting date and as total annual production. Varieties are listed in order from highest to lowest total production (for the life of the test). Experimental varieties are listed separately at the bottom of the tables and are not available commercially.

Statistical analyses were performed on all red clover data (including experimental varieties) to determine if the apparent differences are truly due to variety. Varieties not significantly different from the top variety within a column are marked with one asterisk (*). To determine if two varieties are truly different, compare the difference between the two varieties with the Least Significant Difference (LSD) at the bottom of the column. If the difference is equal to or greater than the LSD, the varieties are truly different when grown under the conditions at a given location. The Coefficient of Variation

(CV), which is a measure of the variability of the data, is included for each column of means. Low variability is desirable, and increased variability within a study results in higher CVs and larger LSDs.

Certified Kenland continues to rank near the top of tests. It is important to note yield differences between certified and uncertified Kenland red clover. Most Kenland offered for sale is uncertified, but our tests show it is significantly lower in yield than certified Kenland.

In addition to the commercially available varieties and experimental lines, selected "common" red clovers are included in the variety tests for comparison. Common red clover, generally sold as "medium red clover variety unknown," is unimproved red clover with unknown performance. Several years of testing show only about one out of every 10 common red clovers is as productive as the certified or proprietary red clovers. In Kentucky, the yield advantage of seeding better red clovers compared to common types is 3 to 6 tons of dry matter over the life of the stand.

Table 9 summarizes information about proprietors, distributors, and yield performance across years and locations for all varieties currently included in this report. Varieties are listed in alphabetical order, with the experimental varieties at the bottom. Experimental varieties are not available for farm use, but commercial varieties can be purchased from dealerships. In Table 9, a shaded area indicates that the variety was not included in that particular test (labeled at the top of the column), and a clear block means that the variety was included in the test. A single asterisk (*) means that the variety was not significantly different from the highest-yielding variety. Look at data from several years and locations when choosing a variety of red clover rather than results from one test year as is reported in Tables 2 through 8. Make sure seed of the variety selected is properly labeled and will be available when needed.

Summary

Red clover can be a productive component of pasture and hayfields. Choose a variety with proven performance in yield and persistence.

Other College of Agriculture publications related to the establishment, management, and harvesting of red clover available from the local county Extension office are listed below:

- AGR-1 Lime and Fertilizer Recommendations
- AGR-2 Producing Red Clover Seed in Kentucky
- AGR-18 Grain and Forage Crop Guide for Kentucky
- AGR-24 Kenstar Red Clover
- AGR-26 Renovating Hay and Pasture Fields
- AGR-33 Growing Red Clover in Kentucky
- AGR-64 Establishing Forage Crops
- AGR-90 Inoculation of Forage Legumes
- AGR-148 Weed Control Strategies for Alfalfa and Other Forage Legume Crops
- ENT-17 Insect Management Recommendations for Field Crops and Livestock
- PPA-10 Kentucky Plant Disease Management Guide for Forage Legumes

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Table 1. Temperature and Rainfall at Bowling Green, Eden Shale, Lexington, and Princeton, Kentucky, in 2002.

	Bowling Green				Eden Shale				Lexington				Princeton			
	Temp		Rainfall		Temp		Rainfall		Temp		Rainfall		Temp		Rainfall	
	° F	DEP	IN	DEP	° F	DEP	IN	DEP	° F	DEP	IN	DEP	° F	DEP	IN	DEP
JAN	40	+6	3.70	-0.12	39	+9	2.84	+0.30	38	+7	2.12	-0.74	41	+7	3.79	-0.01
FEB	39	+1	0.91	-3.22	39	+6	1.24	-1.51	38	+3	1.28	-1.93	42	+4	2.40	-2.03
MAR	47	+1	7.60	+2.50	45	+2	6.09	+1.37	45	+1	7.93	+3.53	49	+2	8.18	+3.24
APR	60	+3	7.30	+2.98	59	+5	4.71	+0.56	58	+3	4.19	+0.31	63	+4	5.72	+0.92
MAY	64	-2	5.56	+0.62	62	-1	5.68	+1.27	61	-3	4.36	-0.11	66	-1	9.04	+4.08
JUN	76	+1	1.20	-2.97	75	+4	4.54	+0.77	74	+2	2.45	-1.21	77	+2	1.88	-1.97
JUL	80	+2	3.57	-1.17	79	+4	1.10	-3.43	78	+2	1.10	-3.90	81	+3	2.13	-2.16
AUG	80	+3	5.10	+1.59	79	+5	0.37	-3.36	77	+2	0.95	-2.98	80	+3	2.06	-1.95
SEP	75	+5	9.46	+5.74	73	+5	5.13	+1.94	72	+4	4.90	+1.70	74	+3	5.90	+2.57
OCT	62	+4	5.24	+2.22	56	-1	2.69	-0.30	55	-2	5.61	+3.04	59	0	6.12	+3.07
NOV	48	+2	5.00	+0.57	44	-1	3.13	-0.42	43	-2	3.76	+0.37	47	0	2.49	-2.14

DEP is departure from the long-term average for that location.

Table 2. Dry matter yields (tons/acre) of red clover varieties sown March 3, 2000, at Eden Shale, Kentucky.

Variety	Total 2000	Total 2001	2002 Harvests		Total 2002	3-yr Total
			Jun 14	Aug 13		
Commercial Varieties — Available for Farm Use						
Solid	3.72	4.61	1.73	0.66	2.39	10.72*
Certified Kenland	3.48	4.79	1.76	0.62	2.38	10.65*
Red Gold Plus	3.31	4.38	1.69	0.63	2.33	10.02*
Plus	3.38	4.44	1.53	0.56	2.09	9.91
Royal Red	3.23	4.40	1.64	0.54	2.19	9.82
Starfire	3.30	4.19	1.60	0.63	2.23	9.72
Common B	3.08	3.19	1.72	0.23	1.95	8.22
Common A	3.03	3.22	1.57	0.24	1.81	8.05
Regal (ladino)	2.98	2.76	1.38	0.63	2.01	7.75
Experimental Varieties						
Freedom!	3.41	4.75	1.70	0.57	2.28	10.43*
KVMRS	3.23	4.62	1.97	0.60	2.56	10.41*
KNARS	3.41	4.57	1.75	0.65	2.41	10.39*
Mean	3.30	4.16	1.67	0.55	2.22	9.68
CV, %	6.78	6.59	11.17	13.27	9.15	5.55
LSD, 0.05	0.32	0.40	0.27	0.11	0.29	0.77

* Not significantly different from the highest value in the column based on the 0.05 LSD.

Table 3, Dry matter yield (tons/acre) of red clover varieties sown April 26, 2000, at Lexington, Kentucky.

Variety	Total 2000	Total 2001	2002 Harvests			Total 2002	3-yr Total
			May 11	Jun 17	Jul 30		
Commercial Varieties — Available for Farm Use							
Certified Kenland	3.20	7.30	1.47	1.16	0.28	2.91	13.41*
Kenstar	2.96	7.00	1.47	1.07	0.26	2.80	12.75*
Solid	2.96	6.60	1.49	1.00	0.23	2.71	12.26*
Impact	2.78	6.58	1.33	0.85	0.20	2.38	11.75
Red Gold Plus	2.79	6.29	1.36	1.01	0.22	2.59	11.66
Starfire	2.73	6.37	1.15	0.79	0.14	2.08	11.17
Royal Red	2.65	6.32	1.11	0.82	0.18	2.11	11.08
Common A	2.49	5.97	0.97	0.72	0.13	1.82	10.29
Common B	2.75	5.88	0.85	0.56	0.14	1.55	10.19
Experimental Varieties							
Freedom!	3.01	6.81	1.51	1.10	0.29	2.90	12.71*
KVMRS	2.95	6.91	1.29	1.09	0.28	2.66	12.52*
ZR 9906R	2.84	6.90	1.42	0.95	0.21	2.59	12.32*
KY Low Phenolic	2.89	6.78	1.33	0.95	0.20	2.49	12.17*
CW 5049	3.01	6.52	1.32	0.96	0.18	2.45	11.98
ZR 9908R	2.90	6.60	1.34	0.88	0.22	2.44	11.94
CW 9901	2.81	6.23	1.42	0.91	0.18	2.50	11.55
KNARS	2.85	6.25	1.10	0.89	0.19	2.18	11.27
CW 9803	2.65	6.10	1.37	0.89	0.23	2.49	11.24
CW 9810	2.68	6.04	1.24	0.82	0.19	2.25	10.98
Mean	2.84	6.50	1.29	0.92	0.21	2.42	11.75
CV, %	9.91	6.67	20.30	0.55	33.47	16.90	7.72
LSD, 0.05	0.40	0.62	0.37	0.21	0.10	0.58	1.29

* Not significantly different from the highest value in the column based on the 0.05 LSD.

Table 4. Dry matter yield (tons/acre) of red clover varieties sown May 2, 2000, at Princeton, Kentucky.

Variety	Total 2000	Total 2001	2002 Harvests				Total 2002	3-yr Total
			May 30	July 8	Sep 5	Oct 22		
Commercial Varieties — Available for Farm Use								
Certified Kenland	4.29	8.19	2.30	1.91	0.18	0.27	4.66	17.14*
Kenstar	4.08	8.03	2.44	2.06	0.19	0.24	4.92	17.03*
Solid	4.44	8.05	1.89	1.60	0.08	0.09	3.66	16.16
Starfire	4.40	7.33	2.44	1.56	0.19	0.21	4.40	16.14
Impact	4.36	7.62	2.25	1.58	0.10	0.21	4.14	16.12
Red Gold Plus	4.16	7.39	2.18	1.65	0.10	0.15	4.08	15.62
Common B	3.81	6.82	1.96	1.19	0.00	0.00	3.15	13.77
Common A	3.60	6.88	2.18	1.07	0.03	0.00	3.28	13.76
Common C	3.65	6.63	2.01	1.14	0.00	0.00	3.14	13.42
Experimental Varieties								
Freedom!	4.28	8.04	2.44	2.00	0.21	0.31	4.96	17.28*
KY Low Phenolic	3.92	7.97	2.30	1.89	0.14	0.19	4.51	16.40*
KVMRS	3.85	7.97	2.16	1.97	0.14	0.26	4.53	16.36*
KNARS	4.06	7.37	2.38	1.84	0.21	0.17	4.60	16.03
ZR 9908R	4.34	7.45	2.24	1.69	0.10	0.10	4.13	15.92
ZR 9906R	4.32	7.48	2.01	1.60	0.17	0.16	3.95	15.74
Mean	4.10	7.55	2.21	1.65	0.12	0.16	4.14	15.79
CV, %	7.63	4.55	12.00	10.52	51.93	31.49	9.53	4.76
LSD, 0.05	0.45	0.49	0.38	0.25	0.09	0.07	0.56	1.07

* Not significantly different from the highest value in the column based on the 0.05 LSD.

Table 5. Dry matter yield (tons/acre) of red clover varieties sown March 29, 2001, at Quicksand, Kentucky.

Variety	Total 2001	2002 Harvests		Total 2002	2-yr Total
		May 16	Jul 12		
Commercial Varieties — Available for Farm Use					
Certified Kenland	6.17	1.69	1.58	3.27	9.44*
Sienna	5.73	1.61	1.67	3.28	9.01*
Duration	5.64	1.75	1.61	3.35	8.99*
Rojo Diablo	5.22	1.61	1.79	3.40	8.62*
Emarwan	5.54	1.63	1.43	3.06	8.60*
Red Gold Plus	5.16	1.56	1.60	3.16	8.32
Vesna	5.41	1.41	1.38	2.79	8.20
RedlanGraze II	4.99	1.51	1.43	2.94	7.93
Uncertified Kenland	4.63	1.18	1.28	2.46	7.09
Common A	4.12	1.08	1.38	2.45	6.58
Experimental Varieties					
Freedom!	5.94	1.83	1.70	3.53	9.47*
RC 9601	5.68	1.68	1.69	3.37	9.06*
RC 9301	5.63	1.87	1.53	3.39	9.03*
KY Tetraploid	5.34	1.66	1.85	3.51	8.85*
ZR 9906R	5.27	1.88	1.54	3.42	8.69*
RC 9101	5.42	1.68	1.58	3.26	8.68*
KVMRS cycle 1	5.12	1.66	1.76	3.43	8.55*
MR54	5.36	1.71	1.47	3.19	8.54*
RC 9803G	5.12	1.73	1.67	3.40	8.52*
RC 9501	5.33	1.55	1.62	3.17	8.50*
Narn	5.38	1.62	1.49	3.11	8.49*
KNARS cycle 2	4.95	1.39	1.59	2.98	7.93
BY 394	4.58	1.50	1.37	2.87	7.45
Mean	5.29	1.60	1.57	3.17	8.46
CV, %	11.27	11.48	14.49	9.42	9.14
LSD, 0.05	0.84	0.26	0.32	0.42	1.09

* Not significantly different from the highest value in the column based on the 0.05 LSD.

Table 6. Dry matter yield (tons/acre) of red clover varieties sown April 12, 2002, at Lexington, Kentucky.

Variety	2002 Harvests			Total 2002
	Jul 17	Sep 4	Nov 8	
Commercial Varieties — Available for Farm Use				
Certified Kenland	0.57	0.24	0.28	1.09*
Solid	0.48	0.24	0.20	0.93*
Cardinal	0.50	0.17	0.20	0.86
Common A	0.52	0.15	0.18	0.84
Duration	0.48	0.09	0.23	0.80
Regal	0.25	0.07	0.38	0.71
Experimental Varieties				
Freedom!	0.53	0.16	0.29	0.99*
Cinnamon Plus	0.51	0.12	0.25	0.88
RC 9101	0.50	0.13	0.22	0.86
RC 9601	0.48	0.13	0.23	0.85
NIB 13693	0.33	0.26	0.16	0.74
CW 3001	0.42	0.19	0.14	0.74
ULC 1715/86	0.23	0.24	0.18	0.65
EC 408	0.35	0.21	0.08	0.64
NIB 1195	0.29	0.18	0.12	0.59
Mean	0.43	0.17	0.21	0.81
CV, %	14.67	51.02	21.81	16.36
LSD, 0.05	0.09	0.13	0.07	0.19

* Not significantly different from the highest value in the column based on the 0.05 LSD.

Table 7. Dry matter yield (tons/acre) of red clover varieties sown April 13, 2001, at Lexington, Kentucky.

Variety	Total 2001	2002 Harvests			Total 2002	2-yr Total
		May 17	Jun 21	Jul 26		
Commercial Varieties — Available for Farm Use						
Certified Kenland	2.08	1.89	1.31	0.24	3.44	5.52*
Rojo Diablo	2.11	1.62	1.08	0.22	2.91	5.01*
Red Gold Plus	1.89	1.80	0.99	0.15	2.94	4.83*
Sienna	1.94	1.61	0.98	0.16	2.75	4.68*
RedlanGraze II	1.50	1.77	0.94	0.16	2.86	4.36
Duration	1.43	1.72	0.88	0.11	2.71	4.14
Common A	1.00	1.10	0.79	0.12	2.00	3.01
Vesna	0.79	1.42	0.68	0.10	2.20	2.99
Experimental Varieties						
RC 9501	1.83	1.87	1.15	0.20	3.22	5.05*
Freedom!	1.72	1.92	1.18	0.20	3.30	5.02*
RC 9101	1.76	1.93	1.08	0.15	3.16	4.92*
KY Tetraploid	1.59	1.90	1.15	0.20	3.25	4.84*
KNARS cycle 2	1.52	1.85	1.23	0.12	3.19	4.72*
KVMRS cycle 1	1.77	1.65	1.03	0.24	2.91	4.68*
MR54	1.50	1.71	0.96	0.13	2.80	4.30
Narn	1.54	1.72	0.86	0.12	2.70	4.24
RC 9601	1.24	1.78	0.95	0.13	2.87	4.11
RC 9803g	1.42	1.72	0.84	0.13	2.69	4.11
BY 394	1.57	1.60	0.78	0.14	2.52	4.09
ZR 9906R	1.31	1.39	0.72	0.11	2.23	3.53
Mean	1.58	1.70	0.98	0.16	2.83	4.41
CV, %	29.49	16.52	16.72	45.61	16.26	18.26
LSD, 0.05	0.66	0.40	0.23	0.10	0.65	1.14

* Not significantly different from the highest numerical value in the column based on the 0.05 LSD.

Table 8. Dry matter yield (tons/acre) of red clover varieties sown April 14, 2000, at Lexington, Kentucky.

Variety	Total 2000	Total 2001	2002 Harvests			Total 2002	3-yr Total
			May 17	Jun 21	Jul 26		
Commercial Varieties — Available for Farm Use							
Plus	2.63	5.00	1.04	0.71	0.17	1.91	9.55*
Cinnamon	2.70	4.72	1.15	0.69	0.18	2.03	9.46*
Certified Kenland	2.45	4.84	1.11	0.74	0.16	2.02	9.31*
Royal Red	2.56	4.76	1.03	0.64	0.15	1.83	9.15*
Impact	2.55	4.50	1.14	0.66	0.15	1.95	9.00*
Redstart	2.57	4.46	0.97	0.54	0.12	1.63	8.66*
Rudolf	2.54	4.43	0.91	0.55	0.11	1.56	8.53*
Starfire	2.45	4.20	0.96	0.50	0.15	1.62	8.26
Solid	2.44	4.36	0.80	0.54	0.10	1.43	8.23
RedlanGraze	2.43	4.13	0.84	0.58	0.08	1.50	8.06
Scarlet	2.47	4.18	0.84	0.49	0.08	1.40	8.06
Robust	2.41	4.07	0.75	0.52	0.09	1.37	7.84
Prima	2.46	4.03	0.77	0.49	0.08	1.34	7.83
Belle	2.24	3.88	0.81	0.47	0.10	1.38	7.50
Cherokee	2.30	3.53	0.41	0.35	0.09	0.86	6.68
Experimental Varieties							
Freedom!	2.67	4.62	1.12	0.68	0.11	1.91	9.20*
KVMRS	2.34	4.80	1.05	0.69	0.13	1.87	9.01*
KNARS cycle 2	2.36	4.56	0.78	0.63	0.14	1.55	8.47*
KY Low Phenolic	2.27	4.30	0.92	0.64	0.16	1.72	8.29
FLMR7	2.07	3.43	0.58	0.45	0.07	1.10	6.60
Mean	2.45	4.34	0.90	0.58	0.12	1.60	8.39
CV, %	9.83	9.58	22.37	23.32	41.10	21.61	9.93
LSD, 0.05	0.34	0.59	0.29	0.19	0.07	0.49	1.18

* Not significantly different from the highest numerical value in the column based on the 0.05 LSD.

Table 9. Performance of red clover varieties across years and locations.

		Princeton			Lexington									Eden Shale			Quicksand	
		2000[1]			2000			2000			2001		2002	2000			2001	
Variety	**Proprietor/KY Distributor**	**00[2]**	**01**	**02**	**00**	**01**	**02**	**00**	**01**	**02**	**01**	**02**	**02**	**00**	**01**	**02**	**01**	**02**
Commercial Varieties — Available for Farm Use																		
Belle	Agribiotech																	
Cardinal	Seed Research of Oregon																	
Cherokee	FL Agric. Exp. Station																	
Cinnamon	FFR/Southern States							*	*	*								
Common A	Public																	
Common B	Public																	
Common C	Public																	
Duration	Cisco Companies																*	*
Emarwan	Turf-Seed, Inc.																*	
Impact	Specialty Seeds	*					*	*	*	*								
Kenland, certified	KY Agric. Exp. Station	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Kenland, uncertified	Public																	
Kenstar	KY Agric. Exp. Station	*	*	*	*	*	*											
Plus	Allied Seed							*	*	*					*			
Prima								*										
Red Gold Plus	Turner Seed Co.	*					*				*	*				*		*
RedlanGraze	ABI Alfalfa Inc.							*										
RedlanGraze II	Americas Alfalfa										*							
Regal Ladino	Public																	
Robust	Scott Seed Co.							*										
Rojo Diablo	Great Plains Research Co.										*	*						*
Royal Red	FFR Cooperative							*	*	*					*			
Red Start	Syngenta							*	*	*								
Randolph	Allied Seed							*	*	*								
Scarlett	Dairyland							*										
Sienna	Great Plains Research Co.										*						*	*
Solid	Improved Forage Inc.	*	*				*	*					*	*	*	*		
StarFire	Ampac Seed Co.	*		*				*		*								
Vesna	DLF - Jenks																*	

Table 9. Performance of red clover varieties across years and locations.

		Princeton			Lexington									Eden Shale			Quicksand	
		2000[1]			2000			2000			2001		2002	2000			2001	
Variety	Proprietor/KY Distributor	00[2]	01	02	00	01	02	00	01	02	01	02	02	00	01	02	01	02
Experimental Varieties																		
BY 394	Brett-Young Seeds LTD.										*							
Cinnamon Plus	FFR Cooperative																	
CW 3001	Cal/West Seeds																	
CW 5049	Cal/West Seeds				*		*											
CW 9803	Cal/West Seeds						*											
CW 9810	Cal/West Seeds																	
CW9901	Cal/West Seeds				*		*											
EC 408	Emerald Commodities, Inc.																	
FLMR 7	FL Agric. Exp. Station																	
Freedom!	KY Agric. Exp. Station	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
KNARS	KY Agric. Exp. Station	*		*	*			*	*	*				*	*	*		
KNARS cycle 2	KY Agric. Exp. Station										*	*						
KY Low Phenolic	KY Agric. Exp. Station		*	*	*	*	*			*								
KY Tetraploid	KY Agric. Exp. Station										*	*					*	*
KVMRS	KY Agric. Exp. Station		*	*	*	*	*		*	*					*	*		*
KVMRS cycle 1	KY Agric. Exp. Station										*	*						
MR54	Forage Genetics International											*					*	*
NARN	Cebeco International Seeds, Inc.										*						*	
NIB 1195	Barenbrug USA																	
NIB 13693	Barenbrug USA																	
RC 9101	Allied Seed, L.L.C.										*	*					*	*
RC 9301	FFR cooperative																*	*
RC 9501	FFR cooperative										*	*					*	*
RC 9601	Allied Seed, L.L.C.											*					*	*
RC 9803g	FFR cooperative																	*
ULC 1715/86	Barenbrug USA																	
ZR 9906R	Americas Alfalfa	*			*	*	*											*
ZR 9908R	ABI Alfalfa Inc.	*			*		*											

1 Establishment year.

2 Harvest year.

Shaded boxes indicate the variety was not in the test.

Open boxes indicate the variety was in the test but yielded significantly less than the top variety in the test.

* Not significantly different from the top ranked variety in the test.

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