## and

# 2023 Red and White Clover and Annual Lespedeza Report

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#### Introduction

Red clover (*Trifolium pratense L.*) is a high-quality, short-lived, perennial legume 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. Stands of improved varieties generally are productive for 2½ to 3 years, with the highest yields occurring in the year following establishment. Red clover is used primarily as a renovation legume for grass pastures and hay fields. It is a dominant forage legume in Kentucky because it is relatively easy to establish and has high forage quality, yield, and animal acceptance.

White clover (*Trifolium repens L.*) is a low-growing, perennial pasture legume with white flowers. It differs from red clover in that the stems (stolons) grow along the surface of the soil and can form adventitious roots that lead to the development of new plants. Three types of white clover grow in Kentucky: Dutch, intermediate, and ladino. Dutch white clover, sometimes called "common," naturally occurs in many Kentucky pastures and even lawns. It is generally long lived and reseeds readily, but its small leaves and low growth habit result in low forage yield. The intermediate type is a cross between ladino and Dutch white clover and has been developed to give higher yields than the Dutch type and to persist better than the ladino type under frequent or continuous grazing conditions. Ladino white clover has larger leaves and taller growth than the intermediate and Dutch types and is the highest yielding of the three white clover types but requires rotational grazing to maintain stands. Information on the grazing tolerance of white clover varieties can be found in the 2023 Alfalfa, Red Clover and White Clover Grazing Tolerance Report (PR-842).

Annual lespedezas used for forage in the South consist of two species (striate lespedezas and Korean lespedezas) that were introduced from Korea and Japan. Striate lespedeza is commonly referred to simply by the variety names "Kobe" or "Marion." They are adapted to a wide range of soils and fertility levels and are used in pasture mixtures to provide good quality grazing from late spring until fall. Annual lespedezas can be cut for hay, but yields are relatively low. High levels of fertility will result in the lespedezas being crowded out by other forage species. Advantages-productive during summer months, tolerates soil acidity and low fertility, naturally reseeds itself, is fine stemmed and nonbloating. Disadvantages-short growing season, low quality after frost or if it matures, low yielding, must set seed each year to persist, may fail to reseed if overgrazed, autumns are dry or early frost occurs.

Yield and persistence of red and white 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. For white clover, the most common pests are stolon rots, root rots, and potato leafhoppers. High yield and persistence (as measured

Table 1. Temperature and rainfall at Lexington, Kentucky, in 2022 and 2023.

		20	22			20	23 <sup>2</sup>	
	Tempe	rature	Rai	infall	Tempe	rature	Rai	infall
	°F	DEP <sup>1</sup>	IN	DEP	°F	DEP	IN	DEP
JAN	29	-2	4.93	+2.07	44	+13	6.28	+3.42
FEB	38	+3	7.69	+4.48	47	+12	3.73	+0.52
MAR	49	+5	4.27	-0.13	48	+4	4.45	+0.05
APR	55	0	3.71	-0.17	58	+3	2.36	-1.52
MAY	69	+5	3.84	-0.63	65	+1	2.53	-1.94
JUN	76	+4	2.10	-1.56	72	0	6.75	+3.09
JUL	80	+4	6.46	+1.46	78	+2	5.32	+0.32
AUG	77	+2	4.27	+0.34	76	+1	2.40	-1.53
SEP	70	+2	1.50	-1.70	71	+3	0.99	-2.21
OCT	57	0	0.96	-1.61	61	+4	2.30	-0.27
NOV	49	+4	2.10	-1.29				
DEC	40	+4	3.46	-0.52				
Total			45.29	+0.74			37.11	-0.07

<sup>&</sup>lt;sup>1</sup>DEP is departure from the long-term average.

Table 2. Temperature and rainfall at Princeton, Kentucky, in 2023.

		20	23 <sup>2</sup>	
	Tempe	rature	Rai	infall
	°F	DEP <sup>1</sup>	IN	DEP
JAN	43	+9	5.11	+1.31
FEB	46	+8	3.27	-1.16
MAR	48	+1	6.89	+1.95
APR	57	-2	2.14	-2.66
MAY	67	0	4.47	-0.49
JUN	72	-3	1.59	-2.26
JUL	77	-1	11.23	+6.54
AUG	75	-1	8.87	+4.86
SEP	71	0	2.77	-0.56
OCT	59	0	3.82	0.77
NOV				
DEC				
Total			50.16	8.7

<sup>&</sup>lt;sup>1</sup>DEP is departure from the long-term average.

Table 3. Temperature and rainfall at Quicksand, Kentucky, in 2023.

		20	23 <sup>2</sup>	
	Tempe	rature	Ra	infall
	°F	DEP <sup>1</sup>	IN	DEP
JAN	42	11	3.8	0.51
FEB	46	13	5.1	1.5
MAR	47	6	4.1	-0.24
APR	56	3	3	-1.1
MAY	62	0	4.3	-0.18
JUN	68	-2	3.7	-0.12
JUL	74	0	3.9	-1.02
AUG	73	0	4.7	0.69
SEP	67	1	2	-1.52
OCT	57	3	1	-1.91
NOV				
DEC				
Total			35.6	-3.72
10.50				

<sup>&</sup>lt;sup>1</sup>DEP is departure from the long-term average.

<sup>&</sup>lt;sup>2</sup>2023 data is for ten months through October.

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by percent stand) are two indications that a specific red or white clover variety is resistant to or tolerant of these pests when grown in Kentucky.

This report provides current yield and persistence data on red and white clover varieties included in yield trials in Kentucky as well as guidelines for selecting clover varieties. Tables 11 and 12 show a summary of all clover varieties tested in Kentucky for the past 16 years. The UK Forage Extension website (https://forages. ca.uky.edu) contains electronic versions of all forage variety testing reports from Kentucky and surrounding states and a large number of other forage publications.

#### **Important Selection Considerations**

**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. Improved red clover generally produces measurable yields for  $2\frac{1}{2}$  to 3 years, with the year of establishment considered as the first year. The highest yields occur in the year following establishment. White clover may persist longer than red clover, particularly in wet seasons, and has the ability to reseed even under grazing.

**Seed quality**. Buy premium-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 those 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 percentage of 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 clover studies at Lexington (one in 2022 and two in 2023). The soil at Lexington (Maury) is a well-drained silt loam. All are well-suited to clover production. Plots were 5 feet by 20 feet in a randomized complete block design with four replications with a harvested plot area of 5 feet by 15 feet.

Seedings were made at 12 pounds per acre for red clover and 3 pounds per acre for white clover into a prepared seedbed using a disk drill. The first cutting in the seeding year was delayed to allow the 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 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 (P, K, and lime based on regular soil tests), and harvest management were managed according to University of Kentucky Cooperative Extension Service recommendations. Weeds were controlled to avoid limiting production and persistence.

#### **Results and Discussion**

Weather data for Lexington, Princeton, and Quicksand are presented in tables 1 through 3.

Yield data (on a dry matter basis) are presented in tables 4 through 8. Yields are given by cutting date for 2023 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 clover data (including experimental varieties) to determine whether 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 and is likely common or VNS seed falsely advertised as Kenland. Our tests show uncertified Kenland is significantly lower in yield than certified Kenland. White clover varieties, as managed in these trials, yielded less than most red clover varieties but were more persistent. Again, certified seed of improved varieties is recommended.

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 certified or proprietary red clovers. In Kentucky, the average yield advantage of seeding improved red clover varieties compared to common types is 3 tons to 6 tons higher of dry matter/acre over the life of the stand.

Tables 9 and 10 show information about proprietors/distributors for all clover varieties included in the tests discussed 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. Look at data from several years and locations when choosing a variety of clover rather than results from one test year, as is reported in tables 4 through 6. Make sure seed of the variety selected is properly labeled and will be available when needed.

#### How to Interpret the Summary Tables

Tables 11 and 12 are summaries of yield data from 2001 to 2023 of commercial varieties that have been entered in the Kentucky trials. The data is listed as a percentage of the mean of the commercial varieties entered in each specific trial. In other words, the mean for each trial is 100 percent—varieties with percentages over 100 yielded better than average, and varieties with percentages less than 100 yielded lower than average. Direct, statistical comparisons of varieties cannot be made using the summary tables 11 and 12, but these comparisons do help to identify varieties for further consideration. Varieties that have performed better than average over many years and at several locations have stable performance; others may have performed well in wet years or on particular soil types. These details may influence variety choice, and the information can be found in the yearly reports. See the footnotes in tables 11 and 12 to determine which yearly report should be referenced.

#### **Summary**

Red and white clovers can be productive components of pasture and hayfields. Choose varieties with proven performance in yield and persistence.

The following College of Agriculture publications related to the establishment, management, and harvesting of clover are available at local county Extension offices and are listed in the "Publications" section of the UK Forage website (https://forages.ca.uky.edu):

- Lime and Fertilizer Recommendations (AGR-1)
- Producing Red Clover Seed in Kentucky (AGR-2)
- Grain, Forage, and Cover Crop Guide for Kentucky (AGR-18)
- Renovating Hay and Pasture Fields (AGR-26)
- Growing Red Clover in Kentucky (AGR-33)
- Establishing Forage Crops (AGR-64)
- Inoculation of Forage Legumes (AGR-90)
- Growing White Clover in Kentucky (AGR-93)
- Weed Control Strategies for Alfalfa and Other Forage Legume Crops (AGR-148)
- Frost Seeding Clover: A Recipe for Success (AGR-271)
- Insect Management Recommendations for Field Crops and Livestock (ENT-17)
- Managing Legume-Induced Bloat in Cattle (ID-186)
- Kentucky Plant Disease Management Guide for Forage Legumes (PPA-10D)
- "Emergency" Inoculation for Poorly Nodulated Legumes (PPFS-AG-F-04)

#### **About the Authors**

G.L. Olson is a research specialist, S.R. Smith and J.C. Henning are Extension professors and forage specialists, and C.D. Teutsch is an Extension associate professor and forage specialist.

Table 4. Dry matter yields, seedling vigor, and stand persistence of red clover varieties sown April 4, 2022, at Lexington, Kentucky.

	Seedling		Percen	t Stand					Yield (to	ons/acre)			
Variety	Vigor <sup>1</sup>	20	22	20	23	2022			20	23			2-year
	May 25, 2022	May 25	Sep 22	Mar 9	Oct 4	Total	May 15	Jun 15	Jul 11	Aug 11	Sep 14	Total	Total
Commercial Var	ieties-Available f	or Farm Use											
Freedom!	4.1	97	96	97	95	2.88	1.64	1.24	0.62	0.98	0.41	4.89	7.78*
Gallant	3.5	97	98	98	90	2.76	1.49	1.07	0.65	0.80	0.36	4.37	7.13*
Kenland	4.3	99	98	97	80	2.58	1.52	1.13	0.57	0.82	0.32	4.36	6.94*
SS0303RCG	3.8	93	98	97	85	2.54	1.31	0.99	0.63	0.87	0.36	4.15	6.69*
GA9908	3.5	96	96	94	64	2.56	1.62	0.98	0.56	0.56	0.17	3.89	6.45*
Blaze	3.9	98	96	96	92	2.01	0.81	0.95	0.51	0.79	0.20	3.26	5.27
Common O	4.1	98	96	94	8	2.13	1.16	0.92	0.26	0.06	0.13	2.53	4.66
<b>Experimental Va</b>	rieties												
20-LA-RC-1	3.6	96	96	93	46	2.61	1.43	0.93	0.65	0.88	0.34	4.23	6.84*
BARTP10	3.8	98	98	96	64	2.69	1.29	1.08	0.58	0.70	0.16	3.81	6.50*
CW040040	4.0	98	98	98	93	2.44	1.20	0.96	0.58	0.90	0.30	3.93	6.36*
ISTP12	4.0	98	98	98	48	2.33	1.49	0.96	0.55	0.64	0.18	3.81	6.14*
RC08	3.5	97	99	98	90	2.35	1.15	0.86	0.61	0.84	0.28	3.74	6.09*
BARTPV23	3.6	96	96	95	77	2.07	1.09	0.89	0.57	0.74	0.26	3.55	5.62*
BY-RC31	4.3	98	98	98	79	1.99	1.05	0.93	0.56	0.78	0.21	3.52	5.51
GA-RXS	3.6	97	97	96	79	1.86	1.29	0.87	0.53	0.64	0.18	3.52	5.38
CW30091	2.6	58	60	58	35	1.80	1.09	0.74	0.46	0.56	0.13	2.97	4.77
GATP1412	2.3	68	73	70	43	1.49	0.97	0.77	0.45	0.55	0.12	2.86	4.35
BARTSRWR	2.5	91	91	91	91	1.46	0.65	0.66	0.37	0.67	0.21	2.55	4.01
PSTCLVR98121	3.5	95	96	94	23	1.42	0.75	1.00	0.38	0.36	0.07	2.57	3.99
PSTCLVR20825	2.8	88	89	89	28	1.54	0.75	0.92	0.36	0.29	0.01	2.34	3.87
Mean	3.4	89	89	89	64	2.11	1.17	0.92	0.51	0.66	0.22	3.48	5.59
CV,%	21.8	7	6	6	28	25.23	31.30	21.23	18.32	22.13	50.53	22.45	22.52
LSD,0.05	1.1	9	7	8	25	0.75	0.52	0.28	0.13	0.21	0.16	1.10	1.78

<sup>&</sup>lt;sup>1</sup>Vigor score based on a scale of 1 to 5 with 5 being the most vigorous seedling growth.

<sup>\*</sup>Not significantly different from the highest numerical value in the column, based on the 0.05 LSD.

Table 5. Dry matter yields, seedling vigor, and stand persistence of red clover varieties sown April 4, 2023, at Lexington, Kentucky.

	Seedling	Percen	t Stand	Yield (tons/acre)										
Variety	Vigor <sup>1</sup>	20	23		20	23								
	May 16, 2023	May 16	Oct 4	Jul 6	Aug 10	Sep 15	Total							
Commercial Varietie	es-Available for Farm	Use												
Freedom!	4.0	100	98	1.50	1.12	0.44	3.06*							
Blaze	4.0	100	99	1.42	1.20	0.44	3.06*							
Kenland (certified)	3.8	100	100	1.30	1.15	0.46	2.91*							
Dynamite	4.5	100	99	1.20	1.12	0.51	2.83*							
SS0303RCG	3.6	99	97	1.15	1.04	0.26	2.46*							
GA9908	2.9	98	91	1.19	0.89	0.22	2.31*							
Gallant	2.5	92	95	1.02	0.85	0.36	2.23							
Q redclover	3.4	97	96	0.93	0.87	0.22	2.01							
Common O	4.0	100	92	0.89	0.66	0.14	1.69							
Experimental Variet	ties													
SERC-V15	3.8	100	100	1.38	1.40	0.51	3.29*							
BY-RC31	4.5	100	100	1.52	1.27	0.42	3.21*							
BARTPV23	3.6	99	97	1.23	1.21	0.48	2.92*							
20-LA-RC-1	3.0	99	99	1.20	1.00	0.31	2.50*							
Mean	3.7	99	97	1.24	1.09	0.39	2.72							
CV,%	17.3	2	4	22.95	40.38	72.51	32.73							
LSD,0.05	0.9	3	6	0.41	0.63	0.40	1.27							

Table 6. Dry matter yields, seedling vigor, and stand persistence of white clover varieties sown April 4, 2023, at Lexington, Kentucky.

	Seedling	Percen	t Stand		Yield (tons/acre)										
Variety	Vigor <sup>1</sup>	20	)23		20	)23									
	May 16, 2023	May 16	Oct 4	Jun 29	Jul 20	Aug 23	Total								
Commercial Varie	eties-Available for Farm	Use													
Will	3.6	100	100	0.81	0.95	0.76	2.52*								
Patriot	3.3	100	100	0.74	0.81	0.87	4.41*								
Stamina	3.9	99	100	0.78	0.80	0.76	2.34*								
Kakariki	3.4	100	98	0.72	0.86	0.75	2.32*								
Cresendo	3.6	99	100	0.75	0.75	0.80	2.31*								
RegalGraze	3.9	100	99	0.85	0.78	0.68	2.30*								
Heslop	3.5	99	99	0.76	0.81	0.72	2.29*								
Dusi	3.9	100	99	0.72	0.78	0.66	2.16*								
Alice	3.5	99	99	0.67	0.72	0.66	2.04*								
Apis	4.3	100	99	0.69	0.75	0.54	1.98*								
Durana	3.6	100	99	0.64	0.65	0.64	1.93*								
MarcoPolo	3.4	100	100	0.64	0.62	0.64	1.89								
Hebe	3.5	100	98	0.53	0.65	0.54	1.72								
Edith	3.9	100	100	0.54	0.54	0.52	1.60								
Experimental Va	rieties														
C26532	3.4	99	100	0.71	0.81	0.77	2.29*								
CW9501	2.6	95	97	0.52	0.55	0.66	1.73								
GATR21024	3.1	100	99	0.51	0.41	0.53	1.45								
GATR22024	2.6	99	95	0.44	0.35	0.53	1.32								
·															
Mean	3.5	99	99	0.67	0.70	0.67	2.03								
CV,%	20.2	1	2	25.15	23.12	29.81	21.38								
LSD,0.05	1.0	2	3	0.24	0.23	0.28	0.62								

<sup>&</sup>lt;sup>1</sup>Vigor score based on a scale of 1 to 5 with 5 being the most vigorous seedling growth. \*Not significantly different from the highest numerical value in the column, based on the 0.05 LSD.

<sup>&</sup>lt;sup>1</sup>Vigor score based on a scale of 1 to 5 with 5 being the most vigorous seedling growth.

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

Table 7. Dry matter yields of annual lespedeza varieties sown May 31, 2023, at Princeton, Kentucky.

Variety	KY Distributor	Yield (tons/acre) Aug 31
Legend+Korean-NI	No inoculant	1.73*
Korean-WF	Woodford Feed	1.67*
Korean-TS	Turner Seed	1.65*
Korean	Ramer Seed	1.63*
Legend+Korean-10#	_	1.58*
Kobe+Korean	Akridge Farm Supply	1.34*
Legend+Korean	Southeast Agriseeds	1.29
Mean		1.55
CV,%		16.74
LSD,0.05		0.39

Table 9. Proprietors of red clover varieties in current trials in Kentucky.

Variety	Proprietor/ KY Distributor
Commercial Varieties-Availab	le for Farm Use
Barduro	Barenbrug USA
Blaze	Mountain View Seeds
Common O	Public
Dynamite	Grassland Oregon
Freedom!	Barenbrug USA
Gallant	Turner Seed
GA9908	Smith Seed
Kenland (certified)	KY Agric. Exp. Station
Q red clover	Grassland Oregon
Rustler	Oregro Seeds
SS-0303RCG	Southern States
Experimental Varieties <sup>1</sup>	
BARTP10	Barenbrug USA
BARTPV23	Barenbrug USA
BARTSRWR	Barenbrug USA
BY-RC31	BrettYoungSseeds
CW040040	Barenbrug USA
CW30091	Barenbrug USA
IS-TP-12	DLF Pickseed
GA-RXS	Univ. of GA
GATP1403	Univ. of GA
GATP1412	Univ. of GA
PSTCLVR20825	Caldbeck Consulting
PSTCLR98121	Caldbeck Consulting
RC08	Bailey Seed & Grain
SERC-V15	Smith Seed
20-LA-RC-1	Ampac Seed

<sup>&</sup>lt;sup>1</sup>Experimental varieties are not available commercially, but provide an indication of the progress being made by forage breeding companies.

Table 8. Dry matter yields of annual lespedeza varieties sown April 12, 2023, at Quicksand, Kentucky.

Variety	KY Distributor	Yie	eld (tons/ac	re)
variety	KT DISTRIBUTOR	Jul1 2	Sep 6	Total
Korean-WF	Woodford Feed	1.96	1.75	3.71*
Korean-TS	Turner Seed	1.84	1.55	3.39*
Legend+Korean-NI	No inoculant	1.97	1.39	3.37*
Kobe+Korean	Akridge Farm Supply	1.67	1.35	3.02
Legend+Korean-10#	_	1.53	1.36	2.89
Korean	Ramer Seed	1.66	1.21	2.87
Legend+Korean	Southeast Agriseeds	1.50	1.24	2.74
Mean		1.73	4.41	3.14
CV,%		20.72	14.42	13.98
LSD,0.05		0.53	0.3	0.65

Table 10. Proprietors and clover type information of white clover varieties in current trials in Kentucky.

· · · · · · · · · · · · · · · · · · ·	1
Туре	Proprietor/KY Distributor
ties-Available for Farn	n Use
Intermediate	Barenbrug
Ladino	Smith Seed
Ladino	Barenbrug USA
Intermediate	Pennington
Ladino	Barenbrug USA
Dutch White	Smith Seed
Dutch White	Smith Seed
_	DLF Pickseed
Ladino	Smith Seed
Intermediate	Smith Seed
Intermediate	Pennington
Ladino	Cal/West Seed
Intermediate	Mountain View Seeds
Ladino	Allied Seed, L.L.C.
eties <sup>1</sup>	
Intermediate	Univ. of GA
Ladino	Barenbrug USA
Intermediate	Univ. of GA
Intermediate	Univ. of GA
	ites-Available for Farm Intermediate Ladino Ladino Intermediate Ladino Dutch White Dutch White Ladino Intermediate Intermediate Ladino Intermediate

<sup>&</sup>lt;sup>1</sup>Experimental varieties are not available commercially, but provide an indication of the progress being made by forage breeding companies.

All were sown at 20 pounds/acre except for the one listed at 10 pounds.
\*Not significantly different from the highest numerical value in the column, based on the 0.05 LSD.

All were sown at 20 pounds/acre except for the one listed at 10 pounds.
\*Not significantly different from the highest numerical value in the column, based on the 0.05 LSD.

Table 11. Summary of Kentucky red clover yield trials 2004-2023 (yield shown as a percentage of the mean of the named commercial varieties in the trial).

								Lexington										Pı	rinceto	n				Quicksand			EdenShale		Mean <sup>3</sup>	
Variety	Proprietor	041,2	06	08	09	10	11	12	_	14	15	16	17	18	19	20	05	08	09	11	13	15	19	05	08	10	19	08	10	#trials
		3yr <sup>4</sup>	2yr	3yr	2yr	3yr	3yr	2yr	3yr	3yr	3yr	3yr	2-yr	3-yr	3-yr	3-yr	2yr	3yr	2yr	2yr	3yr	3yr	2-yr	3yr	3yr	3yr	2-yr	3yr	3yr	
AA117ER	ABI Alfalfa		110														87							92						96(3)
Barduro	Barenbrug USA														86	82							73				83			81(4)
Bearcat	Brett Young Seeds											122																		_
Bigfoot	Preferred Alf. Genetics														97								107							101(2)
Blaze	Mountain View Seeds														107	108													<u> </u>	108(2)
Cinnamon Plus	Southern States		109	112	123	117	94	116	_	98							112	102	102	100	100			103	108	124		108	122	108(18
Common O	Public					96	97	63	84	92	70	49	80	67	77	79					67	91	70			72	85		77	77(17)
CW9901	Barenbrug USA														103								115				109			109(3)
Dominion	Seed Research of OR		102														95	102						93				109		100(5)
Emarwan	Turf-Seed	91			117														106							99				103(4)
Evolve	DLF Pickseed USA										98	96	102									99								99(4)
FF9615	LaCrosse Seed											110	104																	107(2)
Freedom!	Barenbrug USA	118	91	100	108	106	109	99	101	97	107	114	113	107	114	116	136	107	116	95	107	104	124	119	106	115	133	100	140	112(28
Freedom!MR	Barenbrug USA	102	114	114		112								117	126		101		108				82	111		128	115		125	112(13
FSG 402	Allied Seed								104												114									108(2)
FSG 9601	Allied Seed	89																												_
Gallant	Turner Seed								101		112		105	101	97	111					107	101	121							106(9)
GA9908	Smith Seed												93		93	107							92				85			94(5)
Juliet	Caudill Seed				84													93	90									84	59	82(5)
Kenland (cert.)	KY Ag.Exp Sta.	117	117	99	111	99	116	114	109	103	105	119	108	107	107	109	92	113	106	106	115	100	113	105	104	123	110	110	138	110(28
Kenland (uncert)	Public					82						41						74								67		66	92	70(6)
Kenton	KY Ag.Exp Sta.	95	112	121													105	112	94					106	98					105(8)
Kenway	KY Ag.Exp Sta.	97	119	118													94	106	103					103	94					104(8)
LS 9703	Lewis Seed							107													86									97(2)
Morning Star	Cal/West Seeds																	90										90		90(2)
Plus II	Allied Seed			130																					97					114(2)
Quinequeli	Caudill Seed				92														80										57	76(3)
Red Gold	Proseeds Marketing		81															89										102		91(3)
Red Gold Plus	Turner Seed	95																												_
Redkin	DLF Pickseed USA															94														_
Redland Max	ABI Alfalfa	95																												_
Renegade	DLF Pickseed USA															100														_
Robust	Blu Moon Farms												78																	_
Robust II	Seed Research of OR																	110										108		109(2)
Robust III	Seed Research of OR															100														_
Rocket	Seed Research of OR																	106										108		107(2)
Rustler	Oregro Seeds			83		101	84									81									94	99			104	92(7)
Solid	Production Service		79														86							76						80(3)
SS-0303RCG	Southern States									103	109	150	117	102	93	114	1				103	104	104				80			107(11)
Starfire II	Cal/West & Ampac			101		111				107	1.22	1.23						112					1		110	112		115	111	110(8)
Triple Trust 350	ABI Alfalfa		101	1		T											92	· · -						92		· · · <u>-</u>			T	95(3)
Wildcat	Brett Young Seeds		1.07		101														107							98				102(3)
Year trial was estal		1																	,											. 52(5)

<sup>&</sup>lt;sup>1</sup>Year trial was established.

<sup>&</sup>lt;sup>2</sup>Use this summary table as a guide in making variety decisions, but refer to specific yearly reports to determine statistical differences in forage yield between varieties. To find actual yields, look in the yearly report for the final year of each specific trial. For example, the Lexington trial planted in the spring of 2010 was harvested three years, so the final report would be "2012 Red and White Clover Report" archived in the UK Forage website (https://forages.ca.uky.edu).

<sup>3</sup>Mean only presented when respective variety was included in two or more trials.

<sup>4</sup>Number of years of data.

Table 12. Summary of Kentucky white clover yield trials 2002-2023 (yield shown as a percentage of the mean of the commercial varieties in the trial).

		e Proprietor									Lexir	ngton									Princeton		
Variety	Туре		021,2	03	04	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	03	05	Mean <sup>3</sup> (#trials
			3yr <sup>4</sup>	3yr	3-yr	2-yr	2-yr	3yr	2yr	3yr	3yr	2yr	3yr	3yr	2yr	3yr	3yr	2-yr	3-yr	3-yr	3yr	3-yr	(#tilals
Advantage	Ladino	Allied Seed, L.L.C.		125																			_
Alice	Intermediate	Barenbrug USA												105	120	78	94	93	112	100		86	100(8)
Apis	_	Smith Seed Services																	96	99			98(2)
Avoca	Dutch	DLF Pickseed				59																82	71(2)
Barblanca	Intermediate	Barenbrug USA		92																			_
Bombus	Ladino	Hood River														111	115						113(2)
Brianna	Ladino	DLF Pickseed														103	100						102(2)
CA ladino	Ladino	Public	100		124																103		109(3)
Colt	Intermediate	Seed Research of OR		90		57																114	87(3)
Common	Dutch	Public	100				53			98												78	82(4)
Companion	Ladino	Oregro Seeds						87	94	92									90				89(4)
Crescendo	Ladino	Cal/West Seeds	105			140														100		109	114(4)
Crusader II	Intermediate	Allied Seed, L.L.C.								90	50	54	75										67(4)
Excel	Ladino	Allied Seed, L.L.C.			100																		-
Domino	Ladino	Grassland Oregon												87									_
Durana	Intermediate	Pennington		94		94	88	82	85	97	93	84	97	89	78	99	89	73	82	85	87	83	88(18)
Dusi	Ladino	Barenbrug USA																		106			_
GWC-AS10	Ladino	Ampac Seed									102												_
Insight	Ladino	Allied Seed, L.L.C.				128																	-
lvory	Intermediate	Cebeco	96																				_
Ivory II	Intermediate	DLF Pickseed					86			101	127												105(3)
Jumbo	Ladino	Ampac Seed	93																				_
Jumbo II	Ladino	Ampac Seed									121	101			99								107(3)
Kakariki	Ladino	Luisetti Seeds															108						-
Kopu II	Intermediate	Ampac Seed	97			97	95	95	103	96	80	90											94(8)
KY Select	Intermediate	KY. Agric. Exp. Station									98	95											97(2)
Neches	Intermediate	Barenbrug USA													79				93	101			91(3)
Ocoee	Ladino	Allied Seed, L.L.C.								89	74												82(2)
Patriot	Intermediate	Pennington		103		87	104	113	95	117	117	99	82	78	88	100	93	92	88	99	104	100	98(18)
Pinnacle	Ladino	Allied Seed, L.L.C.				120																111	116(2)
Rampart	Ladino	Allied Seed, L.L.C.					80	89	97	83									90	90			88(6)
Regal	Ladino	Public	99	96	92		125	100	116	118	129	147	123								107	100	113(12)
RegalGraze	Ladino	Cal/West Seeds				127	140	102	103						111	119	112	120	120	108			116(10)
Renovation	Intermediate	Smith Seed Services												83	85	91			99				90(4)
Resolute	Intermediate	Southern States				63																	
RIVENDEL	_	DLF Pickseed														59	88						74(2)
Seminole	Ladino	Saddle Butte Ag. Inc			108	70	79							114									93(4)
Super Haifa	Intermediate	Allied Seed, L.L.C.			77																		-
Tillman II	Ladino	Caudill Seed	103		<u> </u>																		_
WBDX	Dutch	Saddle Butte Ag. Inc									72												<u> </u>
Will	Ladino	Allied Seed, L.L.C.	107			162	150	132	107	119	137	130	123	143	140	140	102	122	122	111		136	128(17)
Year trial was				1																	1		1.20(17

<sup>1</sup>Year trial was established.
2Use this summary table as a guide in making variety decisions, but refer to specific yearly reports to determine statistical differences in forage yield between varieties. To find actual yields, look in the yearly report for the final year of each specific trial. For example, the Lexington trial planted in the spring of 2010 was harvested three years, so the final report would be "2012 Red and White Clover Report" archived in the UK Forage website (https://forages.ca.uky.edu).
3Mean only presented when respective variety was included in two or more trials.

<sup>&</sup>lt;sup>4</sup>Number of years of data.

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