

# 2008 Red and White Clover Grazing Tolerance Report

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## Introduction

Red clover (*Trifolium pratense*) and white clover (*Trifolium repens*) are both high-quality forage legumes that are used primarily in mixed stands with tall fescue or orchardgrass for improving yield and quality of pastures. Stands of improved red clover are generally productive for two to three years; white clover can be productive for three to four years. Their high palatability causes them to be overgrazed easily. Red clover is not persistent under heavy, close grazing, but white clover is tolerant to close grazing. Three types of white clover grow in Kentucky: Dutch, intermediate and ladino. The intermediate type has been developed to persist better than the ladino type under pasture or continuous grazing conditions. Ladino white clover has larger leaves and taller growth than the intermediate and Dutch types.

This report summarizes current research on the grazing tolerance of clover varieties when subjected to continuous grazing pressure. Table 12 shows a summary of all white clover varieties tested in Kentucky during the last five years. Go to the UK Forage Extension Web site at <[www.uky.edu/Ag/Forage](http://www.uky.edu/Ag/Forage)> to obtain

electronic versions of all forage variety testing reports from Kentucky and surrounding states and a large number of other forage publications.

## Description of the Tests

Red and white clover tests for grazing were established in Lexington in the fall of 2004, 2005, 2006 and 2007. Soils at the test site are well-drained silt loams and are well suited to clover production. Plots were 5 by 15 feet in a randomized complete block design with each variety replicated six times.

Red clover was seeded at the rate of 12 lb/A and white clover at 3 lb/A into a prepared seedbed using a disk drill. All seed lots were inoculated prior to planting. Plots were grazed continuously beginning the spring after fall seeding. In general, plots were grazed from mid-April to mid-September to a height of 1 to 3 inches. Supplemental hay was fed during periods of slowest growth.

Visual ratings of percent stand were made in the fall several weeks after the cattle were removed to check stand survival after the grazing season. Ratings were made in the spring prior to grazing

to check on winter survival and spring growth. Since trials were seeded in rows, persistence ratings were based on density within a row and not on total ground cover. Fertilizers (lime, P, K, and Boron) were applied according to University of Kentucky recommendations.

## Results and Discussion

Weather data for Lexington for 2005, 2006, 2007 and 2008 are presented in Table 1.

Data on percent stand are presented in Tables 2 through 9. Table 4 shows the results of red clover varieties under rotational grazing as compared to the same varieties under continuous grazing (Table 3). Statistical analyses were performed on these data to determine if the apparent differences are truly due to variety or just due to chance. Varieties not significantly different from the highest numerical value in a column are marked with one asterisk (\*). To determine if two varieties are truly different, compare the difference between the two varieties to the Least Significant Difference (LSD) at the bottom of the column. If the difference is equal to or greater than the LSD, the

**Table 1. Temperature and rainfall at Lexington, Kentucky in 2005, 2006, 2007 and 2008.**

	2005				2006				2007				2008 <sup>2</sup>			
	Temperature		Rainfall		Temperature		Rainfall		Temperature		Rainfall		Temperature		Rainfall	
	°F	DEP <sup>1</sup>	IN	DEP	°F	DEP	IN	DEP	°F	DEP	IN	DEP	°F	DEP	IN	DEP
JAN	37	+6	4.35	+1.49	42	+11	4.77	+1.91	37	+6	2.93	+0.07	33	+2	4.60	+1.74
FEB	39	+4	1.68	-1.53	36	+1	2.13	-1.08	27	-8	1.83	-1.38	36	+1	5.37	+2.16
MAR	41	-3	2.79	-1.61	44	0	3.05	-1.35	52	+8	1.97	-2.43	45	+1	6.28	+1.88
APR	56	+1	3.30	-0.58	59	+4	3.52	-0.36	53	-2	3.87	-0.01	55	0	5.72	+1.84
MAY	61	-3	1.78	-2.69	62	-2	2.99	-1.48	68	+4	1.45	-3.02	62	-2	4.88	+0.41
JUN	75	+3	1.33	-2.33	70	-2	1.82	-1.84	74	+2	1.77	-1.89	74	+2	3.30	-0.36
JUL	77	+1	3.30	-1.70	76	0	5.13	+0.13	74	-2	6.90	+1.90	76	0	2.54	-2.46
AUG	78	+3	3.34	-0.59	76	+1	3.23	-0.70	80	+5	2.56	-1.37	75	0	1.08	-2.85
SEP	72	+4	0.59	-2.21	64	-4	9.27	+6.07	72	+4	1.15	-2.05	72	+4	1.21	-1.99
OCT	58	+1	0.92	-1.65	54	-3	4.88	+2.31	63	+6	5.28	+2.71	57	0	1.35	-1.22
NOV	47	+2	1.54	-1.85	47	+2	1.78	-1.61	46	+1	2.86	-0.53	43	-2	2.28	-1.11
DEC	32	-4	2.19	-1.79	42	+6	2.45	-1.53	40	+4	5.29	+1.31				
Total			27.51	-17.04			45.02	+0.47			37.86	-6.69			38.61	-1.96

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

<sup>2</sup> 2008 data is for eleven months through November.

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.

There were differences in persistence between white versus red clover. Red clover entries did not tolerate continuous, heavy grazing (Table 2). In contrast, several white clover entries persisted into the second season under the abusive grazing of these trials. Tables 10 and 11 summarize information about distributors and persistence across years.

Table 12 is a summary of stand persistence data from 2002 to 2008 of commercial white clover 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 persisted better than average, and varieties with percentages less than 100 persisted less than average. Direct, statistical comparisons of

**Table 2. Seedling vigor and stand persistence of red and white clover varieties sown September 3, 2004 in a cattle grazing tolerance study at Lexington, Kentucky.**

Variety	Type	Seedling Vigor <sup>1</sup> Nov 8, 2004	Percent Stand							
			2005		2006		2007		2008	
			Apr 8	Oct 31	Apr 4	Oct 23	Mar 30	Oct 25	Apr 7	Nov 20
<b>Commercial Varieties-Available for Farm Use</b>										
Ivory	Intermediate	3.5	58	88	93	79	45	43	45	36*
Barblanca	Intermediate	3.3	57	91	94	88	40	37	32	30*
Colt	Intermediate	3.2	60	84	87	66	49	28	28	29*
Patriot	Intermediate	3.0	60	79	80	63	45	43	40	28*
Durana	Intermediate	3.2	55	83	83	58	40	30	33	21
Seminole	Ladino	3.7	29	75	68	48	27	25	20	19
Alice	Intermediate	3.0	58	71	68	60	51	27	22	15
<b>Experimental Varieties</b>										
CW7000	Ladino	4.3	62	82	80	68	46	43	43	30*
KY Synthetic	Intermediate	3.2	67	87	89	75	57	40	38	27*
GA178	Ladino	4.7	65	80	83	68	38	38	41	21
AGRTR216	Intermediate	3.0	48	84	83	60	47	26	25	20
AGRTR219	Intermediate	3.3	62	88	91	62	38	43	35	20
AGRTR217	Intermediate	4.2	52	63	63	49	35	22	23	14
AGRTR218	Intermediate	3.2	41	77	73	58	32	26	21	12
AGRtAx101	white x caucasian	2.5	68	51	52	31	28	16	13	11
AGRtAx102	white x caucasian	2.8	58	55	48	24	17	8	7	8
GA1RC	red	4.3	25	43	38	9	8	1	1	0
GA-CAG-5	red	5.0	27	45	27	13	8	0	1	0
ZR003R	red	4.2	28	53	48	17	8	0	1	0
ZR009R	red	4.0	21	48	40	13	8	0	1	0
Mean		3.6	50.0	71.3	69.3	50.4	33.3	24.8	23.4	17.1
CV,%		15.0	37.4	13.8	15.1	28.6	32.7	38.2	38.6	51.4
LSD,0.05		0.6	21.4	11.3	12.0	16.5	12.5	10.9	10.3	10.0

<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 3. Seedling vigor and stand persistence of red clover varieties sown September 7, 2005 in a cattle grazing tolerance study at Lexington, Kentucky.**

Variety	Seedling Vigor <sup>1</sup> Nov 7, 2005	Percent stand			
		2006		2007	
		Apr 17	Nov 7	Mar 30	Oct 16
<b>Commercial Varieties-Available for Farm Use</b>					
Freedom! MR	2.8	78	37	25	1.7*
Kenland	2.5	80	40	23	1.2*
Common C	2.7	71	58	38	1.0
AA117ER	3.3	83	48	37	0.8
Kenton	3.3	88	38	33	0.8
Triple Trust 350	3.2	81	62	38	0.8
Freedom!	3.5	84	48	40	0.7
Kenway	3.5	82	25	23	0.7
Common A	3.2	77	36	25	0.5
<b>Experimental Varieties</b>					
RC 0002	3.7	86	38	37	2.2*
RC 0303	2.8	78	52	30	1.5*
RC 0201	2.5	81	40	25	1.2*
Mean	3.1	81	44	31	1.1
CV,%	25.3	15	37	45	84.6
LSD,0.05	0.9	14	19	16	1.1

<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 4. Seedling vigor and stand persistence of red clover varieties sown September 22, 2005 in a cattle rotational grazing tolerance study at Lexington, Kentucky.**

Variety	Seedling Vigor <sup>1</sup> Nov 7, 2005	Percent Stand					
		2006		2007		2008	
		Apr 17	Oct 20	Mar 30	Oct 16	Apr 9	Oct 10
<b>Commercial Varieties-Available for Farm Use</b>							
Kenland	2.8	88	98	88	23	19	8*
Freedom!	3.7	89	96	84	28	26	6*
Freedom! MR	3.2	86	94	83	21	23	6*
AA117ER	2.7	86	95	87	27	17	4*
Kenton	3.8	89	95	86	20	13	3
Triple Trust 350	2.8	90	95	83	13	8	3
Kenway	2.7	88	93	84	11	8	2
Common A	3.3	85	88	65	1	1	2
Common C	2.7	75	83	60	1	0	2
<b>Experimental Varieties</b>							
RC0201	3.0	79	91	76	33	26	8*
RC0303	2.8	84	95	89	29	22	8*
RC0002	3.8	89	94	89	28	20	7*
Mean	3.1	85.7	93.0	81.1	19.7	15.2	4.9
CV,%	23.8	12.7	5.9	16.2	52.4	60.1	70.6
LSD,0.05	0.9	12.6	6.4	15.2	11.9	10.6	4.0

<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.

varieties cannot be made using the summary Table 12, but these comparisons do help to identify varieties for further consideration. Varieties that have performed better than average over many years have very stable performance; others may have performed very 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 footnote in Table 12 to determine which yearly report to refer to.

## Summary

Although these varieties were abused during the growing season, they were allowed to rest and regrow after September 15 to prepare for winter. Research has shown that abusive grazing tests are a good way to sort out differences in grazing tolerance between varieties in a relatively short period of time.

This information should be used along with yield and pest resistance information in selecting the best clover variety for each individual use. It is not recommended that clover be continuously grazed as was done in this trial. While several varieties expressed tolerance to the level of grazing pressure used in these trials, overgrazing greatly reduces yield and therefore profitability of these clovers.

Good management for maximum life from grazing clover would include:

- Allowing clover to become completely established before grazing.
- Using rotational grazing where animals harvest available forage in seven days or less, followed by resting for 28 days before regrazing. Less time is required for white clover.
- Adding any needed fertilizer and lime.
- Removing grazing livestock from clover fields from mid-September to November 1 to replenish root reserves for winter survival.

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**Table 5. Seedling vigor and stand persistence of red clover varieties sown September 6, 2006 in a cattle grazing tolerance study at Lexington, Kentucky.**

Variety	Seedling Vigor <sup>1</sup> Oct 25, 2006	Percent Stand				
		2006		2007		2008
		Oct 25	Mar 30	Oct 15	Apr 7	Nov 20
<b>Commercial Varieties-Available for Farm Use</b>						
Cinnamon Plus	3.8	94	95	84	78	8*
Common O	4.7	96	98	60	36	3
Freedom!	4.0	91	95	68	61	3
Kenland	3.8	95	98	79	73	2
<b>Experimental Varieties</b>						
RC 0403G	3.8	91	99	92	88	8*
RC 9806	4.5	95	97	93	90	3
Mean	4.1	93.6	96.8	79.2	71.0	4.4
CV,%	14.4	4.5	3.0	16.3	26.5	83.8
LSD,0.05	0.7	5.0	3.4	15.4	22.4	4.4

<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 6. Seedling vigor and stand persistence of red clover varieties sown September 5, 2007 in a cattle grazing tolerance study at Lexington, Kentucky.**

Variety	Seedling Vigor <sup>1</sup> Oct 25, 2007	Percent Stand		
		2007		2008
		Oct 25	Apr 9	Oct 17
<b>Commercial Varieties-Available for Farm Use</b>				
Common O	4.5	90	93	48*
Cinnamon Plus	4.0	63	55	34*
Kenland	3.1	48	51	28
Juliet	4.3	69	71	27
<b>Experimental Varieties</b>				
GAC1RC	2.7	47	43	39*
Mean	3.6	59.5	57.7	33.4
CV,%	19.6	36.8	38.5	39.8
LSD,0.05	1.0	31.7	32.2	19.6

<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. Stand persistence of white clover varieties sown March 17, 2006 in a cattle grazing tolerance study at Lexington, Kentucky.**

Variety	Type	Percent Stand				
		2006		2007		2008
		Oct 20	Mar 30	Oct 16	Apr 7	Nov 20
<b>Commercial Varieties-Available for Farm Use</b>						
Patriot	Intermediate	88	81	80	55	3*
Barblanca	Intermediate	82	50	53	37	3*
Colt	Intermediate	89	84	78	43	3*
Kopu II	Intermediate	70	65	45	19	3*
Regal	Ladino	66	57	33	17	3*
Will	Ladino	76	78	68	41	3*
Alice	Intermediate	80	73	57	20	1*
RegalGraze	Ladino	80	73	49	23	1*
Durana	Intermediate	85	75	61	30	1*
Resolute	Intermediate	85	86	59	30	1*
Mean		80.1	72.2	58.3	31.4	1.9
CV,%		15.3	19.3	25.3	41.9	137.4
LSD,0.05		14.2	16.2	17.1	15.3	3.0

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

**Table 8. Seedling vigor and stand persistence of white clover varieties sown September 8, 2006 in a cattle grazing tolerance study at Lexington, Kentucky.**

Variety	Type	Seedling Vigor <sup>1</sup> Oct 25, 2006	Percent Stand					
			2006		2007		2008	
			Oct 25	Mar 30	Oct 15	Apr 7	Nov 20	
<b>Commercial Varieties-Available for Farm Use</b>								
Barblanca	Intermediate	3.7	91	43	83	88	78*	
Patriot	Intermediate	2.5	86	75	91	96	63*	
Colt	Intermediate	1.5	80	83	88	95	63*	
Kopu II	Intermediate	3.5	94	82	86	91	63*	
Resolute	Intermediate	2.8	87	83	90	93	55	
Durana	Intermediate	1.7	86	75	90	95	53	
Seminole	Ladino	4.0	94	71	83	90	50	
RegalGraze	Ladino	4.3	95	90	91	90	45	
Will	Ladino	3.3	93	92	91	93	45	
Insight	Ladino	5.0	93	91	90	89	40	
Crescendo	Ladino	4.0	94	91	94	93	37	
Regal	Ladino	2.8	89	86	84	88	28	
<b>Experimental Varieties</b>								
CW 204	Ladino	3.0	93	91	93	92	42	
CW 9501	Ladino	3.7	90	83	87	85	30	
Mean		3.3	90.4	81.8	88.9	91.2	48.7	
CV,%		20.7	7.2	13.2	4.2	4.0	32.2	
LSD,0.05		0.8	7.5	12.4	4.3	4.2	18.0	

<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 9. Stand persistence of white clover varieties sown April 8, 2008 in a cattle grazing tolerance study at Lexington, Kentucky.**

Variety	Type	Percent Stand	
		2008	
		Jul 17	Oct 17
<b>Commercial Varieties-Available for Farm Use</b>			
Will	Ladino	95	95*
RegalGraze	Ladino	95	92*
Ivory II	Intermediate	94	92*
Seminole	Ladino	94	91*
Kopu II	Intermediate	92	87
<b>Experimental Varieties</b>			
GO-ABC	Intermediate	97	95*
GO-AJ	Intermediate	94	89*
GO-BSG	Intermediate	90	85
GO-HSM	Intermediate	89	84
Mean		93.3	89.8
CV,%		6.4	7.6
LSD,0.05		6.9	7.9

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

**Table 10. Summary of persistence of red clover varieties under heavy grazing pressure and rotational grazing across years at Lexington, Kentucky.**

Variety	Proprietor/KY Distributor	Continuous										Rotational					
		2005 <sup>1</sup>				2006				2007		2005					
		Apr	Nov	Mar	Oct	Mar	Oct	Apr	Nov	Apr	Oct	Apr	Oct	Mar	Oct	Apr	Oct
		2006 <sup>2</sup>		2007		2007		2008		2008		2006		2007		2008	
<b>Commercial Varieties-Available for Farm Use</b>																	
AA117ER	ABI Alfalfa	*	*	*	x <sup>3</sup>								*	*	*	*	*
Cinnamon Plus	FFR/Southern States					x	*	*	*	x	*						
Common A	Public	*	x	*	x							*	x	x	x	x	x
Common C	Public	*	*	*	x							x	x	x	x	x	x
Common O	Public					*	x	x	x	*	*						
Freedom!	Barenbrug USA	*	*	*	x	x	x	x	x			*	*	*	*	*	*
Freedom! MR	Barenbrug USA	*	x	*	*							*	*	*	x	*	*
Juliet	Caudill Seed									*	x						
Kenland (certified)	Public	*	x	x	*	*	*	*	x	x	x	*	*	*	*	*	*
Kenton	Production Services Int'l	*	x	*	x							*	*	*	x	x	x
Kenway	Smith Seed Services	*	x	x	x							*	*	*	x	x	x
Triple Trust 350	ABI Alfalfa	*	*	*	x							*	*	*	x	x	x
<b>Experimental Varieties</b>																	
GAC1RC	University of Georgia									x	*						
RC0002	FFR/Southern States	*	x	*	*							*	*	*	*	*	*
RC0201	FFR/Southern States	*	x	*	*							*	x	*	*	*	*
RC0303	FFR/Southern States	*	*	*	*							*	*	*	*	*	*
RC 0403G	FFR/Southern States					*	*	*	*								
RC 9806	FFR/Southern States					*	*	*	x								

<sup>1</sup> Establishment year.  
<sup>2</sup> Date of rating of percent stand.  
<sup>3</sup> An open block indicates the variety was not in the test, while an "x" in the block indicates the variety was in the test but the stand survival was significantly less than the most persistent red clover variety.  
 \*Not significantly different from the most persistent red clover variety.

**Table 11. Summary of persistence of white clover varieties under heavy grazing pressure across years at Lexington, Kentucky.**

Variety	Type	Proprietor/KY Distributor	2004 <sup>1</sup>								2006 <sup>3</sup>					2006				2007	
			Apr	Oct	Apr	Oct	Mar	Oct	Apr	Nov	Oct	Mar	Oct	Apr	Nov	Mar	Oct	Apr	Nov	Jul	Oct
			2005 <sup>2</sup>	2006		2007		2008		2006	2007		2008		2007		2008		2008		
<b>Commercial Varieties-Available for Farm Use</b>																					
Alice	Intermediate	Barenbrug USA	*	x <sup>5</sup>	x	x	*	x	x	x	*	*	x	x	*						
Barblanca	Intermediate	Barenbrug USA	*	*	*	*	x	*	x	*	*	x	x	x	*	x	x	x	*		
Colt	Intermediate	Seed Research of Oregon	*	*	*	x	*	x	x	*	*	*	*	*	*	x	*	*	*		
Crescendo	Ladino	Seed Research of Oregon													*	*	*	x			
Durana	Intermediate	Pennington Seed	*	*	*	x	*	x	x	x	*	*	x	x	*	x	*	*	x		
Insight	Ladino	Allied Seed													*	*	x	x			
Ivory	Intermediate	Cebeco Internatiional Seeds, Inc.	*	*	*	*	*	*	*	*											
Ivory II	Intermediate	DLF International																	*	*	
Kopu II	Intermediate	Ampac Seed									x	x	x	x	*	*	x	x	*	*	x
Patriot	Intermediate	Pennington Seed	*	*	x	x	*	*	*	*	*	*	*	*	*	x	*	*	*		
Regal	Ladino	Public									x	x	x	x	*	*	x	x	x		
RegalGraze	Ladino	Cal/West Seeds									*	*	x	x	*	*	*	x	x	*	*
Resolute	Intermediate	FFR/Southern States									*	*	x	x	*	*	*	*	x		
Seminole	Ladino	Saddle Butte Ag, Inc	x	x	x	x	*	x	x	x						x	x	x	x	*	*
Will	Ladino	Allied Seed									*	*	*	*	*	*	*	*	x	*	*
<b>Experimental Varieties</b>																					
AGRTaxA101 <sup>4</sup>		AgResearch (USA) Limited	*	x	x	x	x	x	x	x											
AGRTaxA102 <sup>4</sup>		AgResearch (USA) Limited	*	x	x	x	x	x	x	x											
AGRTR 216	Intermediate	AgResearch (USA) Limited	*	*	*	x	*	x	x	x											
AGRTR 217	Intermediate	AgResearch (USA) Limited	*	x	x	x	x	x	x	x											
AGRTR 218	Intermediate	AgResearch (USA) Limited	x	x	x	x	x	x	x	x											
AGRTP 219	Intermediate	AgResearch (USA) Limited	*	*	*	x	x	*	*	x											
CW204	Ladino	Cal/West Seeds													*	*	*	x			
CW7000	Ladino	Univ. of Georgia	*	*	x	x	*	*	*	*											
CW9501	Ladino	Cal/West Seeds													*	x	x	x			
GA178	Ladino	Unversity of Georgia	*	*	*	x	x	*	*	x											
GO-ABC	Intermediate	Grassland Oregon																	*	*	
GO-AJ	Intermediate	Grassland Oregon																	*	*	
GO-BSG	Intermediate	Grassland Oregon																	*	x	
GO-HSM	Intermediate	Grassland Oregon																	*	x	
KY Synthetic Intermediate		KY Agric. Exper. Station	*	*	*	*	*	*	*	*											

<sup>1</sup> Establishment year.

<sup>2</sup> Date of rating of percent stand

<sup>3</sup> This trial was planted in the spring of 2006 due to poor establishment from the fall of 2005 planting.

<sup>4</sup> Cross between white and caucasian clover.

<sup>5</sup> An open block indicates the variety was not in the test, while an "x" in the block indicates the variety was in the test but the stand survival was significantly less than the most persistent white clover variety.

\*Not significantly different from the most persistent white clover variety.

**Table 12. Summary of Kentucky White Clover Grazing trials 2002-2008 (stand persistence shown as a percent of the mean of the commercial varieties in the test.**

Variety	Type	Proprietor	2002 <sup>1,2</sup>	2004	2006 <sup>3</sup>	2006	Mean <sup>4</sup> (#trials)
			2yr <sup>5</sup>	4yr	2yr	2yr	
Alice	Intermediate	Barenbrug USA		59	98		79(2)
Barblanca	Intermediate	Barenbrug USA		118	91	151	120(3)
Colt	Intermediate	Seed Research of OR		114	134	122	123(3)
Crescendo	Ladino	Cal/West	84			72	78(2)
Durana	Intermediate	Pennington		83	105	103	97(3)
Insight	Ladino	Allied Seed				77	-
Ivory	Intermediate	Cebeco	132	142			137(2)
Kopu II	Intermediate	Ampac Seed			77	122	100(2)
Patriot	Intermediate	Pennington		110	137	122	123(3)
Regal	Ladino	Public	92		57	54	68(3)
RegalGraze	Ladino	Cal/West			84	87	86(2)
Resolute	Intermediate	FFR/Southern States			101	106	104(2)
Seminole	Ladino	Saddle Butte Ag. Inc.		75		97	86(2)
Tillman II	Ladino	Caudill Seed	92				-
Will	Ladino	Allied Seed			117	87	102(2)

<sup>1</sup> Year trial was established.

<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 stand persistence between varieties. To find actual persistence ratings, look in the yearly report for the final year of each specific test. For example, the trial planted in 2002 was grazed for 2 years so the final persistence report would be "2004 Red and White Clover Grazing Tolerance Report" archived in the KY Forage website at <[www.uky.edu/Ag/Forage](http://www.uky.edu/Ag/Forage)>.

<sup>3</sup> This trial was replanted in the spring of 2006 due to poor establishment in the fall of 2005

<sup>4</sup> Mean only presented when respective variety was included in two or more trials.

<sup>5</sup> Number of years of data.



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