

2009 Long-Term Summary of Kentucky Forage Variety Trials

S.R. Smith, G.L. Olson and G. D. Lacefield, UK Department of Plant and Soil Sciences

Introduction

Forage crops occupy approximately 7 million acres in Kentucky. Forages provide a majority of the nutrition for beef, dairy, horse, goat, sheep, and wild-life in the state. In addition, forage crops play an environmentally friendly role in soil conservation, water quality, and air quality. There are over 60 forage species adapted to the climate and soil conditions of Kentucky. Only 10 to 12 of these species occupy the majority of the acreage, but within these species is a tremendous variation in varieties.

This publication was developed to provide a user-friendly guide to choosing the best variety for producers based on a summary of forage yield and grazing tolerance trials conducted in Kentucky over the past 10 to 12 years. Detailed variety reports and forage management publications are available from your local county agent or by visiting the University of Kentucky forage website at www.uky.edu/Ag/Forage and clicking on the Forage Variety Trial link.

Species in This Report

Red clover (*Trifolium pratense* L.) 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 of improved varieties are generally productive for two to 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 and high yield.

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 may lead to the development of new plants. White clover is classified into ladino, Dutch, and intermediate types. The intermediate types combine the higher yield of ladino with the grazing tolerance of the Dutch types.

Alfalfa (*Medicago sativa*) has historically been the highest yielding, highest quality forage legume grown in Kentucky. It forms the basis of Kentucky's cash hay enterprise and is an important component in dairy, horse, beef, and sheep diets. Choosing a good alfalfa variety is a key step in establishing a stand of alfalfa. The choice of variety can impact yield, stand persistence, and insect and disease resistance.

Orchardgrass (*Dactylus glomerata*) is a high-quality, productive, cool-season grass that is well adapted to Kentucky conditions. This grass is used for pasture, hay, green chop, and silage, but it requires better management than tall fescue for higher yields, quality, and long stand life. It produces an open, bunch-type sod, making it very compatible with alfalfa or red clover as a pasture and hay crop or as habitat for wildlife.

Tall fescue (*Festuca arundinacea*) is a productive, well-adapted, persistent, soil-conserving, cool-season grass that is grown on approximately 5.5 million acres in Kentucky. This grass, used for both hay and pasture, is the forage base for most of Kentucky's livestock enterprises, particularly beef cattle. The predominant

variety, KY31, was developed in Kentucky for long-term persistence but contains a fungal endophyte that produces alkaloids detrimental to livestock production and reproductive health. Endophyte-free tall fescue varieties produce no detrimental alkaloids, but UK research shows that they are less persistent than KY31. New novel endophyte tall fescue varieties contain safe endophytes, which enhance stand persistence but cause no detrimental animal symptoms.

Annual ryegrass (*Lolium multiflorum*) and **perennial ryegrass** (*Lolium perenne*) are high-quality, productive, cool-season grasses used in Kentucky. Both have exceptionally high seedling vigor and are highly palatable to livestock. Annual ryegrasses are increasing in use across Kentucky as more winter-hardy varieties are released and promoted. Annual ryegrass is productive for four to six months and is used primarily for late fall and early to late spring pasture. Perennial ryegrass can be used as a short-lived hay or pasture plant and has growth characteristics similar to tall fescue. It is less persistent than other cool-season grass species. There are both diploid (two sets of chromosomes) and tetraploid (four sets of chromosomes) varieties of perennial ryegrass. Tetraploids have larger tillers and seedheads and wider leaves. Tetraploid types tend to be taller and less dense than diploid types, even in early stages of regrowth. Diploid types produce more tillers, have better stand persistence and are more tolerant to heavy grazing.

Timothy (*Phleum pratense*) is the fourth most widely sown cool-season perennial grass used in Kentucky for forage after tall fescue, orchardgrass, and Kentucky bluegrass. Timothy is primarily harvested as hay, particularly for horses. In Kentucky, timothy behaves like a short-lived perennial, with stands lasting two to four years.

Kentucky bluegrass (*Poa pratensis*) is a high-quality, highly palatable, long-lived pasture plant with limited use for hay. It tolerates close frequent grazing better than most grasses. It has low yields and low summer production and becomes dormant and brown during hot, dry summers. Kentucky bluegrass is best suited for pastures where a dense sod is more important than high-forage production (e.g., horse pastures).

Festuloliums are hybrids between various fescues and ryegrasses with higher quality than tall fescue and improved stand survival over perennial ryegrass. Their use in Kentucky is still limited because they do not survive as long as tall fescue.

Important Selection Considerations

Local Adaptation and Seasonal Yield.

Choose a variety/species that is adapted to your region of Kentucky, as indicated by good performance across years and locations in replicated yield trials. Also, look for varieties that are productive in the desired season of use. For management recommendations, check with your county Extension agent or see the UK forage website at www.uky.edu/Ag/Forage. The following comprehensive bulletins may be especially useful:

- *Grain and Forage Crop Guide for Kentucky* (AGR-18)
- *Establishing Forage Crops* (AGR-64)
- *Rotational Grazing* (ID-143)
- *Forage Identification and Use Guide* (AGR-175)
- *Lime and Fertilizer Recommendations* (AGR-1)

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. Other information on

the label will include the test date (which must be within the past nine months), the level of germination, and the amount 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

Yield trials. Plots were seeded at the recommended seeding rate per acre and were planted into a prepared seedbed with a disk drill. Plots were 5 by 15 feet in a randomized complete block design, with four replications. Grass plots were fertilized with 60 lb/A actual N in March, after the first cutting, and again in late summer, for a total of 180 lb/A per season. Other fertilizers (lime, P and K) were applied as needed according to the University of Kentucky soil test recommendations. The tests were harvested using a sickle-type forage plot harvester to simulate a spring cut hay/summer grazing/fall stockpile management system. Fresh weight samples were taken at each harvest to calculate percent dry matter production. Management practices for establishment, fertility, weed control, and harvest timing were in accordance with University of Kentucky recommendations.

Grazing trials. Plots were 5 by 15 feet in a randomized complete block design, with each variety replicated six times. Plots were seeded at the recommended seeding rate per acre and were planted into a prepared seedbed using a disk drill. Grazing was continuous from April to October.

Plots were grazed down to below 4 inches quickly and were maintained at 2 to 4 inches (sometimes less) for the remainder of the grazing season. 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 and in the spring prior to grazing to check on winter survival and spring growth.

Because trials were seeded in rows, persistence ratings were based on density within a row and not total ground cover. Grass plots were fertilized with 60 pounds of actual N per acre in the spring and 30 to 40 pounds of actual N in early November after cattle or horses were removed from the pasture. Other fertilizers (lime, P, and K) were applied as needed according to the University of Kentucky soil test recommendations. Management practices for establishment, fertility and weed control were in accordance with University of Kentucky recommendations.

Results and Discussion

These tables summarize long-term yield and stand persistence data of commercial varieties that have been entered in the University of 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. For the grazing trials, varieties with percentages over 100 persisted better than average, and varieties with percentages less than 100 persisted less than average. Also in the grazing trials the alfalfa varieties were compared to Alfagraze and the fescue varieties were compared to KY31+ instead of the mean of all the commercial varieties. Direct, statistical comparisons of varieties cannot be made using the summary tables, 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 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. To determine which yearly report to refer to, see footnote in each table.

Table 1. Summary of Kentucky White Clover Yield Trials 1998-2009 (yield shown as a percentage of the mean of the commercial varieties in the trial).

Variety	Type ⁴	Proprietor	Lexington						Princeton		Quicksand		Eden Shale	Mean ³ (#trials)
			02 ^{1,2}	03	04	06	07	08	03	05	98	03	03	
			3yr ⁵	3yr	3-yr	2-yr	2-yr	2yr	3yr	3-yr	3yr	2yr	2yr	
Advantage	Ladino	Allied Seed, L.L.C.		125									106	116(2)
Alice	Intermediate	Barenbrug								86				-
Avoca	Dutch	DLF International Seeds				59				82				71(2)
Barblanca	Intermediate	Barenbrug		92										-
CA ladino	Ladino	Public	100		124				103		100	98		105(5)
Colt	Intermediate	Seed Research of OR		90		57				114				87(3)
Common	Dutch	Public	100				53			78				77(3)
Companion	Ladino	Oregro Seeds						74						-
Crescendo	Ladino	Cal/West Seeds	105			140				109				118(3)
Excel	Ladino	Allied Seed, L.L.C.			100									-
Durana	Intermediate	Pennington		94		94	88	79	87	83		101	95	92(7)
Insight	Ladino	Allied Seed, L.L.C.				128								-
Ivory	Intermediate	Cebeco	96											-
Ivory II	Intermediate	DLF International Seeds					86							-
Jumbo	Ladino	Ampac Seed	93											-
Kopu II	Intermediate	Ampac Seed	97			97	95	94						96(3)
Patriot	Intermediate	Pennington		103		87	104	117	104	100		98	99	99(7)
Pinnacle	Ladino	Allied Seed, L.L.C.				120				111				116(2)
Rampart	Ladino	Allied Seed, L.L.C.					80	84						-
Regal	Ladino	Public	99	96	92		125	100	107	100	100	104		103(8)
RegalGraze	Ladino	Cal/West Seeds				127	140	111						134(2)
Resolute	Intermediate	FFR/Southern States				63								-
Seminole	Ladino	Saddle Butte Ag. Inc			108	70	79							86(3)
Super Haifa	Intermediate	Allied Seed, L.L.C.			77									-
Tillman II	Ladino	Caudill Seed	103											-
Will	Ladino	Allied Seed, L.L.C.	107			162	150	141		136				139(4)

¹ Year trial was established.

² 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 2002 was harvested 3 years, so the final report would be "2004 Red and White Clover Report" archived in the KY Forage website at <www.uky.edu/Ag/Forage>.

³ Mean only presented when respective variety was included in two or more trials.

⁴ Ladino white clover shows higher yield than intermediate and dutch white clover but often shows lower long term survival (>3 years), especially under grazing or harsh environmental conditions. See Table 11 for survival under grazing.

⁵ Number of years of data

Summary

Selecting a good forage variety is an important first step in establishing a productive stand of forage. Proper management, beginning with seedbed preparation and continuing throughout the life of the stand, is necessary for even the highest-yielding variety to produce to its genetic potential. For more detailed information on yield and grazing tolerance within species, go to individual 2009 reports on the forage Web site. See below for specific reports. The forage Web site contains all reports from 2001 through 2009.

Yield and Grazing Tolerance Reports

(www.uky.edu/Ag/Forage/ForageVarietyTrials2.htm)

- 2009 Alfalfa Report (PR-589)
- 2009 Red and White Clover Report (PR-590)
- 2009 Tall Fescue and Brome Report (PR-592)
- 2009 Orchardgrass Report (PR-591)
- 2009 Timothy and Kentucky Bluegrass Report (PR-593)
- 2009 Annual and Perennial Ryegrass Report (PR-594)
- 2009 Alfalfa Grazing Tolerance Report (PR-595)
- 2009 Red and White Clover Grazing Tolerance Report (PR-596)
- 2009 Cool-Season Grass Grazing Tolerance Report (PR-597)
- 2009 Cool-Season Grass Horse Grazing Report (PR-598)

Other Reports Not Included in this Summary Report

- 2009 Native Warm-Season Perennial Grass Report (PR-599)
- 2009 Summer Annual Grass Report (PR-601)

Authors

- S.R. Smith, Extension Associate Professor, Forages
- G.L. Olson, Research Specialist, Forages
- G.D. Lacefield, Extension Professor, Forages

Table 3. Summary of Kentucky Alfalfa Yield Trials 1995-2009 (yield shown as a percentage of the mean of the commercial varieties in the test).

Variety	Proprietor	Variety Characteristics ¹						Lexington								Princeton				Bowling Green ²				Eden Shale		Mean ⁶ (# trials)	
		FD	Bw	Fw	An	PRR	APH	95 ^{4,5}	97	97	99	00	02	04	06	97	99	01	05	96	98	03	06	98	03		
								6yr ⁷	5yr	6yr	4yr	5yr	5yr	5yr	3yr	5yr	4yr	4yr	5yr	7yr	7yr	3yr	3yr	5yr	4yr		
Phirst	UniSouth Genetics	4	HR	HR	HR	HR	R											105				103			104(2)		
Phoenix	FFR/Sou. St.	5	HR	HR	HR	HR	R						113	100											97	103(3)	
ProGro	PGI Alfalfa	4	HR	HR	R	HR	MR													95						-	
Radiant-AM	Ampac Seed	4	HR	HR	HR	HR	HR							98												-	
Rebound 5.0	Croplan Genetics	4	HR	HR	HR	HR	HR																	107		-	
Regal	Great Plains	5	HR	HR	R	HR	MR															103			94	99(2)	
Reward	PGI Alfalfa	4	HR	HR	R	HR	MR									98										-	
Reward II	PGI Alfalfa	4	HR	HR	R	HR	R										99	103						94		103	100(4)
Rushmore	Syngenta	4	HR	HR	HR	HR	HR	108					95				103			99						101(4)	
Saranac AR (certified)	Public	4	MR	R	HR	LR	-	103	99	95	96	93	87	77	90	93		92	95	101	90	99	91	101	95	94(17)	
Spredor 3	Syngenta	1	HR	HR	R	MR	S		95																101	98(2)	
Stampede	Allied Seeds	3	HR	R	R	HR	R		95																106	101(2)	
Stellar	W-L Research	4	HR	HR	HR	HR	LR														94					-	
Summer Gold	Beck's Hybrids	4	HR	HR	HR	HR	HR							107												-	
Supercuts	ABI Alfalfa	4	HR	HR	HR	HR	S	104																		104(2)	
TMF Generation	Mycogen Seeds	4	HR	HR	HR	HR	R													103						-	
TMF 4355LH	Mycogen Seeds	3	HR	R	HR	HR	R					100														-	
TMF 4464	Mycogen Seeds	4	HR	HR	HR	HR	R										98									-	
Triple Crown	FFR/Sou. St.	4	HR	HR	HR	HR	HR					102						100								101(2)	
TripleTrust 450	ABI Alfalfa	5	HR	HR	HR	HR	HR											100						105		103(2)	
ValuePlus 1	Forage Genetics	4	HR	HR	HR	HR	R					106														-	
Vernal	Public	2	R	MR	-	-	-												95		91				96	94(4)	
Wintergreen	ABI Alfalfa	3	HR	HR	HR	HR	R					104					103								101	103(3)	
Withstand	FFR/Sou. St.	4	HR	HR	HR	HR	HR									99							114			107(2)	
WL 252HQ	W-L Research	2	HR	HR	HR	HR	LR														104					-	
WL 319HQ	W-L Research	3	HR	HR	HR	HR	HR						108													-	
WL 323	W-L Research	4	HR	HR	HR	HR	R	103																		-	
WL 324	W-L Research	3	HR	HR	HR	HR	HR															106				-	
WL 325HQ	W-L Research	3	HR	HR	HR	HR	R											101				99				101(3)	
WL 326GZ	W-L Research	4	HR	HR	HR	HR	HR		99									97				98			99	98(4)	
WL 327	W-L Research	4	HR	HR	HR	HR	HR											100								103(2)	
WL 332SR	W-L Research	4	HR	HR	HR	HR	HR											93								-	
WL 338SR	W-L Research	4	HR	HR	HR	HR	HR						101													-	
WL 342	W-L Research	4	HR	HR	HR	HR	HR																			-	
WL 343HQ	W-L Research	4	HR	HR	HR	HR	HR										98									-	
WL 348AP	W-L Research	4	HR	HR	HR	HR	HR																	99		-	
WL 357HQ	W-L Research	5	HR	HR	HR	HR	HR																			106	109(4)
329	Cal/West	3	HR	HR	HR	HR	R	94																		-	
4m76	FFR/Sou. St.	5	HR	HR	R	HR	R																			-	
5-star	Croplan Gen.	5	R	HR	R	R	R																		97	99	98(2)
5246	Pioneer	2	R	R	HR	HR	R											98								-	
5312	Public	3	HR	HR	HR	HR	HR																			-	
53H81	Pioneer	3	HR	HR	HR	R	HR																			-	
53Q60	Pioneer	3	HR	R	HR	HR	R												100							-	
5454	Pioneer	4	R	HR	HR	HR	LR	96																		-	
54H69	Pioneer	4	HR	HR	HR	HR	R																			-	
54V46	Pioneer	4	R	HR	HR	HR	R																			99	-
54V54	Pioneer	4	HR	HR	HR	HR	HR																				100(4)
54V56	Pioneer																									-	
630	Garst Seeds	3	HR	HR	MR	R	-	88																		-	
631	Garst Seeds	4	HR	R	HR	R	HR																			106	106(3)
6400HT	Garst Seeds	4	HR	HR	HR	HR	HR																			96	103(2)
6415	Garst Seeds	4	HR	HR	HR	HR	HR																			101	102(2)
6420	Garst Seeds	4	HR	R	HR	R	HR																				-
645	Garst Seeds	4	HR	R	HR	HR	MR																				-
6530	Garst Seeds	5	HR	HR	HR	HR	HR																			92	-

¹ Variety characteristics: FD=fall dormancy, Bw=bacterial wilt, Fw=fusarium wilt, An=anthracnose, PRR=phytophthora root rot, APH=aphanomyces root rot. Information provided by seed companies.

² The Bowling Green test is on soil infested with phytophthora and aphanomyces root rots.

³ Disease resistance: S=susceptible, LR=low resistance, MR=moderate resistance, R=resistance, HR=high resistance.

⁴ Year trial was established.

⁵ 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 test. For example, the Lexington trial planted in 1995 was harvested for 6 years, so the final yield report would be "2000 Alfalfa Report" archived in the KY Forage website at <www.uky.edu/Ag/Forage>.

⁶ Mean only presented when respective variety was included in two or more trials.

⁷ Number of years of data.

Table 4. Summary of Kentucky Tall Fescue Yield Trials 1999-2009 (yield shown as a percentage of the mean of the commercial varieties in the trial).

Variety	Proprietor	Lexington					Princeton					Quicksand				Mean ³ (#trials)
		1999 ^{1,2} 2-yr ⁴	2001 3-yr	2003 2-yr	2005 3-yr	2007 2-yr	1998 2-yr	2000 2-yr	2002 3-yr	2004 3-yr	2006 3-yr	1999 2-yr	2001 2-yr	2003 2-yr	2005 4-yr	
Atlas	Proseeds	107										89				98(2)
BarElite	Barenbrug					99										-
Bariane	Barenbrug			87	103									95		95(3)
Barolex	Barenbrug				94											-
BarOptima PLUS E34	Barenbrug					103										-
BAR 9 TMPO	Barenbrug	96									97					97(2)
Bronson	Ampac Seed				91	97								102		97(3)
Bull	Improved Forages			98	106			102	103				97			101(5)
Carmine	DLF International		99									97				98(2)
DLF-B	DLF International	96														-
Enhance	Allied Seed									111						-
Festival	Pickseed West		107							106			107			107(3)
Fuego	Advanta Seeds	99														-
Hoedown	DLF International		104										106			105(2)
Jesup EF	Pennington Seed						106									-
Jesup MaxQ	Pennington Seed				102	105			98					100	102	101(5)
Johnstone	Proseeds	95	108								95					99(3)
KENHY	KY Agric Exp Sta.									92						-
Kokanee	Ampac Seed		89					86								88(2)
KY31+	KY Agric Exp Sta.	102	118	113	112	109	122	108	104	77	106	107	124	98	110	108(14)
Maximize	Turf-Seed	96	95									105	93			97(4)
Nanryo	Jap. Grassland ForageSeed/USDA-ARS, El Reno, OK					97										-
Noria	ProSeeds Marketing					102										-
Resolute	Ampac Seed		90									65				78(2)
Savory	DLF International										93					-
Seine	Advanta Seeds	99								100						99(2)
Select	FFR/Sou. St.	106	106	94	103	102	105	105	95	109	103	107	112	102	91	103(14)
Stockman	Seed Research of OR			109						104	99			105		104(4)
TF0203G	Seed Research of OR					88										-
TF33	Barenbrug						70									-
Tuscany	Forage Genetics		112													-
Tuscany II	Seed Research of OR									100						-
Vulcan	International Seeds						97									-

¹ Year trial was established.

² 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 1999 was harvested 2 years, so the final report would be "2001 Tall Fescue Report" archived in the KY Forage website at <www.uky.edu/Ag/Forage>.

³ Mean only presented when respective variety was included in two or more trials.

⁴ Number of years of data.

Table 5. Summary of Kentucky Orchardgrass Yield Trials 1999-2009 (yield shown as a percentage of the mean of the commercial varieties in the trial).

Variety	Proprietor	Lexington				Princeton					Quicksand				Mean ³ (#trials)	
		1999 ^{1,2} 2-yr ⁴	2001 2-yr	2003 3-yr	2006 4-yr	1998 2-yr	2000 2-yr	2002 3-yr	2004 3-yr	2006 3-yr	1999 2-yr	2001 2-yr	2003 3-yr	2005 4-yr		
Abertop	Pennington							71						-		
Albert	Univ. of Wis.		103									106		105(2)		
Amba	DLF International Seeds		96									80		88(2)		
Ambassador	DLF International Seeds								95					-		
Ambrosia	American Grass Seed Prod.									90				-		
Athos	DLF International Seeds		98									105		102(2)		
Benchmark	FFR/Sou. St.	103				101	97	113			106			104(5)		
Benchmark Plus	FFR/Sou. St.				100			107		107			107	102	105(5)	
Boone	Public					103	104							104(2)		
Bronc	Grassland West						98							-		
Bounty	Allied Seed				101									98	100(2)	
Century	Seed Research of Oregon				98									104	101(2)	
Command	Seed Research of Oregon								87						-	
Crown	Donley Seed	101				105		101			97				101(4)	
Crown Royale	Donley Seed											110			-	
Crown Royale Plus	Donley Seed							108					97		103(2)	
Eastwood	Ampac Seed		86									86			86(2)	
Endurance	DLF International Seeds									104					-	
Extend	Allied Seed								100						-	
Hallmark	James VanLeeuwen		102	102				103	98				101	96	100(6)	
Harvestar	Columbia seeds				91					106				100	99(3)	
Haymaster	FFR/Sou. St.				94									97	96(2)	
Haymate	FFR/Sou. St.	106				93	100	106			108	104	103		103(7)	
Icon	Seed Research of Oregon				105									98	102(2)	
Intensiv	Barenbrug			102											-	
LG-31	DLF International Seeds								92						-	
Mammoth	DLF International Seeds		102									104			103(2)	
Megabite	Turf-Seed	94	105								101				100(3)	
Niva	DLF International Seeds							81							-	
Persist	Smith Seed			123	105				101					108	101	108(5)
Potomac	Public	104						98			99				100(3)	
Prairie	Turner Seed		101		107		95	104		100		102	105	107	103(8)	
Renegade	Grassland West						95								-	
Shiloh	Proseeds Marketing					109									-	
Shiloh II	Proseeds Marketing								117						-	
Spanish Pink	DLF International Seeds					82									-	
Spanish Red	DLF International Seeds	101									94				98(2)	
Takena	Smith Seed		107					100				108			105(3)	
Tekena II	Smith Seed			110	102				109				106	104	106(5)	
Tekapo	Ampac Seed	88			91					98	94	92	105	91	94(7)	
Tucker	Oregro Seeds									96					-	
Udder	Improved Forages			100	107		102	102						106	99	103(6)
Vision	Cropmark Seeds			63										67		65(2)

¹ Year trial was established.

² 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 1999 was harvested 2 years, so the final report would be "2001 Orchardgrass Report" archived in the KY Forage website at <www.uky.edu/Ag/Forage>.

³ Mean only presented when respective variety was included in two or more trials.

⁴ Number of years of data.

Table 6. Summary of Kentucky Timothy Yield Trials 2000-2009 (yield shown as a percentage of the mean of the commercial varieties in the trial).

Variety	Proprietor/KY Distributor	Lexington					Quicksand		Princeton		Mean ³ (#trials)
		00 ^{1,2} 2yr ⁴	01 3yr	02 4yr	06 3yr	07 2yr	99 2yr	01 2yr	00 3yr	04 2yr	
Alma	Newfield Seeds Co/Caudill Seed Co.									81	-
Auroro	General Feed and Grain	100					98				99(2)
Barpenta	Barenbrug					82					-
Clair	Ky Agric. Exp. Station		109	115	107	93		108		122	109(6)
Classic	Cebeco International Seeds	100		88			87				92(3)
Climax	Canada Agr. Res. Station				79	105					92(2)
Colt	FFR Cooperative	105		101	90		112			99	101(5)
Common	Public		96								-
Derby	FFR Cooperative				112	114				124	117(3)
Dolina	DLF-Trifolium	100		91							96(2)
Express	Seed Research of Oregon			97		97					97(2)
Hokuei	Snow Brand Seed	103									-
Hokusei	Snow Brand Seed	97					99				98(2)
Joliet	Newfield Seeds Co/Caudill Seed Co.									90	-
Jonaton	Newfield Seeds Co/Caudill Seed Co.									84	-
Outlaw	Grassland West Company								107		-
Richmond	Pickseed Canada Inc.	100					103				102(2)
Summit	Allied Seed, L.L.C.			114							-
Talon	Seed Research of Oregon				110	117					114(2)
Treasure	Seed Research of Oregon				103	116					110(2)
Tundra	DLF-Trifolium	95									-
Tuukka	Ampac Seed Company		95	90				92	93		93(4)

¹ Year trial was established.

² 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 2000 was harvested 2 years, so the final report would be "2002 Timothy Report" archived in the KY Forage website at <www.uky.edu/Ag/Forage>.

³ Mean only presented when respective variety was included in two or more trials.

⁴ Number of years of data.

Table 7. Summary of Kentucky Bluegrass Yield Trials 1996-2009 (yield shown as a percentage of the mean of the commercial varieties in the trial).

Variety	Proprietor/KY Distributor	Lexington					Princeton	Mean ³ (#trials)
		96 ^{1,2} 3yr ⁴	03 2yr	04 3yr	06 3-yr	07 2yr	02 3yr	
Adam 1	Radix Research			98				-
Barderby	Barenbrug					97	114	106(2)
Common	Public				70	61		66(2)
Ginger	ProSeeds Marketing		89		121	116		108(3)
Kenblue	Public	90		102	132			110(3)
Lato	Turf Seed Inc.	110				126		118(2)
RAD-339	Radix Research				102			-
RAD-5	Radix Research				98			-
RAD-643	Radix Research				96			-
RAD-731zx	Radix Research				86			-
RAD-762	Radix Research				95			-
Slezanka	DLF International Seeds		111					-

¹ Year trial was established.

² 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 2004 was harvested 2 years, so the final report would be "2006 Timothy and Kentucky Bluegrass Report" archived in the KY Forage website at <www.uky.edu/Ag/Forage>. The 96 and 03 Lexington and 02 Princeton results are in the appropriate Tall Fescue Reports.

³ Mean only presented when respective variety was included in two or more trials.

⁴ Number of years of data.

Table 8. Summary of Kentucky Annual Ryegrass Yield Trials 1999-2009 (yield shown as a percentage of the mean of the commercial varieties in the trial).

Variety	Proprietor	Lexington ¹								Princeton			Bowling Green		Mean ⁴ (#trials)
		1999 ^{2,3}	2001	2003	2004	2005	2006	2007	2008	2000	2002	2004	2000	2003	
All trials are 1 year yields															
Abundant							26								
Acrobat	Proseeds Marketing								244						
Andy	DLF International	112	105							99					105(3)
Angus I	DLF International											80			-
Aurelia	Forage Genetics		120									130			125(2)
Avance	DLF International	113								109					111(2)
Barextra	Barenbrug										117				-
Big Daddy	FFR/Sou. St.	87	86							90	85		104		90(5)
Bruiser	Ampac Seed								111						-
Common	Public									85	85		95	87	88(4)
DH-3	Allied Seed							106	45						76(2)
Diamond T							18								-
Domino	DLF International										121				-
Fantastic	Ampac Seed	83						105	98		90			97	92(4)
Feast	Ampac Seed		90												-
Feast II	Ampac Seed		98						59		123				93(3)
Flying A	Oregro Seeds						85		100						-
Graze-N-Gro	Seed Research of OR			105				78				94		107	96(4)
Gulf	Public		72					78	44	81	77	57	86		71(7)
Hercules	Barenbrug	114								110					112(2)
Jackson	The Wax Co.				80	100	138	120	100		87			96	97(6)
Jeanne	DLF International		124												-
Jumbo	Barenbrug			103									104		104(2)
King	Lewis Seed		92												-
Marshall	The Wax Co.	87		92	120	100	221	116	169	102	97		114	106	110(10)
Monarque	Seed Research of OR											117			-
Passerel Plus	Pennington Seed										100				-
Rio		88								100	97		102		97(4)
Spark	DLF International	87											83		85(2)
Stockaid							181								-
Striker	Seed Research of OR							104							-
TAMTBO	Oregro Seeds								80						-
Tam 90									82		85				84(2)
TetraPro									67						-
Tetrelite II	DLF International											122			-
T-Rex						25									-
Winter Star	Ampac Seed		87								96				92(2)
Zorro	DLF International	120	127							135	130		118		126(5)

¹ In annual ryegrass, low yielding varieties usually result from winterkill. Note: Due to severe winterkill, yield results from the 2006 planting were not included in the overall mean. See "2009 Annual and Perennial Ryegrass and Festulolium Report" Table 2 for yield and stand data for the 2006 planting.

² Year trial was established.

³ 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 1999 was harvested 1 year, so the final report would be "2000 Annual and Perennial Ryegrass Report" archived in the KY Forage website at <www.uky.edu/Ag/Forage>.

⁴ Mean only presented when respective variety was included in two or more trials.

Table 9. Summary of Kentucky Perennial Ryegrass Yield Trials 1999-2009 (yield shown as a percentage of the mean of the commercial varieties in the trial).

Variety	Proprietor	Lexington							Princeton		Bowling Green		Mean ³ (#trials)
		1999 ^{1,2} 2yr ⁴	2001 2yr	2003 2yr	2004 3yr	2005 3yr	2006 2yr	2007 2yr	2000 2yr	2002 3yr	2000 2yr	2003 2yr	
Aires	Ampac Seed		95							93			94(2)
Amazon	AgriBioTech	108			99					107			104(3)
Anaconda	Caudill Seed	113							95		103		104(3)
Aubisque	Seed Research of OR			144								99	122(2)
Bandit	Grassland West								106		114		110(2)
Bastion C-2	Seed Research of OR				91								-
Bestfor	Improved Forages								113	107	120		113(3)
Bestfor Plus	Improved Forages			116	108	118						136	120(4)
BG-34	Barenbrug					83	85						84(2)
Bison	International Seeds											140	-
Boost	Allied Seed							128					-
Boxer	AgriBioTech	121							106				114(2)
Calibra	DLF International									112			-
CAS MP64	Cascade International		97										-
Citadel	Ag Canada	101							94	113	103		103(4)
Derby	Public										74		-
Eurostar	Seed Research of OR							116					-
Feeder	Seed Research of OR							77					-
Granddaddy	Smith Seed		118				101	108		111			110(4)
GreenGold	Grasslands Oregon						96						-
Lasso	DLF International		98										-
Linn	Public	87	98	98	102		98	83	87	88	77		91(9)
Manhattan										85			-
Mara	Barenbrug										85		-
Matrix	Cropmark seeds			77								64	-
Maverick Gold	Ampac Seed		97							71			84(2)
Polly II	FFR/Sou. St.	104							110		125		113(3)
Polly Plus	Allied Seed			64								60	62(2)
Power	Ampac Seed							112					-
Quartermaster	Radix Research					122							-
Quartet	Ampac Seed		97			56		45		113			78(4)
RAD-CPS212	Radix Research					134							-
RAD-MI125	Mountain View Seeds						120						-
Sampson	International Seeds	87											-
Sierra	Lewis Seed Co.					89							-
Tonga	Ampac Seed					96							-
Yatsyn	Barenbrug	80							89				85(2)

¹ Year trial was established.

² 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 1999 was harvested 2 years, so the final report would be "2001 Annual and Perennial Ryegrass Report" archived in the KY Forage website at <www.uky.edu/Ag/Forage>.

³ Mean only presented when respective variety was included in two or more trials.

⁴ Number of years of data.

Table 10. Summary of Kentucky Festulolium Yield Trials 1999-2009 (yield shown as a percentage of the mean of the commercial varieties in the trial).¹

Variety	Proprietor	Lexington					Princeton	Quicksand		Mean ⁴ (#trials)
		1999 ^{2,3} 2-yr ⁵	2001 3-yr	2003 2-yr	2005 3-yr	2007 2-yr	2000 2-yr	2001 2-yr	2003 2-yr	
Duo	Ampac Seed	104			84					94(2)
Felina	DLF International		101							-
Hykor	DLF International			98					98	98(2)
Spring Green	Turf-Seed		88		105	101		97		98(4)
Vorage	Improved Forages						99			-

¹ The festuloliums were in fescue trials from 1999-2005 and in the 2007 perennial ryegrass trial.

² Year trial was established.

³ 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 1999 was harvested 2 years, so the final report would be "2001 Tall Fescue Report" archived in the KY Forage website at <www.uky.edu/Ag/Forage>.

⁴ Mean only presented when respective variety was included in two or more trials.

⁵ Number of years of data.

Table 11. Summary of Kentucky White Clover Grazing trials 2002-2009 (stand persistence shown as a percent of the mean of the commercial varieties in the test).

Variety	Type	Proprietor	2002 ^{1,2}	2004	2006 ³	2006	2008 ⁴	Mean ⁵ (#trials)
			2yr ⁶	4yr	2yr	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	101	98(4)
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	101	118(4)
Rampart	-	Oregro Seeds					100	-
Regal	Ladino	Public	92		57	54	100	76(4)
RegalGraze	Ladino	Cal/West			84	87	99	90(3)
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	101	102(3)

¹ Year trial was established.

² 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>.

³ This trial was replanted in the spring of 2006 due to poor establishment in the fall of 2005.

⁴ This trial was replanted in the spring of 2008 due to poor establishment in the fall of 2007.

⁵ Mean only presented when respective variety was included in two or more trials.

⁶ Number of years of data.

Table 12. Summary of Kentucky Alfalfa Grazing trials 1994-2009 (stand persistence shown as a percent of the grazing tolerant Alfagrazze).

Variety	Proprietor	Variety Characteristics ¹												Mean ⁵ (#trials)					
		Disease Resistance ²																	
		FD	Bw	Fw	An	PRR	APH	1994 ^{3,4} 3yr ⁶	1996 3yr	1997 4yr	1998 3yr	2000 2yr	2001 3yr		2004 4yr	2005 4yr	2006 3yr		
ABT 205	W-L Research	2	HR	HR	HR	HR	R	HR	R	HR	R	94	84				89(2)		
ABT 350	W-L Research	3	HR	HR	HR	HR	HR	HR	HR	HR	HR								
ABT 405	W-L Research	4	HR	HR	HR	HR	HR	HR	HR	HR	HR	71	69				83(5)		
Alfagrazze	Americas Alfalfa	2	MR	R	MR	R	-	R	R	R	R	100	100	100	100	100	100(10)		
Amerigraze 401+Z	Americas Alfalfa	4	HR	HR	HR	HR	R	HR	R	HR	R	120	53	56	26	85	78(6)		
Ameristand 403T	Americas Alfalfa	4	HR	HR	HR	HR	HR	HR	HR	HR	HR					141	143(2)		
Ameristand 407TQ	Americas Alfalfa															136			
Apollo	Americas Alfalfa	4	R	R	R	R	-	R	R	R	R	48	75	33	47	17	31	25	39(9)
Arc (certified)	Public	4	LR	MR	HR	-	-	-	-	-	-		38						
Baralfa 54	Barenbrug USA	-	R	HR	HR	HR	HR	HR	HR	HR	HR			78					
Cut-n-Graze	Americas Alfalfa	3	HR	HR	HR	HR	R	HR	R	HR	R	68							
FK 421	Donley Seed Co.	4	HR	H	H	H	H	H	H	H	H								
Feast	Garst Seeds	3	HR	HR	HR	HR	R	HR	R	HR	R		146					108(3)	
Fortress	Syngenta	3	R	R	R	R	R	R	R	R	R	40	71					56(2)	
Gold Plus	PGI Alfalfa	4	HR	HR	HR	HR	R	HR	R	HR	R			81					
Grazeking	FFR/Southern States	5	MR	HR	HR	R	S	R	R	R	R		91	41			50	61(3)	
Haygrazer	Great Plains Research	4	HR	HR	HR	R	MR	R	MR	R	MR		75	39		38		51(3)	
Integrity	PGI Alfalfa	4	HR	HR	HR	HR	HR	HR	HR	HR	HR					172			
Legacy	Green Seed	4	R	R	R	R	R	R	R	R	R	32							
Magnagrazze	Dairyland Seed Co.	3	HR	HR	R	R	HR	HR	HR	HR	HR	56							
Pasture Plus	MBS	3	HR	HR	R	R	MR	R	MR	R	MR	60							
Pioneer 98	Pioneer	3	HR	R	R	R	R	R	R	R	R			56					
ProGro	MBS Inc.	4	HR	HR	R	R	HR	MR	MR	MR	MR			81					
Quantum	ABI Alfalfa	2	HR	HR	HR	HR	R	R	R	R	R	71							
Rebel	Target Seed	4	HR	HR	HR	HR	HR	HR	HR	HR	HR						79		
Rugged	Target Seed	3	HR	HR	HR	HR	HR	HR	HR	HR	HR							146	
Rushmore	Syngenta	4	HR	HR	HR	HR	HR	HR	HR	HR	HR	32							
Saranac AR (cert.)	Public	4	MR	R	HR	LR	-	R	R	R	R		77				100	89(2)	
Spredor 3	Syngenta	1	HR	HR	R	MR	S	R	S	R	S	71	123	75				96(4)	
Stam pede	Allied Seed	3	HR	R	R	R	R	R	R	R	R		73						
Triple Trust 450	ABI/America's Alfalfa	5	HR	HR	HR	HR	HR	HR	HR	HR	HR					145			
Wintergreen	ABI Alfalfa	3	HR	HR	HR	HR	R	R	R	R	R	95		57	72			75(3)	
WL 326GZ	W-L Research	4	HR	HR	HR	HR	HR	HR	HR	HR	HR		118	88				103(2)	
115 Brand	Monsanto	3	HR	HR	R	HR	R	HR	R	HR	R				56	85		71(2)	
5373	Pioneer	4	HR	HR	HRT	MR	LR	LR	LR	LR	LR	21							
5432	Pioneer	4	HR	HR	HR	-	MR	-	MR	-	MR				51				

1 Variety characteristics: FD=fall dormancy, Bw=bacterial wilt, Fw=fusarium wilt, An=anthracnose, PRR=phytophthora root rot, APH=aphanomyces root rot. Information provided by seed companies.
 2 Disease resistance: S=susceptible, LR=low resistance, MR=moderate resistance, R=resistance, HR=high resistance.
 3 Year trial was established
 4 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 Lexington trial planted in 1996 was grazed for 3 years so final persistence report would be "1999 Alfalfa Grazing Tolerance Report" archived in the KY Forage website at <www.uky.edu/Ag/Forage>.
 5 Mean only presented when respective variety was included in two or more trials.
 6 Number of years of data.

Table 13. Summary of 1996-2009 Kentucky Tall Fescue Grazing Tolerance Trials (stand persistence shown as a percent of the stand rating of KY 31+).

Variety	Proprietor	Lexington										Princeton		Mean ³ (#trials)			
		1996 ^{1,2} 3yr ⁴	1997 4yr	1998 3yr	1999 4yr	2000 4yr	2001 4yr	2002 4yr	2003 4yr	2004 4yr	2005 4yr	2006 3yr	2002 4yr				
Advance MaxQ	Pennington Seed																
Bariane	Barenbrug USA																68(3)
Barcel	Barenbrug USA	92															
Barolex	Barenbrug USA																74(2)
BarOptima PLUS E34	Barenbrug USA																
BAR9TMPO	Barenbrug USA																
Bronson	Ampac Seed				75												
Cattle Club	Green Seed		37	98	70	93	91										78(2)
Carmine	DLF-Jenks						90										
Cowgirl	Rose Agri-Seed																
Dovey	Barenbrug USA	92															
Festival	Pickseed West																
Festorina	Advanta Seeds	98	86		57												80(3)
Fuego	Advanta Seeds			27													
Hoedown	DLF-Jenks																
Jesup EF	Pennington Seed		63	91													
Jesup MaxQ	Pennington Seed																
Johnstone	Proseeds		65	107													
KY31+	KY Agri. Exp Sta.	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100(12)
KY31-	KY Agri. Exp Sta.	94	90	102	84												96(11)
Kenhy	Public			116													
Kokanee	Ampac Seed					43											
Martin II	International Seeds		59														
Maximize	Rose Agri-Seed																
Orygun	-																
Resolute	Ampac Seed																
Select	FFR/Sou. St.			109	69	107	101	100	100	100	100	100	100	100	100	100	94(9)
Southern Cross	-		25														
Stargrazer	FFR/Sou. St.	90			52	86	89										79(4)
Stockman	Seed Res. of OR												102				
TF33	Barenbrug USA																
Tuscany II	Seed Res. of OR			34												99	
Verdant	Am.Grass Seed															90	
Vulcan	International Seeds						109										

¹ Year trial was established.

² 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 trial. For example, the Lexington trial planted in 1997 was grazed 4 years so the final report would be "2001 Cool-Season Grass Grazing Tolerance Report" archived in the KY Forage website at <www.uky.edu/Ag/Forage>.

³ Mean only presented when respective variety was included in two or more trials.

⁴ Number of years of data.

Table 14. Summary of 1996-2009 Kentucky Orchardgrass Grazing Tolerance Trials (stand persistence shown as a percent of the mean of the commercial varieties in the trial).

Variety	Proprietor	Lexington										Princeton		Mean ^{3,5} (#trials)		
		1996 ^{1,2} 3yr ⁴	1997 4yr	1998 3yr	1999 4yr	2000 4yr	2001 4yr	2002 4yr	2003 4yr	2004 4yr	2005 4yr	2002 4yr				
Abertop	Pennington Seed									38						
Albert	Univ. of Wisconsin									115						
Amba	DLF-Jenks									71						
Ambrosia	Pennington Seed		90													
Athos	DLF-Jenks									93				60		77(2)
Benchmark	FFR/Sou. States	100	105	115	94	118	123	114							133	113(8)
Benchmark Plus	FFR/Sou. States							120							133	135(3)
Boone	Public			131		102										117(2)
Cheyenne	Western Prod. Inc.			94												
Command	Seed Research of OR										81					
Crown	Donley Seed		86	96												91(2)
Crown Royale	Donley Seed									100						
Crown Royale Plus	Donley Seed										100					
Hallmark	James VanLeeuwen	107		104	103			124							83	104(2)
Haymate	FFR/Sou. States	93	71	102	96	53	115	100	113	115	100	118			83	104(6)
Intensiv	Barenbrug USA											51				92(9)
Mammoth	DLF-Jenks									115						
Megabite	Turf Seed									77						
Niva	DLF-Jenks							76							83	80(2)
Persist	Smith Seed												138			
Pizza	Advanta Seeds			63												
Potomac	Public	98												119	117	113(4)
Prairie	Turner Seed					127	121								83	110(3)
Profile	Scott Seed	98						116								107(2)
Progress	Scott Seed	111														
Tekapo	Ampac Seed	93	166	92	104			74							100	94(9)
Takana	Smith Seed		81							99						90(2)
WP300	Western Prod. Inc.			94												

¹ Year trial was established

² 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 trial. For example, the Lexington trial planted in 1997 was grazed 4 years so the final report would be "2001 Cool-Season Grass Grazing Tolerance Report" archived in the KY Forage website at <www.uky.edu/Ag/Forage>.

³ Mean only presented when respective variety was included in two or more trials.

⁴ Number of years of data.

⁵ Stand thinning may have been greater for preferred varieties due to closer grazing. See individual trial tables in the "2009 Cool Season Grass Grazing Tolerance Report" for preference ratings.

Table 15. Summary of 2000-2009 Kentucky Perennial Ryegrass Grazing Tolerance Trials (stand persistence shown as a percent of the mean of the commercial varieties in the trial).

Variety	Proprietor	2000 ^{1,2}	2001	2003	2005	Mean ³ (#trials)
		4yr ⁴	3yr	4yr	3yr	
AGRLP103	AgResearch USA	133		86		110(2)
Aries	Ampac Seed		139			-
BG 34	Barenbrug USA				176 ⁵	-
Citadel	Donley Seed	112				-
Granddaddy	Smith Seed Services		121			-
Lasso	DLF-Jenks		130			-
Linn	Public	117	129	63		103(3)
Maverick	Ampac Seed		36			-
Polly II	FFR/Southern States	37	68			53(2)
Quartet	Ampac Seed		77		63	70(2)
Remington	Barenbrug USA			151 ⁵		-
Tonga	Ampac Seed				61	-

¹ Year trial was established.

² 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 trial. For example, the Lexington trial planted in 2000 was grazed 4 years so the final report would be "2004 Cool-Season Grass Grazing Tolerance Report" archived in the KY Forage website at <www.uky.edu/Ag/Forage>.

³ Mean only presented when respective variety was included in two or more trials.

⁴ Number of years of data.

⁵ Grazing tolerance values for these entries may have been elevated due to the low survival of the other commercial varieties in the trials for these years. See 2009 Cool-Season Grass Grazing Tolerance Report for more details.