PR-647

2012 Timothy and Kentucky Bluegrass Report



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Introduction

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. It is a late-maturing bunchgrass that is primarily harvested as hay, particularly for horses. It also can be used for grazing or wildlife habitat.

Management is similar to that for other cool-season grasses. Harvesting at the mid- to late-boot stage is needed to assure good yields and high forage quality. The quality of timothy declines more rapidly after heading than other cool-season grasses. In Kentucky, timothy behaves like a short-lived perennial, with stands usually lasting two to three 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 slow to establish.

This report provides maturity and yield data on timothy and Kentucky bluegrass varieties included in yield trials in Kentucky. Tables 10 and 11 show summaries of all timothy and Kentucky bluegrass varieties tested in Kentucky for the last 10-plus years. The UK Forage Extension Web site, at www.uky.edu/Ag/Forage, contains forage variety testing reports from Kentucky and surrounding states and a large number of other forage publications.

Considerations in Selection

Local adaptation and seasonal yield.

Choose a variety that is adapted to Kentucky, as indicated by good performance across locations in replicated yield trials,

Table 1. Temperature and rainfall at Lexington, Kentucky, in 2010, 2011, and 2012.

		2010				20	11			20	12 ²	
	Te	mp	Raiı	nfall	Tei	mp	Raiı	nfall	Tei	mp	Raiı	nfall
	°F	DEP ¹	IN	DEP	°F	DEP	IN	DEP	°F	DEP	IN	DEP
JAN	29	-2	2.40	-0.46	29	-2	2.10	-0.76	38	+7	4.80	+1.94
FEB	29	-6	1.38	-1.83	39	+4	6.34	+3.13	40	+5	5.39	+2.18
MAR	47	+3	1.05	-3.35	47	+3	4.76	+0.36	56	+12	5.64	+1.24
APR	59	+4	2.74	-1.14	58	+3	12.36	+8.48	56	+1	3.26	-0.62
MAY	67	+3	7.84	+3.37	64	0	6.72	+2.25	69	+5	4.02	-0.45
JUN	76	+4	4.61	+0.95	74	+2	2.61	-1.05	73	+1	2.42	-1.24
JUL	78	+2	5.49	+0.49	80	+4	6.29	1.29	81	+5	2.50	-2.50
AUG	78	+3	1.54	-2.39	75	0	2.89	-1.04	75	0	1.68	-2.25
SEP	71	+3	1.14	-2.06	66	-2	5.52	+2.32	67	-1	6.40	+3.20
OCT	59	+2	1.22	-1.35	55	-2	4.10	+1.53	55	-2	2.00	-0.57
NOV	47	+2	4.58	+1.19	50	+5	9.53	+6.14				
DEC	28	-8	2.15	-1.93	41	+5	5.58	+1.60				
Total			36.14	-8.41			68.80	+24.25			38.11	+0.93

¹ DEP is departure from the long-term average.

DEF is departure from the long-term average.
 2 2012 data is for the ten months through October

such as those presented in this publication. Also, look for varieties that are productive in the desired season of use, whether for hay or grazing. Later maturing varieties are desirable when timothy is grown in pure stands for hay; early maturing varieties provide a better fit when timothy is grown in mixtures with legumes.

Seed quality. Buy premium-quality seed that is high in germination and purity and free from weed seed. Buy certified seed or proprietary varieties of seed of an improved variety. An improved variety is one that has performed well in independent trials such as those reported in this publication.

Description of the Test

Data from five studies are reported. Timothy varieties were sown at Lexington in 2009 and 2011, and Kentucky bluegrass varieties were sown at Lexington in 2009, 2010, and 2011 as part of the University of Kentucky Forage Variety Testing Program. The soil at Lexington (Maury) is a well-drained silt loam and is well-suited for timothy and bluegrass production. Seedings were made at the

rate of 6 pounds per acre for timothy and 15 pounds per acre for Kentucky bluegrass into a prepared seedbed with a disk drill. 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. Nitrogen was applied at 60 pounds per acre of actual nitrogen in March, May, and August. The test was harvested using a sickle-type forage plot harvester leaving a 3-inch stubble to simulate a hay management system. The first cutting was harvested when spring growth of most varieties had reached the mid- to late-boot stage. Subsequent harvests were taken when forage growth was adequate for harvest. Fresh weight samples were taken at each harvest to calculate dry matter production. Establishment, fertility, weed control, and harvest were managed according to University of Kentucky Cooperative Extension Service recommendations.

Results and Discussion

Weather data for Lexington are presented in Table 1.

Maturity ratings (see Table 2 for maturity scale) and dry-matter yields are



reported in tables 3 through 7. Yields are given by harvest date for 2012 and as total annual production. Stated yields are adjusted for percent weeds; therefore, value listed is for crop only. Varieties are listed by descending total production. Experimental varieties, listed separately at the bottom of the tables, are not available commercially.

Statistical analyses were performed on all data to determine if the apparent differences are truly due to varietal differences. Varieties not significantly different from the top variety in the column are marked with one asterisk (*). To determine if two varieties are significantly different, compare the difference between them to the Least Significant Difference (LSD) at the bottom of that column. If the difference is equal to or greater than the LSD, the varieties are significantly different when grown under those conditions. The Coefficient of Variation (CV) is a measure of the variability of the data and is included for each column of means. Low variability is desirable, and increased variability within a study results in higher CVs and larger LSDs.

Tables 8 and 9 summarize information about distributors and yield performance for Kentucky bluegrass and timothy varieties included in tests in this report. Varieties are listed in alphabetical order, with the experimental varieties at the bottom. Remember that experimental varieties are not available for farm use. In tables 8 and 9, an open block indicates that the variety was not in that particular test (labeled at the top of the column); an "x" in the block means the variety was in the test but yielded significantly less than the top-yielding variety. A single asterisk (*) means the variety was not significantly different from the highest yielding variety, based on the 0.05 LSD. It is best to choose a variety that has performed well over several years and locations.

Tables 10 and 11 are summaries of yield data of commercial varieties for Kentucky bluegrass (1996-2012) and timothy (2000-2012) that have been entered in the Kentucky trials. The data are 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 10 and 11, 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. See footnotes in tables 10 and 11 to determine to which yearly report to refer.

Table 2. Descriptive scheme for the stages of development in perennial forage grasses.

Code	Description	Remarks					
coue	Leaf development	nemarks					
4.4		A 1: 11					
11	First leaf unfolded	Applicable to regrowth of established (plants) and to primary growth of seedlings.					
12	2 leaves unfolded	Further subdivision by means					
13	3 leaves unfolded	of leaf development index					
•	• • • • • • • • • • • • • • • • • • • •	(see text).					
19	9 or more leaves unfolded						
	Sheath elongation						
20	No elongated sheath	Denotes first phase of					
21	1 elongated sheath	new spring growth after					
22	2 elongated sheaths	overwintering. This character is used instead of tillering					
23	3 elongated sheaths	which is difficult to record in					
•	• • • • • • • • • • • • • • • • • • • •	established stands.					
29	9 or more elongated sheaths						
	Tillering (alternative to sheath elong	gation)					
21	Main shoot only	Applicable to primary growth					
22	Main shoot and 1 tiller	of seedlings or to single tiller					
23	Main shoot and 2 tillers	transplants.					
23 24	Main shoot and 3 tillers						
	A A A A A A A A A A A A A A A A A A A						
<u>•</u> 29	Main shoot and 9 or more tillers						
29							
21	Stem elongation	M					
31	First node palpable	More precisely an accumulation of nodes.					
32	Second node palpable	Fertile and sterile tillers					
33	Third node palpable	distinguishable.					
34	Fourth node palpable						
35	Fifth node palpable						
37	Flag leaf just visible						
39	Flag leaf ligule/collar just visible						
	Booting						
45	Boot swollen						
	Inflorescence emergence						
50	Upper 1 to 2 cm of inflorescence visible	e					
52	1/4 of inflorescence emerged						
54	½ of inflorescence emerged						
56	34 of inflorescence emerged						
58	Base of inflorescence just visible						
	Anthesis						
60	Preanthesis	Inflorescence-bearing internode is visible. No anthers are visible.					
62	Beginning of anthesis	First anthers appear.					
64	Maximum anthesis	Maximum pollen shedding.					
66	End of anthesis	No more pollen shedding.					
	Seed ripening						
75	Endosperm milky	Inflorescence green					
85	Endosperm soft doughy	No seeds loosening when inflorescence is hit on palm.					
87	Endosperm hard doughy	Inflorescence losing chlorophyll; a few seeds loosening when inflorescenc hit on palm					
91	Endosperm hard	Inflorescence-bearing internode losing chlorophyll; seeds loosening in quantity when inflorescence hit on palm.					
93	Endosperm hard and dry	Final stage of seed development; most seeds shed.					

J. Allan Smith and Virgil W. Hayes. 1981. p. 416-418. 14th International Grasslands Conference Proc. 1981. June 14-24, 1981, Lexington, Kentucky.

Table 3. Dry matter yields, seedling vigor, maturity, and stand persistence of Kentucky bluegrass varieties sown September 11, 2009, at Lexington, Kentucky.

	Seedling		Matu	ırity ²		Percent Stand						Yield (tons/acre)							
	Vigor ¹	2010	20	11	2012	2009	20	10	20	11	20	12				20)12		
	Nov 16,	May	May	Jun	Apr	Nov	Apr	Oct	Mar	Oct	Mar	Oct	2010	2011	Apr	Jun	Oct		3-year
Variety	2009	7	5	20	25	16	13	18	29	17	21	24	Total	Total	25	20	23	Total	Total
Commercia	l Varieties	—Avail	able fo	r Farm	Use														
Ginger	3.0	57.0	60.0	29.0	62.0	93	96	99	100	100	100	100	1.78	3.40	0.98	0.30	0.38	1.65	6.82*
Barderby	4.0	58.0	57.5	29.0	59.0	96	97	100	100	100	100	100	1.59	3.16	0.56	0.17	0.37	1.09	5.84
BigBlue	1.0	29.0	59.5	29.0	61.5	25	28	60	75	91	100	99	0.33	3.11	0.68	0.28	0.34	1.30	4.74
Experimen	tal Varietie	S																	
B-9.0931	4.3	54.5	54.5	29.0	55.5	96	99	100	100	100	100	100	1.60	2.87	0.64	0.24	0.37	1.25	5.73
B-9.0927	3.8	29.0	29.0	60.0	29.0	97	99	99	100	100	100	100	1.44	2.88	0.36	0.30	0.29	0.95	5.26
B-9.0928	2.3	29.0	55.5	29.0	60.0	56	92	96	99	100	100	100	1.15	2.55	0.67	0.25	0.29	1.20	4.90
Mean	3.0	42.8	52.7	34.2	54.5	77	85	92	96	98	100	100	1.31	2.99	0.65	0.25	0.34	1.24	5.55
CV,%	24.2	3.5	1.7	0.0	2.5	16	7	5	3	1	0	1	13.60	10.71	26.48	31.71	25.36	16.39	9.01
LSD,0.05	1.1	2.3	1.3	0.0	2.0	18	9	7	5	2	0	2	0.27	0.48	0.26	0.12	0.13	0.31	0.75

Summary

Selecting a good timothy or Kentucky bluegrass variety is an important first step in establishing a productive stand of grass. 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.

The following is a list of University of Kentucky Cooperative Extension publications related to timothy and Kentucky bluegrass management. They are available from your county Extension office and are listed in the "Publications" section of the UK Forage Web site, www. uky.edu/Ag/Forage.

- Lime and Fertilizer Recommendations (AGR-1)
- Grain and Forage Crop Guide for Kentucky (AGR-18)
- Establishing Forage Crops (AGR-64)
- Timothy (AGR-84)
- Kentucky Bluegrass as a Forage Crop (AGR-134)
- · Forage Identification and Use Guide (AGR-175)
- Establishing Horse Pastures (ID-147)

Authors

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Table 4. Dry matter yields, maturity, and stand persistence of Kentucky bluegrass varieties sown September 6, 2010, at Lexington, Kentucky

	1 0, 20 10, at									
	Maturity ¹		Percen	t Stand			Yie	d (tons/a	icre)	
	2012	20	11	20	12	2011		2012		2-year
Variety	Apr 25	Jul 12	Oct 18	Mar 21	Oct 23	Total	Apr 25	Oct 23	Total	Total
Commerci	al Varieties	—Availa	ble for F	arm Use						
Ginger	62.0	98	87	86	100	1.42	0.93	0.56	1.49	2.93*
Kenblue	64.0	97	98	100	100	1.58	0.66	0.48	1.14	2.72*
Barderby	59.5	95	90	93	98	1.32	0.40	0.51	0.91	2.23
Experimen	ntal Varietie	es.								
B-9.0967	54.5	98	96	96	100	1.24	0.44	0.65	1.10	2.33
RAD- KCC4L	57.0	85	65	68	98	0.81	0.42	0.30	0.71	1.52
Mean	59.4	94	87	89	99	1.26	0.57	0.50	1.07	2.32
CV,%	1.5	9	22	18	3	17.05	25.46	17.46	15.41	14.75
LSD,0.05	1.3	14	30	25	4	0.35	0.22	0.13	0.25	0.55

¹ Maturity rating scale: 37 = flag leaf emergence, 45 = boot swollen, 50 = beginning of inflorescence emergence, 58 = complete emergence of inflorescence, 62 = beginning of pollen shed. See Table 2

Table 5. Dry matter yields, seedling vigor, maturity, and stand persistence of Kentucky bluegrass varieties sown September 14, 2011, at Lexington, Kentucky.

	Seedling Vigor ¹	Maturity ²	Pe	ercent Stai	nd	Yield (tons/acre)				
	Oct 11,	2012	2011	20	12	2012				
Variety	2011	Apr 25	Oct 11	Mar 21 Oct 23		Apr 25	Oct 23	Total		
Commercial \	/arieties—A	vailable for	Farm Use)						
Barderby	5.0	58.5	100	100	100	0.24	0.79	1.03*		
Ginger	4.3	61.3	100	100	100	0.46	0.42	0.88*		
Kenblue	3.3	62.0	100	100	100	0.25	0.60	0.85*		
Experimenta	l Varieties									
RAD-1450	3.8	29.0	100	100	100	0.12	0.69	0.81*		
RAD-KCC4L	4.8	58.5	100	100	100	0.07	0.26	0.33		
Mean	4.2	53.5	100	100	100	0.21	0.56	0.77		
CV,%	12.3	1.2	0	0	0	49.97	20.85	17.96		
LSD,0.05	0.8	1.0	0	0	0	0.17	0.19	0.22		

Vigor score based on a scale of 1 to 5 with 5 being the most vigorous seedling growth.
 Maturity rating scale: 37 = flag leaf emergence, 45 = boot swollen, 50 = beginning of inflorescence emergence, 58 = complete emergence of inflorescence, 62 = beginning of pollen shed. See Table 2 for complete scale.

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

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

Vigor score based on a scale of 1 to 5 with 5 being the most vigorous seedling growth.
 Maturity rating scale: 37 = flag leaf emergence, 45 = boot swollen, 50 = beginning of inflorescence emergence, 58 = complete emergence of inflorescence, 62 = beginning of pollen shed. See Table 2 for complete scale.

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

Table 6. Dry matter yields, seedling vigor, maturity, and stand persistence of timothy varieties sown September 11, 2009, at Lexington, Kentucky.

	Seedling	N	/laturity	²			Per	cent St	and					Yiel	d (tons/	acre)		
	Vigor ¹	2010	2011	2012	2009	009 2010		20	11	2012					20	12		
Variety	Oct 13, 2009	May 25	May 12	May 4	Oct 13	Apr 13	Oct 18	Mar 29	Oct 27	Mar 21	Oct 24	2010 Total	2011 Total	May 4	Jun 21	Oct 23	Total	3-year Total
Commerc	ial Varietie	s—Avai	lable fo	r Farm	Use													
Talon	2.8	56.0	50.5	50.0	91	98	98	98	97	98	96	3.96	3.41	1.51	0.63	0.23	2.37	9.74*
Derby	3.5	56.5	51.0	49.8	95	100	99	99	97	97	97	3.96	3.47	1.38	0.50	0.23	2.12	9.55*
Clair	1.0	57.5	52.0	50.3	9	93	94	97	96	97	95	3.55	3.57	1.39	0.65	0.24	2.28	9.40*
Treasure	4.3	57.0	43.5	46.3	98	100	99	99	99	99	96	4.09	3.23	1.21	0.52	0.19	1.91	9.24*
Climax	2.9	58.0	45.3	49.3	96	99	96	94	93	94	94	3.79	2.99	1.30	0.51	0.21	2.02	8.80*
Express	3.6	55.5	42.0	45.0	96	99	98	98	97	98	95	3.92	2.87	1.18	0.56	0.18	1.92	8.71*
Barfleo	4.1	51.5	42.0	45.0	96	99	99	100	100	99	96	3.66	2.89	1.29	0.55	0.21	2.05	8.60*
Joillette	4.0	50.5	40.5	45.0	99	100	99	99	96	97	96	3.68	2.59	1.02	0.60	0.16	1.79	8.06
Mean	3.3	55.3	45.8	47.6	85	98	98	98	97	97	96	3.83	3.13	1.29	0.57	0.21	2.06	9.01
CV,%	21.4	2.1	5.4	4.5	6	2	2	2	3	2	3	10.40	10.84	14.43	19.21	28.16	11.83	8.64
LSD,0.05	1.0	1.7	3.6	3.1	7	3	3	2	4	3	4	0.59	0.50	0.27	0.16	0.09	0.36	1.15

Table 7. Dry matter yields, seedling vigor, maturity, and stand persistence of timothy varieties sown September 14, 2011, at Lexington, Kentucky.

	Seedling		D-			Yield (tons/acre)					
	Vigor ¹	Maturity ²		rcent Sta							
	Oct 11,	2012	2011	20	12		20	12			
Variety	2011	May 4	Oct 11	Mar 21	Oct 23	May 4	Jun 21	Oct 22	Total		
Commercia	l Varieties—	Available fo	r Farm Us	se							
Derby	4.8	54.0	100	100	100	1.92	0.53	0.73	3.18*		
Treasure	4.8	50.5	100	100	100	1.78	0.51	0.63	2.92*		
Clair	2.0	53.5	100	100	100	1.49	0.58	0.79	2.85*		
Talon	4.8	47.3	100	100	100	1.63	0.55	0.63	2.82*		
Climax	4.8	50.3	100	100	100	1.47	0.49	0.56	2.52		
Barfleo	4.8	43.5	100	100	100	1.42	0.45	0.43	2.30		
Express	4.5	42.0	100	100	100	1.26	0.41	0.54	2.21		
Barpenta	4.3	39.0	100	100	100	1.23	0.53	0.37	2.13		
Mean	4.3	47.5	100	100	100	1.53	0.50	0.29	2.62		
CV,%	13.3	5.3	0	0	1	12.64	17.89	15.15	9.41		
LSD,0.05	0.8	3.7	0	0	1	0.28	0.13	0.13	0.36		

Table 8. Performance of Kentucky bluegrass varieties at Lexington.

	Proprietor/KY		2009 ¹		20	2011	
Variety	Distributor	10 ²	11	12	11	12	12
Commercia	l Varieties—Available fo	r Farm Use			•		
Barderby	Barenbrug USA	*	*	х	*	х	*
BigBlue	Rose-AgriSeed	x ³	*	х			
Ginger	ProSeeds Marketing	*	*	*	*	*	*
Kenblue	Public				*	х	*
Experimen	tal Varieties						
B-9.0927	Blue Moon Farms	х	Х	х			
B-9.0928	Blue Moon Farms	х	Х	х			
B-9.0931	Blue Moon Farms	*	Х	Х			
B-9.0967	Blue Moon Farms				*	х	
RAD-1450	Radix Research						*
RAD-KCC4L	Radix Research				Х	Х	х

¹ Establishment year.

 ¹ Vigor score based on a scale of 1 to 5 with 5 being the most vigorous seedling growth.
 2 Maturity rating scale: 37 = flag leaf emergence, 45 = boot swollen, 50 = beginning of inflorescence emergence, 58 = complete emergence of inflorescence, 62 = beginning of pollen shed. See Table 2 for complete scale.
 *Not significantly different from the highest numerical value in the column, based on the 0.05 LSD.

Vigor score based on a scale of 1 to 5 with 5 being the most vigorous seedling growth.
 Maturity rating scale: 37 = flag leaf emergence, 45 = boot swollen, 50 = beginning of inflorescence emergence, 58 = complete emergence of inflorescence, 62 = beginning of pollen shed. See Table 2 for complete scale.

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

² Harvest year.

³ x in the block indicates the variety was in the test but yielded significantly less than the top yielding variety in the test. Open boxes indicate the variety was not in the test. *Not significantly different from the highest yielding variety in the test.

Table 9. Performance of timothy varieties at Lexington.

		-		
Proprietor/KY		2009 ¹		2011
Distributor	10 ²	11	12	12
l Varieties—Available for Fa	arm Use			
Barenbrug USA	*	x ³	*	х
Barenbrug USA				х
Ky Agric. Exp. Station	*	*	*	*
Canada Agr. Res. Station	*	*	*	х
FFR Cooperative	*	*	*	*
Seed Research of Oregon	*	Х	Х	х
Caudill Seed	*	Х	Х	
Seed Research of Oregon	*	*	*	*
Seed Research of Oregon	*	*	Х	*
	I Varieties—Available for Fa Barenbrug USA Barenbrug USA Ky Agric. Exp. Station Canada Agr. Res. Station FFR Cooperative Seed Research of Oregon Caudill Seed Seed Research of Oregon	Distributor 102 I Varieties—Available for Farm Use Barenbrug USA * Barenbrug USA * Ky Agric. Exp. Station * Canada Agr. Res. Station * FFR Cooperative * Seed Research of Oregon * Caudill Seed * Seed Research of Oregon *	102	102

Table 10. Summary of Kentucky bluegrass yield trials 1996-2012 (yield shown as a percentage of the mean of the commercial varieties in the trial).

					Lexir	ngton				Princeton		
	Proprietor/KY	96 ^{1,2}	03	04	06	07	08	09	10	02	Mean ³	
Variety	Distributor	3yr ⁴	2yr	3yr	4yr	3yr	3yr	3yr	2yr	3yr	(#trials)	
Adam 1	Radix Research			98							_	
Barderby	Barenbrug USA					94		101	85	114	99(4)	
BigBlue	Rose-AgriSeed							82			-	
Common	Public				71	66	68				68(3)	
Ginger	ProSeeds Marketing		89		118	119	114	118	112		112(6)	
Kenblue	Public	90		102	133				104		107(4)	
Lato	Turf Seed Inc.	110				122					116(2)	
RAD-5	Radix Research				103						_	
RAD-339	Radix Research				101						_	
RAD-643	Radix Research				94						_	
RAD-731zx	Radix Research				87						_	
RAD-762	Radix Research				94						_	
RAD-1039	Radix Research						118				_	
Slezanka	DLF International Seeds		111								_	

 ¹ Establishment year.
 2 Harvest year.
 3 x in the block indicates the variety was in the test but yielded significantly less than the top yielding variety in the test. Open boxes indicate the variety was not in the

^{*}Not significantly different from the highest yielding variety in the test.

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 two years, so the final report would be "2006 Timothy and Kentucky Bluegrass Report" archived in the KY Forage Web site 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 11. Summary of Kentucky timothy yield trials 2000-2012 (yield shown as a percentage of the mean of the commercial varieties in the trial).

					exingto	n			Quic	ksand	Princ		
		00 ^{1,2}	01	02	06	07	08	09	99	01	00	04	Mean ³
Variety	Proprietor/KY Distributor	2yr ⁴	3yr	4yr	3yr	3yr	3yr	3yr	2yr	2yr	3yr	2yr	(#trials)
Alma	Newfield Seeds Co/Caudill Seed Co.											81	_
Auroro	General Feed and Grain	100							97				99(2)
Barfleo	Barenbrug USA							95					_
Barpenta	Barenbrug USA					74							_
Clair	Ky Agric. Exp. Station		108	113	107	95	107	104		104		122	108(8)
Classic	Cebeco International Seeds	100		86					86				91(3)
Climax	Canada Agr. Res. Station				79	102	104	98					96(4)
Colt	FFR Cooperative	105		100	90				112			99	101(5)
Common	Public		95										-
Derby	FFR Cooperative				112	111		106				124	113(4)
Dolina	DLF-Trifolium	99		90									95(2)
Express	Seed Research of Oregon			95		91		97					94(3)
Hokuei	Snow Brand Seed	103											_
Hokusei	Snow Brand Seed	96							98				97(2)
Joliette	Newfield Seeds Co/Caudill Seed Co.						86	89				90	88(3)
Jonaton	Newfield Seeds Co/Caudill Seed Co.											84	-
KY Early	Central Farm Supply	102	103	115			102		104	105			105(6)
Outlaw	Grassland West Company										107		_
Richmond	Pickseed Canada Inc.	100							103				102(2)
Summit	Allied Seed, L.L.C.			112									_
Talon	Seed Research of Oregon				110	112		108					110(3)
Treasure	Seed Research of Oregon				103	115		103					107(3)
Tundra	DLF-Trifolium	95											_
Tuukka	Ampac Seed Company		94	88						91	93		92(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.