2017 Timothy and Kentucky Bluegrass Report

University of Kentucky
College of Agriculture,
Food and Environment
Agricultural Experiment Station

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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 15 years. The UK Forage Extension website, 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, 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-

Table 1. Temperature and rainfall at Lexington, Kentucky, in 2015, 2016, and 2017.

		20	15			20	16			20	17 ²	
	Tei	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	32	+1	2.17	-0.69	32	+1	0.80	-2.06	40	+9	6.81	+3.95
FEB	26	-9	3.08	-0.13	38	+3	6.09	+2.88	47	+12	4.46	+1.25
MAR	45	+1	7.34	+2.94	52	+8	4.07	-0.33	48	+4	3.34	-1.06
APR	57	+2	13.19	+9.31	57	+2	3.97	+0.09	62	+7	4.17	+0.29
MAY	69	+5	3.02	-1.45	64 0 9.17		+4.70	66	+2	7.74	+3.27	
JUN	75	+3	8.20	+4.54	76	+4	5.09	+1.43	73	+1	7.68	+4.02
JUL	77	+1	10.22	+5.22	79	+3	7.43	+2.43	76	0	4.49	-0.51
AUG	74	-1	3.49	-0.44	79	+4	4.37	+0.44	74	-1	6.66	+2.73
SEP	72	+4	3.49	+0.29	74	+6	2.18	-1.02	69	+1	4.72	+1.52
OCT	59	+2	2.78	+0.21	64	+7	0.37	-2.20	60	+3	6.06	+3.49
NOV	51	+6	3.72	+0.33	51	+6	1.94	-1.45				
DEC	49	+13	8.42	+4.44	37	+1	9.4	+5.42				
Total			69.12	+24.57			54.88	+10.33			56.13	+18.95

DEP is departure from the long-term average.
 2017 data is for ten months through October.

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

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

with legumes.

Data from five studies are reported. Timothy varieties and Kentucky bluegrass varieties were sown at Lexington in 2014, 2015, and 2016 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 8 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 for a total of 180 pounds/acre/year. 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 (P, K, and lime based on regular soil tests), 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 6. Yields are given by harvest date for 2017 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 7 and 8 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 7 and 8, an open block indicates 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 9 and 10 are summaries of yield data of commercial varieties for Kentucky bluegrass (1996-2017) and timothy (2000-2017) 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 higher 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 9 and 10, but these comparisons do help to identify varieties for further consideration. Varieties that have performed better than average over many years and at several

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

		f development in perennial forage grasses.
Code	Description	Remarks
	Leaf development	
11	First leaf unfolded	Applicable to regrowth of established (plants) and to primary growth of seedlings.
12	2 leaves unfolded	Further subdivision by means of leaf development
13	3 leaves unfolded	index (see text).
•	• • • •	
19	9 or more leaves unfolded	
	Sheath elongation	
20	No elongated sheath	Denotes first phase of new spring growth after
21	1 elongated sheath	overwintering. This character is used instead of
22	2 elongated sheaths	tillering which is difficult to record in established stands.
23	3 elongated sheaths	starius.
•	• • • • •	
29	9 or more elongated sheaths	
	Tillering (alternative to sheath elo	ngation)
21	Main shoot only	Applicable to primary growth of seedlingsor to single
22	Main shoot and 1 tiller	tiller transplants.
23	Main shoot and 2 tillers	
24	Main shoot and 3 tillers	
•	••••	
29	Main shoot and 9 or more tillers	
	Stem elongation	
31	First node palpable	More precisely an accumulation of nodes. Fertile and
32	Second node palpable	sterile tillers distinguishable.
33	Third node palpable	
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	
52	1/4 of inflorescence emerged	
54	1/2 of inflorescence emerged	
56	³ / ₄ 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 inflorescence 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.

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

locations have stable performance; others may have performed well in wet years or on particular soil types. These details may influence variety choice, and the information can be found in the yearly reports. See footnotes in tables 9 and 10 to determine to which yearly report to refer.

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.

Table 3. Dry matter yields, seedling vigor, maturity, plant height, and stand persistence of Kentucky bluegrass varieties sown September 4, 2014, at Lexington, Kentucky.

	Coodling		Maturity ²	2	Dlant			Pe	Percent Stand	pu					Yiek	Yield (tons/acre)	cre)		
	Vigor ¹	2015	2016 2017	2017	Height (in)	2014	20	2015	20	2016	2017	17	2015	2016		20	2017		3-vear
Variety	Oct 9, 2014 May 4 Apr 28 Apr 20 Apr 28,	May 4	Apr 28	Apr 20	Apr 28, 2016	Oct 9	Apr 2	Oct 29	Mar 21	Oct 17	Mar 24	Oct 31	Total	Total	Apr 20	Jun 21	Oct 24	Total	Total
Commercial Varieties-Available for Farm Use	rieties-Availa	ble for Fa	rm Use																
Park (certified)	5.0	55.0	53.0	52.0	7.3	100	100	100	100	100	100	100	3.42	2.75	1.08	0.55	0.72	2.35	8.52*
Barderby	4.8	59.0	56.5	56.5	11.5	100	100	100	100	100	100	100	3.09	3.11	0.92	0.58	0.55	2.05	8.25*
Kenblue	2.8	0.09	59.0	56.0	17.0	66	66	100	100	100	100	100	2.85	2.85	0.91	0.71	0.82	2.44	8.15*
Ginger	4.5	0.09	59.5	58.5	17.0	100	100	100	100	100	100	100	2.80	2.79	1.14	0.64	0.37	2.15	7.74*
Experimental Varieties	arieties																		
GO-F13	4.0	0.09	56.0	54.0	13.0	66	66	100	100	100	100	100	3.35	2.91	0.98	0.65	09'0	2.23	8.49*
GO-13NF	2.3	53.0	56.5	57.5	13.8	96	66	100	100	100	100	100	2.26	3.13	1.13	0.61	0.84	2.58	7.97*
Mean	3.9	57.8	56.8	55.8	13.3	66	100	100	100	100	100	100	2.96	2.92	1.03	0.62	9.0	2.30	8.19
CV,%	16.0	1.7	2.0	1.2	9.5	2	-	0	0	0	0	0	16.19	17.10	30.36	29.80	31.14	21.75	10.39
LSD,0.05	6.0	1.5	1.7	1.0	1.9	3	-	0	0	0	0	0	0.72	0.75	0.47	0.28	0.31	0.75	1.28

Table 4. Dry matter yields, seedling vigor, maturity, and stand persistence of timothy varieties sown September 5, 2014, at Lexington, Kentucky.

	Coodling		Maturity ²	۵.			Pe	Percent Stand	pu					Yiel	Yield (tons/acre)	cre)		
	Vigor ¹	2015	2016	2017	2014	2015	15	20	2016	2017	17	2015	2016		2017	17		3-vear
Variety	Oct 9, 2014 May 12 May 13	May 12	May 13	May 15	Oct 9	Apr 3	Oct 29	Mar 21	Oct 17	Mar 24	Oct 31	Total	Total	May 15	Aug 15	Oct 24	Total	Total
Commercia	Commercial Varieties-Available for Farm Use	ilable for	Farm Use															
Derby	3.8	49.8	54.5	54.5	96	96	62	62	85	81	94	4.61	4.61	2.43	1.09	0.88	4.66	12.74*
Clair	1.0	49.3	55.0	55.5	48	75	98	91	68	75	80	4.13	3.91	2.12	1.46	0.74	4.50	11.81*
Barfleo	3.4	45.0	45.0	47.5	6	96	62	96	79	99	73	4.42	3.43	1.62	1.41	1.11	4.77	11.52*
Climax	3.5	46.3	54.5	54.0	96	26	62	62	06	78	70	4.59	4.33	1.48	0.59	0.41	2.79	10.25
Tenho	3.4	45.0	45.0	45.0	96	95	96	96	81	71	88	4.21	3.57	1.13	0.38	0.62	2.91	8.95
Varis	3.8	45.0	45.0	46.3	96	96	96	96	98	89	80	3.96	3.75	1.75	0.26	0.62	2.89	8.84
Experiment	Experimental Varieties																	
B-14.1160R	3.4	45.0	53.5	54.0	96	96	62	86	91	71	93	4.99	4.42	2.43	0.77	1.18	4.89	14.24*
B-14.1159C	3.8	46.3	50.0	47.5	95	96	62	62	06	70	75	4.80	5.11	2.24	98.0	0.51	4.24	12.92*
GO-120X	2.9	45.0	46.3	45.0	96	96	96	96	81	61	89	4.54	4.25	1.47	96.0	0.48	3.42	11.66*
GO-LMTE	2.6	45.0	46.3	45.0	96	96	62	86	91	74	90	4.41	3.84	1.61	0.93	0.54	3.42	10.31
TmSX11	2.4	45.0	49.3	47.8	91	95	92	94	06	73	80	4.38	4.11	1.27	0.70	0.45	2.77	9.54
B-14.1158M	3.3	45.0	45.0	45.0	95	96	62	62	91	9/	06	4.63	3.53	1.77	0.34	69.0	2.79	9.39
Mean	3.1	46.0	49.1	48.9	91	94	95	96	87	80	82	4.74	4.07	1.78	0.81	69.0	3.67	11.02
CV,%	20.3	3.8	3.5	4.8	7	9	4	3	11	12	14	14.24	14.96	24.17	54.88	29.88	23.61	13.79
LSD,0.05	6.0	2.5	2.5	3.4	6	8	9	4	13	22	26	0.92	0.88	0.62	0.98	0.45	1.91	3.34
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¹ 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.

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 5. Dry matter yields, seedling vigor, maturity, and stand persistence of timothy varieties sown September 4, 2015, at Lexington, Kentucky.

	Seedling	Matı	ırity ²		Pe	ercent Sta	nd				Yield (to	ns/acre)		
	Vigor ¹	2016	2017	2015	20	16	20	17	2016		20	17		2-year
Variety	Oct 15, 2015	May 11	May 15	Oct 15	Mar 18	Oct 17	Mar 24	Oct 31	Total	May 15	Aug 11	Oct 24	Total	Total
Commercia	al Varieties-Ava	ilable for	Farm Use											
Derby	5.0	55.0	56.0	100	100	95	95	95	4.52	2.13	1.33	0.92	4.38	8.90*
Clair	1.5	54.5	57.5	69	77	91	96	96	3.67	2.21	0.70	0.65	3.55	7.22*
Climax	4.6	49.3	54.0	100	100	92	92	89	3.10	1.68	0.73	0.67	3.08	6.18
Barfleo	3.8	48.5	52.0	99	99	91	91	92	2.93	1.42	0.80	0.51	2.73	5.65
Experimen	tal Varieties													
TM0801	4.6	56.5	58.0	97	99	96	96	96	4.35	2.31	0.80	0.53	3.63	7.98*
KYPP0901	4.4	47.5	51.5	95	98	91	92	86	2.69	1.19	0.48	0.35	2.02	4.71
Mean	4.0	51.9	54.8	93	95	93	94	92	3.54	1.82	0.81	0.60	3.23	6.78
CV,%	11.1	5.2	3.8	12	11	5	4	6	15.23	31.48	57.30	24.89	29.16	18.54
LSD,0.05	0.7	4.1	3.2	17	15	8	6	8	0.81	0.87	0.65	0.23	1.42	1.89

¹ Vigor score based on a scale of 1 to 5 with 5 being the most vigorous seedling growth.

Table 6. Dry matter yields, seedling vigor, maturity, and stand persistence of timothy varieties sown September 7, 2016, at Lexington, Kentucky.

	Seedling	Maturity ²	Pe	ercent Stai	nd		Yie	ld (tons/a	cre)	
	Vigor ¹	2017	2016	20	17			2017		
Variety	Oct 5, 2016	May 15	Nov 29	Mar 14	Oct 31	May 15	Jun 26	Aug 11	Oct 24	Total
Commercial	Varieties-Ava	ilable for Farn	n Use							
Zenyatta	3.3	57.5	87	84	90	3.64	0.54	0.44	1.00	5.61*
Derby	4.3	57.5	99	97	97	3.58	0.43	0.42	1.01	5.45*
Barfleo	2.8	46.3	97	93	94	3.61	0.31	0.35	0.81	5.09*
Climax	5.0	56.0	100	98	98	3.42	0.36	0.27	1.00	5.05*
Clair	3.0	45.0	99	94	94	3.40	0.21	0.13	0.69	4.42
Anjo	2.0	45.0	87	79	86	2.70	0.29	0.21	0.68	3.88
Experiment	al Varieties									
TM0704DT	4.8	52.5	100	99	93	3.58	0.56	0.62	1.03	5.78*
KYPP0901	3.8	51.0	97	96	97	3.64	0.38	0.36	0.85	5.23*
Mean	3.7	51.3	96	92	94	3.45	0.39	0.35	0.88	5.07
CV,%	22.6	2.2	7	8	5	8.87	40.82	44.87	44.93	12.68
LSD,0.05	1.3	1.7	10	11	7	0.45	0.23	0.23	0.53	0.94

¹ Vigor score based on a scale of 1 to 5 with 5 being the most vigorous seedling growth.

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 website, 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 7. Performance of Kentucky bluegrass varieties across years at Lexington, Kentucky.

	Proprietor/KY		2014 ¹	
Variety	Distributor	15 ²	16	17
Commercial Va	rieties-Available for F	arm Use	•	
Barderby	Barenbrug USA	*	*	*
Ginger	ProSeeds Marketing	*	*	*
Kenblue	Public	*	*	*
Park (certified)	Public	*	*	*
Experimental V	/arieties			
GO-F13	Grassland Oregon	*	*	*
GO-13NF	Grassland Oregon	x ³	*	*

¹ Establishment year.

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.

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 &}quot;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 8. Performance of timothy varieties across years at Lexington, Kentucky.

	Proprietor/KY		2014 ¹		20	15	2016
Variety	Distributor	15 ²	16	17	16	17	17
Commercial '	Varieties-Available for Far	m Use					
Anjo	Hood River Seed						х
Barfleo	Barenbrug USA	*	*	*	x ³	х	*
Clair	Ky Agric. Exp. Station	*	х	*	х	*	х
Climax	Canada Agr. Res. Station	*	*	х	х	*	*
Comtral	Caudill Seed						
Derby	Southern States	*	*	*	*	*	*
Tenho	Barenbrug USA	*	х	х			
Varis	Mountain View seeds	х	х	х			
Zenyatta	DLF International						*
Experimenta	l Varieties						
B-14.1158M	Blue Moon Farms	*	х	х			
B-14.1159C	Blue Moon Farms	*	*	*			
B-14.1160R	Blue Moon Farms	*	*	*			
GO-LMTE	Grassland Oregon	*	х	*			
GO-120X	Grassland Oregon	*	*	*			
KYPP0901	Ky Agric. Exp. Station				х	х	*
TMSX11	Brett Young	*	х	Х			
TM0704DT	DLF Pickseed						*
TM 0801	Allied Seed				*	*	

¹ Establishment year.

Table 9. Summary of Kentucky Bluegrass Yield Trials at Lexington, Kentucky, 1996-2017 (yield shown as a percentage of the mean of the commercial varieties in the trial).

	Proprietor/KY	96 ^{1,2}	03	04	06	07	08	09	10	11	12	13	14	Mean ³
Variety	Distributor	3yr ⁴	2yr	3yr	4yr	3yr	(#trials)							
Adam 1	Radix Research			98										_
Barderby	Barenbrug USA					94		101	91	98	87	103	101	95(7)
Big Blue	Rose-AgriSeed							82			95			89(2)
Common	Public				71	66	68							68(3)
Ginger	ProSeeds Marketing		89		118	119	114	118	112	107	110	107	95	109(10)
Kenblue	Public	90		102	133				96	95	118	95	100	104(8)
Lato	Turf Seed Inc.	110				122								116(2)
Park (certified)	Public										90	95	104	96(3)
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 Year trial was established.

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.

Year trial was established.
 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 2012 was harvested three years, so the final report would be "2015 Timothy and Kentucky Bluegrass Report" archived in the KY Forage website at www.uky.edu/Ag/Forage. The 1996 and 2003 Lexington results are in the appropriate Tall Fescue Reports.
 Mean only presented when respective variety was included in two or more trials.
 Number of years of data.

Table 10. Summary of Kentucky Timothy Yield Trials 2000-2017 (yield shown as a percentage of the mean of the commercial varieties in the trial).

וממום יסו שומום	table 10: Julinial y Otherwack Informy field framework and perceivage of the mean of the commendation in the dialy.	2222				2 2	,				,						
							Lexington	ton					Quic	Quicksand	Princeton	eton	
		001,2	10	05	90	07	80	. 60	11	12 13	14	15	66	01	00	90	Mean ³
Variety	Proprietor/KY Distributor	2yr4	3yr	4yr	3yr	3yr	3yr	3yr 3	3yr 3	3yr 3yr	r 3yr	2yr	2yr	2yr	3yr	2yr	(#trials)
Alma	Newfield Seeds Co/Caudill Seed Co.															81	ı
Auroro	General Feed and Grain	100											86				99(2)
Barfleo	Barenbrug USA							95	91	101	108	81					95(5)
Barpenta	Barenbrug USA					74		_	82 8	82							79(3)
Clair	Ky Agric. Exp. Station		104	113	107	95	107	104 1	112 9	66	111	103		106		122	106(13)
Classic	Cebeco International Seeds	100		98									86				91(3)
Climax	Canada Agr. Res. Station				79	102	104	98 1	102	100 82	96 7	88					62(6)
Colt	FS Growmark	105		100	06								112			66	101(5)
Common	Public		95														ı
Comtral	Caudill Seed								0,	92 92							92(2)
Derby	Southern States				112	111		106 1	112	108 112	2 119	127				124	115(9)
Dolina	DLF International	66		90													95(2)
Express	Seed Research of Oregon			95		91		6 26	95								95(4)
Hokuei	Snow Brand Seed	103															_
Hokusei	Snow Brand Seed	96											66				98(2)
Joliette	Newfield Seeds Co/Caudill Seed Co.						98	89								06	88(3)
Jonaton	Newfield Seeds Co/Caudill Seed Co.															84	1
KY Early	Smith Seed/Central Farm Supply	102	103	115			102			119	6		104	103			107(7)
Outlaw	Grassland West Company														107		I
Richmond	Pickseed Canada Inc.	100											103				102(2)
Summergraze	Brett Young									96	5						-
Summit	Allied Seed, L.L.C.			112													I
Talon	Seed Research of Oregon				110	112		108	106	109							109(5)
Tenho	Barenbrug USA										84						ı
Treasure	Seed Research of Oregon				103	115		103 1	101	108							106(5)
Tundra	DLF International	95															ı
Tuukka	Ampac Seed Company		94	88										91	93		92(4)
Varis	Mountain View Seeds										83						I
Zenyatta	DLF International									103	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 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 2012 was harvested three years, so the final report would be 2015 minothy and Kentucky Bluegrass 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.