PR-645

2012 Orchardgrass Report

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Introduction

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 greater yields, higher quality, and longer stand life. It produces an open, bunch-type sod, making it compatible with alfalfa or red clover as a pasture and hay crop or as habitat for wildlife.

This report provides current yield data on orchardgrass varieties included in yield trials in Kentucky as well as guidelines for selecting orchardgrass varieties. Table 10 shows a summary of all orchardgrass varieties tested in Kentucky for the last 10-plus years. The UK Forage Extension Web site at www.uky.edu/Ag/Forage contains electronic versions of all forage variety testing reports from Kentucky and surrounding states and from a large number of other forage publications.

Important Selection Considerations

Maturity. Orchardgrass varieties will range in maturity from early to late, based on the date of heading. In this report, early-maturing varieties will in general have higher first-cutting yields than later-maturing varieties because they are more mature at the date of first cutting. Orchardgrass typically matures earlier in the spring than red clover or alfalfa. Later-maturing varieties are preferred for use with red clover or alfalfa because they are at a more optimal stage of maturity when the legume is ready for cutting.

Local adaptation and seasonal yield. Choose a variety adapted to Kentucky, as indicated by good performance across years and 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.

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

	2010				2011				2012[2]			
	Temp		Rainfall		Temp		Rainfall		Temp		Rainfall	
	°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.
[2] 2012 data is for the ten months through October.

Table 2. Temperature and rainfall at Princeton, Kentucky, in 2010, 2011, and 2012.

	2010				2011				2012[2]			
	Temp		Rainfall		Temp		Rainfall		Temp		Rainfall	
	°F	DEP[1]	IN	DEP	°F	DEP	IN	DEP	°F	DEP	IN	DEP
JAN	31	-3	3.06	-0.74	32	-2	2.35	-1.45	40	+6	3.01	-0.79
FEB	33	-5	1.54	-2.89	40	+2	5.71	+1.28	54	+6	1.73	-2.70
MAR	48	+1	3.24	-1.70	50	+3	5.54	+0.60	60	+13	3.27	-1.67
APR	62	3	3.3	-1.54	61	+2	16.15	+11.35	60	+1	0.62	-4.18
MAY	69	+2	10.41	+5.45	66	-1	7.22	+2.26	71	+4	1.36	-3.60
JUN	79	4	4.82	0.97	77	+2	4.60	+0.75	74	-5	2.38	-1.47
JUL	80	2	2.73	-1.56	81	+3	2.98	-1.31	83	+5	1.40	-2.89
AUG	81	4	2.46	-1.55	77	0	3.95	-0.06	77	0	4.27	+0.26
SEP	72	1	0.94	-2.39	68	-3	3.86	+0.53	69	-2	5.45	+1.82
OCT	60	+1	0.97	-2.08	57	-2	1.35	-1.70	57	-2	2.94	-0.11
NOV	49	+2	3.98	-1.65	51	+4	9.12	+4.49				
DEC	32	-7	1.57	-3.47	42	+3	6.13	+1.09				
Total			39.02	-12.11			68.96	+17.83			26.13	-15.33

[1] DEP is departure from the long-term average.
[2] 2012 data is for the ten months through October.

Table 3. Temperature and rainfall at Quicksand, Kentucky, in 2010, 2011, and 2012.

	2010				2011				2012[2]			
	Temp		Rainfall		Temp		Rainfall		Temp		Rainfall	
	°F	DEP[1]	IN	DEP	°F	DEP	IN	DEP	°F	DEP	IN	DEP
JAN	31	0	4.09	+0.80	32	+1	2.63	-0.66	40	+9	4.60	+1.31
FEB	32	-1	2.82	-0.77	42	+9	3.94	+0.34	42	+9	3.49	-0.16
MAR	47	+6	2.38	-1.96	48	+7	4.66	+0.32	57	+16	3.34	-1.40
APR	60	+7	2.64	-1.46	60	+7	11.65	+7.55	56	+3	2.02	-2.08
MAY	67	+5	6.00	+1.52	65	+3	6.49	+2.01	69	+7	4.29	-0.19
JUN	76	+6	4.26	+0.44	73	+3	3.73	-0.09	71	+1	0.82	-3.00
JUL	77	+3	3.06	-2.19	78	+4	4.92	-0.33	78	+4	5.20	+0.45
AUG	77	+4	3.77	-0.24	75	+2	4.09	+0.08	74	+1	3.82	-0.19
SEP	69	+3	0.63	-2.89	67	+1	3.52	0	67	+1	10.05	+6.53
OCT	57	+3	1.33	-1.58	55	+1	4.16	+1.25	55	+1	4.21	+1.30
NOV	47	+5	3.88	0	50	+8	5.15	+1.27				
DEC	29	-4	3.15	-0.99	42	+9	4.25	+0.11				
Total			38.02	-9.32			59.19	+11.85			42.29	+2.97

[1] DEP is departure from the long-term average.
[2] 2012 data is for the ten months through October.

Seed quality. Buy premium-quality seed 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 percentage of other crop and weed seed. Order seed well in advance of planting time to assure it will be available when needed.

Description of the Tests

Data from four studies are reported. Orchardgrass varieties were sown at Lexington (2009 and 2011), Princeton (2010), and Quicksand (2010). The soils at Lexington (Maury), Princeton (Crider), and Quicksand (Nolin) are well-drained silt loams and are well suited to orchardgrass production. Seedings were made at the rate of 20 pounds per acre 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 harvest plot area of 5 feet by 15 feet. Nitrogen was top-dressed at 60 pounds per acre of actual nitrogen in March, after the first cutting, and again in late summer, for a total of 180 pounds per acre per season. 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.

Results and Discussion

Weather data for Lexington, Princeton and Quicksand are presented in tables 1, 2, and 3.

Ratings for maturity (see Table 4 for maturity scale), stand persistence, and dry matter yields (tons per acre) are reported in tables 5 through 8. Yields are given by cutting date for 2012 and as total annual production. Stated yields are adjusted for percent weeds; therefore, tonnage given is for crop only. Varieties are listed by descending total yield. Experimental varieties, listed separately at the bottom of the tables, are not available commercially.

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

Table 4. Descriptive scheme for the stages of 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 index (see text).
13	3 leaves unfolded	
•	• • •••	
19	9 or more leaves unfolded	
	Sheath elongation	
20	No elongated sheath	Denotes first phase of new spring growth after overwintering.This character is used instead of tillering which is difficult to record in established stands.
21	1 elongated sheath	
22	2 elongated sheaths	
23	3 elongated sheaths	
•	• • •••	
29	9 or more elongated sheaths	
	Tillering (alternative to sheath elongation)	
21	Main shoot only	Applicable to primary growth of seedlingsor to single tiller transplants.
22	Main shoot and 1 tiller	
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 sterile tillers distinguishable.
32	Second node palpable	
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	¼ of inflorescence emerged	
54	½ of inflorescence emerged	
56	¾ 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 quantitywhen inflorescence hit on palm.
93	Endosperm hard and dry	Final stage of seed development; most seeds shed.

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

Table 9 summarizes information about distributors and yield performance across locations for all varieties currently included in tests discussed in this publication. Varieties are listed in alphabetical order, with the experimental varieties at the bottom. Remember that experimental varieties are not available for farm use; commercial varieties can be purchased through distributors. In Table 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 that the variety was in the test but yielded significantly less than the top-yielding variety. A single asterisk (*) means that the variety was not significantly different from the top-yielding variety in that study, based on the 0.05 LSD. It is best to choose a variety that has performed well over several years and locations. Remember to consider the distribution of yield across the growing season when evaluating productivity of orchardgrass varieties (tables 5 through 8).

Table 10 is a summary of yield data from 1998 to 2012 of commercial varieties that have been entered in the Kentucky trials. The data is listed as a percentage of the mean of the commercial varieties entered in each specific trial. In other words, the mean for each trial is 100 percent—varieties with percentages over 100 yielded better than average, and varieties with percentages less than 100 yielded lower than average. Direct, statistical comparisons of varieties cannot be made using the summary Table 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 locations have stable performance; others may have performed well in wet years or on particular soil types. These details may influence variety choice, and the information can be found in the yearly reports. See the footnote in Table 10 to determine to which yearly report to refer.

Summary

Selecting a good orchardgrass 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 orchardgrass 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)
- Renovating Hay and Pasture Fields (AGR-26)
- Orchardgrass (AGR-58)
- Establishing Forage Crops (AGR-64)
- Forage Identification and Use Guide (AGR-175)
- Rotational Grazing (ID-143)

About the Authors

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Table 5. Dry matter yields, seedling vigor, maturity and stand persistence of orchardgrass varieties sown September 4, 2009, at Lexington, Kentucky.

Variety	Seedling Vigor[1] Oct 13, 2009	Maturity[2]			Percent Stand							Yield (tons/acre)						
		2010	2011	2012	2009	2010		2011		2012		2010	2011	2012				3-year
		May 6	May 5	May 7	Oct 13	Apr 13	Oct 18	Mar 20	Oct 27	Mar 21	Oct 24	Total	Total	May 8	Jun 21	Oct 23	Total	Total
Commercial Varieties—Available for Farm Use																		
Prairie	4.0	56.0	55.5	55.0	100	100	98	97	99	99	97	3.19	4.25	0.93	0.56	0.68	2.17	9.61*
Persist	3.5	57.5	53.8	55.0	99	100	99	98	98	98	97	3.00	4.26	1.03	0.45	0.69	2.17	9.43*
Benchmark Plus	3.8	57.0	54.5	56.5	100	100	98	75	99	99	98	3.04	3.94	1.05	0.52	0.68	2.24	9.22*
Potomac	3.9	57.5	52.3	54.5	99	100	77	98	97	97	97	3.12	3.83	0.92	0.49	0.68	2.09	9.04*
Prodigy	1.6	57.0	55.0	55.5	88	95	95	96	96	97	98	2.75	4.11	0.94	0.47	0.65	2.06	8.92*
Crown	2.6	56.0	54.5	54.5	98	99	97	97	99	100	98	2.78	3.79	0.81	0.49	0.70	2.00	8.57
Profit	3.0	53.0	51.8	52.5	95	98	97	98	98	98	98	2.61	3.71	0.93	0.53	0.66	2.13	8.45
Tekapo	2.1	51.0	51.3	53.5	89	90	97	97	98	98	97	2.09	3.12	0.96	0.39	0.66	2.01	7.22
Experimental Varieties																		
IS-OG 51	3.8	56.5	49.5	55.0	98	100	99	97	97	99	98	2.69	4.00	0.91	0.52	0.70	2.13	8.82*
B-9-NIC4	2.8	57.0	51.3	56.5	95	98	96	96	97	98	98	2.57	3.93	0.88	0.55	0.68	2.11	8.61
Mean	3.1	55.9	52.9	50.9	96	98	95	95	98	98	98	2.78	3.89	0.94	0.50	0.68	2.11	8.79
CV,%	30.7	2.2	8.2	3.1	6	3	15	15	2	2	2	8.98	10.26	13.97	19.56	11.30	10.21	6.99
LSD,0.05	1.4	1.8	6.3	2.5	9	5	20	21	3	3	3	0.36	0.58	0.19	0.14	0.11	0.31	0.89

[1] Vigor score based on 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 4 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 orchardgrass varieties sown September 16, 2010, at Princeton, Kentucky.

Variety	Seedling Vigor[1] Nov 19, 2010	Maturity[2] 2012 Apr 18	Percent Stand 2010 Nov 19	2011 Apr 8	2011 Oct 24	2012 Mar 21	2012 Oct 29	Yield (tons/acre) 2011 Total	2012 Apr 18	2012 Jun 19	2012 Oct 29	2012 Total	2-year Total
Commercial Varieties—Available for Farm Use													
Persist	2.0	29.5	94	94	99	99	97	2.81	1.16	0.40	0.50	2.06	4.87*
Profit	3.6	29.5	99	100	100	100	94	2.91	1.10	0.43	0.40	1.94	4.84*
Extend	4.8	29.0	100	100	100	100	98	2.87	0.98	0.42	0.51	1.91	4.78*
Potomac	3.6	30.0	99	100	100	100	99	2.90	0.99	0.37	0.47	1.84	4.74*
RAD-LCF25	3.6	29.0	99	98	99	99	96	2.83	0.98	0.41	0.46	1.85	4.69*
Benchmark Plus	3.9	29.5	99	99	99	99	97	2.78	1.02	0.34	0.48	1.84	4.63*
Tucker	3.9	29.0	99	100	100	99	95	2.91	0.95	0.37	0.38	1.70	4.61*
Prairie	3.6	29.5	99	99	100	100	96	2.60	1.01	0.34	0.46	1.82	4.41*
Tekapo	4.0	30.3	99	98	100	99	98	2.62	0.84	0.39	0.48	1.71	4.33
Experimental Varieties													
OG 0404	4.6	30.0	99	100	100	100	99	2.93	1.07	0.39	0.50	1.96	4.88*
Dg83R01	3.3	29.0	98	95	98	99	92	2.66	1.05	0.39	0.50	1.94	4.60*
IS-OG53	1.0	29.5	5	8	79	87	83	2.59	1.10	0.42	0.46	1.98	4.57*
B-9.1476	2.6	29.5	97	91	95	96	81	2.48	1.02	0.49	0.33	1.84	4.32
Dg12R01	4.8	29.5	100	100	100	100	97	2.57	0.90	0.40	0.36	1.66	4.23
Mean	3.6	29.5	92	91	98	98	94	2.75	1.01	0.40	0.45	1.86	4.61
CV,%	23.5	2.9	3	3	3	2	3	9.82	10.44	15.69	15.55	9.89	7.74
LSD,0.05	1.3	1.2	4	3	4	3	5	0.39	0.21	0.09	0.10	0.26	0.51

[1] Vigor score based on 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 4 for complete scale.
*Not significantly different from the highest numerical value in the column, based on the 0.05 LSD.

Table 7. Dry matter yields, seedling vigor, maturity and stand persistence of orchardgrass varieties sown September 24, 2010, at Quicksand, Kentucky.

Variety	Seedling Vigor[1] Nov 11, 2010	Maturity[2] 2011 May11	Percent Stand 2010 Nov 11	2011 Mar 29	2011 Nov 8	2012 Mar 20	2012 Nov 1	Yield (tons/acre) 2011 Total	2012 Apr 19	2012 May 24	2012 Oct 23	2012 Total	2-year Total
Commercial Varieties—Available for Farm Use													
Profit	3.5	50.3	100	100	100	100	98	4.91	0.73	1.02	0.50	2.25	7.16*
Prairie	3.3	57.5	98	100	99	99	94	4.87	0.67	0.94	0.62	2.23	7.10*
Extend	3.8	51.5	100	100	100	99	85	4.46	0.60	1.15	0.35	2.10	6.56*
RAD-LCF25	2.6	40.3	99	98	96	95	83	4.17	0.74	1.12	0.41	2.26	6.43
Persist	1.3	59.5	91	93	96	96	95	3.67	0.75	0.87	0.50	2.12	5.79
Potomac	4.3	49.8	100	100	100	100	85	3.73	0.62	0.79	0.53	1.95	5.68
Benchmark Plus	2.5	59.5	99	100	100	100	98	3.67	0.55	0.85	0.42	1.83	5.50
Tucker	2.4	39.0	99	99	98	98	89	3.56	0.46	0.87	0.32	1.65	5.21
Tekapo	2.6	51.0	98	98	96	97	94	3.24	0.41	0.82	0.43	1.66	4.89
Experimental Varieties													
OG 0404	4.5	57.5	100	100	100	100	96	4.88	0.85	1.00	0.61	2.46	7.34*
IS-OG51	3.0	52.8	100	100	100	100	89	3.88	0.77	1.11	0.47	2.35	6.23
Dg83R01	2.3	37.0	100	98	86	92	76	4.20	0.46	1.08	0.27	1.81	6.00
Dg12R01	4.4	39.0	99	100	100	99	96	3.53	0.65	1.01	0.47	2.13	5.67
B-9-NIC4	2.5	55.5	100	100	100	98	94	3.70	0.58	0.75	0.41	1.74	5.44
B-9.1476	2.0	37.0	96	97	86	90	64	3.71	0.48	0.95	0.28	1.72	5.42
IS-OG53	0.5	37.0	43	28	58	75	61	3.24	0.38	1.31	0.35	2.04	5.27
Mean	2.8	48.4	95	94	95	96	87	3.96	0.61	0.98	0.43	2.02	5.98
CV,%	22.4	8.3	4	3	10	5	15	13.11	41.83	10.51	31.97	14.30	10.59
LSD,0.05	0.9	5.7	5	4	13	7	18	0.74	0.36	0.15	0.20	0.41	0.90

[1] Vigor score based on 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 4 for complete scale.
*Not significantly different from the highest numerical value in the column, based on the 0.05 LSD.

Table 8. Dry matter yields, seedling vigor and stand persistence of orchardgrass varieties sown September 14, 2011, at Lexington, Kentucky.

Variety	Seedling Vigor[1] Oct 11, 2011	Percent Stand 2011 Oct 11	Percent Stand 2012 Mar 21	Percent Stand 2012 Oct 24	Yield *(tons/acre)* 2012 May 7	Yield 2012 Jun 18	Yield 2012 Oct 22	Yield 2012 Total
Commercial Varieties—Available for Farm Use								
Extend	5.0	100	100	100	1.17	0.83	0.94	2.94*
Profit	4.9	100	100	100	1.20	0.76	0.94	2.91*
Persist	4.8	100	100	100	1.11	0.77	0.95	2.83*
Haymaster	5.0	100	100	100	0.97	0.78	0.95	2.70
Tucker	4.8	100	100	100	1.03	0.80	0.85	2.68
Prairie	5.0	100	100	100	0.97	0.77	0.92	2.67
Potomac	5.0	100	100	100	1.14	0.71	0.80	2.65
Benchmark Plus	4.6	100	100	100	1.05	0.72	0.88	2.65
Tekapo	4.5	100	100	100	0.96	0.53	0.74	2.23
Experimental Varieties								
PPG-OG 102	5.0	100	100	100	1.29	0.82	1.00	3.11*
PPG-OG 103	4.8	100	100	100	1.14	0.89	0.98	3.00*
XLF OG	4.4	100	100	100	1.05	0.82	0.90	2.77*
PPG-OG 101	5.0	100	100	100	1.13	0.71	0.90	2.74*
Mean	4.8	100	100	100	1.09	0.76	0.90	2.76
CV,%	7.0	0	0	0	10.02	9.48	11.02	9.92
LSD,0.05	0.5	0	0	0	0.30	0.10	0.14	0.39

[1] Vigor score based on scale of 1 to 5 with 5 being the most vigorous seedling growth
*Not significantly different from the highest numerical value in the column, based on the 0.05 LSD.

Table 9. Performance of orchardgrass varieties across years and locations.

Variety	Proprietor/KY Distibutor	Princeton 2010[1] 11[2]	Princeton 2010 12	Lexington 2009 10	Lexington 2009 11	Lexington 2009 12	Lexington 2011 12	Quicksand 2010 11	Quicksand 2010 12
Commercial Varieties—Available for Farm Use									
Benchmark Plus	FFR/Southern States	*	*	*	*	*	x[3]	x	x
Crown	Donley Seed			x	*	*			
Extend	Farm Service Genetics/Allied	*	*				*	*	*
Haymaster	Ampac Seed Company						x		
Persist	Smith Seed Services	*	*	*	*	*	*	x	*
Potomac	Public	*	*	*	*	*	x	x	x
Prairie	Turner Seed Company	*	*	*	*	*	x	*	*
Prodigy	Caudill Seed			x	*	*			
Profit	Ampac Seed Company	*	*	x	*	*	*	*	*
RAD-LXCF25	Radix Research	*	*					*	*
Tekapo	Ampac Seed Company	*	x	x	x	*	x	x	x
Tucker	Oregro Seeds, Inc.	*	x				x	x	x
Experimental Varieties									
B-9.1476	Blue Moon Farms	x	*					x	x
B-9-NIC4	Blue Moon Farms			x	*	*		x	x
Dg12R01	Barenbrug	*	*					x	*
DG83R01	Barenbrug	*	*					*	x
IS-OG51	DLF International Seeds			x	*	*		x	*
IS-OG53	DLF International Seeds	*	*					x	x
OG 0404	FFR/Southern States	*	*					*	*
PPG OG 101	Mountain View Seeds						*		
PPG-OG 102	Mountain View Seeds						*		
PPG-OG 103	Mountain View Seeds						*		
XLF OG	ProSeeds Marketing						*		

[1] Establishment year.
[2] Harvest year.
[3] x in the box indicates the variety was in the test but yielded significantly less than the top ranked variety in the test.Open box indicates the variety was not in the test.
*Not significantly different from the highest yielding variety in the test.

Table 10. Summary of Kentucky orchardgrass yield trials, 1999-2012 (yield shown as a percentage of the mean of the commercial varieties in the trial).

		Lexington						Princeton							Quicksand					
		1999[1,2]	2001	2003	2006	2007	2009	1998	2000	2002	2004	2006	2008	2010	1999	2001	2003	2005	2010	Mean[3]
Variety	Proprietor	2-yr[4]	2-yr	3-yr	4-yr	3-yr	3-yr	2-yr	2-yr	3-yr	3-yr	3-yr	3-yr	2-yr	2-yr	2-yr	3-yr	4-yr	2-yr	*(#trials)*
Abertop	Pennington									71										–
Albert	Univ. of Wis.		103													106				105(2)
Amba	DLF InternationalSeeds		96													80				88(2)
Ambassador	DLF InternationalSeeds										95									–
Ambrosia	American Grass Seed Prod.											90								–
Athos	DLF InternationalSeeds		98													105				102(2)
Benchmark	FFR/Sou. St.	103						101	97	113					106					104(5)
Benchmark Plus	FFR/Sou. St.				100	108	105			107		107	104	99			107	102	91	103(10)
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)
Checkmate	Seed Research of Oregon					102														–
Christoss	Proseeds Marketing					92														–
Command	Seed Research of Oregon										87									–
Crown	Donley Seed	101					97	105		101			105		97					101(6)
Crown Royale	Donley Seed															110				–
Crown Royale Plus	Donley Seed									108							97			103(2)
Eastwood	Ampac Seed		86													86				86(2)
Elsie	Rose-AgriSeed												98							–
Endurance	DLF InternationalSeeds											104								–
Extend	Allied Seed										100			103					109	–
Hallmark	James VanLeeuwen		102	102						103	98					101	96			100(6)
Harvestar	Columbia Seeds				91	97						106						100		99(4)
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																–
Lazuly	Proseeds Marketing												97							–
LG-31	DLF InternationalSeeds										92									–
Mammoth	DLF InternationalSeeds		102													104				103(2)
Megabite	Turf-Seed	94	105										106		101					102(4)
Niva	DLF InternationalSeeds									81										–
Paiute	DLF InternationalSeeds					108														–
Persist	Smith Seed			123	105	106	107				101			105			108	101	96	106(9)
Potomac	Public	104					103			98			108	102	99				94	100(7)
Prairie	Turner Seed		101		107	101	109		95	104		100	104	95		102	105	107	118	104(13)
Prodigy	Caudill Seed						101						103							102(2)
Profit	Ampac Seed					107	96						103	104					119	106(5)
RAD-LCF 25	Radix Research													101					107	104(2)
Renegade	Grassland West								95											–
Shawnee	Rose-AgriSeed												86							–
Shiloh	Proseeds Marketing							109												–
Shiloh II	Proseeds Marketing										117									–
Spanish Pink	DLF InternationalSeeds							82												–
Spanish Red	DLF InternationalSeeds	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	81	82					98	86	93	94	92	105	91	81	90(12)
Tucker	Oregro Seeds											96	102	99					86	96(4)
Udder	Improved Forages			100	107				102	102							106	99		103(6)
Vailliant	Proseeds Marketing					96														–
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 two years, so the final report would be "2001 Orchardgrass Report" archived in the KY Forage Web site 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.

12-2012