



2022 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. Consult the UK Forage Extension website (<https://forages.ca.uky.edu>) to access all forage variety testing reports from Kentucky and surrounding states and 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. Data from a recent publication provides a good overview of orchardgrass maturity over time and over years (see Table 1).

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.

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 (2019, 2020, and 2021) and Princeton

(2021). The soils at Lexington (Maury) and Princeton (Crider) 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 (P, K, and lime based on regular soil tests), weed control, and harvest timing were in accordance with University of Kentucky recommendations.

Results and Discussion

Weather data for Lexington and Princeton are presented in tables 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 2022 and as total annual

Table 1. Regional orchardgrass maturity comparison (2011-2014).

Variety	Maturity Rating ¹				
	KY	PA	UT	VA	WI
BAR DGL 1GRL	3.3	3.0	3.3	3.6	2.3
Barlegro	1.0	1.5	1.7	1.0	2.2
Benchmark Plus	3.1	2.7	2.7	3.2	2.4
Crown Royale	2.9	2.6	3.1	1.5	2.2
Dascada	1.6	2.3	2.3	1.1	2.6
Excellate SA	1.7	2.1	1.8	1.1	2.0
Harvestar	2.1	2.1	2.2	1.2	2.1
Pennlate	3.0	2.6	2.6	1.2	2.2
Persist	3.3	2.9	3.2	2.2	2.7
Potomac	2.4	3.2	2.7	1.2	2.6
Prairie	3.0	2.6	3.1	1.7	2.6
Profit	2.9	2.5	3.0	1.3	2.3
Quickdraw	3.1	3.1	2.7	2.6	2.4
LSD ²	0.4	0.4	0.5	0.9	0.3

¹Rating of 1 to 4: 1 = very late; 4 = very early.

²Varieties significantly differ based on LSD.

For complete article: Hay and Forage Grower, March 2018.

Table 2. Temperature and rainfall at Lexington, Kentucky, in 2020, 2021, and 2022.

	2020				2021				2022 ²			
	Temp		Rainfall		Temp		Rainfall		Temp		Rainfall	
	°F	DEP ¹	IN	DEP	°F	DEP	IN	DEP	°F	DEP	IN	DEP
JAN	40	+9	3.72	+0.86	34	+3	4.51	+1.65	29	-2	4.93	+2.07
FEB	38	+3	5.14	+1.93	31	-4	4.60	+1.39	38	+3	7.69	+4.48
MAR	51	+7	3.79	-0.61	50	+6	5.12	+0.72	49	+5	4.27	-0.13
APR	52	-3	4.92	+1.04	54	-1	2.72	-1.16	55	0	3.71	-0.17
MAY	62	-2	5.69	+1.22	62	-2	4.34	-0.13	69	+5	3.84	-0.63
JUN	72	0	2.56	-1.10	73	+1	6.26	+2.60	76	+4	2.10	-1.56
JUL	79	+3	3.23	-1.77	75	-1	5.90	+0.90	80	+4	6.46	+1.46
AUG	75	0	3.41	-0.52	76	+1	6.16	+2.23	77	+2	4.27	+0.34
SEP	68	0	4.43	+0.83	69	+1	3.03	-0.17	70	+2	1.50	-1.70
OCT	57	0	4.98	+2.41	62	+5	4.64	+2.10	57	0	0.96	-1.61
NOV	49	+4	2.18	-1.21	43	-2	2.13	-1.26				
DEC	36	0	2.27	-1.71	47	+11	4.41	+0.43				
Total			45.92	+1.37			53.85	+9.30			39.73	+2.55

¹DEP is departure from the long-term average.

²2022 data is for ten months through October.

Table 3. Temperature and rainfall at Princeton, Kentucky, in 2022.

	2022 ²			
	Temperature		Rainfall	
	°F	DEP ¹	IN	DEP
JAN	32	-2	5.04	+1.24
FEB	39	+1	7.44	+3.01
MAR	51	+4	4.85	-0.09
APR	56	-2	6.41	+1.61
MAY	67	+1	2.54	-2.42
JUN	75	0	2.46	-1.39
JUL	80	+2	4.75	+0.46
AUG	76	-1	5.85	+1.84
SEP	69	-2	0.32	-3.01
OCT	57	-2	1.19	-1.86
NOV				
DEC				
Total			40.85	-0.61

¹DEP is departure from the long-term average.

²2022 data is for the ten months through October.

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 the total yield 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 9 shows information about proprietors/distributors for all varieties included in the tests discussed in this report. Varieties are listed in alphabetical order, with the experimental varieties at the bottom. Experimental varieties are not available for farm use; commercial varieties can be purchased from dealerships. It is best to choose a variety that has performed well over several years and locations. It is important to consider the distribution of yield across the growing season when evaluating productivity of orchardgrass varieties (tables 5 through 8).

How to Interpret the Summary Table

Table 10 is a summary of yield data from 2005 to 2022 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 value for each trial is set at 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 can 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 more information can be found in the yearly reports. See the footnote in Table 10 to determine the yearly report that should be referenced.

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 website (<https://forages.ca.uky.edu>):

- 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)
- Rating Scale for Brown Stripe of Orchardgrass (PPFS-AG-F-07)

About the Authors

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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. Further subdivision by means of leaf development index (see text).
12	2 leaves unfolded	
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 seedlings or 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	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.

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

Table 5. Dry matter yields, seedling vigor, maturity, and stand persistence of orchardgrass varieties sown August 30, 2019, at Lexington, Kentucky.

Variety	Seedling Vigor ¹ Oct 23, 2019	Maturity ²						Percent Stand						Yield (tons/acre)						3-year Total							
		2020		2021		2022		2020		2021		2022		2020		2021		2022									
		May 7	May 11	May 16	Oct 23	Mar 17	Oct 27	Mar 24	Oct 22	Mar 22	Oct 18	2021 Total	2022 Total	May 17	Jun 29	Aug 17	Oct 20	Total									
Commercial Varieties-Available for Farm Use																											
Quickdraw	4.4	53.5	57.5	58.0	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	1.33	0.46	0.48	0.48	0.48	0.48	2.76	11.71*
Persist II	3.6	49.5	57.0	57.5	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	1.39	0.45	0.50	0.46	0.46	0.46	2.80	11.46*
Persist	3.5	52.0	57.0	58.0	100	99	100	100	100	100	100	100	100	100	100	100	100	100	100	1.34	0.49	0.45	0.49	0.49	0.49	2.77	10.83*
Blizzard	4.8	49.8	55.5	57.5	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	1.39	0.51	0.40	0.45	0.45	0.45	2.75	10.81*
Echelon	3.3	40.5	46.8	52.5	100	97	97	100	100	100	98	98	97	97	97	97	97	97	97	1.27	0.51	0.46	0.49	0.49	0.49	2.73	10.52*
SS07080GDT	4.8	53.0	56.0	57.0	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	1.25	0.54	0.43	0.34	0.34	0.34	2.56	10.42*
Albert	4.0	46.3	52.5	56.0	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	1.28	0.47	0.43	0.50	0.50	0.50	2.68	10.39*
Prairie	3.6	53.0	56.0	56.5	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	1.19	0.43	0.44	0.52	0.52	0.52	2.58	10.17*
Profit	4.3	42.0	52.8	56.0	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	1.28	0.51	0.42	0.40	0.40	0.40	2.61	10.09*
Tekapo	3.9	47.8	55.5	55.5	100	100	100	100	100	100	95	95	95	95	95	95	95	95	95	1.13	0.44	0.34	0.35	0.35	0.35	2.26	9.88*
Prodigy	4.5	53.0	55.5	56.0	100	99	99	100	100	99	99	99	99	99	99	99	99	99	99	1.10	0.48	0.41	0.40	0.40	0.40	2.39	9.61
BAROGLHLR	2.6	39.0	32.0	52.5	100	98	99	99	99	99	99	96	96	96	96	96	96	96	96	1.06	0.53	0.34	0.32	0.32	0.32	2.25	8.55
Experimental Varieties																											
O2019	3.4	46.0	52.8	54.5	100	99	100	100	100	100	100	100	100	100	100	100	100	100	100	1.28	0.51	0.46	0.44	0.44	0.44	2.69	10.63*
Mean	3.9	48.1	52.8	56.0	100	99	99	99	99	99	99	99	99	99	99	99	99	99	99	1.25	0.49	0.43	0.43	0.43	0.43	2.60	10.39
CV%	15.2	7.1	4.9	2.6	0	2	1	1	1	1	2	2	2	2	2	2	2	2	2	13.41	17.11	17.51	21.66	21.66	9.52	13.65	
LSD _{0.05}	0.8	4.9	3.7	2.1	0	2	2	2	2	2	3	3	3	3	3	3	3	3	3	0.24	0.12	0.11	0.14	0.14	0.14	0.36	2.03

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

²Maturity 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 August 28, 2020, at Lexington, Kentucky.

Variety	Seedling Vigor ¹ Sep 24, 2020	Maturity ²		Percent Stand					Yield (tons/acre)					2-year Total	
		2021	2022	2020	2021		2022		2021	2022					
		May 7	May 16	Sep 24	Mar 24	Oct 22	Mar 22	Oct 19	Total	May 16	Jun 27	Aug 18	Oct 19		Total
Commercial Varieties-Available for Farm Use															
Bighorn	4.0	46.3	55.5	100	100	100	96	97	6.59	1.21	0.49	0.51	0.47	2.68	9.26*
Harvestar	2.9	48.0	54.5	100	100	100	99	99	5.89	1.19	0.49	0.51	0.36	2.54	8.43*
Persist II	3.5	52.5	57.5	100	100	100	100	100	5.59	1.45	0.36	0.43	0.39	2.64	8.22*
Prodigy	3.8	53.0	57.0	100	100	100	100	100	5.38	1.31	0.44	0.46	0.47	2.69	8.07*
Prairie	3.4	53.5	57.0	100	100	100	100	100	5.50	1.23	0.36	0.42	0.44	2.46	7.95*
Tucker	3.5	51.0	57.5	100	100	100	100	99	5.19	1.23	0.42	0.39	0.42	2.46	7.65
SS0708OGDT	3.4	52.0	57.0	100	100	100	99	98	4.97	1.18	0.48	0.50	0.35	2.51	7.48
Olathe	3.9	46.3	55.5	100	100	100	98	100	5.14	0.98	0.43	0.47	0.42	2.29	7.43
Alpine II	3.1	45.0	48.0	100	100	100	96	96	5.16	0.81	0.44	0.45	0.38	2.07	7.23
Persist	3.3	53.5	58.0	100	100	100	100	100	4.73	1.27	0.32	0.36	0.44	2.39	7.12
Profit	3.4	46.8	55.0	100	100	100	95	98	4.99	0.98	0.37	0.39	0.37	2.11	7.10
Intensiv	3.1	45.0	46.3	100	100	100	90	90	4.83	0.78	0.39	0.44	0.33	1.94	6.78
HLR	3.0	45.0	47.3	100	100	100	86	91	4.59	0.89	0.39	0.40	0.31	1.99	6.59
Devour	3.4	45.0	51.3	100	100	100	97	97	4.31	0.83	0.39	0.36	0.38	1.95	6.27
Captur	3.1	45.0	45.0	100	100	100	90	90	4.70	0.59	0.31	0.35	0.22	1.47	6.17
Swante	2.9	46.3	52.5	100	100	100	100	93	4.03	0.88	0.38	0.38	0.25	1.89	5.93
Experimental Varieties															
OG97	3.8	50.8	55.5	100	100	100	100	100	6.00	1.24	0.43	0.45	0.48	2.60	8.60*
OG96	3.3	46.3	51.0	98	100	100	88	96	4.83	0.88	0.44	0.45	0.42	2.20	7.03
BARDGLF95	2.4	45.0	45.0	100	100	100	96	95	4.86	0.93	0.39	0.36	0.29	1.97	6.83
BARDGLF94	3.5	48.0	48.3	100	100	100	98	97	4.63	0.96	0.42	0.36	0.38	2.13	6.76
Mean	3.3	48.2	53.7	100	100	100	96	97	5.10	1.04	0.41	0.42	0.38	2.25	7.35
CV,%	19.6	4.4	5.0	1	0	0	6	3	17.09	14.91	17.00	18.77	26.42	12.91	15.07
LSD,0.05	0.9	3.0	3.8	1	0	0	8	5	1.23	0.22	0.10	0.11	0.14	0.41	1.57

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

²Maturity 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 10, 2021, at Lexington, Kentucky.

Variety	Seedling Vigor ¹ Oct 4, 2021	Maturity ² 2022 May 16	Percent Stand			Yield (tons/acre)				
			2021	2022		2022				
			Oct 4	Mar 22	Oct 19	May 16	Jun 23	Aug 18	Oct 19	Total
Commercial Varieties-Available for Farm Use										
Profit	4.5	55.0	100	100	100	2.13	0.69	0.84	0.48	4.14*
Prodigy	4.5	57.5	100	100	100	1.95	0.69	0.84	0.40	3.88*
Prairie	4.5	58.0	100	100	100	1.92	0.60	0.83	0.43	3.77*
Persist II	4.0	58.0	100	99	99	1.80	0.60	0.88	0.47	3.75*
Persist	4.5	58.0	99	99	98	1.90	0.58	0.79	0.44	3.71*
Potomac	4.6	58.0	100	100	100	1.90	0.59	0.72	0.49	3.70*
Captur	4.4	52.0	100	99	99	1.78	0.61	0.85	0.41	3.65
SS0708OGDT	4.4	58.0	100	100	100	1.80	0.64	0.74	0.40	3.58
Intensiv	4.8	47.5	100	100	100	1.66	0.72	0.90	0.29	3.57
Bighorn	4.1	55.5	98	98	98	1.67	0.63	0.77	0.38	3.45
Barlegro	2.5	48.5	78	73	81	1.14	0.64	0.88	0.28	2.93
Experimental Varieties										
OG0703	4.0	57.5	97	98	98	2.19	0.73	0.89	0.50	4.31*
BARDG1F85	4.5	57.5	100	99	99	2.16	0.56	0.89	0.36	3.97*
OG96	3.9	49.8	99	98	98	1.64	0.76	0.89	0.47	3.77*
BARDG1F99	4.5	55.0	100	99	99	1.74	0.56	0.74	0.35	3.38
BARDG1F84	4.0	54.5	99	99	99	1.70	0.53	0.69	0.29	3.22
BARDG1F98	3.5	57.5	98	97	97	1.44	0.52	0.75	0.26	2.98
Mean	4.2	55.0	98	98	98	1.81	0.63	0.82	0.40	3.65
CV,%	10.8	3.6	5	4	2	18.38	14.80	12.92	31.89	12.34
LSD,0.05	0.6	2.8	7	5	3	0.47	0.13	0.15	0.18	0.64

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

²Maturity 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, maturity, and stand persistence of orchardgrass varieties sown September 3, 2021, at Princeton, Kentucky.

Variety	Seedling Vigor ¹ Oct 26, 2021	Maturity ² 2022 May 10	Percent Stand			Yield (tons/acre)			
			2021	2022		2022			
			Oct 26	Apr 14	Nov 4	May 13	Jun 6	Sep 1	Total
Commercial Varieties-Available for Farm Use									
Bighorn	5.0	31.0	100	100	100	1.99	1.93	1.06	4.98*
Persist	4.8	54.5	100	100	100	2.09	1.70	1.10	4.89*
SS0708OGDT	4.6	55.0	100	100	100	1.68	1.85	1.23	4.76*
Persist II	4.5	54.0	100	100	100	1.82	1.71	1.23	4.76*
Prodigy	4.9	54.0	100	100	100	1.69	1.65	1.26	4.60*
Potomac	4.8	47.8	100	100	100	1.85	1.53	0.90	4.28*
Prairie	4.5	53.5	100	100	100	1.70	1.55	0.92	4.17*
Alpine II	4.3	39.3	100	100	100	2.04	1.45	0.67	4.15*
Intensiv	4.5	31.0	100	100	99	1.79	1.55	0.80	4.14*
Barlegro	2.8	31.0	98	98	98	1.61	1.48	0.92	4.00
Captur	4.4	31.0	100	100	99	1.57	1.57	0.80	3.93
Profit	4.8	39.8	100	100	100	1.40	1.52	0.81	3.73
Experimental Varieties									
OG96	4.6	31.0	100	100	100	2.00	1.73	0.87	4.60*
OG0703	4.6	42.5	100	100	99	1.82	1.77	0.95	4.54*
BARDg1F85	4.4	48.3	100	100	100	1.89	1.56	1.08	4.52*
BARDg1F98	3.9	53.0	100	100	100	1.64	1.53	1.06	4.24*
BARDg1F99	3.8	45.3	100	100	100	1.59	1.55	1.04	4.18*
BARDg1F84	3.6	50.5	100	100	99	1.61	1.18	0.77	3.56
Mean	4.4	44.0	100	100	99	1.76	1.60	0.97	4.33
CV,%	9.2	14.8	1	1	1	27.33	14.19	16.56	14.81
LSD,0.05	0.6	8.8	1	1	1	0.68	0.32	0.23	0.91

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 4 for complete scale.

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

Table 9. Proprietors of orchardgrass varieties in current trials in Kentucky.

Variety	Proprietor/KY distributor
Commercial Varieties-Available for Farm Use	
Albert	Oregro Seeds
Alpine II	Mountain View Seeds
Barlegro	Barenbrug USA
Bighorn	Mountain View Seeds
Blizzard	Allied Seed, LLC
Captur	DLF Pickseed
Devour	Mountain View Seeds
Echelon	DLF Pickseed
Harvestar	Columbia Seeds
HLR	Barenbrug USA
Intensiv	Barenbrug USA
Olathe	DLF Pickseed
Persist	Smith Seed Services
Persist II	Smith Seed Services
Potomac	Public
Prairie	Turner Seed Company
Prodigy	Caudill Seed
Profit	Ampac Seed
Quick Draw	Grassland Oregon
SS-0708OGDT	Southern States
Swante	Smith Seed Services
Tekapo	Ampac Seed
Tucker	Oregro Seeds
Experimental Varieties¹	
BAROG1F84	Barenbrug USA
BAROG1F85	Barenbrug USA
BARDGLF94	Barenbrug USA
BARDGLF95	Barenbrug USA
O2019	Ampac Seed
OG0703	Allied Seed, LLC
OG96	DLF Pickseed
OG97	DLF Pickseed

¹Experimental varieties are not available commercially, but provide an indication of the progress being made by forage breeding companies.

Table 10. Summary of Kentucky orchardgrass yield trials 2005-2022 (yield shown as a percentage of the mean of the commercial varieties in the trial).

Variety	Proprietor	Lexington												Princeton												Quicksand				Mean ³ (#trials)
		06 ^{1,2} 4-yr ⁴	07 3-yr	09 3-yr	11 3-yr	12 3-yr	13 3-yr	14 3-yr	15 3-yr	16 3-yr	17 3-yr	18 3-yr	19 3-yr	20 2-yr	06 3-yr	08 3-yr	10 3-yr	12 3-yr	15 2-yr	05 4-yr	10 3-yr	13 3-yr	16 3-yr	18 2-yr						
Albert	Oregro Seeds																									101(4)				
Aldebaran	DLF Pickseed																									102(2)				
Alpine II	Mountain View Seeds																									–				
Ambrosia	American Grass Seed Prod.																									–				
Bartegro	Barenbrug USA																									95(2)				
Benchmark Plus	Southern States	100	108	105	106	97	109	104																		103(14)				
Berta	Mountain View Seeds																									–				
Bighorn	Mountain View Seeds																									–				
Blizzard	Allied Seed																									–				
Bounty	Allied Seed	101																								100(2)				
Captur	DLF Pickseed																									–				
Century	Seed Research of Oregon	98																								101(2)				
Checkmate	Seed Research of Oregon	102																								108(3)				
Christross	Proseeds Marketing	92																								–				
Crown	Donley Seed			97																						101(2)				
Devour	Mountain View Seeds																									–				
Echelon	DLF Pickseed																									92(2)				
Elise	Rose-AgriSeed																									104(3)				
Endurance	DLF Pickseed																									94(3)				
Extend	Allied Seed																									96(3)				
Harvestar	Columbia Seeds	91	97																							107(3)				
Haymaster	Southern States	94																								101(7)				
HLR	Barenbrug USA																									98(3)				
Icon	Seed Research of Oregon	105																								86(2)				
Inavale	DLF Pickseed																									102(2)				
Intensiv	Barenbrug USA																									99(4)				
Lazuly	Proseeds Marketing																									96(2)				
Lyra	Hood River Seed																									–				
Megabite	Turf-Seed																									88(3)				
Olathe	DLF Pickseed																									–				
Palute	DLF Pickseed	108																								103(5)				
Persist	Smith Seed	105	106	107	112	106	100	103	111	98	111	103	105	97												–				
Persist II	Smith Seed																									112(2)				
Potomac	Public																									102(16)				
Prairie	Turner Seed	107	101	109	106	113	123	108	103	111	111	105	98	108	100	104	99	104	96	107	102	102	105	107	106(23)					
Prodigy	Caudill Seed																									98(9)				
Profit	Ampac Seed	107	96	98	98	103	96	97	89																	100(15)				
Quickdraw	Grassland Oregon																									–				
RAD-LCF 25	Radix Research																									101(2)				
Rushmore II	Mountain View seeds																									104(3)				
Shawnee	Rose-AgriSeed																									–				
SS07080GDT	Southern States																									102(10)				
Swante	Smith Seed																									83(3)				
Tekena II	Smith Seed	102																								103(2)				
Tekapo	Ampac Seed	91	81	82	78	82	76	80																		86(15)				
Treposno	Hood River Seed																									97(3)				
Tucker	Oregro Seeds																									100				
Udder	Improved Forages	107																								103(2)				
Vaillant	Proseeds Marketing																									–				

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 the fall of 2012 was harvested 3 years, so the final report would be “2015 Orchardgrass Report” archived in the UK Forage website (<https://forages.ca.uky.edu>).

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

⁴ Number of years of data.



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