PR-872

2025 Orchardgrass Report

Agricultural Experiment Station

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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.mgcafe.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 4).

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 five studies are reported. Orchardgrass varieties were sown at Lexington (2022, 2023, and 2024) and Princeton (2023) and Quicksand (2024). 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 (P, K, and lime based on regular soil tests), weed control, and harvest timing were in accordance with University of Kentucky recommendations.

Table 1. Temperature and rainfall at Lexington, Kentucky, in 2023, 2024, and 2025.

	2023				2024				2025[2]			
	Temperature		Rainfall		Temperature		Rainfall		Temperature		Rainfall	
	°F	DEP[1]	IN	DEP	°F	DEP	IN	DEP	°F	DEP	IN	DEP
JAN	44	+13	6.28	+3.42	32	+1	5.50	+2.60	27	-4	2.80	-0.06
FEB	47	+12	3.73	+0.52	44	+9	3.90	+0.70	37	+2	6.10	+2.89
MAR	48	+4	4.45	+0.05	49	+5	3.50	-0.90	49	+5	3.90	-0.50
APR	58	+3	2.36	-1.52	58	+3	3.90	0.00	57	+7	10.80	+6.92
MAY	65	+1	2.53	-1.94	67	+3	4.60	+0.10	62	-2	7.30	+2.83
JUN	72	0	6.75	+3.09	74	+2	2.40	-1.30	75	+3	8.20	+4.54
JUL	78	+2	5.32	+0.32	77	+1	2.50	-2.50	79	+3	3.90	-1.10
AUG	76	+1	2.40	-1.53	75	0	3.30	-0.60	73	+2	1.80	-2.13
SEP	71	+3	0.99	-2.21	70	+2	6.20	+3.00	70	+2	2.70	-0.50
OCT	61	+4	2.30	-0.27	58	+1	0.30	-2.30	58	+1	8.10	+6.13
NOV	49	+4	1.70	-1.69	50	+5	3.80	-0.41				
DEC	44	+8	2.41	-1.57	40	+4	3.9	-0.08				
Total			41.22	-3.33			43.80	-0.75			55.60	+18.40

[1] DEP is departure from the long-term average.
[2] 2025 data is for ten months through October.

Results and Discussion

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

Ratings for maturity (see Table 5 for maturity scale), stand persistence, and dry matter yields (tons per acre) are reported in tables 6 through 10. Yields are given by cutting date for 2025 and as total annual production for previous years. 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 11 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 6 through 10).

How to Interpret the Summary Table

Table 12 is a summary of yield data from 2007 to 2025 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 12, 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 12 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.mgcafe.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 Livestock Pastures and hayfields (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 2. Temperature and rainfall at Princeton, Kentucky, in 2024 and 2025.

	2024				2025[2]			
	Temperature		Rainfall		Temperature		Rainfall	
	°F	DEP[1]	IN	DEP	°F	DEP	IN	DEP
JAN	33	-1	6.42	+2.62	30	-2	5.6	+1.8
FEB	47	+9	1.68	-2.75	38	0	8.8	+4.37
MAR	52	+5	1.4	-3.54	53	+6	3.7	-1.24
APR	61	+2	3.44	-1.36	61	+2	14.3	+9.5
MAY	70	+3	8.92	+3.96	66	-1	6	+1.04
JUN	75	0	4.36	+0.51	77	+2	6.5	+2.65
JUL	77	-1	3.56	-0.73	81	+3	2.8	-1.49
AUG	76	-1	0.4	-3.61	65	-12	0.5	-3.51
SEP	72	+1	6.57	+3.24	73	+2	4.3	+1.25
OCT	62	+3	0.43	-2.62	61	+2	5.1	+2.05
NOV	55	8	8.7	+4.07				
DEC	44	5	5.8	+0.46				
Total			51.68	+0.55			57.6	+15.62

[1] DEP is departure from the long-term average.
[2] 2025 data is for the ten months through October.

Table 3. Temperature and rainfall at Quicksand, Kentucky, in 2025.

	2025[2]			
	Temperature		Rainfall	
	°F	DEP[1]	IN	DEP
JAN	28	-3	4.50	+0.95
FEB	44	+11	6.40	+2.80
MAR	52	+11	2.40	-1.94
APR	59	+6	8.80	+4.70
MAY	63	+1	9.30	+4.82
JUN	75	+5	4.30	-0.36
JUL	79	+5	10.70	+5.85
AUG	73	0	0.50	-3.51
SEP	69	+3	4.20	+0.68
OCT	57	+3	3.20	+0.29
NOV				
DEC				
Total			54.30	+14.98

[1] DEP is departure from the long-term average.
[2] 2025 data is for the ten months through October.

Table 4. 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

[1] Rating of 1 to 4: 1 = very late; 4 = very early.
[2] Varieties significantly differ based on LSD.
For complete article: Hay and Forage Grower, March 2018, "Orchardgrass Maturity: Why it Matters."

Table 5. 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 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 6. Dry matter yields, seedling vigor, maturity, and stand persistence of orchardgrass varieties sown September 9, 2022, at Lexington, Kentucky.

Variety	Seedling Vigor[1] Oct 25, 2022	Maturity[2]			Percent Stand							Yield (tons/acre)							
		2023	2024	2025	2022	2023		2024		2025		2023	2024	2025					3-year Total
		May 5	May 9	May 8	Oct 25	Mar 20	Oct 7	Mar 20	Oct 18	Mar 18	Nov 5	Total	Total	May 8	Jun 25	Aug 28	Oct[3]	Total	
Commercial Varieties-Available for Farm Use																			
Persist	4.9	55.5	58.0	57.5	100	98	98	98	98	98	98	4.00	2.50	1.06	0.31	0.39	–	1.77	8.27*
Bighorn	4.4	49.8	55.5	53.5	97	91	94	95	95	95	94	3.82	2.39	1.04	0.37	0.54	–	1.95	8.16*
Prairie	4.1	54.5	57.0	56.0	99	95	95	95	97	97	97	3.83	2.30	0.85	0.31	0.46	–	1.63	7.76*
Persist II	4.1	54.5	57.0	56.0	98	94	94	95	95	95	95	3.62	2.23	1.11	0.28	0.50	–	1.89	7.75*
Alpine II	3.9	46.3	52.0	46.8	98	87	91	93	93	93	93	3.78	2.33	0.83	0.37	0.39	–	1.60	7.70*
SS0708OGDT	3.9	55.0	57.0	56.5	96	91	91	93	94	94	94	3.53	2.25	1.16	0.30	0.44	–	1.91	7.69*
Profit	4.6	50.8	54.5	55.0	98	91	94	95	96	96	94	3.63	2.25	1.00	0.34	0.46	–	1.80	7.68*
Potomac	2.9	53.3	56.0	54.8	94	94	94	81	82	84	82	3.42	2.24	0.97	0.32	0.54	–	1.83	7.49*
Prodigy	4.8	55.5	57.0	57.0	99	95	95	95	95	95	95	3.64	2.20	0.93	0.30	0.40	–	1.63	7.47*
Captur	4.8	45.0	51.0	49.3	100	91	95	95	95	95	91	3.63	2.28	0.59	0.40	0.31	–	1.30	7.21*
Experimental Varieties																			
OG96	4.5	45.0	52.0	50.3	99	90	92	93	94	93	93	3.81	2.13	0.84	0.39	0.42	–	1.64	7.59*
Mean	4.3	51.4	55.2	53.9	98	92	94	93	94	94	93	3.70	2.28	0.94	0.34	0.44		1.72	7.71
CV,%	10.4	5.3	2.7	5.4	3	5	3	9	9	8	10	13.45	12.26	15.13	17.24	28.83		15.18	9.59
LSD,0.05	0.6	3.8	2.2	4.2	4	7	4	12	12	10	13	0.72	0.40	0.21	0.08	0.18		0.38	1.07

[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 5 for complete scale.
[3] There was no fall harvest due to below normal precipitation in July, August, and early September, resulting in insufficient regrowth.
* 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 6, 2023, at Lexington, Kentucky.

Variety	Seedling Vigor[1] Oct 24, 2023	Maturity[2]		Percent Stand					Yield (tons/acre)						Total
		2024	2025	2023	2024		2025		2024	2025					
		May 9	May 8	Oct 24	Mar 14	Oct 18	Mar 18	Nov 5	Total	May 8	Jun 26	Aug 28	Oct[3]	Total	
Commercial Varieties-Available for Farm Use															
Persist	4.9	55.5	55.5	100	100	100	100	100	4.05	1.35	0.91	0.54	–	2.79	6.84*
Persist II	4.6	57.0	56.5	100	100	100	100	100	3.78	1.50	0.78	0.54	–	2.83	6.60*
SS0708OGDT	4.6	58.0	56.0	100	100	100	100	98	4.06	1.33	0.69	0.43	–	2.45	6.51*
Bighorn	4.8	53.0	50.8	100	100	100	100	100	4.09	1.09	0.79	0.51	–	2.39	6.48*
Profit	4.9	54.0	54.5	100	100	100	100	100	3.74	1.20	0.79	0.53	–	2.52	6.26*
Baridana	4.6	54.5	52.5	100	100	100	100	96	3.78	1.13	0.77	0.47	–	2.37	6.15*
Alpine II	4.9	50.5	45.0	100	100	100	100	99	3.94	0.81	0.83	0.41	–	2.04	5.98*
Ammo	4.8	57.5	56.0	100	100	100	100	100	3.54	1.12	0.69	0.48	–	2.29	5.83*
Devour	4.4	52.5	49.0	100	100	100	100	100	3.61	0.96	0.80	0.42	–	2.18	5.80*
Prodigy	5.0	56.0	56.0	100	100	100	100	100	3.24	1.12	0.70	0.47	–	2.28	5.52*
Rushmore II	4.6	54.5	55.5	100	100	100	100	99	3.28	1.09	0.67	0.45	–	2.21	5.49*
Intensive	5.0	50.0	46.3	100	100	100	100	91	3.54	0.68	0.70	0.43	–	1.81	5.35*
Experimental Varieties															
BARDGL23101	4.4	58.0	56.0	99	99	99	99	95	3.78	1.06	0.78	0.58	–	2.42	6.21*
PVF-00G	4.9	54.5	53.5	100	100	100	100	98	4.00	0.96	0.68	0.48	–	2.12	6.12*
GO-OGDM	4.9	54.5	51.3	100	100	100	100	99	3.65	1.04	0.67	0.49	–	2.19	5.85*
GO-OGHWSC	4.6	52.0	52.0	100	100	100	100	99	3.57	0.86	0.71	0.49	–	2.06	5.62*
BARDGL23102	3.9	53.5	50.5	99	100	100	100	95	3.16	0.83	0.66	0.42	–	1.91	5.07
GO-OGHCP	5.0	52.5	53.5	100	100	100	100	100	3.15	0.87	0.62	0.42	–	1.91	5.06
Mean	4.7	54.3	52.8/	100	100	100	100	98	3.66	1.06	0.74	0.47		2.27	5.93
CV,%	4.3	4.0	5.0	1	1	1	1	3	22.41	30.00	14.21	24.95		18.75	18.61
LSD,0.05	0.3	3.1	3.8	1	1	1	1	4	1.17	0.45	0.15	0.17		0.60	1.57

[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 5 for complete scale.
[3] There was no fall harvest due to below normal precipitation in July, August, and early September, resulting in insufficient regrowth.
* 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 5, 2024, at Lexington, Kentucky.

Variety	Seedling Vigor[1] Oct 2, 2024	Maturity[2] 2025 May 14	Percent Stand			Yield (tons/acre)				
			2024	2025		2025				
			Oct 2	Mar 18	Oct 31	May 14	Jun 23	Sep 5	Oct[3]	Total
Commercial Varieties-Available for Farm Use										
Prodigy	5.0	56.5	100	100	100	1.58	0.87	0.86	–	3.31*
Potomac	4.9	57.0	100	100	100	1.36	0.90	0.79	–	3.06*
SS0708OGDT	4.4	57.0	100	100	100	1.49	0.85	0.65	–	3.00*
Alpine II	4.6	51.0	100	100	100	1.32	0.79	0.75	–	2.86*
Everlast	4.5	56.0	100	100	100	1.44	0.78	0.65	–	2.86*
Persist	4.9	57.0	100	100	100	1.29	0.74	0.73	–	2.76*
Rushmore II	4.5	56.0	100	100	100	1.31	0.80	0.61	–	2.73
Bighorn	3.4	56.0	85	85	91	0.89	0.87	0.91	–	2.67
Intensiv	4.9	47.5	100	100	99	1.36	0.79	0.49	–	2.64
Persist II	4.9	57.0	100	100	99	1.05	0.68	0.70	–	2.43
Devour	4.3	48.5	100	100	100	0.91	0.72	0.57	–	2.19
Ammo	4.6	56.0	100	100	100	0.96	0.61	0.63	–	2.19
Kainui	4.3	49.5	100	33	43	0.59	0.64	0.88	–	2.11
Poseidon	4.5	55.5	100	24	26	0.37	0.50	0.98	–	1.85
Vision	4.3	50.8	100	25	33	0.43	0.50	0.59	–	1.52
Experimental Varieties										
OG98	4.5	52.0	100	100	100	1.59	0.94	0.77	–	3.30*
BARDGL25	4.4	58.0	100	99	100	1.37	0.78	0.78	–	2.93*
BARDGL105	4.6	56.5	100	100	100	1.12	0.68	0.66	–	2.45
BARDGL23	4.5	52.5	100	100	99	1.06	0.73	0.57	–	2.37
BARDGL98	5.0	56.0	100	100	100	0.99	0.69	0.69	–	2.37
BY24-11OG	4.4	47.5	100	100	100	1.04	0.73	0.57	–	2.34
GEN-POCV	4.9	49.0	100	53	71	0.76	0.68	0.82	–	2.27
Mean	4.5	53.8	99	87	89	1.10	0.74	0.71		2.55
CV,%	7.2	4.6	4	15	12	27.61	16.28	22.74		17.12
LSD,0.05	0.5	3.5	5	18	15	0.43	0.17	0.23		0.62

[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 5 for complete scale.

[3] There was no fall harvest due to below normal precipitation in July, August, and early September, resulting in insufficient regrowth.

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

Table 9. Dry matter yields, maturity, and stand persistence of orchardgrass varieties sown September 13, 2023, at Princeton, Kentucky.

Variety	Maturity[1]		Percent Stand			Yield (tons/acre)				
	2024	2025	2023	2024	2025	2024	2025			2-year Total
	May 31	May 29	Nov 3	Oct 24	Apr 10	Total	May 29	Aug 28	Total	
Commercial Varieties-Available for Farm Use										
Devour	60.5	64.0	99	100	99	4.30	1.86	1.42	3.28	7.58*
SS0708OGDT	64.0	64.0	100	100	98	4.28	2.14	1.11	3.25	7.53*
Persist	63.5	66.0	100	100	99	4.31	1.95	1.19	3.14	7.45*
Rushmore II	64.0	64.0	99	100	99	4.01	2.09	1.23	3.32	7.34*
Persist II	64.0	65.0	100	100	99	4.00	2.08	1.18	3.26	7.26*
Prodigy	62.0	64.5	99	100	100	3.82	2.19	1.06	3.25	7.07*
Experimental Varieties										
PVF-00G	58.0	64.0	100	100	99	4.29	1.97	1.26	3.23	7.51*
GO-OGHCP	52.0	63.5	99	100	100	4.04	1.87	1.10	2.97	7.01*
GO-OGHWSC	51.5	64.0	98	100	99	3.58	2.05	0.73	2.78	6.36
GO-OGDM	64.0	64.0	100	100	99	3.50	1.79	0.98	2.76	6.26
Mean	60.4	64.3	99	100						
CV,%	12.4	0.9	1	0	99	4.01	2.00	1.13	3.12	7.14
LSD,0.05	10.8	0.8	2	1	1	10.21	10.58	22.27	12.52	9.24

[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 5 for complete scale.

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

Table 10. Dry matter yields, seedling vigor and stand persistence of orchardgrass varieties sown September 20, 2024, at Quicksand, Kentucky

Variety	Seedling Vigor[1] Oct 28, 2024	Percent Stand			Yield (tons/acre)			
		2024	2025		2025			
		Oct 28	Mar 21	Nov 14	Jun 3	Aug 7	Sep 12	Total
Commercial Varieties-Available for Farm Use								
Vision	5.0	100	100	100	1.99	0.58	1.24	3.81*
Persist	5.0	100	100	100	1.56	0.56	1.00	3.13*
Poseidon	5.0	100	99	99	1.39	0.58	1.08	3.05*
Rushmore II	4.5	99	99	99	1.96	0.36	0.59	2.91*
SS0708OGDT	4.8	99	100	100	1.28	0.45	0.89	2.61*
Everlast	5.0	100	100	100	0.89	0.38	0.83	2.10
Experimental Varieties								
BARDGL23	4.9	100	100	100	2.36	0.56	0.79	3.70*
BARDGL105	4.4	98	99	99	1.64	0.66	1.38	3.68*
BY24-110G	4.8	99	99	99	1.65	0.46	1.30	3.41*
OG98	4.8	96	97	97	1.82	0.49	1.05	3.37*
BARDGL25	4.3	96	98	98	1.38	0.44	1.06	2.88*
BARDGL98	4.8	99	100	100	1.34	0.52	1.01	2.86*
Mean	4.8	99	99	99	1.61	0.50	1.02	3.13
CV,%	6.7	2	2	2	51.78	50.79	57.77	36.51
LSD,0.05	0.5	3	3	3	1.20	0.37	0.85	1.64

[1] Vigor score based on a 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 11. Proprietors of orchardgrass varieties in current trials in Kentucky.

Variety	Proprietor/KY distibutor
Commercial Varieties-Available for Farm Use	
Alpine II	Mountain View Seeds
Ammo	Barenbrug USA
Baridana	Barenbrug USA
Barlegro	Barenbrug USA
Bighorn	Mountain View Seeds
Captur	DLF Pickseed
Devour	Mountain View Seeds
Everlast	Allied Seed, LLC
Intensiv	Barenbrug USA
Kainui	Allied Seed, LLC
Persist	Smith Seed Services
Persist II	Smith Seed Services
Poseidon	Gentos SA
Potomac	Public
Prairie	Turner Seed Company
Prodigy	Caudill Seed
Profit	Ampac Seed
Rushmore II	Mountain View Seeds
SS-0708OGDT	Southern States
Vision	Allied Seed, LLC
Experimental Varieties[1]	
BARDGL23101	Barenbrug USA
BARDGL23102	Barenbrug USA
BARDGL23	Barenbrug USA
BARDGL25	Barenbrug USA
BARDGLF98	Barenbrug USA
BARDGL105	Barenbrug USA
BY24-110G	Brett Young Seeds
GEN-POCV	Gentos SA
GO-OGDM	Grassland Oregon
GO-OGHCP	Grassland Oregon
GO_OGHWSC	Grassland Oregon
OG96	DLF Pickseed
OG98	DLF Pickseed
PVF-00G	Pineview Farms,LLC

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

Table 12. Summary of Kentucky orchardgrass yield trials 2007-2025 (yield shown as a percentage of the mean of the commercial varieties in the trial).

Variety	Proprietor	Lexington															Princeton						Quicksand				Mean[3] (#trials)
		07[1,2]	09	11	12	13	14	15	16	17	18	19	20	21	22	23	08	10	12	15	21	23	10	13	16	18	
		3-yr[4]	3-yr	3-yr	3-yr	3-yr	3-yr	3-yr	3-yr	3-yr	3-yr	3-yr	3-yr	3-yr	3yr	2yr	3-yr	3-yr	3-yr	2-yr	3-yr	2yr	3-yr	3-yr	3-yr	2-yr	
Albert	Oregro Seeds								99		106	100													98		101(4)
Aldebaran	DLF Pickseed									99																	–
Alpine II	Mountain View Seeds								106				98	104	100	99					95						100(6)
Ammo	Barenbrug USA															96											
Baridana	Barenbrug USA															101											
Barlegro	Barenbrug USA										95			84							95					94	92(4)
Benchmark Plus	Southern States	108	105	106	97	109	104										104	102	107				94	102			103(11)
Berta	Mountain View Seeds									76																	–
Bighorn	Mountain View Seeds												124	95	106	107					112						109(5)
Blizzard	Allied Seed											104															–
Captur	DLF Pickseed												81	96	93						97						93(4)
Checkmate	Seed Research of Oregon	102			117														106								108(3)
Christoss	Proseeds Marketing	92																									–
Crown	Donley Seed		97														105										101(2)
Devour	Mountain View Seeds								98				88			96						103					96(4)
Echelon	DLF Pickseed								99			101													113		104(3)
Elise	Rose-AgriSeed				86												98		98								94(3)
Endurance	DLF Pickseed								102																82		96(3)
Everlast	Allied Seed													107							100						104(2)
Extend	Allied Seed			107														105					108				107(3)
Harvestar	Columbia Seeds	97				94							116											102			103(5)
Haymaster	Southern States			102																							–
HLR	Barenbrug USA											82	89														86(2)
Inavale	DLF Pickseed							99	94											97					106		99(4)
Intensiv	Barenbrug USA										99		91	95		88					93					93	93(6)
Lazuly	Proseeds Marketing																97										–
Lyra	Columbia Seeds							90		77										97							88(3)
Megabite	Turf-Seed																106										–
Olathe	DLF Pickseed							111	104				101							112					89		103(5)
Paiute	DLF Pickseed	108																									–
Persist	Smith Seed	106	107	112	106	100	103	111	98	111	103	105	98	103	107	113		105	102	101	102	101	102	103	107	126	106(24)
Persist II	Smith Seed											111	111	103	100	109					107	98					106(7)
Potomac	Public		103	96	97	103	116	100	94	104	98			100	97		108	101	98	102	94		94	111	99		101(19)
Prairie	Turner Seed	101	109	106	113	123	108	103	111	111	105	98	109	103	101		104	99	104	96	98		120	102	105	107	106(23)
Prodigy	Caudill Seed		101		99	97			97			93	111	104	97	91	103		101		106	96		95			99(14)
Profit	Ampac Seed	107	96	98	103	96	97	89				97	96	109	100	103	103	102	102	96	94		115	96			100(19)
Quickdraw	Grassland Oregon											113															–
RAD-LCF 25	Radix Research																	99					102				101(2)
Rushmore II	Mountain View seeds								98	111						90						100			102		100(5)
Shawnee	Rose-AgriSeed																86										–
SS0708OGDT	Southern States						91	105	101	111	109	100	103	96	100	107				100	106	102			99	100	102(15)
Swante	Smith Seed										88		82													79	83(3)
Tekapo	Ampac Seed	81	82	78	82	76	80					95					86	92	82				81	89			86(15)
Treposno	Columbia Seeds							92		99										99							97(3)
Tucker	Oregro Seeds			96							95		103				102	96					85			100	97(8)
Vailliant	Proseeds Marketing	96																									–

[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 2022 was harvested three years, so the final report would be "2025 Orchardgrass Report" archived in the UK Forage website (https://forages.mgcafe.uky.edu).

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

[4] Number of years of data.

2025 Orchardgrass Report

1-2026