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2025 Annual Grass Report Warm Season and Cool Season (Cereals)

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Introduction

Summer annual grasses provide an important forage crop option for producers in Kentucky. These grasses are mainly used as emergency or supplemental pasture, silage, or hay crops, but little information is available on their yield potential. The purpose of this publication is to summarize the University of Kentucky 2008-2025 forage yield trials with sudangrass, sorghum/sudangrass, forage sorghum, millets, teff, crabgrass, and cereal crops.

Sudangrass *(Sorghum bicolor* ssp. *drummondii)* is a rapidly growing annual grass in the sorghum family. It is medium yielding and well suited for grazing or hay because of its smaller stem size. Sudangrass regrows quickly after harvest and can be harvested several times during summer and early fall.

Sorghum x sudangrass hybrids are more vigorous and slightly higher yielding than sudangrass. A larger stem size makes these hybrids less useful for hay; therefore, they are commonly used for baleage and grazing.

Forage sorghum is used primarily as silage for livestock and is typically a one-cut crop. It grows 9 to 12 feet tall with the exception of the dwarf varieties and is typically harvested when the seed is in the milk to soft-dough stage.

Pearl millet (*Pennisetum glaucum*) is the most widely grown type of millet. It is well adapted to production systems characterized by drought, low soil fertility, and high temperature. It is higher yielding than foxtail millet and regrows rapidly after harvest if an 8- to 10-inch stubble height is left. Dwarf varieties, which are leafier and better suited for grazing, are available.

The brown midrib or BMR trait is an outward expression of a genetic mutation in forage sorghum, sorghum-sudangrass, sudangrass, and pearl millet. In most cases, plants possessing the BMR trait contain less or altered lignin, making the plant more digestible and more desirable for animal production. Therefore, it is beneficial to seed summer annuals that have the BMR trait in addition to other desirable characteristics like high yield. With BMR varieties, the midrib of the leaf appears brown or tannish in color.

Teff, also referred to as summer lovegrass (*Eragrostis tef*), is a warm-season annual grass native to Ethiopia which has been used as a grain crop for thousands of years. Recently, there has been considerable interest in teff as a forage crop. It is high quality, palatable, and fine-stemmed and therefore makes excellent hay.

Crabgrass (*Digitaria sanguinalis*) is a warm-season annual that propagates by seed. It is adapted to many soil types. Crabgrass can be utilized by either grazing or haying and is one of the highest quality warm season forages at a vegetative stage.

Cool season annual grasses (specifically cereal crops) are also used as forage crops for hay, baleage, or grazing. The cereal crops used in this report are wheat (*Triticum aestivum*), rye (*Secale cereale*), oats (*Avena sativa*), and triticale (*Triticum secale*).

Contents

Considerations in Selecting a Summer Annual Variety

The major factor in selecting a variety of summer annual grass is yield, both total and seasonal. Growth after first cutting is strongly dependent on available moisture and nitrogen fertilization. Forage quality is also an important consideration. Tables 47-51 show preliminary quality analyses from the 2020 harvest year for warm season annual grasses in Lexington. Summer annual grasses generally have different characteristics and uses. Pearl millets vary considerably in height and can be used for both pasture and baleage. Pearl millet has the advantage of not producing prussic acid (HCN or cyanide). Forage sorghum, sorghum-sudangrass hybrids, and sudangrass are related grasses (in the sorghum family) and can produce prussic acid immediately after frost or when immature shoots are grazed during severe drought. Sudangrasses are considered to have the least potential for prussic acid poisoning. Sudangrass has smaller, finer stems than sorghum-sudangrass hybrids, which have finer stems than forage sorghums. Consequently, sudangrasses are more easily cured for hay. Pearl millets, sudangrass, sorghum-sudangrass, and teff are typically harvested multiple times during the growing season, but forage sorghum and foxtail millet are harvested only once. For more detailed management recommendations refer to *Warm Season Annual Grasses in Kentucky* (AGR-229) and related publications at http://forages.ca.uky/species.

Considerations in Selecting a Cool Season Cereal Variety

The major factors in selecting cool season cereal grass varieties are yield, winter survival, and regrowth. If cutting a cereal grass for silage or baleage, yield at the first harvest of the season is most important. For all cereals, winter survival is an important factor. Fortunately winter wheat and cereal rye rarely show winterkill in Kentucky regardless of the variety. Winter oats are a marginal crop in Kentucky because severe winterkill usually occurs one out of every two to three years. We have started testing spring planted spring oats and other cereals (tables 37, 38, and 39) to determine which species and which varieties have the best potential as short-term cool season forage crops. Spring plantings of winter wheat are not recommended because the lack of vernalization temperatures prevent stem elongation and vigorous spring growth. Consequently, yields are very low with spring planted winter wheat.

Description of the Tests

This report summarizes seventeen warm season annual studies (2021-2025) and ten cool-season annual studies (2020-2023) in Lexington. It also summarizes sixteen warm-season annual studies (2021-2025) in Princeton. The soils at Lexington (Maury) and Princeton (Crider) are well drained silt loams well suited to annual grass production. Plots were 5 feet by 20 feet in a randomized complete block design with four replications with a harvested area of 5 feet by 15 feet. The wheat trial plots were 4 feet by 15 feet with a harvested area of 4 feet by 12 feet. All trials were sown into a prepared seedbed using a disk drill at the following rates (lb/acre): sudangrass (25), sorghum-sudangrass (30), forage sorghum (8), pearl millet (20), teff (5 for uncoated, 8 for coated), crabgrass (5 for uncoated and 8 for coated), wheat (120), rye (110), oats (80) and triticale (100). Plots were harvested with a sickle-type forage plot harvester. Cutting height was 4 inches for teff and 6 inches for millet, sudangrass, and sorghum-sudangrass. The cool season grasses were cut at a height of 3 inches. The forage sorghum was harvested and with a silage chopper. Fresh weight samples were taken at each harvest to calculate percent dry matter production. All tests were managed for establishment, fertility, pest control, and harvest according to University of Kentucky Cooperative Extension Service recommendations. See table footnotes for specific nitrogen rates used in each trial. Pests were controlled so that they would not limit yield. For example, for weed control in forage sorghum the herbicides atrazine and Dual were used. Forage sorghum seed was treated with Concep III to prevent seedling injury from Dual (a pre-emergence herbicide for annual weeds).

Results and Discussion

Weather data for Lexington and Princeton are presented in tables 1 and 2. Ratings for maturity (see Table 3) and yield data (on a dry-matter basis) are reported in tables 4 through 46. Quality analyses from the 2020 harvest of warm season annual grasses from Lexington are reported in tables 47-51. Varieties are listed in order from highest to lowest total annual production. Yields are given by cutting and as a total for the year. Statistical analyses were performed on all yield data to determine if the apparent differences are truly due to variety or just due to chance. To determine if two varieties are truly different, compare the difference between the two varieties 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 a given location. The coefficient of variation (CV), 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 1. Temperature and rainfall at Lexington, Kentucky, in 2022, 2023, 2024, and 2025.

	2022				2023				2024				2025[2]			
	Temperature		Rainfall		Temperature		Rainfall		Temperature		Rainfall		Temperature		Rainfall	
	°F	DEP[1]	IN	DEP	°F	DEP	IN	DEP	°F	DEP	IN	DEP	°F	DEP	IN	DEP
JAN	29	-2	4.93	+2.07	44	+13	6.28	+3.42	32	+1	5.50	+2.60	27	-4	2.80	-0.06
FEB	38	+3	7.69	+4.48	47	+12	3.73	+0.52	44	+9	3.90	+0.70	37	+2	6.10	+2.89
MAR	49	+5	4.27	-0.13	48	+4	4.45	+0.05	49	+5	3.50	-0.90	49	+5	3.90	-0.50
APR	55	0	3.71	-0.17	58	+3	2.36	-1.52	58	+3	3.90	0.00	57	+7	10.80	+6.92
MAY	69	+5	3.84	-0.63	65	+1	2.53	-1.94	67	+3	4.60	+0.10	62	-2	7.30	+2.83
JUN	76	+4	2.10	-1.56	72	0	6.75	+3.09	74	+2	2.40	-1.30	75	+3	8.20	+4.54
JUL	80	+4	6.46	+1.46	78	+2	5.32	+0.32	77	+1	2.50	-2.50	79	+3	3.90	-1.10
AUG	77	+2	4.27	+0.34	76	+1	2.40	-1.53	75	0	3.30	-0.60	73	+2	1.80	-2.13
SEP	70	+2	1.50	-1.70	71	+3	0.99	-2.21	70	+2	6.20	+3.00	70	+2	2.70	-0.5
OCT	57	0	0.96	-1.61	61	+4	2.30	-0.27	58	+1	0.30	-2.30	58	+1	8.10	+6.13
NOV	49	+4	2.10	-1.29	49	+4	1.70	-1.69	50	+5	3.80	-0.41				
DEC	40	+4	3.46	-0.52	44	+8	2.41	-1.57	40	+4	3.90	-0.08				
Total			45.29	+0.74			41.22	-3.33			43.80	-0.75			55.60	+18.4

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

Table 2. Temperature and rainfall at Princeton, Kentucky, in 2022, 2023, 2024, and 2025.

	2022				2023				2024				2025[2]			
	Temperature		Rainfall		Temperature		Rainfall		Temperature		Rainfall		Temperature		Rainfall	
	°F	DEP[1]	IN	DEP	°F	DEP	IN	DEP	°F	DEP	IN	DEP	°F	DEP	IN	DEP
JAN	32	-2	5.04	+1.24	43	+9	5.11	+1.31	33	-1	6.42	+2.62	30	-2	5.6	+1.8
FEB	39	+1	7.44	+3.01	46	+8	3.27	-1.16	47	+9	1.68	-2.75	38	0	8.8	+4.37
MAR	51	+4	4.85	-0.09	48	+1	6.89	+1.95	52	+5	1.40	-3.54	53	+6	3.7	-1.24
APR	56	-2	6.41	+1.61	57	-2	2.14	-2.66	61	+2	3.44	-1.36	61	+2	14.3	+9.5
MAY	68	+1	2.54	-2.42	67	0	4.47	-0.49	70	+3	8.92	+3.96	66	-1	6	+1.04
JUN	75	0	3.46	-1.39	72	-3	1.59	-2.26	75	0	4.36	+0.51	77	+2	6.5	+2.65
JUL	80	+2	4.75	+0.46	77	-1	11.23	6.94	77	-1	3.56	-0.73	81	+3	2.8	-1.49
AUG	76	-1	5.85	+1.84	75	-1	8.87	+4.86	76	-1	0.40	-3.61	65	-12	0.5	-3.51
SEP	69	-2	0.32	-3.01	71	0	2.77	-0.56	72	+1	6.57	+3.24	73	+2	4.3	+1.25
OCT	57	-2	1.19	-1.86	59	0	3.82	+0.77	62	+3	0.43	-2.62	61	+2	5.1	+2.05
NOV	47	0	1.45	-3.18	49	+2	1.26	-3.37	55	+8	8.7	+4.07				
DEC	38	-1	3.95	-1.09	43	+4	1.73	-3.31	44	+5	5.8	+0.46				
Total			46.25	-4.88			53.15	+2.02			51.68	+0.55			57.6	+15.62

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

How to Interpret the Summary Tables

Summaries of yield data from 2008 to 2025 of commercial varieties are presented in Tables 52 through 58. The value for each variety in these tables is listed as a percentage of the mean of the commercial varieties entered in each specific trial. Varieties with percentages over 100 yielded better than average, and varieties with percentages less than 100 yielded lower than average. Direct, statistical comparisons of varieties cannot be made using the summary tables 52 through 58, but the data can help identify varieties for further consideration. Varieties that have performed better than average over many years and at several locations have very stable performance in comparison to varieties that have only been tested at one location or for one year.

Summary

Warm and cool season annual grasses can be an important supplemental source of pasture, hay, and silage in Kentucky. Varieties should be selected for their seasonal and total yield characteristics and for their suitability for the method of harvest to be employed (pasture, hay, or silage). Make sure the seed of the chosen variety is properly labeled and will be available when needed.

For more information, consult the following University of Kentucky Cooperative Extension publications related to annual grass management. These resources are available from your county Extension office may be accessed in the Publications section of the UK Forage website at https://forages.mgcafe.uky.edu.

- Lime and Fertilizer Recommendations (AGR-1)
- Grain, Forage, and Cover Crop Guide for Kentucky (AGR-18)
- Establishing Livestock Pastures and Hayfields (AGR-64)
- Warm Season Annual Grasses in Kentucky (AGR-229)
- Sudangrass and Sorghum-sudangrass Hybrids (AGR-234)
- Pearl Millet (AGR-231)
- Forage Sorghum (AGR-230)
- Crabgrass (AGR-232)
- Extending Grazing and Reducing Stored Feed Needs (AGR-199)
- Managing Small Grains for Livestock Forage (AGR-160)
- Growing Wheat for Forage (AGR-263)
- Baling Forage Crops for Silage (AGR-173)
- Baleage: Frequently Asked Questions (AGR-235)
- Considerations for Utilizing Frozen Small Grains for Forage (ID-262)
- Interpreting Baleage Fermentation Test Results (AGR-283)

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Table 3. 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.

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

Table 4. Dry matter yields, seedling vigor, stand rating, maturity, and plant height of sudangrass varieties sown May 23, 2023, at Lexington, Kentucky.

Variety	Proprietor/Distributor	Seedling Vigor[1] Jun 20	Percent Stand Jun 20	Maturity[2]			Plant Height (in)			Yield (DM tons/acre)				
				Jul 5	Jul 27	Aug 23	Jul 5	Jul 27	Aug 23	Jul 5	Jul 27	Aug 24	Oct 3	Total
Commercial Varieties-Available for Farm Use														
Piper	Public	4.6	96	31.8	33.3	45.0	44	47	44	1.04	1.49	1.55	1.15	5.23*
Promax BMR[3]	Cisco Seeds	4.8	97	32.5	33.5	45.0	47	47	46	1.06	1.42	1.51	1.23	5.22*
SP7106 BMR	Sorghum Partners	4.9	99	27.5	31.0	39.0	36	36	33	1.39	1.32	1.52	0.99	5.21*
AS9302 BMR (Brachytic Dwarf)	Advanta Seeds	5.0	100	31.0	19.0	43.5	36	29	34	1.43	1.01	1.52	1.12	5.09*
Trudan Headless	Sorghum Partners	4.4	97	20.3	27.3	35.0	32	32	30	0.95	1.01	1.11	0.87	3.95
Mean		4.7	98	28.6	28.8	41.5	39	38	37	1.17	1.25	1.44	1.07	4.94
CV,%		7.7	2	14.8	16.5	12.9	5	9	8	14.91	8.11	16.50	18.51	11.88
LSD,0.05		0.6	4	6.5	7.3	8.2	3	5	5	0.27	0.16	0.37	0.31	0.90

[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 3 for complete scale.
[3] BMR (brown mid-rib) means that a variety has been developed to produce lower amounts of lignin which usually translates into higher quality.
* Not significantly different from the highest numerical value in the column, based on the 0.05 LSD.
Nitrogen application: 50 lb/A of actual nitrogen on June 9, 40 lb on July 7 and 30 lb July 27 (Total of 120 lb of N/acre).

Table 5. Dry matter yields, seedling vigor, stand rating, maturity, and plant height of sudangrass varieties sown May 21, 2024, at Lexington, Kentucky.

Variety	Proprietor/Distributor	Seedling Vigor[1] Jun 4	Percent Stand Jun 4	Maturity[2]			Plant height (in)			Yield (ton/acre)			
				Jul 16	Aug 6	Sep 18	Jul 16	Aug 6	Sep 18	Jul 16	Aug 6	Sep 18	Total
Commercial Varieties-Available for Farm Use													
ProMax BMR[3]	Cisco Seeds	4.6	100	31.8	46.3	57.0	38	41	46	0.95	1.04	1.81	3.81*
Piper	Public	4.8	100	31.8	31.0	46.3	39	36	41	1.04	1.01	1.76	3.81*
SP7106 BMR	Sorghum Partners	4.9	100	16.8	31.5	45.0	29	41	28	0.83	1.39	1.49	3.71*
AS9302 BMR (Brachytic Dwarf)	Advanta Seeds	4.8	100	16.5	46.3	56.5	27	35	37	0.96	1.00	1.73	3.69*
Trudan Headless	Sorghum Partners	4.5	100	16.0	31.0	47.8	26	34	26	0.83	1.12	1.34	3.29*
Mean		4.7	100	22.6	37.2	50.5	32	37	36	0.92	1.11	1.63	3.66
CV,%		7.9	0	2.5	3.6	5.7	9	4	13	27.11	8.26	16.19	13.62
LSD,0.05		0.6	0	0.9	2.1	4.5	4	2	7	0.38	0.14	0.41	0.77

[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 3 for complete scale.
[3] BMR (brown mid-rib) means that a variety has been developed to produce lower amounts of lignin which usually translates into higher quality.
* Not significantly different from the highest numerical value in the column, based on the 0.05 LSD.
Nitrogen application: 40 lb/A of actual nitrogen on May 22 and 40 lb on July 23 (Total of 80 lb of N/acre).

Table 6. Dry matter yields, seedling vigor, stand rating, maturity, and plant height of sudangrass varieties sown June,3, 2025, at Lexington, Kentucky.

Variety	Proprietor/Distributor	Seedling Vigor[1] Jun 30	Percent Stand Jun 30	Maturity[2]		Plant Height (in)			Yield (tons/acre)			
				Jul 21	Aug 29	Jul 21	Aug 29	Oct 21	Jul 21	Aug 29	Oct 21	Total
Commercial Varieties-Available for Farm Use												
ProMax BMR[3]	Cisco Seed	4.9	100	61.5	60.0	25	33	42	1.81	1.91	1.22	4.94*
Piper	Public	4.9	100	54.0	43.5	21	33	32	2.06	1.47	0.89	4.43*
Trudan Headless	Sorghum Partners	5.0	100	51.0	52.5	23	32	32	2.04	1.24	0.88	4.17*
SP7106 BMR	Sorghum Partners	4.8	100	59.3	45.0	22	34	32	2.00	1.14	0.68	3.82*
Mean		4.9	100	56.4	50.3	23	33	34	1.98	1.44	0.92	4.34
CV,%		4.2	0	16.8	25.4	33	3	16	17.87	27.67	20.72	17.76
LSD,0.05		0.3	0	15.2	20.4	12	2	9	0.56	0.64	0.30	1.23

[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 3 for complete scale.
[3] BMR (brown mid-rib) means that a variety has been developed to produce lower amounts of lignin which usually translates into higher quality.
* Not significantly different from the highest numerical value in the column, based on the 0.05 LSD.
Nitrogen application: 50 lb/A of actual nitrogen on June 17.

Table 7. Dry matter yields, stand rating, and plant height of sudangrass varieties sown May 31, 2023, at Princeton, Kentucky.

Variety	Proprietor/Distributor	Percent Stand Jul 24	Plant Height (in)			Yield (DM tons/acre)			
			Jul 24	Aug 22	Oct 20	Jul 24	Aug 22	Oct 20	Total
Commercial Varieties-Available for Farm Use									
AS9302 BMR[1](Brachytic Dwarf)	Advanta Seeds	100	38	34	38	1.84	1.12	2.01	4.97*
SP7106 BMR	Sorghum Partners	100	46	36	37	1.86	1.19	1.81	4.86*
Trudan Headless	Sorghum Partners	100	36	29	37	1.28	0.87	1.58	3.74
Piper	Public	100	52	46	46	1.51	0.93	1.25	3.70
Promax BMR	Cisco Seeds	100	51	45	55	1.20	0.90	1.58	3.68
Mean		100	44	38	42	1.54	1.00	1.65	4.19
CV,%		0	4	6	11	8.15	12.37	11.84	5.52
LSD,0.05		0	3	4	7	0.19	0.19	0.30	0.36

[1] BMR (brown mid-rib) means that a variety has been developed to produce lower amounts of lignin which usually translates into higher quality.
* Not significantly different from the highest numerical value in the column, based on the 0.05 LSD.
Nitrogen application: 60 lb/A of actual nitrogen on June 6 and August 9 (Total of 120 lb of N/acre).

Table 8. Dry matter yields, stand ratings, and plant height of sudangrass varieties sown June 13, 2024, at Princeton, Kentucky.

Variety	Proprietor/Distributor	Percent Stand		Plant Height (in)		Yield (tons/acre)		
		Jul 22	Aug 26	Jul 22	Aug 26	Jul 22	Aug 26	Total
Commercial Varieties-Available for Farm Use								
Piper	Public	100	99	67	62	1.62	1.31	2.93*
AS9302 BMR[1](Brachytic Dwarf)	Advanta Seeds	100	98	53	47	1.39	1.36	2.74*
SP7106 BMR	Sorghum Partners	100	92	59	38	1.69	0.95	2.63*
ProMax BMR	Cisco Seeds	100	95	65	58	1.29	1.10	2.39*
Trudan Headless	Sorghum Partners	100	93	45	30	1.07	0.75	1.82
Mean		100	95	58	47	1.41	1.09	2.50
CV,%		0	7	5	8	10.77	18.01	9.92
LSD,0.05		0	11	4	5	0.23	0.30	0.38

[1] BMR (brown mid-rib) means that a variety has been developed to produce lower amounts of lignin which usually translates into higher quality.
* Not significantly different from the highest numerical value in the column, based on the 0.05 LSD.
Nitrogen application: 65 lb/A of actual nitrogen on April 26 and 60 lb August 12 (Total of 125 lb of N/acre).

Table 9. Dry matter yields and plant height of sudangrass varieties sown June 24, 2025, at Princeton, Kentucky.

Variety	Proprietor/Distributor	Plant Height)in)		Yield (tons/acre)		
		Aug 12	Nov 4	Aug 12	Nov 4	Total
Commercial Varieties-Available for Farm Use						
Trudan Headless	Sorghum Partners	49	42	1.49	1.47	2.96*
ProMax BMR[1]	Cisco Seed	64	57	1.58	1.32	2.91*
SP7106 BMR	Sorghum Partners	44	41	1.28	1.62	2.90*
Piper	Public	64	64	1.40	1.21	2.62*
Mean		55	51	1.44	1.41	2.85
CV,%		5	13	13.45	10.36	8.67
LSD,0.05		4	11	0.31	0.23	0.40

[1] BMR (brown mid-rib) means that a variety has been developed to produce lower amounts of lignin which usually translates into higher quality.
* Not significantly different from the highest numerical value in the column, based on the 0.05 LSD.
Nitrogen application: 80 lb/A of actual nitrgen on June 10.

Table 10. Dry matter yields, seedling vigor, maturity, and plant height of sorghum-sudangrass varieties sown May 23, 2023, at Lexington, Kentucky.

Variety	Proprietor/Distibutor	Seedling Vigor[1] Jun 20	Percent Stand Jun 20	Maturity[2]			Plant Height (in)			Yield (DM tons/acre)				
				Jul 5	Jul 27	Aug 24	Jul 5	Jul 27	Aug 24	Jul 5	Jul 27	Aug 24	Oct 3	Total
Commercial Varieties-Available for Farm Use														
Sordan79	Sorghum Partners	5.0	100	32.5	31.0	36.8	51	45	45	1.89	1.62	2.09	1.13	6.73*
FullGraze II BMR[3]	Dyna-Gro Seed	4.5	99	31.8	19.3	35.0	46	36	42	1.68	1.20	1.98	1.11	5.97*
Super Sweet 10	Dyna-Gro Seed	4.9	100	31.8	19.0	41.8	44	34	39	1.68	1.19	1.84	1.25	5.96*
NutraKing BMR	Public	4.6	99	31.8	23.5	31.0	46	35	35	1.74	1.33	1.70	1.18	5.95*
SP4555 BMR	Sorghum Partners	4.1	90	28.0	19.5	27.5	45	36	38	1.51	1.42	1.83	1.10	5.86*
SugarGraze II	Coffey Seed	4.9	100	32.3	27.0	38.3	48	36	41	1.68	1.24	1.69	1.03	5.64*
SWSU0029	Sorghum Partners	4.8	100	32.0	19.3	34.5	45	36	38	1.52	1.32	1.62	0.86	5.32*
AS6504 BMR Dry Stalk	Advanta Seed	4.4	98	27.5	15.3	30.0	37	32	38	1.27	1.23	1.68	1.03	5.21
ADV6218	Advanta Seed	5.0	100	31.5	18.8	38.0	39	32	35	1.54	0.96	1.72	0.93	5.16
F75FS13	Dyna-Gro Seed	4.4	99	31.3	14.5	38.0	41	31	37	1.57	1.01	1.59	0.96	5.13
Sordan Headless	Sorghum Partners	4.4	90	27.8	23.0	29.3	40	38	38	1.37	1.30	1.59	0.83	5.09
SS211	Southern States	4.6	100	32.3	31.0	27.5	47	41	37	1.39	1.32	1.44	0.91	5.07
ADVS6520 BMR SCA[4] PS	Advanta Seed	4.4	98	28.0	19.3	29.0	38	36	35	1.26	1.24	1.46	0.95	4.91
SS1652SS	Southern States	4.0	100	31.5	23.3	34.0	39	35	35	1.27	1.25	1.47	0.88	4.87
SP4105BMR	Sorghum Partners	3.6	91	19.8	24.0	22.3	30	35	32	1.07	1.26	1.54	0.91	4.79
SWSB8801	Sorghum Partners	4.6	100	31.5	18.5	31.3	40	32	34	1.45	0.97	1.23	0.71	4.35
ADVS6404 BMR Brachytic Dwarf	Advanta Seed	4.3	97	27.3	14.8	22.3	33	30	32	1.09	0.91	1.29	0.91	4.20
XtraGraze II BMR	Coffey Seed	4.6	100	31.5	14.8	36.3	37	29	32	1.26	0.74	1.13	0.64	3.78
Surpass BMR	Public	4.5	97	23.5	14.5	30.8	33	28	33	1.07	0.78	1.18	0.67	3.69
SS220 BMR	Southern States	4.5	98	19.8	14.0	23.0	37	26	25	1.00	0.68	0.82	0.49	2.98
Experimental Varieties														
ADVXS005	Advanta Seed	5.0	99	31.8	15.0	20.8	44	31	34	1.72	1.02	1.74	0.79	5.27*
PR23	Allied Seed/Southern States	4.0	100	24.3	14.8	31.0	35	30	32	1.08	0.88	1.23	0.93	4.12
Mean		4.5	98	29	19.7	31.3	41	34	36	1.41	1.13	1.54	0.92	5.00
CV,%		10.4	7	16.4	30.2	34.9	11	11	16	22.67	16.68	28.65	32.61	20.82
LSD,0.05		0.7	10	6.7	8.1	15.4	6	5	8	0.45	0.27	0.62	0.42	1.47

[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 3 for complete scale.
[3] BMR (brown mid-rib) means that a variety has been developed to produce lower amounts of lignin which usually translates into higher quality.
[4] SCA–Tolerant to sugar cane aphid.
* Not significantly different from the highest numerical value in the column, based on the 0.05 LSD.
Nitrogen application: 50 lb/A of actual nitrogen on June 9, 40 lb on July 7, and 30 lb July 27 (Total of 120 lb of N/acre).

Table 11. Dry matter yields, seedling vigor, stand rating, maturity, and plant height of sorghum-sudangrass varieties sown May 21, 2024, at Lexington, Kentucky.

Variety	Proprietor/Distributor	Seedling Vigor[1] Jun 4	Percent Stand Jun 4	Maturity[2]			Plant Height (in)			Yield (tons/acre)			
				Jul 16	Aug 6	Sep 18	Jul 16	Aug 6	Sep 18	Jul 16	Aug 6	Sep 18	Total
Commercial Varieties-Available for Farm Use													
SPDF708 PAF[3]	Sorghum Partners	5.0	100	21.3	46.8	58.0	37	29	52	1.80	0.76	2.27	4.83*
Sordan 79	Sorghum Partners	4.9	100	17.5	31.5	57.5	36	34	50	1.40	0.99	2.43	4.82*
SWSU0029	Sorghum Partners	4.6	100	21.3	47.5	59.5	38	35	48	1.32	0.98	2.05	4.35*
ADVS6218	Advanta Seed	4.9	100	16.5	37.0	56.5	32	35	36	1.41	0.97	1.84	4.22
ADVS6520 BMR[4]SCA[5] PS[6]	Advanta Seed	4.0	97	17.5	32.0	46.3	35	38	33	1.27	1.11	1.81	4.19
SP4555 BMR	Sorghum Partners	4.5	100	17.0	45.0	58.0	31	38	42	1.15	1.08	1.79	4.03
Super Sweet 10	Dyna-Gro Seeds	4.6	100	17.0	50.8	59.0	35	36	47	1.15	0.97	1.89	4.01
SS211	Southern States	3.3	70	18.0	43.3	58.5	39	38	47	1.16	0.87	1.95	3.98
Sordan Headless	Sorghum Partners	4.4	100	17.0	32.0	45.0	35	38	35	0.97	1.14	1.83	3.93
SS1652 BMR	Southern States	3.0	33	17.5	38.5	58.0	34	42	54	1.03	1.00	1.75	3.78
ADV6525 BMR SCA PS	Advanta Seed	4.0	100	17.0	31.8	45.0	31	39	32	1.00	1.18	1.46	3.65
F75FS13	Dyna-Gro Seeds	4.0	100	16.5	47.5	56.5	29	33	42	1.14	0.89	1.59	3.62
ADVS6404 BMR(Brachytic Dwarf)	Advanta Seed	3.8	100	16.3	31.3	56.0	28	33	32	1.09	0.93	1.58	3.60
19011 BMR	Gayland Ward Seed	4.8	100	16.5	31.0	58.0	28	30	35	0.99	0.91	1.67	3.57
Surpass BMR	Public	4.3	100	16.5	32.0	56.5	29	36	35	0.90	0.99	1.49	3.38
SP4105 BMR	Sorghum Partners	4.6	100	15.8	31.3	45.0	24	31	31	0.76	0.97	1.56	3.30
SS220 BMR	Southern States	4.3	100	16.8	38.0	57.0	29	29	32	1.10	0.84	1.24	3.18
Experimental Varieties													
ADVXS005	Advanta Seed	4.6	100	17.0	32.0	45.0	32	39	34	1.14	1.34	1.90	4.38*
PR23	Allied Seed/Southern States	4.0	98	16.5	33.5	45.0	29	35	34	1.03	1.08	1.32	3.43
Mean		4.3	95	17.3	37.5	53.7	32	35	39	1.15	1.00	1.76	3.91
CV,%		6.8	5	13.6	10.7	2.4	10	7	11	21.15	13.38	13.47	10.29
LSD,0.05		0.4	7	3.3	5.7	1.9	5	4	6	0.44	0.19	0.34	0.57

[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 3 for complete scale.
[3] PAF–Prussic acid free.
[4] BMR (brown mid-rib) means that a variety has been developed to produce lower amounts of lignin which usually translates into higher quality.
[5] SCA–Tolerant to sugar cane aphid.
[6] PS–Photoperiod sensitive.
* Not significantly different from the highest numerical value in the column, based on the 0.05 LSD.
Nitrogen application: 40 lb/A of actual nitrogen on May 22 and 40 lb on July 23 (Total of 80 lb of N/acre).

Table 12. Dry matter yields, seedling vigor, stand rating, maturity, and plant height of sorghum-sudangrass varieties sown June 3, 2025, at Lexington, Kentucky.

Variety	Proprietor/Distributor	Seedling Vigor[1] Jun 30	Percent Stand Jun 30	Maturity[2] Jul 23	Plant Height (in)		Yield (tons/acre)		
					Jul 23	Sep 15	Jul 23	Sep 15	Total
Commercial Varieties-Available for Farm Use									
SPHG610 PAF[3]	Sorghum Partners	4.9	100	47.3	27	32	1.71	1.74	3.46*
SP4408 PF	Sorghum Partners	5.0	100	48.0	27	33	1.83	1.54	3.37*
Sordan79	Sorghum Partners	4.9	100	53.3	29	32	1.57	1.72	3.29*
SuperSweet10	Dyna-Gro Seeds	4.9	100	48.8	31	32	1.59	1.52	3.11*
S6405 BMR[4]	Ramer Seed	4.5	95	42.8	28	31	1.40	1.68	3.08*
F75FS13	Dyna-Gro Seeds	4.8	100	41.3	23	31	1.63	1.43	3.06*
SP4555 BMR	Sorghum Partners	4.6	96	45.8	26	32	1.36	1.59	2.95
SWSU0029	Sorghum Partners	4.8	100	51.8	29	32	1.50	1.45	2.95
Sordan Headless	Sorghum Partners	4.8	100	46.5	27	32	1.46	1.45	2.91
ADVS6218	Advanta Seeds	5.0	100	42.0	24	32	1.47	1.40	2.87
SPHX007DT	Sorghum Partners	4.5	100	32.3	26	30	1.16	1.69	2.85
SS211	Southern States	4.5	100	45.8	28	32	1.39	1.42	2.81
ADV6525 BMR SCA[5] PS[6]	Advanta Seeds	4.4	98	39.8	24	31	1.30	1.46	2.76
SP4105 BMR	Sorghum Partners	4.4	100	36.0	23	31	1.33	1.41	2.74
ADV6520 BMR SCA PS	Advanta Seeds	4.4	100	39.8	25	31	1.27	1.35	2.62
SS1652 BMR	Southern States	4.3	83	48.0	27	32	1.17	1.32	2.49
S6435 BMR BrDw[7] DS[8]	Ramer Seed	4.4	99	37.5	23	31	1.16	1.32	2.48
19011 BMR Dw	Gayland Ward Seed	4.9	100	38.3	20	31	1.14	1.30	2.45
Surpass BMR	Public	4.4	95	39.8	22	32	1.23	1.18	2.41
SS220 BMR	Southern States	4.0	96	37.5	25	30	1.11	1.24	2.35
ADV6404 BMR BrDw	Advanta Seeds	4.4	99	40.5	20	32	1.17	1.06	2.23
Experimental Varieties									
PR23		3.9	98	38.3	23	31	1.14	1.22	2.36
Mean		4.6	98	42.8	25	31	1.37	1.43	2.8
CV,%		7.5	3	10.4	12	3	13.91	13.48	11.38
LSD,0.05		0.5	4	6.3	4	1	0.27	0.27	0.45

[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 3 for complete scale.
[3] PAF–Prussic acid free.
[4] BMR (brown mid-rib) means that a variety has been developed to produce lower amounts of lignin which usually translates into higher quality.
[5] SCA–Tolerant to sugar cane aphid.
[6] PS-Photoperiod sensitive.
[7] BrDw-Brachytic dwarf.
[8] DS-Dry stalk.
* Not significantly different from the highest numerical value in the column, based on the 0.05 LSD.
Nitrogen application: 80 lb/A of actual nitrogen on June 17.

Table 13. Dry matter yields, stand rating, and plant height of sorghum-sudangrass varieties sown May 31, 2023, at Princeton, Kentucky.

Variety	Proprietor/Distributor	Percent Stand Jul 24	Plant Height (in)			Yield (DM tons/acre)			
			Jul 24	Aug 22	Oct 20	Jul 24	Aug 22	Oct 20	Total
Commercial Varieties-Available for Farm Use									
Sordan 79	Sorghum Partners	100	52	49	45	1.87	1.47	2.24	5.58*
ADV6520 BMR[1] SCA[2] PS	Advanta Seed	100	44	42	43	1.59	1.27	2.70	5.55*
Super Sweet 10	Dyna-Gro Seeds	100	46	45	43	1.77	1.39	2.33	5.50*
SS1652SS	Southern States	100	42	43	36	1.33	1.27	2.57	5.17*
SWSU0029	Sorghum Partners	100	48	51	44	1.60	1.48	2.06	5.15*
Sordan Headless	Sorghum Partners	100	45	42	44	1.75	1.35	1.90	5.00*
SS211	Southern States	100	47	49	43	1.56	1.33	2.10	4.98*
F75FS13	Dyna-Gro Seeds	100	42	39	40	1.53	1.25	2.09	4.88*
ADV6218	Advanta Seed	100	43	38	37	1.76	1.06	1.91	4.72*
SP4555 BMR	Sorghum Partners	100	48	39	35	1.60	1.25	1.67	4.52
SP4105 BMR	Sorghum Partners	100	35	32	32	1.47	1.30	1.46	4.23
ADV6404 BMR (Brachytic Dwarf)	Advanta Seed	100	35	35	34	1.38	1.06	1.78	4.22
XtraGraze BMR	Sorghum Partners	100	41	36	38	1.47	0.99	1.66	4.12
Surpass BMR	Turner Seed	100	36	33	35	1.50	1.00	1.61	4.11
SWSB8801	Sorghum Partners	100	39	35	31	1.61	1.18	1.06	3.85
SS220 BMR	Southern States	100	36	28	30	1.50	0.70	1.22	3.42
Experimental Varieties									
ADVXS005	Advanta Seed	100	42	37	39	1.85	1.15	2.01	5.01*
PR23	Allied Seed/Southern States	100	39	33	37	1.37	1.07	1.48	3.92
Mean		100	42	39	38	1.58	1.20	1.88	4.66
CV,%		0	7	6	10	11.37	15.96	27.61	13.48
LSD,0.05		0	4	4	5	0.26	0.27	0.74	0.89

[1] BMR (brown mid-rib) means that a variety has been developed to produce lower amounts of lignin which usually translates into higher quality.
[2] SCA–Tolerant to sugar cane aphid.
* Not significantly different from the highest numerical value in the column, based on the 0.05 LSD.
Nitrogen application: 60 lb/A of actual nitrogen on May 24 and August 9 (Total of 120 lb of N/acre).

Table 14. Dry matter yields, stand ratings, and plant height of sorghum-sudangrass varieties sown June 13, 2024, at Princeton, Kentucky.

Variety	Proprietor/Distibutor	Percent Stand		Plant height (in)		Yield (tons/acre)		
		Jul 22	Sep 4	Jul 22	Sep 4	Jul 22	Sep 4	Total
Commercial Varieties-Available for Farm Use								
Super Sweet 10	Dyna-Gro Seeds	100	98	69	56	1.92	2.22	4.15*
Sordan 79	Sorghum Partners	100	98	70	70	1.44	2.48	3.92*
ADVS6218	Advanta Seeds	100	99	60	55	1.67	2.23	3.90*
SWSU0029	Sorghum Partners	100	97	70	63	1.55	1.93	3.48
SPDF708 PAF[1]	Sorghum Partners	100	98	64	64	1.36	1.94	3.31
Sordan Headless	Sorghum Partners	100	96	53	57	1.51	1.75	3.26
19011 BMR[2]	Gayland Ward Seed	100	99	49	40	1.58	1.58	3.15
SS211	Soutthern States	100	90	64	59	1.29	1.78	3.07
SP4555 BMR	Sorghum Partners	100	95	61	55	1.37	1.64	3.01
ADVS6404 BMR(Brachytic Dwarf)	Advanta Seeds	100	95	43	41	1.41	1.39	2.79
F75FS13	Dyna-Gro Seeds	100	94	56	40	1.43	1.19	2.62
SS220 BMR	Soutthern States	100	95	46	44	1.18	1.44	2.62
ADV6525	Advanta Seeds	100	91	47	46	1.15	1.38	2.53
ADVS6520 BMR SCA[3] PS[4]	Advanta Seeds	100	88	56	38	1.40	0.94	2.34
SP4105 BMR	Sorghum Partners	100	91	40	33	1.36	0.96	2.32
Surpass BMR	Turner Seed	100	93	45	42	1.12	1.19	2.31
SS1652 BMR	Soutthern States	100	85	50	44	0.84	1.19	2.02
Experimental Varieties								
ADVXS005	Advanta Seeds	100	96	53	48	1.51	1.62	3.14
PR23	Allied Seed/Southern States	100	97	49	46	1.19	1.38	2.57
Mean		100	94	55	49	1.38	1.59	2.97
CV,%		0	4	9	11	17.29	23.30	16.47
LSD,0.05		0	6	7	8	0.34	0.53	0.69

[1] PAF–Prussic acid free.
[2] BMR (brown mid-rib) means that a variety has been developed to produce lower amounts of lignin which usually translates into higher quality.
[3] SCA–Tolerant to sugar cane aphid.
[4] PS–Photoperiod sensitive.
* Not significantly different from the highest numerical value in the column, based on the 0.05 LSD.
Nitrogen application: 65 lb/A of actual nitrogen on April 26 and 60 lb on August 9 (Total of 125 lb of N/acre).

Table 15. Dry matter yields and plant height of sorghum-sudangrass varieties sown June 24, 2025, at Princeton, Kentucky.

Variety	Proprietor/Distributor	Plant Height (in)		Yield (tons/acre)		
		Aug 12	Nov 4	Aug 12	Nov 4	Total
Commercial Varieties-Available for Farm Use						
ADV6525 BMR[1] SCA[2] PS[3]	Advanta Seed	53	46	2.35	2.51	4.86*
Sordan Headless	Sorghum Partners	58	45	2.15	2.42	4.57*
SuperSweet10	Dyna-Gro Seed	65	43	2.32	2.20	4.52*
ADV6520 BMR SCA PS	Advanta Seed	58	43	2.03	2.33	4.35*
SP4408 PF[4]	Sorghum Partners	64	47	1.96	2.26	4.23*
ADVS6218	Advanta Seed	61	35	2.21	2.01	4.21*
SWSU0029	Sorghum Partners	66	50	2.22	1.94	4.17*
F75FS13	Dyna-Gro Seed	58	38	2.06	2.07	4.14
S6405 BMR	Ramer Seed	60	33	2.42	1.67	4.09
Sordan79	Sorghum Partners	68	52	1.88	2.17	4.05
SPDG610 PAF[4]	Sorghum Partners	60	40	2.32	1.72	4.04
SS211	Southern States	64	48	1.95	2.02	3.97
SP4105 BMR	Sorghum Partners	49	38	1.97	1.91	3.88
Surpass BMR	Public	47	35	2.00	1.83	3.84
S6435 BMR BrDw[5] DS[6]	Ramer Seed	50	29	2.17	1.61	3.79
SP4555 BMR	Sorghum Partners	61	43	1.77	1.98	3.75
19011 BMR Dw	Gayland Ward Seed	49	32	1.87	1.84	3.70
SS220 BMR	Southern States	46	29	1.77	1.74	3.51
SPHX007 DT	Sorghum Partners	41	33	1.52	1.87	3.39
SS1652 BMR	Southern States	60	41	1.57	1.80	3.37
ADV6404 BMR BrDw	Advanta Seed	48	39	1.52	1.70	3.22
Experimental Varieties						
PR23	Allied Seed/Southern States	51	35	1.86	1.93	3.79
Mean		56	40	2.00	1.98	3.97
CV,%		7	16	19.19	11.45	12.54
LSD,0.05		5	9	0.54	0.32	0.70

[1] BMR (brown mid-rib) means that a variety has been developed to produce lower amounts of lignin which usually translates into higher quality.
[2] SCA–Tolerant to sugar cane aphid.
[3] PS-Photoperiod sensitive.
[4] PF and PAF–Prussic acid free.
[5] BrDw-Brachytic dwarf.
[6] DS-Dry stalk.
* Not significantly different from the highest numerical value in the column, based on the 0.05 LSD.
Nitrogen application: 80 lb/A of actual nitrogen on June 10.

Table 16. Dry matter yields, seedling vigor, stand rating, maturity, and plant height of pearl millet varieties sown May 23, 2023, at Lexington, Kentucky.

Variety	Proprietor/Distributor	Seedling Vigor[1] Jun 20	Percent Stand Jun 20	Maturity[2]			Plant Height (in)		Yield (DM tons/acre)				
				Jul 10	Jul 31	Aug 23	Jul 20	Jul 31	Jul 10	Jul 31	Aug 24	Oct 3	Total
Commercial Varieties-Available for Farm Use													
Tifleaf III Hybrid	Gayland Ward Seed	4.4	95	16.8	48.0	49.0	32	42	1.31	1.86	0.78	1.59	5.54*
PearlMil	Dyna-Gro Seed	4.6	93	20.5	46.3	43.5	34	41	1.35	1.68	0.65	1.34	5.02*
Leafy22 Hybrid	Turner Seed	4.5	92	20.8	46.3	46.8	35	41	1.31	1.67	0.67	1.25	4.90*
Millex32	Sorghum Partners	4.9	95	43.5	48.8	50.8	53	38	1.88	1.21	0.77	0.98	4.84*
PP102M Hybrid	Cisco Seeds	4.5	95	28.5	49.5	55.0	42	38	1.52	1.38	0.71	1.06	4.66
Exceed BMR[3]	Coffey Seed	4.8	96	16.0	41.5	53.5	29	31	1.29	1.40	0.79	1.15	4.63
SS635	Southern States	3.8	89	17.0	39.5	46.3	32	41	1.07	1.52	0.63	1.33	4.56
Epic BMR	Coffey Seed	4.1	94	16.0	17.3	49.0	30	29	1.22	1.40	0.86	1.03	4.52
Wonderleaf	Advanta Seeds	3.4	82	35.3	34.0	45.0	43	38	1.40	1.36	0.68	1.04	4.49
Pennleaf Hybrid	Pennington Seed	4.1	86	16.5	46.3	47.8	32	39	1.07	1.40	0.68	1.33	4.47
Prime360	Byron Seed	3.8	88	16.5	17.0	49.0	28	28	1.01	1.27	0.84	1.18	4.30
SweetSummer	Cisco Seeds	4.4	96	16.0	24.3	53.5	29	28	1.09	1.24	0.72	1.06	4.10
SS1562M BMR	Southern States	4.3	91	16.3	17.0	49.0	28	28	0.97	1.23	0.82	1.00	4.02
Experimental Varieties													
LeafyTR9	Coffey Seed	3.9	92	16.8	24.8	45.0	32	35	1.19	1.36	0.78	1.42	4.75
LeafyTR7	Coffey Seed	4.4	88	16.5	45.0	43.3	32	38	1.09	1.40	0.69	1.31	4.49
Mean		4.2	91	20.9	36.4	48.4	34	36	1.25	1.43	0.74	1.20	4.62
CV,%		12.6	8	16.2	25.0	7.8	6	8	16.68	12.10	14.54	19.27	11.57
LSD,0.05		0.8	10	4.8	13.0	5.4	3	4	0.23	0.25	0.15	0.33	0.76

[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 3 for complete scale.
[3] BMR (brown mid-rib) means that a variety has been developed to produce lower amounts of lignin which usually translates into higher quality.
* Not significantly different from the highest numerical value in the column, based on the 0.05 LSD.
Nitrogen application: 50 lb/ A of actual nitrogen on June 9 and 40lb on July 13 (Total of 90 lb of N/acre).

Table 17. Dry matter yields, seedling vigor, stand rating, maturity, and plant height of pearl millet varieties sown May 21, 2024, at Lexington, Kentucky.

Variety	Proprietor/Distributor	Seedling Vigor[1] Jun 4	Percent Stand Jun 4	Maturity[2]			Plant Height (in)			Yield (tons/acre)			
				Jul 16	Aug 6	Sep 18	Jul 16	Aug 6	Sep 18	Jul 16	Aug 6	Sep18	Total
Commercial Varieties-Available for Farm Use													
Tifleaf III Hybrid	Gayland Ward Seed	4.4	100	17.0	55.5	59.0	24	31	27	0.73	0.93	1.85	3.51*
Wonderleaf	Advant seeds	4.3	100	52.3	46.3	58.5	34	25	29	1.16	0.61	1.66	3.43*
Leafy22 Hybrid	Turner Seed	4.1	100	16.8	53.3	57.5	27	29	27	0.73	0.80	1.89	3.42*
Millex32	Sorghum Partners	4.6	100	56.5	54.0	58.5	38	25	32	1.39	0.47	1.53	3.38*
Exceed BMR[3]	Coffey Seed	4.4	100	16.3	38.5	58.5	25	20	26	0.74	0.64	1.92	3.30*
PearlMil	Dyna-Gro Seed	3.9	100	16.8	53.5	59.0	25	29	28	0.65	0.77	1.83	3.25*
Prime360	Byron Seed	4.4	99	16.5	38.5	57.5	24	20	24	0.61	0.64	1.85	3.10*
Epic BMR	Coffey Seed	4.3	99	16.0	31.0	59.5	21	19	25	0.69	0.58	1.80	3.07*
SS635	Southern States	3.9	100	16.8	54.0	58.0	23	29	25	0.60	0.70	1.77	3.07*
SweetSummer	Cisco Seeds	4.4	100	16.3	34.5	56.5	23	18	23	0.66	0.56	1.82	3.04
PP102M Hybrid	Cisco Seeds	4.3	100	56.0	53.0	57.5	32	26	23	0.92	0.59	1.41	2.91
Pennleaf Hybrid	Pennington Seed	3.6	100	16.5	50.8	57.5	22	23	25	0.51	0.64	1.72	2.86
SS1562M BMR	Southern States	4.3	100	15.8	31.0	56.5	21	18	20	0.51	0.49	1.64	2.64
Experimental Varieties													
LeafyTR9	Coffey Seed	4.4	100	17.3	48.8	57.0	28	27	29	0.79	0.82	2.14	3.75*
LeafyTR7	Coffey Seed	4.1	100	16.3	48.8	57.5	24	26	28	0.78	0.80	1.98	3.57*
Mean		4.2	100	24.2	46.1	57.9	26	24	26	0.77	367.00	1.79	3.22
CV,%		11.9	1	6.2	8.1	2.6	12	11	11	28.12	18.17	12.13	15.19
LSD,0.05		0.7	1	2.1	5.3	2.2	4	4	4	0.31	0.17	0.31	0.70

[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 3 for complete scale.
[3] BMR (brown mid-rib) means that a variety has been developed to produce lower amounts of lignin which usually translates into higher quality.
* Not significantly different from the highest numerical value in the column, based on the 0.05 LSD.
Nitrogen application: 40 lb/A of actual nitrogen on May 22 and 40 lb on July 23 (Total of 80 lb of N/acre).

Table 18. Dry matter yields, seedling vigor, stand rating, maturity, and plant height of pearl millet varieties sown June 3, 2025, at Lexington, Kentucky.

Variety	Proprietor/Distibutor	Seedling Vigor[1] Jun 30	Percent Stand Jun 30	Maturity[2]		Plant Height (in)		Yield (tons/acre)			
				Jul 13	Sep 4	Jul 13	Sep 4	Jul 13	Sep 4	Oct 15	Total
Commercial Varieties-Available for Farm Use											
Leafy22 Hybrid	Turner Seed	4.9	100	47.8	53.3	46	32	2.02	0.84	0.98	3.85*
Tifleaf III	Gayland Ward Seed	4.9	100	34.3	57.5	45	34	2.01	0.88	0.85	3.73*
Millex32	Sorghum Partners	4.6	100	31.5	51.8	34	29	1.71	0.99	0.81	3.51*
PearlMil	Dyna-Gro Seed	4.8	100	37.0	55.0	34	30	1.46	1.12	0.91	3.49*
Pennleaf Hybrid	Pennington Seed	5.0	100	36.0	56.0	36	29	1.61	0.98	0.87	3.46*
Wonderleaf	Advanta Seeds	4.5	100	29.0	56.5	32	29	1.37	1.12	0.86	3.35*
SS1562 BMR[3]	Southern States	4.6	100	37.8	43.3	36	23	1.42	0.88	0.94	3.24*
Sweet Summer	Cisco Seed	4.6	100	31.5	56.0	28	26	1.09	1.11	1.00	3.20*
SS635	Southern States	4.5	100	35.5	56.0	31	34	1.21	0.97	0.97	3.14*
Epic BMR	Coffey Seed	4.9	100	29.0	57.0	26	29	0.96	1.14	1.03	3.13*
Exceed BMR	Coffey Seed	4.5	100	33.0	57.0	30	29	1.06	0.95	0.96	2.96
Prime360	Byron Seed	4.7	100	33.0	52.3	28	27	1.03	0.89	0.90	2.83
Mean		4.7	100	34.6	54.3	34	29	1.41	0.99	0.92	3.32
CV,%		6.9	0	22.5	8.7	33	41	37.20	24.95	13.04	17.64
LSD,0.05		0.5	0	11.2	6.8	16	5	0.76	0.35	0.17	0.84

[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 3 for complete scale.
[3] BMR (brown mid-rib) means that a variety has been developed to produce lower amounts of lignin which usually translates into higher quality.
* Not significantly different from the highest numerical value in the column, based on the 0.05 LSD.
Nitrogen application: 50 lb/A of actual nitrogen on June 17.

Table 19. Dry matter yields and plant height of pearl millet varieties sown May 31, 2023, at Princeton, Kentucky.

Variety	Proprietor/Distributor	Plant Height (in)		Yield (DM tons/acre)		
		Aug 8	Oct 20	Aug 8	Oct 20	Total
Commercial Varieties-Available for Farm Use						
Tifleaf III Hybrid	Gayland Ward Seed	52	44	2.17	3.03	5.20*
Epic BMR[1]	Coffey Seed	36	45	1.81	3.06	4.87*
SS1562M BMR	Southern States	35	42	1.92	2.68	4.60*
Leafy22 Hybrid	Turner Seed	46	46	1.87	2.58	4.45*
SweetSummer	Cisco Seeds	41	39	1.84	2.52	4.36*
Prime360	Byron Seed	36	45	0.79	2.80	3.59*
Millex32	Sorghum Partners	76	52	1.61	1.85	3.46
SS635	Southern States	44	48	0.95	2.48	3.43
PearlMil	Dyna-Gro Seed	48	49	0.75	2.55	3.30
PP102M Hybrid	Cisco Seeds	61	45	1.45	1.48	2.94
Exceed BMR	Coffey Seed	37	40	1.01	1.68	2.68
Wonderleaf	Advanta Seed	67	45	1.16	1.37	2.53
Experimental Varieties						
LeafyTR9	Coffey Seed	45	49	1.65	3.22	4.87*
LeafyTR7	Coffey Seed	45	49	1.92	2.87	4.78*
Mean		48	45	1.49	2.44	3.93
CV,%		12	11	46.71	23.44	29.07
LSD,0.05		8	7	1.00	0.82	1.64

[1] BMR (brown mid-rib) means that a variety has been developed to produce lower amounts of lignin which usually translates into higher quality.

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

Nitrogen application: 60 lb/A of actual nitrogen on May 24 and August 9 (Total of 120 lb of N/acre).

Table 20. Dry matter yields and plant height of pearl millet varieties sown June 13, 2024, at Princeton, Kentucky.

Variety	Proprietor/Distributor	Plant Height (in)		Yield (tons/acre)		
		Jul 26	Sep 3	Jul 26	Sep 3	Total
Commercial Varieties-Available for Farm Use						
Millex32	Sorghum Partners	67	45	2.38	1.29	3.68*
Tifleaf III Hybrid	Gayland Ward Seed	41	36	1.66	1.59	3.26*
Wonderleaf	Advanta Seed	55	36	1.91	1.33	3.25
SweetSummer	Cisco Seeds	36	29	1.62	1.58	3.21
PearlMil	Dyna-Gro Seed	42	39	1.73	1.46	3.19
SS1562M BMR[1]	Southern States	36	31	1.64	1.52	3.17
Leafy 22 Hybrid	Turner Seed	42	35	1.82	1.31	3.13
SS635	Southern States	42	40	1.48	1.48	2.96
PP102M Hybrid	Cisco Seeds	46	41	1.41	1.52	2.93
Epic BMR	Coffey Seed	37	31	1.58	1.34	2.91
Prime360	Byron Seed	37	33	1.39	1.40	2.79
Exceed BMR	Coffey Seed	37	27	1.57	1.08	2.65
Experimental Varieties						
LeafyTR7	Coffey Seed	39	37	1.62	1.54	3.16
LeafyTR9	Coffey Seed	37	38	1.34	1.48	2.82
Mean		42	35	1.66	1.42	3.08
CV,%		7	11	15.19	18.50	9.64
LSD,0.05		4	6	0.36	0.36	0.42

[1] BMR (brown mid-rib) means that a variety has been developed to produce lower amounts of lignin which usually translates into higher quality.

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

Nitrogen application: 65 lb/A of actual nitrogen on April 26 and 60 lb on August 12 (Total of 125 lb of N/acre).

Table 21. Dry matter yields and plant height of pearl millet varieties sown June 24, 2025, at Princeton, Kentucky.

Variety	Proprietor/Distributor	Plant Height(in) Aug 12	Yield (tons/acre)[1] Aug 12
Commercial Varieties-Available for Farm Use			
Millex32	Sorghum Partners	68	2.95*
Wonderleaf	Advanta Seed	61	2.58*
SS635	Southern States	51	2.45*
PP102MHybrid	Cisco Seeds	66	2.44*
Prime360	Byron Seed	44	2.14*
Epic BMR[2]	Coffey Seed	39	1.94*
Sweet Summer	Cisco Seeds	48	1.86
Tifleaf III	Gayland Ward Seed	48	1.75
Leafy22 Hybrid	Turner Seed	50	1.68
PearlMil	Dyna-Gro Seed	50	1.68
SS1562 BMR	Southern States	45	1.67
Exceed BMR	Coffey Seed	40	1.35
Mean		51	2.04
CV,%		17	35.18
LSD,0.05		9	1.03

[1] There was only one harvest due to the below normal precipitatiion in July, August, and September.

[2] BMR (brown mid-rib) means that a variety has been developed to produce lower amounts of lignin which usually translates into higher quality.

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

Nitrogen application: 80 lb/A of actual nitrogen on June 10.

Table 22. Dry matter yields, seedling vigor, stand rating, heading date, aphid damage, plant height, and maturity of forage sorghum varieties sown June 3, 2022, at Lexington, Kentucky.

Variety	Proprietor/Distributor	Seedling Vigor[1] Jul 1	Percent Stand Jul 1	Heading Date[2]	Sugar Cane Aphid Injury[3] Sep 19	Plant Height (ft) Sep 19	Maturity[4] Sep 19	Yield (DM tons/acre) Sep 19
Commercial Varieties-Available for Farm Use								
SP1615	Sorghum Partners	4.9	100	did not head	1.5	13.0	29.0	11.07*
F74FS72 BMR[5]	Dyna-Gro Seeds	5.0	98	Aug 26	2.8	9.6	83.0	8.86*
Kallisto	KWS SAAT SE&Co. KGaA	5.0	96	Aug 15	2.8	11.5	87.8	7.89
TopTon	Dyna-Gro Seeds	4.6	97	Aug 26	1.8	9.3	77.5	7.39
NK300	Sorghum Partners	4.6	99	Aug 31	2.8	10.5	81.3	7.09
F74FS23 BMR	Dyna-Gro Seeds	4.9	97	Aug 23	1.3	11.0	84.3	7.04
SS304	Sorghum Partners	4.4	98	Aug 30	3.3	10.6	85.0	7.00
Ensilemaster	Caudill Seed	4.9	100	Aug 20	1.5	12.0	80.0	6.95
Super Sile 30	Dyna-Gro Seeds	5.0	100	Aug 23	2.3	11.8	81.3	6.05
SS1515	Southern States	4.9	99	Aug 23	2.5	9.8	81.3	5.97
AF7401 BMR	Advanta Seed	4.8	98	Aug 20	2.5	7.8	85.5	5.93
Super Sile 20	Dyna-Gro Seeds	4.6	99	Aug 24	2.5	8.4	80.5	5.67
GW2120	Gayland Ward Seed	4.9	100	Aug 18	1.5	8.6	81.8	5.60
SS405	Sorghum Partners	4.8	86	Aug 25	3.5	12.3	84.3	5.54
AF8301	Advanta Seed	4.6	95	Aug 30	1.3	10.1	77.5	5.53
AF7201 BMR Brachytic Dwarf)	Advanta Seed	4.8	98	Aug 19	2.0	8.8	83.0	5.53
ADV7232 BMR	Advanta Seed	4.5	98	Aug 31	2.5	7.5	83.8	5.32
SP3905BD BMR	Sorghum Partners	4.5	100	Aug 20	3.0	7.3	86.3	5.26
SiloPro BMR (Brachytic Dwarf)	Gayland Ward Seed	4.6	88	Sep 3	4.3	7.0	77.5	5.11
F75FS13	Dyna-Gro Seeds	4.6	97	Aug 31	3.3	9.9	77.5	5.05
Freya	KWS SAAT SE&Co. KGaA	4.9	90	Aug 26	2.0	8.8	80.0	5.00
SP3904BD BMR	Sorghum Partners	4.3	96	Aug 27	2.0	9.0	80.5	4.74
Mean		4.7	97	Aug 25	2.4	9.7	81.9	6.36
CV,%		8.4	7	13 days	47.2	23.1	7.4	26.16
LSD,0.05		0.6	10	15 days	1.6	3.2	8.5	2.39

[1] Vigor score based on a scale of 1 to 5 with 5 being the most vigorous seedling growth.
[2] Approximately 50% of heads fully emerged. Those without a date are photoperiod sensitive and remain vegetative all season.
[3] Aphid damage score based on a scale of 1 to 9 with 9 indicating all leaves affected by aphids.
[4] Maturity rating scale: 29=9 or more elongated sheaths, 45=boot swollen, 62=beginning of pollen shed, 75=endosperm milky, 93=endosperm hard and dry. See Table 3 for complete scale.
[5] BMR (brown mid-rib) means that a variety has been developed to produce lower amounts of lignin which usually translates into higher quality.
* Not significantly different from the highest numerical value in the column, based on the 0.05 LSD.
Nitrogen application: 100 lb/A of actual nitrogen on June 6.

Table 23. Dry matter yields, seedling vigor, stand rating, heading date, plant height, and maturity of forage sorghum varieties sown June 5, 2023, at Lexington, Kentucky.

Variety	Proprietor/Distributor	Seedling Vigor[1] Jun 29	Percent Stand Jun 29	Heading Date[2]	Maturity[3] Sep 18	Plant Height (ft) Sep 18	Yield (DM tons/acre) Sep 19
Commercial Varieties-Available for Farm Use							
SS405	Sorghum Partners	4.5	100	Sep 5	85.0	10.3	7.47*
Ensilemaster	Caudill Seed	2.9	91	Sep 4	81.5	9.6	6.70
SP1615	Sorghum Partners	3.5	98	did not head	29.0	8.8	6.59
Super Sile 20	Dyna-Gro Seeds	3.5	100	Sep 5	80.0	9.4	6.50
Super Sile 30	Dyna-Gro Seeds	3.8	100	Sep 6	82.0	9.9	6.40
TopTon	Dyna-Gro Seeds	3.1	95	Sep 3	84.5	9.8	5.71
ADV84841G	Advanta Seed	3.1	100	Sep 1	84.5	5.5	5.65
AF8301	Advanta Seed	4.3	100	Aug 24	85.0	7.1	5.45
SS304	Sorghum Partners	2.8	98	Sep 6	84.5	9.8	5.39
SP3904BD BMR[4](Brachytic Dwarf)	Sorghum Partners	3.5	100	Aug 29	85.0	5.5	5.37
SS1515	Southern States	3.5	100	Aug 26	85.0	6.5	5.31
ADV8322	Advanta Seed	3.5	99	Sep 3	82.5	6.3	5.26
F75FS13	Dyna-Gro Seeds	3.6	99	Aug 20	86.0	9.4	5.18
Kallisto	KWS SAAT SE&Co.KGaA	4.6	100	Aug 14	87.5	11.5	5.12
GW2120	Gayland Ward Seed	2.9	98	Aug 19	84.5	8.5	4.93
AF7401 BMR	Advanta Seed	3.3	100	Aug 30	85.0	5.5	4.73
NK300	Sorghum Partners	4.1	100	Aug 23	86.0	6.3	4.69
SP1727 BMR	Sorghum Partners	3.3	100	Sep 3	84.5	8.6	4.62
F74S23 BMR	Dyna-Gro Seeds	3.3	93	Aug 24	85.0	7.6	4.53
F74S72 BMR	Dyna-Gro Seeds	3.4	99	Aug 30	85.0	5.3	4.52
SP2606 BMR	Sorghum Partners	3.4	98	Aug 23	85.0	6.6	4.42
ADV7232 BMR	Advanta Seed	3.3	100	Sep 2	85.5	5.1	4.27
AF7201 BMR (Brachytic Dwarf)	Advanta Seed	3.8	100	Aug 21	85.5	8.0	4.20
SP3905BD BMR (Brachytic Dwarf)	Sorghum Partners	2.9	100	Aug 17	85.5	6.3	4.20
SP2707DT	Sorghum Partners	2.9	92	Sep 4	85.0	5.0	4.16
Freya	KWS SAAT SE&Co.KGaA	4.0	100	Aug 12	88.0	9.1	3.70
SiloPro BMR (Brachytic Dwarf)	Gayland Ward Seed	2.9	95	Aug 30	82.0	5.8	3.34
SS2010BDF	Allied Seed/Southern States	2.9	96	Aug 31	85.0	5.0	3.03
Experimental Varieties							
ADVXS252	Advanta Seed	2.6	100	Aug 19	86.5	5.6	3.59
ADVXS242	Advanta Seed	2.8	99	Aug 20	87.0	5.6	3.02
Mean		3.4	98	Aug 29	84.8	7.4	4.93
CV,%		12.8	2	3 days	2.9	9.5	10.38
LSD,0.05		0.6	3	3 days	3.4	1.0	0.72

[1] Vigor score based on a scale of 1 to 5 with 5 being the most vigorous seedling growth.
[2] Approximately 50% of heads fully emerged. Those without a date are photoperiod sensitive and remain vegetative all season.
[3] Maturity rating scale: 29=9 or more elongated sheaths, 45=boot swollen, 62=beginning of pollen shed, 75=endosperm milky, 93=endosperm hard and dry. See Table 3 for complete scale.
[4] BMR (brown mid-rib) means that a variety has been developed to produce lower amounts of lignin which usually translates into higher quality.
* Not significantly different from the highest numerical value in the column, based on the 0.05 LSD.
Nitrogen application: 100 lb/A of actual nitrogen on June 9.

Table 24. Dry matter yields, seedling vigor, stand rating, heading date, plant height, and maturity of forage sorghum varieties sown June 3, 2025, at Lexington, Kentucky.

Variety	Proprietor/Distributor	Seedling Vigor[1] Jun 30	Percent Stand Jun 30	Heading Date[2]	Plant Height(ft) Sep 25	Maturity[3] Sep 25	Yield (DM tons/acre) Sep 25
Commercial Varieties-Available for Farm Use							
Supersile20	Dyna-Gro Seeds	4.6	100	Sep 8	10.4	85.0	6.87*
SS304	Sorghum Partners	4.3	98	Sep 5	10.3	84.5	6.82*
SS405	Sorghum Partners	4.9	100	Sep 14	11.4	85.0	6.74*
TopTon	Dyna-Gro Seeds	4.4	99	Sep 5	10.5	83.5	6.37*
SP1615	Sorghum Partners	4.5	99	did not head	10.0	29.0	6.00*
Supersile30	Dyna-Gro Seeds	4.6	99	Sep 4	10.5	87.5	5.75*
ADV84841G	Advanta Seeds	4.6	100	Sep 10	6.3	85.5	5.63*
AF8301	Advanta Seeds	4.3	100	Sep 4	7.4	85.5	5.45
Ensilemaster	Caudill Seed	3.6	80	Sep 7	9.5	83.5	5.36
SP3904 BD[4] BMR[5]	Sorghum Partners	4.6	100	Sep 7	6.8	85.5	5.31
ADV8322	Advanta Seeds	3.9	99	Sep 13	7.4	84.5	5.23
Kallisto	KWS SAAT SE&Co.KGaA	4.8	99	Aug 8	12.0	90.0	5.13
ADV7232 BMR	Advanta Seeds	4.6	100	Sep 7	5.9	85.0	5.05
AF7401 BMR	Advanta Seeds	4.5	100	Sep 5	6.0	85.5	4.97
SP1792 MS[6]	Sorghum Partners	4.3	100	Aug 10	9.4	88.0	4.89
NK300	Sorghum Partners	4.8	100	Aug 31	7.4	85.5	4.64
SP2606 BMR	Sorghum Partners	4.8	99	Aug 25	8.0	85.0	4.60
SP2707 DT	Sorghum Partners	4.3	100	Sep 4	5.6	85.0	4.54
F74S72 BMR	Dyna-Gro Seeds	4.5	99	Sep 6	5.9	85.0	4.50
F7422 BMR BrDw[4]	Ramer Seed	4.1	100	Aug 28	8.1	84.5	4.40
SP1727 BMR	Sorghum Partners	3.9	94	Aug 22	9.3	87.0	4.38
F75FS13	Dyna-Gro Seeds	3.9	95	Aug 13	10.3	88.0	4.36
F74S23 BMR	Dyna-Gro Seeds	3.9	91	Sep 3	10.1	84.0	4.20
AF7201 BMR BrDw	Advanta Seeds	4.5	95	Aug 13	9.0	86.0	3.69
SP3905 BD BMR	Sorghum Partners	4.5	98	Aug 8	7.1	88.5	3.59
Freya	KWS SAAT SE&Co.KGaA	4.5	100	Aug 5	11.8	89.5	3.40
SiloPro BMR BrDw	Gayland Ward Seed	3.6	90	Aug 29	6.9	83.0	3.01
SS1515	Southern States	3.4	84	Aug 30	6.0	83.5	2.99
19182	Gayland Ward Seed	3.9	98	Aug 19	7.4	84.0	2.82
SS2010 BDF	Allied Seed/Southern States	3.9	98	Aug 21	5.6	87.0	2.05
Experimental Varieties							
ADVXS252	Advanta Seeds	4.0	99	Aug 13	5.6	89.5	2.64
ADVXS242	Advanta Seeds	3.6	99	Aug 13	5.9	90.5	2.49
Mean		4.3	97	Aug 27	8.2	85.9	4.62
CV,%		11.4	5	6 days	11.6	2.3	21.56
LSD,0.05		0.7	7	7 days	1.3	2.7	1.40

[1] Vigor score based on a scale of 1 to 5 with 5 being the most vigorous seedling growth.
[2] Approximately 50% of heads fully emerged. Those without a date are photoperiod sensitive and remain vegetative all season.
[3] Maturity rating scale: 29=9 or more elongated sheaths, 45=boot swollen, 62=beginning of pollen shed, 75=endosperm milky, 93=endosperm hard and dry. See Table 3 for complete scale.
[4] BD and BrDw–Brachytic dwarf.
[5] BMR (brown mid-rib) means that a variety has been developed to produce lower amounts of lignin which usually translates into higher quality.
[6] MS–Male sterile.
* Not significantly different from the highest numerical value in the column, based on the 0.05 LSD.
Nitrogen application: 80 lb/A of actual nitrogen on June 17.

Table 25. Dry matter yields, maturity, plant height, lodging, and sugar cane aphid rating of forage sorghum varieties sown May 25, 2021, at Princeton, Kentucky.

Variety	Proprietor/Distributor	Sugarcane Aphid[1] Sep 20	Plant Height (ft) Sep 20	Lodging[2] Sep 20	Maturity[3] Sep 20	Yield (DM tons/acre) Sep 23
Commercial Varieties-Available for Farm Use						
SS405	Sorghum Partners	3.0	12.6	1.1	77.5	16.69*
SP1615	Sorghum Partners	1.8	13.0	0.3	29.0	14.32*
Super Sile 20	Dyna-Gro Seed	1.8	10.6	6.0	83.0	12.85
Super Sile 30	Dyna-Gro Seed	2.0	11.1	5.4	85.0	11.39
TopTon	Dyna-Gro Seed	2.0	10.5	10.0	82.5	10.68
AF8301	Advanta Seed	2.3	7.6	5.0	87.0	9.66
SS1515	Southern States	2.0	7.3	6.4	86.5	9.60
SP3904BD BMR[4](Brachytic Dwarf)	Sorghum Partners	1.5	6.8	1.3	85.0	8.74
GW600 BMR	Gayland Ward Seed	1.3	9.8	9.9	87.0	8.70
SS304	Sorghum Partners	2.3	11.0	7.5	82.5	8.18
NK300	Sorghum Partners	1.8	7.1	6.9	86.5	8.00
F74FS23 BMR	Dyna-Gro Seed	2.5	9.6	9.4	85.5	7.98
ADV7232 BMR	Advanta Seed	1.5	6.3	0.5	83.0	7.94
AF7201 BMR (Brachytic Dwarf)	Advanta Seed	1.5	8.3	8.8	87.0	7.91
F75FS13	Dyna-Gro Seed	1.5	9.5	7.8	87.0	7.51
SiloPro BMR (Brachytic Dwarf)	Gayland Ward Seed	2.5	7.4	2.0	82.5	7.50
F74FS72 BMR	Dyna-Gro Seed	1.8	6.1	0.0	82.5	7.33
GW2120	Gayland Ward Seed	1.3	8.8	3.0	87.0	7.03
Ensilemaster	Caudill Seed	1.8	11.0	9.5	82.5	6.85
AF7401 BMR (Brachytic Dwarf)	Advanta Seed	1.0	6.9	0.3	85.0	6.26
GW475 BMR	Gayland Ward Seed	2.3	9.0	9.6	87.0	5.77
GW400 BMR	Gayland Ward Seed	1.3	8.9	9.9	87.0	5.70
SWFS8802	Sorghum Partners	2.0	6.5	4.1	87.0	5.49
SP3905BD BMR (Brachytic Dwarf)	Sorghum Partners	1.5	7.0	9.9	87.0	4.98
Mean		1.8	8.9	5.6	84.9	8.63
CV,%		36.1	6.7	40.1	3.6	22.61
LSD,0.05		0.9	0.8	3.2	4.3	2.75

[1] Aphid damage score based on a scale of 1 to 9 with 9 indicating all leaves affected by aphids.
[2] Lodging score based on a scale of 0 to 10. 0 indicating no lodging and 10 indicating all plants lodged.
[3] Maturity rating scale: 29=9 or more elongated sheaths, 45=boot swollen, 62=beginning of pollen shed, 75=endosperm milky, 93=endosperm hard and dry. See Table 3 for complete scale.
[4] BMR (brown mid-rib) means that a variety has been developed to produce lower amounts of lignin which usually translates into higher quality.
* Not significantly different from the highest numerical value in the column, based on the 0.05 LSD.
Nitrogen application: 120 lb/A of actual nitrogen on May 27.

Table 26. Dry matter yields, lodging, sugarcane aphid injury, plant height, and maturity of forage sorghum varieties sown June 1, 2022, at Princeton, Kentucky.

Variety	Proprietor/Distributor	Lodging[1] Sep 15	Sugarcane Aphid Injury[2] Sep 15	Plant Height (ft) Sep 15	Maturity[3] Sep 15	Yield (DM tons/acre) Sep 16
Commercial Varieties-Available for Farm Use						
SS405	Sorghum Partners	0.0	5.3	13.7	73.5	12.40*
Kallisto	KWS SAAT SE&Co.KGaA	0.5	6.1	12.6	91.0	9.83
SP1615	Sorghum Partners	0.3	4.4	13.4	29.0	9.10
Supersile 30	Dyna-Gro Seeds	2.8	4.5	12.3	80.0	7.83
AF8301	Advanta Seeds	0.8	6.5	8.4	84.0	7.30
Freya	KWS SAAT SE&Co.KGaA	0.0	7.8	10.2	91.0	7.21
SS304	Sorghum Partners	1.5	5.0	12.6	80.0	7.13
Supersile 20	Dyna-Gro Seeds	2.7	5.7	12.2	77.7	6.80
SS1515	Southern States	0.9	5.8	8.2	82.5	6.42
NK300	Sorghum Partners	0.0	6.6	8.0	85.0	6.26
SP3904BD BMR[4]	Sorghum Partners	0.0	4.5	7.1	75.0	6.24
Ensilemaster	Caudill Seed	4.0	5.6	12.2	75.0	6.23
F74FS23 BMR	Dyna-Gro Seeds	3.5	6.9	11.4	75.0	5.86
ADV7232 BMR	Advanta Seeds	0.0	5.9	6.4	74.5	5.82
AF7201 BMR (Brachytic Dwarf)	Advanta Seeds	1.3	5.8	9.2	86.5	5.62
AF7401 BMR	Advanta Seeds	0.0	4.4	6.8	75.0	5.62
TopTon	Dyna-Gro Seeds	4.5	4.5	13.3	74.5	5.28
F74FS72 BMR	Dyna-Gro Seeds	0.0	6.0	6.2	78.3	5.25
GW2120	Gayland Ward Seed	0.3	5.1	9.2	87.0	5.15
SP3905BD BMR	Sorghum Partners	0.0	5.3	6.9	91.0	4.81
F75FS13	Dyna-Gro Seeds	1.8	6.1	9.3	91.0	4.74
SiloPro BMR (Brachytic Dwarf)	Gayland Ward Seed	0.0	7.1	7.7	76.5	4.68
Mean		1.1	5.7	9.9	78.8	6.63
CV,%		99.0	21.3	8.3	5.2	16.67
LSD,0.05		1.6	1.7	1.2	5.9	1.59

[1] Lodging score based on a scale of 0 to 9 with 0 indicating no lodging and 9 indicating all plants lodged.
[2] Aphid damage score based on a scale of 1 to 9 with 9 indicating all leaves affected by aphids.
[3] Maturity rating scale: 29=9 or more elongated sheaths, 45=boot swollen, 62=beginning of pollen shed, 75=endosperm milky, 93=endosperm hard and dry. See Table 3 for complete scale.
[4] BMR (brown mid-rib) means that a variety has been developed to produce lower amounts of lignin which usually translates into higher quality.
* Not significantly different from the highest numerical value in the column, based on the 0.05 LSD.
Nitrogen application: 120 lb/A of actual nitrogen on June 6.

Table 27. Dry matter yields, maturity, and plant height of forage sorghum varieties sown May 31, 2023, at Princeton, Kentucky.

Variety	Proprietor/Distributor	Maturity[1] Sep 20	Plant Height(ft) Sep 20	Yield (DM tons/acre) Sep 21
Commercial Varieties-Available for Farm Use				
SS404	Sorghum Partners	58.5	14.5	10.94*
Kallisto	KWS SAAT SE&Co.KGaA	83.0	14.0	10.72*
TopTon	Dyna-Gro Seed	69.3	12.8	10.09*
SP1615	Sorghum Partners	29.0	13.5	9.97*
Supersile 30	Dyna-Gro Seed	77.5	12.6	9.00
Supersile 20	Dyna-Gro Seed	74.0	12.9	8.75
AF8301	Advanta Seed	75.0	7.9	8.48
ADV8322	Advanta Seed	74.0	8.5	7.90
Freya	KWS SAAT SE&Co.KGaA	83.0	12.4	7.87
SS304	Sorghum Partners	77.5	12.0	7.61
Ensilemaster	Caudill Seed	79.0	12.5	7.60
ADV84841G	Advanta Seed	70.3	6.9	7.28
F74FS23 BMR[2]	Dyna-Gro Seed	76.5	11.4	7.24
SS1515	Southern States	75.0	7.7	7.11
NK300	Sorghum Partners	75.0	7.7	6.86
SP2707DT	Sorghum Partners	75.0	6.0	6.50
AF7201 BMR (BrachyticDwarf)	Advanta Seed	87.0	10.0	6.48
SP1727 BMR	Sorghum Partners	71.3	10.0	6.05
SP2606 BMR	Sorghum Partners	75.0	8.3	5.94
GW2120	Gayland Ward Seed	80.0	9.7	5.72
AF7401 BMR	Advanta Seed	75.0	6.6	5.54
F74FS72 BMR	Dyna-Gro Seed	73.0	6.0	5.16
SP3904BD BMR (Brachytic Dwarf)	Sorghum Partners	74.0	6.6	5.11
ADV7232BMR	Advanta Seed	71.8	6.7	4.99
SP39605BD BMR (Brachytic Dwarf)	Sorghum Partners	87.0	7.7	4.79
F75FS13	Dyna-Gro Seed	83.5	10.8	4.72
SS2010BDF	Allied Seed/Southern States	85.0	6.0	4.59
SiloPro BMR (Brachytic Dwarf)	Gayland Ward Seed	68.3	8.9	4.21
Experimental Varieties				
ADVXS252	Advanta Seed	85.5	6.1	3.94
ADVXS242	Advanta Seed	85.5	6.0	3.67
Mean		75.1	9.4	6.83
CV,%		5.9	7.4	18.40
LSD,0.05		6.2	1.0	1.77

[1] Maturity rating scale: 29=9 or more elongated sheaths, 45=boot swollen, 62=beginning of pollen shed, 75=endosperm milky, 93=endosperm hard and dry. See Table 3 for complete scale.
[2] BMR (brown mid-rib) means that a variety has been developed to produce lower amounts of lignin which usually translates into higher quality.
* Not significantly different from the highest numerical value in the column, based on the 0.05 LSD.
Nitrogen application: 60 lb/A of actual nitrogen on May 24 and June 12 (Total of 120 lb of N/acre).

Table 28. Dry matter yields, seedling vigor, stand rating, maturity, and plant height of teff varieties sown May 21, 2024, at Lexington, Kentucky.

Variety[1]	ProprietorDistributor	Seedling Vigor[2] Jun 4	Percent Stand Jun 4	Maturity[3]			Plant Height(in) Jul 16	Yield (tons/acre)			
				Jul 16	Aug 6	Sep 18		Jul 16	Aug 6	Sep 18	Total
Commercial Varieties-Available for Farm Use											
Pharoah	First Line Seeds	4.6	100	56.0	56.0	59.0	21	0.95	0.76	0.26	1.98*
CW0604	Barenbrug USA	4.1	99	54.5	56.5	58.0	17	0.49	0.67	0.29	1.45*
Corvallis	Smith Seed Services	4.6	99	56.0	55.0	58.5	17	0.58	0.68	0.17	1.43*
Tiffany	Barenbrug USA	3.5	85	56.0	56.5	59.0	17	0.49	0.67	0.23	1.38
VAT1Brown	Hankins Seed	4.0	92	55.5	55.0	58.0	15	0.52	0.62	0.20	1.33
Velvet	–	3.9	84	54.5	56.0	57.5	17	0.40	0.71	0.16	1.27
SummerDelight	Cisco Seeds	3.5	92	55.5	55.5	60.0	17	0.45	0.63	0.16	1.24
Dessie	Allied Seed	4.0	98	56.0	56.5	57.5	16	0.45	0.54	0.10	1.10
Moxie	Barenbrug USA	3.3	73	55.5	58.0	57.0	14	0.34	0.57	0.15	1.05
HorseCandi	–	3.0	95	56.0	56.0	58.5	16	0.28	0.54	0.16	0.98
Experimental Varieties											
BARETCT	Barenbrug USA	4.4	100	55.0	56.5	58.5	18	0.67	0.72	0.18	1.57*
F11		4.0	99	53.5	56.5	57.5	17	0.45	0.63	0.21	1.28
Mean		3.9	93	55.3	56.2	58.3	17	0.51	0.64	0.19	1.34
CV,%		14.9	15	2.3	1.6	2.3	20	41.39	23.55	46.28	28.63
LSD,0.05		0.8	20	1.8	1.3	1.9	5	0.30	0.22	0.13	0.55

[1] Check with local dealers for available varieties.
[2] Vigor score based on a scale of 1 to 5 with 5 being the most vigorous seedling growth.
[3] 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 3 for complete scale.
* Not significantly different from the highest numerical value in the column, based on the 0.05 LSD.
Nitrogen application: 40 lb/A of actual nitrogen on May 22 and 40 lb on July 22 (Total of 80 lb of N/acre).

Table 29. Dry matter yields, seedling vigor, stand rating, and maturity of teff varieties sown June 3, 2025, at Lexington, Kentucky.

Variety[1]	Proprietor/Distributor	Seedling Vigor[2] Jun 30	Percent Stand Jun 30	Maturity[3]		Yield (tons/acre)		
				Jul 17	Sep 4	Jul 17	Sep 4	Total
Commercial Varieties-Available for Farm Use								
VAT1Brown	Hankins Seed	4.8	100	56.0	62.0	2.04	0.69	2.72*
Tiffany	Barenbrug USA	5.0	100	56.0	62.0	2.09	0.63	2.71*
Summer Delight	Cisco Seeds	4.9	100	56.0	62.0	2.05	0.66	2.71*
Dessie	Allied Seed	5.0	100	56.0	62.0	2.03	0.60	2.62*
Velvet	–	4.6	100	56.0	62.0	1.93	0.69	2.61*
Corvallis	Smith Seed Services	4.9	100	55.5	62.0	1.83	0.77	2.60*
HorseCandi	–	5.0	100	56.0	62.0	1.86	0.73	2.59*
Pharoah	First Line Seeds	4.9	100	56.0	62.0	2.03	0.52	2.56*
Moxie	Barenbrug USA	5.0	100	56.0	62.0	1.91	0.64	2.56*
Bonus	Mountain View Seeds	4.9	100	56.0	62.0	1.69	0.60	2.30*
Mean		4.9	100	56.0	62.0	1.95	0.65	2.6
CV,%		3.8	0	0.6	0.0	14.61	24.33	11.74
LSD,0.05		0.3	0	0.5	0.0	0.41	0.23	0.44

[1] Check with local dealers for available varieties.
[2] Vigor score based on a scale of 1 to 5 with 5 being the most vigorous seedling growth.
[3] 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 3 for complete scale.
* Not significantly different from the highest numerical value in the column, based on the 0.05 LSD.
Nitrogen application: 40 lb/A of actual nitrogen on June 15.

Table 30. Dry matter yields and stand ratings of teff varieties sown May 31, 2023, at Princeton, Kentucky.

Variety[1]	Proprietor/Distributor	Percent Stand		Yield (tons/acre)		
		Aug 2	Sep 15	Aug 2	Sep 15	Total
Commercial Varieties-Available for Farm Use						
Dessie	Allied Seed	95	93	1.10	1.22	2.32*
Velvet	–	85	86	1.02	0.98	2.01*
Moxie	Barenbrug USA	93	88	0.98	0.95	1.93
Tiffany	Barenbrug USA	84	84	1.00	0.93	1.92
VAT1Brown	Hankins Seed	93	81	0.97	0.84	1.80
SummerDelight	Cisco Seeds	94	79	0.95	0.75	1.70
HorseCandi	–	94	79	0.99	0.67	1.66
CW0604	Barenbrug USA	94	86	0.89	0.72	1.62
Corvallis	Smith Seed Services	94	80	0.85	0.70	1.55
Pharaoh	First Line Seeds	95	66	0.88	0.57	1.45
Mean		92	82	0.96	0.83	1.80
CV,%		12	13	14.01	19.83	13.02
LSD,0.05		16	15	0.20	0.24	0.34

[1] Check with local dealers for available varieties.
* Not significantly different from the highest numerical value in the column, based on the 0.05 LSD.
Nitrogen application: 60 lb/A of actual nitrogen on May 24 and August 9 (Total of 120 lb of N/acre).

Table 31. Dry matter yields and plant height of teff varieties sown June 13, 2024, at Princeton, Kentucky.

Variety[1]	Proprietor/Distributor	Plant Height (in)		Yield (tons/acre)		
		Jul 31	Oct 3	Jul 31	Oct 3	Total
Commercial Varieties-Available for Farm Use						
VAT1Brown	Hankins Seed	30	25	1.28	1.57	2.86*
Dessie	Allied Seed	33	25	1.38	1.44	2.82*
Summer Delight	Cisco Seeds	33	26	1.09	1.70	2.78*
Pharoah	First Line Seeds	31	26	1.30	1.42	2.72*
Velvet	–	31	26	1.07	1.55	2.62*
CW0604	Barenbrug USA	31	25	1.09	1.50	2.59*
HorseCandi	–	30	22	1.21	1.31	2.53*
Moxie	Barenbrug USA	30	24	1.11	1.35	2.46*
Tiffany	Barenbrug USA	30	25	1.05	1.28	2.33*
Corvallis	Smith Seed Services	30	25	0.79	1.29	2.08
Mean		31	25	1.14	1.44	2.58
CV,%		4	7	25.74	15.23	15.28
LSD,0.05		2	2	0.42	0.32	0.57

[1] Check with local dealers for available varieties.
* Not significantly different from the highest numerical value in the column, based on the 0.05 LSD.
Nitrogen application: 65 lb/A of actual nitrogen on April 26 and 60 lb on August 9 (Total of 125 lb of N/acre).

Table 32. Dry matter yields, seedling vigor, stand rating, maturity, and plant height of crabgrass varieties sown May 23, 2023, at Lexington, Kentucky.

Variety	Proprietor/Distibutor	Seedling Vigor[1] Jun 20	Percent Stand Jun 20	Maturity[2]			Plant Height (in) Jul 10	Yield (tons/acre)				
				Jul 10	Jul 31	Aug 23		Jul 10	Jul 31	Aug 24	Sep 20	Total
Commercial Varieties-Available for Farm Use												
Quick-N-Big Spreader	Dalrymple Farms	4.8	94	52.0	53.5	58.0	25	1.02	1.17	0.76	0.55	3.50*
Quick-N-Big	Noble Foundation	3.5	84	56.0	56.0	58.0	29	1.20	1.18	0.66	0.44	3.48*
Red River	Noble Foundation	2.5	80	46.3	54.0	58.0	20	0.65	1.04	0.86	0.63	3.18
Dals Big River	Dalrymple Farms	3.0	88	46.3	53.0	58.0	19	0.51	1.07	0.93	0.64	3.15
Mojo w/YJ[3]	Barenbrug USA	2.3	50	45.0	51.8	58.0	20	0.57	0.97	0.79	0.63	2.95
Impact	Barenbrug USA	2.3	63	46.3	49.0	58.0	18	0.55	0.92	0.78	0.67	2.92
Experimental Varieties												
BARDSiRR	Barenbrug USA	2.0	43	45.0	51.3	58.0	18	0.51	0.94	0.70	0.58	2.74
Mean		3.0	74	48.1	52.6	58.0	21	0.71	1.04	0.78	0.59	3.13
CV,%		23.8	15	2.9	5.7	0.0	9	12.15	10.00	11.74	16.33	3.60
LSD,0.05		1.3	20	2.1	4.5	0.0	3	0.18	0.16	0.14	0.14	0.31

[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 3 for complete scale.
[3] YJ–Yellow jacket coating on the seed (seeded at 8 lb/A vs 5 lb/A for uncoated seed).
* Not significantly different from the highest numerical value in the column, based on the 0.05 LSD.
Nitrogen application: 50 lb/A of actual nitrogen on June 9 and 40 lb/A on July 13 (Total of 90 lb of N/acre).

Table 33. Dry matter yields, seedling vigor, stand ratings, and maturity of crabgrass varieties sown May 21, 2024, at Lexington, Kentucky.

Variety	Proprietor/Distributor	Seedling Vigor[1] Jun 5	Percent Stand Jun 5	Maturity[2]		Yield (tons/acre)			
				Jul 18	Aug 6	Jul 18	Aug 6	Sep 18	Total
Commercial Varieties-Available for Farm Use									
Red River	Noble Foundation	4.6	97	56.0	58	0.49	1.24	0.74	2.47*
Quick-N-Big Spreader	Dalrymple Farms	3.8	93	55.5	58	0.59	1.14	0.74	2.46*
Mojo w/YJ[3]	Barenbrug USA	4.1	88	56.0	58	0.38	1.16	0.89	2.43*
Dals Big River	Dalrymple Farms	3.5	89	56.5	58	0.41	1.15	0.69	2.25*
Impact	Barenbrug USA	4.1	97	54.5	58	0.33	1.09	0.73	2.15*
Quick-N-Big	Noble Foundation	4.8	97	58.0	58	0.64	0.97	0.50	2.11*
Experimental Varieties									
BARSiRR	Barenbrug USA	4.3	93	55.0	58	0.35	1.06	0.83	2.24*
Mean		4.2	93	55.9	58	0.45	1.12	0.73	2.30
CV,%		16.0	7	1.7	0	38.71	14.15	14.52	15.17
LSD,0.05		1.0	10	1.4	0	0.26	0.23	0.16	0.52

[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 3 for complete scale.
[3] YJ–Yellow jacket coating on the seed (seeded at 8 lb/A vs 5 lb/A for uncoated seed).
* Not significantly different from the highest numerical value in the column, based on the 0.05 LSD.
Nitrogen application: 40 lb/A of actual nitrogen on May 22 and 40 lb/A on July 23 (Total of 80 lb of N/acre).

Table 34. Dry matter yields, seedling vigor, stand rating, and maturity of crabgrass varieties sown June 3, 2025, at Lexington, Kentucky.

Variety	Proprietor/Distributor	Seedling Vigor[1] Jun 30	Percent Stand Jun 30	Maturity[2]		Yield (tons/acre)			
				Jul 22	Sep 4	Jul 22	Sep 4	Oct 15	Total
Commercial Varieties_Available for Farm Use									
Quick-N-Big Spreader	Dalrymple Farms	4.9	100	58	66	2.34	0.79	0.40	3.53*
Impact	Barenbrug USA	4.5	100	58	66	1.97	0.98	0.45	3.40*
Red River	Noble Foundation	4.6	100	58	66	1.99	0.86	0.47	3.32*
Mojo w/YJ[3]	Barenbrug USA	4.5	100	58	66	2.00	0.85	0.47	3.32*
Dal's Big River	Dalrymple Farms	4.6	100	58	66	2.14	0.75	0.42	3.31*
Quick-N-Big	Noble Foundation	4.9	100	58	66	1.94	0.77	0.27	2.97
Mean		4.7	100	58	66	2.06	0.83	0.41	3.31
CV,%		6.2	0	0	0	10.22	33.99	13.38	10.91
LSD,0.05		0.4	0	0	0	0.32	0.43	0.08	0.54

[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 3 for complete scale.
[3] YJ–Yellow jacket coating on the seed (seeded at 8 lb/A vs 5 lb/A for uncoated seed).
* Not significantly different from the highest numerical value in the column, based on the 0.05 LSD.
Nitrogen application: 50 lb/A of actual nitrogen on June 17.

Table 35. Dry matter yields and plant height of crabgrass varieties sown May 31, 2023, at Princeton, Kentucky.

Variety	Proprietor/Distributor	Plant Height(in) Aug 8	Yield (tons/acre)		
			Aug 8	Sep 15	Total
Commercial Varieties-Available for Farm Use					
Impact	Barenbrug USA	22.8	1.03	2.23	3.26*
Dals Big River	Dalrymple Farms	22.3	1.20	2.03	3.23*
Quick-N-Big Spreader	Dalrymple Farms	21.8	1.14	1.91	3.05*
Red River	Noble Foundation	22.3	1.13	1.91	3.04*
Mojo w/YJ[1]	Barenbrug USA	23.0	0.83	2.20	3.03*
Quick-N-Big	Noble Foundation	23.3	0.87	1.01	1.88
Mean		23.0	1.03	1.88	2.92
CV,%		5.0	40.10	15.36	14.57
LSD,0.05		2.0	0.62	0.44	0.64

[1] YJ–Yellow jacket coating on the seed (seeded at 8 lb/A vs 5 lb/A for uncoated seed).
* Not significantly different from the highest numerical value in the column, based on the 0.05 LSD.
Nitrogen application: 60 lb/A of actual nitrogen on May 24 and August 9 (Total of 120 lb of N/acre).

Table 36. Dry matter yields and plant height of crabgrass varieties sown June 13, 2024, at Princeton, Kentucky.

Variety	Proprietor/Distributor	Plant height (in)		Yield (tons/acre)		
		Jul 31	Oct 3	Jul 31	Oct 3	Total
Commercial Varieties-Available for Farm Use						
Mojo w/YJ[3]	Barenbrug USA	27	27	0.95	1.86	2.81*
Impact	Barenbrug USA	27	26	0.87	1.73	2.59*
Dals Big River	Dalrymple Farms	27	24	0.97	1.50	2.48*
Red River	Noble Foundation	25	24	0.89	1.55	2.44*
Quick-N-Big Spreader	Dalrymple Farms	26	25	0.91	1.39	2.31*
Quick-N-Big	Noble Foundation	28	22	0.94	0.71	1.65
Mean		26	25	0.92	1.46	2.38
CV,%		9	13	15.63	34.25	23
LSD,0.05		4	5	0.22	0.75	0.82

[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 3 for complete scale.
[3] YJ–Yellow jacket coating on the seed (seeded at 8 lb/A vs 5 lb/A for uncoated seed).
* Not significantly different from the highest numerical value in the column, based on the 0.05 LSD.
Nitrogen application: 65 lb/A of actual nitrogen on April 26 and 60 lb on August 9 (Total of 125 lb of N/acre).

Table 37. Dry matter yields, seedling vigor, stand rating, and maturity of cereal crops and annual ryegrass sown March 23, 2021, at Lexington, Kentucky.

Variety	Species	Proprietor/Distributor	Seedling Vigor[1] Apr 20	Percent Stand Apr 20	Maturity[2]		Yield (tons/acre)		
					May 28	Jun 21	May 28	Jun 21	Total
Excel	spring oat	Ag. Alum.Seed, IN	4.3	100	54.5	49.8	2.68	0.55	3.24*
VNK	spring oat	public	3.1	98	55.0	55.0	2.28	0.94	3.22*
Jerry	spring oat	Caudill Seed	3.5	100	45.0	46.3	2.29	0.92	3.20*
CCSO120	black hulled oat	Caldbeck Consulting	3.4	100	47.3	46.3	2.33	0.87	3.19*
PSTSOKMJ06	spring oat	Caldbeck Consulting	4.1	99	46.8	48.0	2.53	0.66	3.19*
Persik	black hulled oat	Caldbeck Consulting	3.0	100	46.8	46.8	2.26	0.75	3.01*
PSTSOPH26	black hulled oat	Caldbeck Consulting	3.3	100	45.0	53.0	2.15	0.85	3.00*
Saber	spring oat	Ag. Alum.Seed, IN	3.9	100	56.0	56.0	2.40	0.55	2.95*
Reins	spring oat	Ag. Alum.Seed, IN	4.4	100	56.0	54.5	2.35	0.30	2.64
Marshall	annual ryegrass	The Wax Company	2.0	100	56.0	62.0	0.87	0.97	1.83
Elbon	cereal rye	Caudill Seed	4.5	99	61.0	62.0	1.02	0.54	1.56
Pembroke2016	winter wheat	Ky. Agric. Exp. Station	3.9	100	29.0	29.0	0.59	0.65	1.25
Mean			3.6	100	49.9	50.7	1.98	0.71	2.69
CV,%			20.5	1	4.3	4.1	15.58	26.13	12.61
LSD,0.05			1.1	2	3.1	3.0	0.44	0.27	0.49

[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 3 for complete scale.
* Not significantly different from the highest numerical value in the column, based on the 0.05 LSD.
Nitrogen application: 60 lb/A of actual nitrogen on March 23.

Table 38. Dry matter yields, seedling vigor, stand rating, plant height, and maturity of cereal crops and annual ryegrass sown March 18, 2022, at Lexington, Kentucky.

Variety	Species	Proprietor/Distibutor	Seedling Vigor[1] May 4	Percent Stand May 4	Plant Height (in) May 30	Maturity[2]		Yield (tons/acre)		
						May 30	Jun 29	May 30	Jun 29	Total
CCSO120	black hulled oat	Caldbeck Consulting	4.6	100	29	48.0	75.0	2.47	0.32	2.79*
Jerry	spring oat	Caudill Seed	4.0	97	29	50.5	75.0	2.38	0.40	2.79*
Excel	spring oat	Ag. Alum. Seed, IN	5.0	99	32	56.5	75.0	2.55	0.23	2.79*
PSTSOPH26	black hulled oat	Caldbeck Consulting	4.1	98	26	51.8	75.0	2.36	0.41	2.77*
PSTSOKMJ06	spring oat	Caldbeck Consulting	4.8	94	29	54.5	75.0	2.13	0.24	2.36
Saber	spring oat	Ag. Alum. Seed, IN	4.5	96	33	58.0	75.0	2.19	0.14	2.33
VNK	spring oat	public	4.8	95	34	56.5	75.0	2.11	0.18	2.29
PSTSBION2018	spring barley	Caldbeck Consulting	4.5	99	32	57.0	50.3	1.95	0.07	2.02
Reins	spring oat	Ag. Alum. Seed, IN	3.8	92	29	57.0	75.0	1.83	0.12	1.94
Elbon	cereal rye	Caudill Seed	4.5	100	48	58.0	64.0	1.54	0.30	1.84
Marshall	annual ryegrass	The Wax Company	3.0	100	32	58.0	63.5	1.41	0.42	1.83
PST20W2020	spring wheat	Caldbeck Consulting	3.8	94	34	58.0	63.3	1.49	0.15	1.64
PSTGIN2022	spring wheat	Caldbeck Consulting	3.5	97	32	58.0	68.0	1.45	0.18	1.63
Pembroke 2021	winter wheat	Ky Agric. Exp. Station	1.0	94	6	29.0	29.0	0.44	0.25	0.68
Mean			4.0	97	30	53.6	67.3	1.88	0.24	2.12
CV,%			12.1	3	6	3.2	7.8	12.89	31.08	10.91
LSD,0.05			0.7	5	3	2.4	7.6	0.35	0.11	0.33

[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 3 for complete scale.
* Not significantly different from the highest numerical value in the column, based on the 0.05 LSD.
Nitrogen application: 60 lb/A of actual nitrogen on March 18.

Table 39. Dry matter yields, seedling vigor, stand rating, plant height, and maturity of cereal crops and annual ryegrass sown March 8, 2023, at Lexington, Kentucky.

Variety	Species	Proprietor/Distributor	Seedling Vigor[1] Apr 28	Percent Stand Apr 28	Plant Height (in)		Maturity[2]		Yield (tons/acre)		
					May 22	Jun 20	May 22	Jun 20	May 22	Jun 20	Total
Excel	spring oat	Ag. Alum. Seed, IN	5.0	100	33	18	51.0	55.3	3.49	0.55	4.05*
Jerry	spring oat	Caudill Seed	4.5	100	30	17	45.0	46.3	3.26	0.63	3.89*
Reins	spring oat	Ag. Alum. Seed, IN	4.9	100	33	20	54.5	56.0	3.21	0.45	3.65*
Saber	spring oat	Ag. Alum. Seed, IN	4.9	100	32	18	55.5	56.0	3.03	0.41	3.44*
PSTSOPH26	black hulled oat	Caldbeck Consulting	4.6	100	26	16	45.0	56.0	2.71	0.71	3.42*
Persik	black hulled oat	Caldbeck Consulting	4.9	100	29	16	45.0	55.0	2.72	0.63	3.35*
VNK	spring oat	public	4.6	99	32	22	51.8	56.0	2.76	0.59	3.34*
Saber LG[3]	spring oat	Ag. Alum. Seed, IN	4.6	100	30	20	55.0	56.5	2.68	0.54	3.22*
PSTSBION2018	spring barley	Caldbeck Consulting	5.0	100	39	17	57.5	56.5	2.74	0.27	3.01*
Elbon	cereal rye	Caudill Seed	4.8	100	55	50	58.0	59.0	2.07	0.74	2.81
Reins LG3	spring oat	Ag. Alum. Seed, IN	4.4	100	29	18	56.0	56.5	2.37	0.43	2.80
Marshall	annual ryegrass	the Wax Company	3.1	99	28	28	53.5	58.5	1.70	0.93	2.63
PSTGIN2022	spring wheat	Caldbeck Consulting	4.6	100	29	18	56.0	56.0	2.02	0.50	2.53
PST20W2020	spring wheat	Caldbeck Consulting	4.8	99	30	19	56.0	57.0	2.00	0.22	2.22
Feast II	annual ryegrass	Ampac Seed	3.1	100	14	13	29.0	44.8	1.31	0.68	1.99
Pembroke 2021	winter wheat	Ky. Agric. Exp. Station	2.8	100	12	11	33.0	29.0	0.76	0.46	1.22
Mean			4.4	100	30	20	50.1	53.4	2.42	0.55	2.96
CV,%			8.6	1	12	21	5.3	5.4	30.57	32.33	29.00
LSD,0.05			0.5	1	5	6	3.8	4.1	1.06	0.25	1.23

[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 3 for complete scale.
[3] LG=Low germination seed-sown at the same rate as the other oats without adjusting for low germination.
* Not significantly different from the highest numerical value in the column, based on the 0.05 LSD.
Nitrogen application: 60 lb/A of actual nitrogen on March 9.

Table 40. Dry matter yields, seedling vigor, stand rating, and maturity of cereal crops sown November 2, 2020, at Lexington, Kentucky (three harvests-early first harvest).

Variety	Species	Proprietor/Distributor	Seedling Vigor[1] Dec 8, 2020	Percent Stand		Maturity[2]			Yield (tons/acre)			
				2020 Dec 8	2021 Mar 24	Apr 13/Apr 30[3]	May 13/May 28	Jun 1/ Jun 30	Apr 13/Apr 30	May 13/May 28	Jun 1/ Jun 30	Total
Trical Flex 719	triticale	Cisco Seeds	3.9	98	98	45.0	50.8	55.5	2.06	1.00	0.20	3.25*
Elbon	rye	Noble Foundation/	4.9	100	100	45.0	53.0	56.0	1.61	0.98	0.31	2.90*
		Caudill Seed										
Wrens Abruzzi	rye	Caudill Seed	4.9	100	100	45.0	53.5	56.0	1.52	0.79	0.50	2.81*
Forerunner	triticale	Cisco Seeds	2.9	92	92	45.0	48.5	56.0	1.59	1.03	0.15	2.78*
Graze King 90	rye	Cisco Seeds	4.5	100	100	45.0	54.0	56.0	1.30	0.78	0.36	2.44
Wheat VNK	wheat	Public	2.9	93	94	45.0	53.5	54.5	1.22	0.96	0.19	2.37
Pembroke 2016	wheat	KY Agric.Exp. Station	3.1	97	97	45.0	53.5	55.5	1.24	0.64	0.16	2.04
Mean			3.9	97	97	45.0	57.4	55.6	1.50	0.88	0.27	2.66
CV,%			7.1	4	4	0.0	6.1	2.0	18.03	33.50	31.31	15.55
LSD,0.05			0.4	5	5	0.0	4.7	1.7	0.40	0.44	0.12	0.61

[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 3 for complete scale.
[3] Rye varieties harvested/rated on early date, wheat and triticale harvested/rated on later date.
* Not significantly different from the highest numerical value in the column, based on the 0.05 LSD.
Nitrogen application: 70 lb/A of actual nitrogen on March 5.

Table 41. Dry matter yields, seedling vigor, stand rating, and maturity of cereal crops sown November 2, 2020, at Lexington, Kentucky (two harvests).

Variety	Species	Proprietor/Distributor	Seedling Vigor1 Dec 8, 2020	Percent Stand		Maturity2		Yield (tons/acre)		
				2020	2021					
				Dec 8	Mar 24	May 21	Jun 23	May 21	Jun 23	Total
Trical Flex 719	triticale	Cisco Seeds	3.8	97	97	66.0	—[3]	4.85	0.03	4.87*
Graze King 90	rye	Cisco Seeds	4.3	99	100	75.0	62.0	4.39	0.42	4.81*
Elbon	rye	Noble Foundation/	5.0	100	100	75.0	61.5	4.29	0.35	4.64*
		Caudill Seed								
Forerunner	triticale	Cisco Seeds	2.9	91	92	66.0	57.5	4.08	0.43	4.52*
Wrens Abruzzi	rye	Caudill Seed	4.8	100	100	75.0	61.5	4.06	0.28	4.34*
Pembroke 2016	wheat	KY Agric. Exp. Station	3.9	99	99	66.0	56.0	3.47	0.46	3.93
Wheat VNK	wheat	Public	3.5	99	99	66.0	57.5	3.07	0.30	3.37
Mean			4.0	98	98	69.9	59.3	4.03	0.32	4.35
CV,%			9.8	2	2	0.0	1.4	9.27	45.39	10.49
LSD,0.05			0.6	3	3	0.0	1.3	0.56	0.22	0.68

[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 3 for complete scale.
[3] Not enough regrowth to get a valid maturity rating.
* Not significantly different from the highest numerical value in the column, based on the 0.05 LSD.
Nitrogen application: 70 lb/A of actual nitrogen on March 5.

Table 42. Dry matter yields, seedling vigor, stand rating, maturity, and plant height of cereal crops sown September 29, 2021, at Lexington, Kentucky (early first harvest).

Variety	Species	Proprietor/Distributor	Seedling Vigor[1] Oct 22, 2021	Percent Stand		Maturity[2]		Plant Height (in)		Yield (tons/acre)		
				2021 Oct 22	2022 Mar 22	Apr 15/ Apr 29[3]	May 20/ May 31	Apr 15/ Apr 29	May 20/ May 31	Apr 15/ Apr 29	May 20/ May 31	Total
Elbon	rye	Noble Foundation/Caudill Seed	4.8	100	100	45.0	59.5	34	39	3.16	1.59	4.75*
Graze King 90	rye	Cisco Seeds	3.6	100	100	45.0	60.0	34	42	3.02	1.42	4.45*
Wrens Abruzzi	rye	Caudill Seed	4.8	100	100	45.0	60.0	34	38	2.91	1.30	4.22
Forerunner	triticale	Cisco Seeds	3.5	100	100	45.0	55.0	29	17	3.12	0.43	3.55
Trical Flex 719	triticale	Cisco Seeds	3.8	100	100	45.0	56.0	28	15	3.24	0.18	3.42
Pembroke 2021	wheat	KY Agric. Exp. Station	3.6	100	100	45.0	57.5	20	17	2.31	0.49	2.80
Wheat VNK	wheat	Public	3.8	100	100	45.0	57.0	22	14	2.19	0.40	2.59
Mean			4.0	100	100	45.0	57.9	29	26	2.85	0.83	3.68
CV,%			6.1	0	0	0.0	1.8	4	8	9.68	20.42	8.77
LSD,0.05			0.4	0	0	0.0	1.5	2	3	0.41	0.25	0.48

[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 3 for complete scale.
[3] Rye varieties harvested/rated on early date, wheat and triticale harvested/rated on later date.
* Not significantly different from the highest numerical value in the column, based on the 0.05 LSD.
Nitrogen application: 30 lb/A of actual nitrogen on September 29 and 60 lb/A on March 3.

Table 43. Dry matter yields, seedling vigor, stand rating, and maturity of cereal crops sown September 29, 2021, at Lexington, Kentucky (late first harvest).

Variety	Species	Proprietor/Distributor	Seedling Vigor[1] Oct 20, 2021	Percent Stand		Maturity[2] May 20	Yield (tons/acre) May 20
				2021 Oct 20	2022 Mar 22		
Elbon	rye	Noble Foundation/Caudill Seed	4.5	100	100	80	6.73*
Graze King 90	rye	Cisco Seeds	3.8	100	100	80	6.64*
Wrens Abruzzi	rye	Caudill Seed	4.4	100	100	80	6.61*
Trical Flex 719	triticale	Cisco Seeds	4.3	100	100	75	5.78
Forerunner	triticale	Cisco Seeds	3.3	100	100	75	4.97
Wheat VNK	wheat	Public	3.6	100	100	75	4.68
Pembroke 2021	wheat	KY Agric. Exp. Station	3.6	100	100	75	4.29
Mean			3.9	100	100	77	5.67
CV,%			17.7	0	0	0	9.88
LSD,0.05			1.0	0	0	0	0.83

[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 3 for complete scale.
* Not significantly different from the highest numerical value in the column, based on the 0.05 LSD.
Nitrogen application: 30 lb/A of actual nitrogen on September 29 and 60 lb/A on March 3.

Table 44. Dry matter yields, seedling vigor, stand rating, and maturity of cereal crops sown October 6, 2022, at Lexington, Kentucky (early first harvest).

Variety	Species	Proprietor/Distributor	Seedling Vigor[1] Nov 2, 2022	Percent Stand		Maturity[2]		Plant Height (in)		Yield (tons/acre)		
				2022 Nov 2	2023 Mar 20	Apr 13/Apr 27[3]	May 19/May 22	Apr 13/Apr 27	May 19/May 22	Apr 13/Apr 27	May 19/May 22	Total
Rymin	rye	Caudill Seed	5	100	100	45.0	56.0	20	30	1.49	1.99	3.48*
Forerunner	triticale	Cisco Seeds	4	97	96	45.0	52.0	19	22	1.73	0.82	2.54
Wrens Abruzzi	rye	Caudill Seed	5	100	100	45.0	56.0	27	24	1.45	0.77	2.21
Graze King 90	rye	Cisco Seeds	5	100	100	45.0	56.0	26	26	1.29	0.91	2.20
Wheat VNS	wheat	Public	4	100	97	45.0	53.0	18	17	1.24	0.47	1.70
Trical Flex 719	triticale	Cisco Seeds	4	100	98	45.0	52.5	22	17	1.10	0.53	1.62
Pembroke 2021	wheat	KY Agric. Exp. Station	4	98	94	45.0	54.5	17	18	1.21	0.33	1.54
Mean			4.5	99	98	45.0	54.3	21	22	1.36	0.83	2.19
CV,%			2.4	1	2	0.0	2.5	15	13	31.98	16.26	22.67
LSD,0.05			0.2	2	3	0.0	2.0	5	4	0.64	0.20	0.74

[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 3 for complete scale.
[3] Rye varieties harvested/rated on early date, wheat and triticale harvested/rated on later date.
* Not significantly different from the highest numerical value in the column, based on the 0.05 LSD.
Nitrogen application: 80 lb/A of actual nitrogen on March 1 and 40 lb/A on April 19.

Table 45. Dry matter yields, seedling vigor, stand rating, maturity, and plant height of cereal crops sown October 6, 2022, at Lexington, Kentucky (late first harvest).

Variety	Species	Proprietor/Distributor	Seedling Vigor[1] Nov 2, 2022	Percent Stand		Maturity[2]	Plant Height (in)	Yield (tons/acre)		
				2022 Nov 2	2023 Mar 20	May 18/May 22[3]	May 18/May 22	May 18/May 22	Jun 14	Total
Trical Flex 719	triticale	Cisco Seeds	4.3	100	99	75	59	5.31	0.02	5.32*
Rymin	rye	Caudill Seed	5.0	100	100	75	55	4.54	0.07	4.61*
Graze King 90	rye	Cisco Seeds	5.0	100	100	75	49	4.47	0.11	4.58*
Wrens Abruzzi	rye	Caudill Seed	5.0	100	100	75	53	4.26	0.20	4.46*
Forerunner	triticale	Cisco Seeds	4.1	99	98	75	53	4.01	0.03	4.04*
Wheat VNS	wheat	Public	4.0	100	97	75	33	3.88	0.05	3.93
Pembroke 2021	wheat	KY Agric. Exp. Station	4.0	100	100	75	31	3.90	0.02	3.92
Mean			4.5	100	99	75	48	4.34	0.07	4.41
CV,%			3.4	1	1	0	11	21.59	63.62	20.98
LSD,0.05			0.2	1	2	0	8	1.39	0.07	1.37

[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 3 for complete scale.
[3] Rye varieties harvested/rated on early date, wheat and triticale harvested/rated on later date.
* Not significantly different from the highest numerical value in the column, based on the 0.05 LSD.
Nitrogen application: 80 lb/A of actual nitrogen on March 1 and 40 lb/A on April 19.

Table 46. 2025 Kentucky Wheat Variety Forage/Cover Crop Trial.

Variety	Milk Stage Dry Matter (tons/a)		Cover Crop* Canopy (%)	Head Type
	2025	2024-25	2025	
AgriMAXX 505	4.26	4.18	51	Bearded
Dyna-Gro 9422	4.21		44	Bearded
X14-1035-67-7-1	4.20	3.96	50	Bearded
Dyna-Gro 9533	4.15		54	Smooth
X15-1118-27-1-3	4.11		55	Bearded
USG 3884	4.10	4.04	58	Bearded
AgriMAXX EXP 2405	4.07	3.85	46	Bearded
CROPLAN CP8081	4.06	3.97	57	Bearded
GROWMARK FS WX25A	4.06		38	Smooth
AgriMAXX 555	4.03	3.89	42	Bearded
GROWMARK FS 600	4.02	4.09	52	Bearded
Dyna-Gro 9151	4.02		47	Bearded
USG 3755	3.98		49	Smooth
AgriMAXX 525	3.97	3.98	47	Bearded
USG 3354	3.96	4.02	54	Smooth
GROWMARK FS 606	3.95	3.79	44	Smooth
X16-1082-62-2-5-1	3.95		49	Smooth
GROWMARK FS WX25C	3.93		52	Bearded
X17-1162-100-11-1-1	3.92		46	Bearded
X15-1091-49-2-3	3.91		52	Bearded
KWS591	3.91		47	Bearded
X14-1128-23-12-5	3.90	3.87	59	Bearded
X16-1001-19-3-1-1	3.90		42	Bearded
X16-1021-131-19-1-1	3.87	3.98	55	Smooth
GROWMARK FS 624	3.83	3.89	57	Smooth
AgriMAXX 513	3.81	3.75	40	Bearded
CROPLAN CP8224	3.80	3.85	48	Smooth
Truman	3.78	3.91	42	Smooth
Dyna-Gro 9151 x	3.77		48	Bearded
GROWMARK FS WX25B	3.77		48	Smooth
USG 3352	3.75	3.92	28	Bearded
GROWMARK FS 743	3.74	3.89	47	Bearded
Revere Valor	3.74	3.70	39	Bearded
AgriMAXX 531	3.74		51	Smooth
Dyna-Gro 9172 x	3.72		41	Bearded
Dyna-Gro 9172	3.72		43	Bearded
Dyna-Gro 9612	3.71		44	Bearded
GROWMARK FS 617	3.69	3.76	47	Bearded
X14-1009-84-4-3	3.68	3.65	45	Bearded

continued

Table 46. ***(continued)***

Variety	Milk Stage Dry Matter (tons/a)		Cover Crop* Canopy (%)	Head Type
	2025	2024-25	2025	
PEMBROKE 2016	3.68	3.77	58	Bearded
AgriMAXX 545	3.65	3.69	57	Bearded
Revere Reagan	3.63	3.64	33	Bearded
Go Wheat 6056	3.63	3.72	43	Bearded
AgriMAXX 553	3.62		45	Bearded
KWS623	3.57		54	Smooth
USG 3472	3.56	3.78	40	Bearded
RV X503	3.56		47	Bearded
RV X501	3.56		49	Smooth
Go Wheat 4059S	3.54	3.75	31	Smooth
CROPLAN CP8045	3.52	3.62	50	Bearded
GROWMARK FS 749	3.52	3.82	54	Bearded
CROPLAN CPX25801	3.52		49	Bearded
Dyna-Gro 9570	3.52		40	Bearded
PEMBROKE 2021	3.51	3.49	54	Smooth
USG 3463	3.47	3.63	31	Bearded
18VTK18-112	3.44		50	Smooth
18VTK10-110	3.40		26	Bearded
GROWMARK FS 745	3.37	3.54	48	Bearded
PEMBROKE 2014	3.36	3.68	49	Bearded
X11-0039-1-17-5	3.36	3.55	45	Smooth
Dyna-Gro 9632	3.36		43	Bearded
X17-1088-91-1-1-2	3.31		40	Bearded
19VTK7-66	3.27		37	Bearded
AgriMAXX EXP 2430	3.26		52	Bearded
AgriMAXX 503	3.25	3.32	28	Smooth
RV X502S	3.19		45	Smooth
Revere Anthem	3.18	3.39	32	Bearded
Dyna-Gro 9231	3.16		43	Bearded
GROWMARK FS 597	3.04	3.36	48	Bearded
KWS579	2.49		46	Bearded
Average	**3.69**	**3.77**	**46**	
C.V. (%)	14.60	11.65		
LSD (0.10)	0.63	0.43		

Location: Bluegrass Region - Fayette Co.
Planting date: 10-16-2024; conventional tillage.
Dry matter yield harvest date at milk stage: 5-23-2025.
* Winter cover crop/grazing biomass estimate (% canopy coverage using Canopeo); measured: 2-10-2025.
Originally appeared in PR-865, Table 3 (uky.edu/Ag/WheatVarietyTest).

Table 47. Quality values of sudangrass varieties sown May 27, 2020 at Lexington, Kentucky (sampled at first harvest on July 8, 2020 and ranked by TDN).

Variety	Proprietor/Distributor	CP	ADF	NDF	TDN
SS130 BMR	Cal/West Seeds	11.5	34.6	60.3	61.6*
AS9302 BMR (brachytic dwarf)	Advanta Seed	11.4	34.8	60.9	61.4*
Piper	Public	9.3	36.7	62.7	59.3*
ProMax BMR	Ampac Seed	9.3	36.9	61.9	59.1
Trudan Headless	Sorghum Partners	9.5	38.5	64.3	57.2
Mean		10.2	36.3	62.0	59.7
CV,%		13.1	3.8	3.3	2.6
LSD,0.05		2.1	2.1	3.2	2.4

Table 48. Quality values of sorghum-sudangrass varieties sown May 27, 2020 at Lexington, Kentucky (samples taken at first harvest on July 8, 2020 and ranked by TDN).

Variety	Proprietor/Distributor	CP	ADF	NDF	TDN
Xtragraze BMR	Coffey Seed	12.5	33.0	57.6	63.4*
NutraKing BMR	Public	12.1	33.4	57.2	62.9*
Surpass BMR	Turner Seed	14.2	33.5	59.4	62.9*
AS6402 BMR	Advanta Seed	13.8	33.8	58.7	62.5*
SP4105 BMR	Sorghum Partners	14.4	33.9	57.7	62.4*
DannyBoy II BMR	Dyna_Gro Seeds	13.3	33.9	59.2	62.4*
FullGraze II BMR	Dyna_Gro Seeds	12.7	34.0	59.5	62.3*
AS6401 BMR	Advanta Seed	12.5	34.0	57.8	62.3*
FullGraze II	Dyna_Gro Seeds	11.8	34.5	60.0	61.8*
DynaGraze II	Dyna_Gro Seeds	11.0	34.8	59.5	61.4
FirstGraze	Dyna_Gro Seeds	12.2	34.9	58.8	61.4
SP7106 BMR	Sorghum Partners	12.6	35.0	59.2	61.2
SugarGraze II	Coffey Seed	11.3	35.2	59.4	60.9
HyGain	Turner Seed	11.6	35.3	59.8	60.9
F75FS13	Dyna_Gro Seeds	11.0	35.5	60.8	60.6
Sordan Headless	Sorghum Partners	11.6	35.5	60.2	60.6
SuperSweet 10	Dyna_Gro Seeds	9.7	35.5	60.5	60.6
Sordan 79	Sorghum Partners	9.1	36.3	60.9	59.8
Mean		12.1	34.6	59.2	61.7
CV,%		11.7	3.5	2.9	2.2
LSD,0.05		2.0	1.7	2.5	1.9

Table 49. Quality values of pearl millet varieties sown May 27, 2020 at Lexington, Kentucky (samples taken at first harvest on July 17, 2020 and ranked by TDN).

Variety	Proprietor/Distributor	CP	ADF	aNDF	TDN
Commercial Varieties-Available for Farm Use					
SS1562M BMR	Southern States	10.4	37.7	66.5	58.2*
Epic BMR	Coffey Seed	9.9	38.2	67.9	57.6*
SS635	Southern States	9.9	38.9	67.2	56.9*
Pennleaf Hybrid	Pennington Seed	9.9	39.0	66.0	56.7*
Prime360	Byron Seed	9.6	39.3	68.5	56.4*
Tifleaf III Hybrid	Gayland Ward Seed	8.7	39.8	67.3	55.8
Wonderleaf	Advanta Seed	9.7	40.1	68.9	55.5
Exceed BMR	Coffey Seed	9.4	40.1	69.5	55.4
PP102M Hybrid	Cisco Seeds	8.7	40.3	69.0	55.2
Leafy22 Hybrid	Turner Seed	9.1	40.5	68.4	55.1
SweetSummer	Cisco Seeds	9.0	40.6	69.7	54.9
PearlMil	Dyna-Gro Seeds	9.6	40.7	68.6	54.8
Millex32	Sorghum Partners	7.8	43.2	72.0	52.1
Experimental Varieties					
LeafyTR7	Coffey Seed	10.1	39.1	68.2	56.6*
LeafyTR9	Coffey Seed	9.8	39.3	68.5	56.4*
18183	Gayland Ward Seed	8.2	41.3	69.6	54.2
Mean		9.4	39.9	68.5	55.7
CV,%		15.0	3.8	3.0	3.0
LSD,0.05		2.0	2.1	2.9	2.4

Table 50. Quality values of forage sorghum varieties sown May 28, 2020, at Lexington, Kentucky (samples taken on September 18, 2020, at harvest and ranked by TDN).

Variety	Proprietor/Distributor	CP	ADF	NDF	TDN
GW400 BMR	Gayland Ward Seed	5.6	28.7	49.4	68.2*
F74FS72 BMR	Dyna-Gro Seed	6.0	28.8	48.7	68.2*
Supersile 30	Dyna-Gro Seed	4.5	29.1	49.0	67.8*
Ensilemaster	Caudill Seed	5.2	29.3	49.4	67.5*
SS304	Sorghum Partners	4.8	29.4	50.2	67.5*
TopTon	Dyna-Gro Seed	3.9	30.0	50.1	66.8*
F74FS23 BMR	Dyna-Gro Seed	5.1	30.0	51.5	66.7*
GW2120	Gayland Ward Seed	5.7	30.5	51.8	66.3*
FSG115 BMR (Brachytic Dwarf)	Farm Science Genetics	6.0	30.6	54.8	66.1*
SP3904 BMR (Brachytic Dwarf)	Sorghum Partners	6.5	30.8	52.0	65.9*
ADV7232 BMR	Advanta Seed	6.2	30.9	51.5	65.7*
Supersile 20	Dyna-Gro Seed	4.9	30.9	52.6	65.7*
AF7401 BMR	Advanta Seed	5.9	31.1	53.0	65.6*
F75FS13	Dyna-Gro Seed	4.9	31.1	52.4	65.5*
SP3905 BMR (Brachytic Dwarf)	Sorghum Partners	5.9	31.2	52.8	65.5*
NK300	Sorghum Partners	3.8	31.2	54.0	65.4*
AF8301	Advanta Seed	3.8	31.9	54.2	64.7
FSG114 BMR	Farm Science Genetics	5.3	32.2	53.7	64.3
GW600 BMR	Gayland Ward Seed	4.5	32.2	54.3	64.3
GW475 BMR	Gayland Ward Seed	5.8	32.2	54.7	64.3
SS1515	Southern States	3.8	33.0	54.9	63.5
AF7201 BMR (Brachytic Dwarf)	Advanta Seed	5.7	35.1	59.2	61.0
SS405	Sorghum Partners	4.3	35.2	60.0	60.9
SP1615	Sorghum Partners	3.6	42.6	72.3	52.7
Mean		5.1	31.6	53.6	65.0
CV,5		13.9	5.7	5.7	3.1
LSD,0.05		1.0	2.6	4.3	2.9

Table 51. Quality values of teff varieties sown May 27, 2020, at Lexington, Kentucky (samples taken at the first harvest on July 17, 2020, and ranked by TDN).

Variety[1]	Proprietor/Distributor	CP	ADF	aNDF	TDN
Commercial Varieties-Available for Farm Use					
Corvallis	Smith Seed Services	12.6	34.7	64.0	61.5*
VAT1Brown	Hankins Seed	11.9	35.1	64.2	61.1*
Tiffany	Turner Seed	11.7	35.2	64.9	61.0*
Velvet	–	11.7	35.2	64.5	60.9*
Dessie	Allied Seed	11.7	35.3	63.5	60.9*
SummerDelight	Cisco Seeds	10.6	35.3	65.0	60.9*
HorseCandi	–	11.3	35.3	64.8	60.8*
CW0604	Barenbrug USA	10.9	35.3	65.0	60.8*
Moxie	Barenbrug USA	11.2	35.6	64.6	60.5*
Pharaoh	First Line Seeds	10.7	35.6	66.1	60.5*
Experimental Varieties					
BARETCT	Barenbrug USA	11.5	35.5	65.0	60.6*
F11	Mountain View Seeds	11.6	35.6	65.1	60.6*
Mean		11.4	35.3	64.7	60.8
CV,%		14.4	3.7	2.6	2.4
LSD,0.05		2.4	1.9	2.4	2.1

[1] Check with local dealers for available varieties.

Table 52. Summary of Kentucky sudangrass yield trials 2010-2025 (yield shown as a percentage of the mean of the commercial varieties in the trial).

Variety	Proprietor/KY Distributor	Lexington																Princeton									Mean3 (#trials)
		10[1,2]	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	17	18	19	20	21	22	23	24	25	
AS9301 BMR[4]	Advanta Seeds			118																							–
AS9302 BMR (Brachytic Dwarf)	Advanta Seeds								124	104	102	112	99	96	103	101		119	117	115	113	104	100	119	110		109(16)
Enorma BMR	Cal/West Seeds	99	94	92	91	83	91	98																			93(7)
FSG 1000 BMR	Farm Science Genetics						101	124	110																		112(3)
Hayking BMR	Central Farm Supply	91	97	97	96	92	94	90	80	109								99									95(10)
Monarch V	Public	102	97	93	98	110	99	82																			97(7)
Piper	Public	97	94	104	105	89	94	85	81	86	93	83	92	102	106	104	102	86	99	88	82	98	101	88	117	92	95(25)
ProMax BMR	Ampac Seed	110	115	96	103	100	111	111	106	102	101	106	107	108	106	104	114	96	84	87	86	106	101	88	96	102	102(25)
SP7106 BMR	Sorghum Partners												92	95	105	101	88					90	95	116	105	102	99(10)
SS130 BMR	Cal/West Seeds	101	103		107	106	110	109	99		93	92	101	96						97	99	93					100(14)
Trudan Headless	Sorghum Partners					118					112	107	109	104	80	90	96			113	126	110	103	89	73	104	102(15)

[1] Establishment year.
[2] Use this summary table as a guide in making variety decisions, but refer to specific tables in this report to determine statistical differences in forage yield between varieties.
[3] Mean only presented when respective variety was included in two or more trials.
[4] BMR (brown mid-rib) means that a variety has been developed to produce lower amounts of lignin which usually translates into higher quality.

Table 53. Summary of Kentucky sorghum-sudangrass yield trials 2010-2025 (yield shown as a percentage of the mean of the commercial varieties in the trial).

Variety	Proprietor/ KY Distributor	Lexington																Princeton									Mean[3] (#trials)
		10[1,2]	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	17	18	19	20	21	22	23	24	25	
ADV6218	Advanta Seeds														104	108	102							101	131	106	109(6)
ADVS6404 BMR[4] (Brachytic Dwarf)	Advanta Seeds														84	92	79							90	93	81	87(6)
ADVS6520 BMR SCA[5] PS[6]	Advanta Seeds														99	107	93							118	78	109	101(6)
ADV6525 BMR SCA PS	Advanta Seeds															93	98								85	122	99(4)
AS6401 BMR[4]	Advanta Seeds										84	107	107							112	106						103(5)
AS6402 BMR (Brachytic Dwarf)	Advanta Seeds			91					78	82	67	94	79	89				98	98	91	85	81					86(12)
AS6503 BMR	Advanta Seeds				96	103	90						95		105			114	112			110					96(3)
AS6504 BMR (Dry Stalk)	Advanta Seeds								105	103																	106(7)
Danny Boy II BMR	Dyna-Gro Seeds										117	95	93	106						110	98	98					102(7)
DynaGraze II	Dyna-Gro Seeds											98	104	100							122	104					106(5)
FirstGraze	Dyna-Gro Seeds											109	101	103							118	113					109(5)
FSG 208 BMR	Farm Science Genetics	75																									–
FSG 214 BMR	Farm Science Genetics				99	108	112											109	111								108(5)
FSG 215 BMR	Farm Science Genetics						112																				–
Fullgraze II	Dyna-Gro Seeds										100	105	100	97						108	94	104					101(7)
Fullgraze II BMR	Dyna-Gro Seeds										97	90	96	114	120					106	92	102					102(8)
F75FS13	Dyna-Gro Seeds										94	100	93	95	103	93	108			76	94	89	86	104	88	104	95(14)
Greengrazer V	Farm Science Genetics	166			122	107	92	103	110																		117(6)
GW300 BMR	Gayland Ward Seed		88	78	88	81	73	101	100	98								79									87(9)
HyGain	Turner Seed	118						110	127	117	121	113	112					130	108	121	110	112					116(12)
KFSugar-Pro55S	Byron Seed								110																		–
MS 202 BMR	Farm Science Genetics	106																									–
Nutra-King BMR	Gayland Ward Seed						110	108	96	113	118	103	110	114	119			108	114	105	96	97	107				108(15)
NutraPlus BMR	Public	94	103	106	109	106	96																				102(6)
S6405 BMR	Ramer Seed																109									103	106(2)
S6435 BMR BrDw DS[7]																	88									95	92(2)
Sordan Headless	Sorghum Partners					105						110	103	101	102	101	103				102	100	109	107	109	115	105(13)
Sordan 79	Sorghum Partners											114	116	121	135	123	117				123	109	117	119	131	102	119(12)
Special Effort	Public	93	94	115	120	91	111																				104(6)
SP 4105 BMR	Sorghum Partners											91	88	89	96	84	97				79	76	109	90	78	97	90(12)
SP4408PF[8]	Sorghum Partners																119									106	113(2)
SP4555 BMR	Sorghum Partners												117	110	118	103	105					98	100	96	101	94	104(10)
SPDF708 PAF[8]	Sorghum Partners															124									111		118(2)
SPHG610 PAF	Sorghum Partners																123									101	112(2)
SPHX007DT	Sorghum Partners																101									85	93(2)
SS211	Southern States		104	93	114	103	118	111	121	118					102	102	100	109	87					106	103	100	106(16)
SS220 BMR	Southern States	84		112											60	81	83							73	88	88	84(8)
SS1652SS	Southern States														98	97	88							110	68	85	91(6)
Sugar Graze II	Coffey Seed										110	114	116	110	113					110	122	116	112				114(9)
Surpass BMR	Turner Seed	64						79	84	75	75	81	84	85	74	86	85	88	97	74	70	83	86	88	77	96	82(20)
Super Sugar	Gayland Ward Seed		102	117	107		125	85										91									105(6)
Super Sugar BMR	Gayland Ward Seed							107																			–
Super Sugar (Delayed Maturity)	Gayland Ward Seed					101	82		89	104								95	83								92(6)
Super Sugar Sterile	Gayland Ward Seed					94																					–
Super Sweet 10	Dyna-Gro Seeds										121	106	117	106	120	103	110			118	128	113	112	117	139	113	116(14)
Sweet-For-Ever	Gayland Ward Seed		110	107	81									81									81				92(5)
Sweet-For-Ever BMR	Gayland Ward Seed			78	70		77	104	106	83								77	82								85(8)
SweetSix BMR	Gayland Ward Seed				93	101		91																			95(3)
SweetSix BMR (Dry Stalk)	Gayland Ward Seed						102		72	107			98					103	108			93					98(7)
SWSB8801	Sorghum Partners												90	87	87								101	82			89(5)
SWSB8803	Sorghum Partners													96									95				96(2)
SWSU0029	Sorghum Partners												98	103	107	111	105					117	110	110	116	105	108(10)
Vita-Cane	Gayland Ward Seed			121																							–
Xtragraze BMR	Coffey Seed										79	82	82	87	76					70	75	84	76	88			80(10)
19011 BMR	Gayland Ward Seed															91	87								105	93	94(4)

[1] Establishment year.
[2] Use this summary table as a guide in making variety decisions, but refer to specific tables in this report to determine statistical differences in forage yield between varieties.
[3] Mean only presented when respective variety was included in two or more trials.
[4] BMR (brown mid-rib) means that a variety has been developed to produce lower amounts of lignin which usually translates into higher quality.
[5] SCA–Tolerant to sugar cane aphid.
[6] PS–Photoperiod sensitive.
[7] DS–Dry stalk.
[8] PAF and PF–Prussic acid free.

Table 54. Summary of Kentucky pearl millet yield trials 2013-2025 (yield shown as a percentage of the mean of the commercial varieties in the trial).

Variety	Proprietor/ KY Distributor	Lexington													Princeton								Mean[3] (#trials)
		13[1,2]	14	15	16	17	18	19	20	21	22	23	24	25	17	18	19	20	21	22	23	24	
		All trials are 1 year yields																					
Epic BMR[4]	Coffey Seed							97	93	83	100	98	97	94			99	96	87	96	132	94	97(13)
Exceed BMR	Coffey Seed							89	103	81	97	100	105	89			102	90	107	97	73	86	94(13)
FSG 300 Hybrid	Farm Science Genetics			109	99	109									117								109(4)
FSG 315 BMR (Dwarf)	Farm Science Genetics			101	102	81									97								95(4)
Leafy22 Hybrid	Turner Seed				105	124	108	108	113	119	101	106	108	116	115	100	116	111	119	99	120	101	111(18)
Millex32	Sorghum Partners								110	131	102	105	107	106				111	93	99	94	119	107(11)
PearlMil	Dyna-Gro Seed							103	113	120	107	109	103	105			110	100	110	105	89	103	106(13)
Pennleaf Hybrid	Pennington Seed	93	91	94	96	87	98	100	95	100	96	97	91	104	84	93		90					94(16)
PP102M Hybrid	Cisco Seeds	93	93	90	79	90	91	97	92	103	92	101	92		77	104	95		81	104	80	95	92(19)
Prime360	Byron Seed							91	90	77	88	93	98	85			103	96	103	94	97	90	93(13)
SS1562M BMR	Southern States							103	94	72	98	87	84	98			95	95	90	93	125	102	95(13)
SS501	Southern States	90	99	96	86	94	94								89	96							93(8)
SS635	Southern States	108	112	101	116	94	110	108	105	100	103	99	97	95	107	115	105	110	98	99	93	96	103(21)
Sweet Summer	Cisco Seeds						86	95	97	97	95	89	96	96		85	104	91	99	93	118	104	96(15)
Tifleaf III Hybrid	Gayland Ward Seed	116	106	108	116	120	113	119	95	131	114	120	111	112	114	112	111	101	121	116	141	105	114(21)
Wonderleaf	Advanta Seed							98	100	86	105	97	109	101		100	107	109	92	105	69	105	99(14)

[1] Establishment year.
[2] Use this summary table as a guide in making variety decisions, but refer to specific tables in this report to determine statistical differences in forage yield between varieties.
[3] Mean only presented when respective variety was included in two or more trials.
[4] BMR (brown mid-rib) means that a variety has been developed to produce lower amounts of lignin which usually translates into higher quality.

Table 55. Summary of Kentucky teff yield trials 2008-2025 (yield shown as a percentage of the mean of the commercial varieties in the trial).

Variety[4]	Proprietor/Distributor	Lexington																Princeton								Mean[3] (#trials)
		08[1,2]	09	10	11	12	13	14	15	16	19	20	21	22	23	24	25	08	09	19	20	21	22	23	24	
		All trials are 1-year yields																								
Bonus	Mountain View Seeds																88									–
Corvallis	Smith Seed Services	81	101	91	101	96	100	110	96	102	110	116	92	103	101	108	100	94	112	99	112	92	105	86	81	100(24)
CW0604	Barenbrug USA										101	100	101	102	103	110				97	103	86	107	90	100	100(12)
Dessie	Allied Seed	99	92	96	94	95	97	101	104	105	89	109	105	100	96	83	101	102	87	101	98	127	101	129	109	101(24)
Excaliber	–	109	104	125	108	106	103											109	111							109(8)
Highveld	–	100	121	106	101	109	103	102										111	115							108(9)
HorseCandi	–	99	105	89	108	94	97	80	104	82	86	95	110	98	100	74	100	91	84	103	104	96	89	92	98	95(24)
Moxie	Barenbrug USA						94	96	105	107	110	105	98	103	94	79	98			95	101	115	107	107	95	101(17)
Pharaoh	First Line Seeds	105	85	106	106	97	101	93	97	94	102	90	102	102	102	150	98	95	101	107	104	97	101	81	105	101(24)
Rooiberg	–	112	109	113	108	115	102	88										102	107							106(9)
Summer Delight	Cisco Seeds		91	96	88	93	100	119	101	104	91	90	99		102	94	104		90	99	90	89		95	108	97(20)
Tiffany	Turner Seed	102	93	82	93	102	98	104	97	105	110	101	93	103	97	104	104	102	106	104	98	103	99	107	90	100(24)
VA T1 Brown	Hankins Seed		99	87	91	94	98	104	97	101	100	97	96	94	103	101	105		89		93	104		100	111	98(20)
Velvet	–		100	97	98	95	103	95	99	100	101	98	106	95	100	96	100		94	96	98	92	92	112	102	99(22)
Witkope	–	93	101	115	103	101	104	107										94	100							102(9)

[1] Establishment year.
[2] Use this summary table as a guide in making variety decisions, but refer to specific tables in this report to determine statistical differences in forage yield between varieties.
[3] Mean only presented when respective variety was included in two or more trials.
[4] Check with local dealers for available varieties.

Table 56. Summary of Kentucky forage sorghum yield trials 2013-2025 (yield shown as a percentage of the mean of the commercial varieties in the trial).

Variety	Proprietor/KY Distributor	Lexington												Princeton						Mean[3] (#trials)
		13[1,2]	14	15	16	17	18	19	20	20	22	23	25	17	19[4]	19	21	22	23	
		All trials are 1-year yields																		
ADV7232 BMR[5]	Advanta Seed							88	92	89	84	84	106		93	84	92	88	71	88(10)
AF7201 BMR (Brachytic Dwarf)	Advanta Seed	89	81	101	89			94	84	79	87	83	78		74	83	92	85	92	87(14)
AF7203 BMR (Brachytic Dwarf)	Advanta Seed							48						70						59(2)
AF7401 BMR (Brachytic Dwarf)	Advanta Seed	76	94	90	83	86	72	85	77	85	93	94	104	116	87	100	73	85	79	88(15)
AF8301	Advanta Seed							98	103	95	87	107	115		124	85	112	110	120	103(10)
ADV8322	Advanta Seed											104	110						112	109(3)
ADV84841G	Advanta Seed											108	118						103	110(3)
Ensilemaster	Caudill Seed	125	90	101	106	111	129	118	129	93	109	133	113	171	77	85	79	94	108	111(17)
Freya	KWS SAAT SE&Co.KGaA										79	73	71					109	112	89(5)
FSG114 BMR	Farm Science Genetics		94	128	93	125	91	76	91	106				71	89	79				95(10)
FSG115 BMR (Brachytic Dwarf)	Farm Science Genetics		51	31	72	81	74	67	77	92				72	60	74				69(10)
F74FS23 BMR	Dyna-Gro Seed							125	94	107	111	90	88		77	76	92	88	103	97(10)
F74FS72 BMR	Dyna-Gro Seed							93	87	82	139	89	95		59	117	85	79	73	94(10)
F75FS13	Dyna-Gro Seed							107	94	102	79	103	92		109	84	87	71	67	89(10)
F7422 BMR BrDw	Ramer Seed												92							–
GW2120	Gayland Ward Seed	117	89	113	84	107	88	102	91	70	88	98		85	98	115	81	78	81	93(16)
GW400 BMR	Gayland Ward Seed	93	79	128	78	91	88	83	85	67				42			66			82(11)
GW475 BMR	Gayland Ward Seed						80	99	84	82							67			82(5)
GW600 BMR	Gayland Ward Seed		107	111	90		90	100	84	80							101			95(8)
Kallisto	KWS SAAT SE&Co.KGaA										124	101	108					148	152	127(5)
KFFiber-Pro70FS	Byron Seed					65	53							70						63(3)
NK300	Sorghum Partners		126	110	101	116	135	84	104	116	111	93	98	119			93	94	97	106(15)
SD1741 BMR	Sorghum Partners		133	92	103	81	84	95						94						97(7)
SilageKing BMR (Dwarf)	Gayland Ward Seed		48																	–
SiloPro BMR (Brachytic Dwarf)	Gayland Ward Seed			24	74		63			68	80	66	63				87	71	60	66(10)
SP1615	Sorghum Partners								125	158	174	130	126		164	170	166	137	142	160(10)
SP1727	Sorghum Partners											91	92						86	90(3)
SP1792 MS	Sorghum Partners												103							–
SP2606	Sorghum Partners											87	97						84	89(3)
SP2707DT	Sorghum Partners											82	95						92	90(3)
SP3904BD BMR (Brachytic Dwarf)	Sorghum Partners								88	97	75	105	112				101	94	73	93(8)
SP3905BD BMR (Brachytic Dwarf)	Sorghum Partners								81	72	82	83	75				58	73	68	74(8)
SS1515	Southern States							125	105	91	94	104	63		97	75	111	97	101	97(10)
SS2010BDF	Allies Seed/Southern States											60	43						65	56(3)
SS304	Sorghum Partners								121	114	110	106	143				95	108	108	113(8)
SS405	Sorghum Partners		188	183	207	138	202	139	143	188	87	147	142	160	142	171	193	187	155	164(16)
Super Sile 20	Dyna-Gro Seed							107	120	140	89	129	144		106	124	149	103	124	1124(10)
Super Sile 30	Dyna-Gro Seed							121	115	123	95	127	121		129	104	132	118	128	118(10)
SWFS8802	Sorghum Partners									66							64			65(2)
TopTon	Dyna-Gro Seed							131	130	140	116	113	134		84	73	124	80	143	118(10)
XF7203 BMR (Brachytic Dwarf)	Advanta Seed/Ramer Seed					74	73													74(2)
1990	Sorghum Partners		121	89	118	125	177	113						131						125(7)

[1] Establishment year.
[2] Use this summary table as a guide in making variety decisions, but refer to specific tables in this report to determine statistical differences in forage yield between varieties.
[3] Mean only presented when respective variety was included in two or more trials.
[4] This trial was sprayed with an aphicide and the results are not included in the overall mean.
[5] BMR (brown mid-rib) means that a variety has been developed to produce lower amounts of lignin which usually translates into higher quality.

Table 57. Summary of Kentucky crabgrass yield trials 2016-2025 (yield shown as a percentage of the mean of the commercial varieties in the trial).

Variety	Proprietor/KY Distributor	Lexington									Princeton						Mean[3] (#trials)
		2016[1,2]	2018	2019	2020	2021	2022	2023	2024	2025	2019	2020	2021	2022	2023	2024	
		All trials are 1-year yields															
Dal's Big River	Dalrymple Farms						100	99	97	100				103	111	104	102(7)
Impact	Barenbrug USA	107	107	108	108	116	100	91	93	103	105	100	95	106	112	109	104(15)
Mojo w/YJ[4]	Barenbrug USA				98	109	108	92	105	100		97	96	102	104	118	103(11)
Quick-N-Big	Noble Foundation	89	85	81	95	78	91	109	91	90	99	101	100	92	64	69	89(15)
Quick-N-Big Spreader	Dalrymple Farms						101	109	106	107				96	104	97	103(7)
Red River	Noble Foundation	104	108	110	99	97	100	99	107	100	96	102	108	101	104	103	103(15)

[1] Establishment year.
[2] Use this summary table as a guide in making variety decisions, but refer to specific tables in this report to determine statistical differences in forage yield between varieties.
[3] Mean only presented when respective variety was included in two or more trials.
[4] YJ –Yellow jacket coating on the seed.

Table 58. Summary of Kentucky spring oats yield trials 2015-2023 (planted mid March to early April) [yield shown as a percentage of the mean of the commercial varieties in the trial].

Variety	Proprietor/Distributor	2015[1,2]	2016	2017	2018	2019	2020	2021	2022	2023	Mean[3] (#trials)
		All trials are 1 year yields									
BCO18006	Seed-Link Inc.						90				
BCO18007	Seed-Link Inc.						82				
CCSO-102	Caldbeck Consulting				95	102	104				100(3)
CCSO-120 (black hulled)	Caldbeck Consulting				106	106	91	104	111		104(5)
Common	Central Farm Supply	89									
Excel	Ag. Alumni Seed, IN	120	101	111	107	115	125	105	111	113	112(9)
Haywire	Cisco Seeds					81	98				90(2)
Jerry	Caudill Seed	107	93	103	99	95	119	104	111	108	104(9)
Persik (black hulled)	Caldbeck Consulting		112	114	127	106	101	98		93	107(7)
PST-241	Caldbeck Consulting	91	86	86	86						87(4)
PSTSO200	Caldbeck Consulting	102	90	87	79						90(4)
PSTSO-288C	Caldbeck Consulting	91	102	88	97						95(4)
PSTSOKMJ06	Caldbeck Consulting							104	94		99(2)
PSTSOPH26 (black hulled)	Caldbeck Consulting							98	110	95	101(3)
Reins	Ag. Alumni Seed, IN	94			102		98	86	77	102	93(6)
Robust	Ag. Alumni Seed, IN	104	111	117	102	94					106(5)
Saber	Ag. Alumni Seed, IN	104			100	97		96	93	96	98(6)
VNK	Public		97	107	101	94	92	105	91		98(7)
021A17815	Ag. Alumni Seed, IN	97	108	87							97(3)

[1] Establishment year.
[2] Use this summary table as a guide in making variety decisions, but refer to specific tables in this report to determine statistical differences in forage yield between varieties.
[3] Mean only presented when respective variety was included in two or more trials.

Notes

Notes

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Warm Season and Cool Season (Cereals)

1-2026