PR-855

Agricultural Experiment Station

# 2025 Tall Fescue, Bromegrass, and Meadow Fescue Report

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## Introduction

Tall fescue (*Festuca arundinacea*) is a productive, well-adapted, persistent, soil-conserving, cool-season grass grown on approximately 5.5 million acres in Kentucky. This grass, used for both hay and pasture, is the forage base of most of Kentucky's livestock enterprises, particularly beef cattle.

The majority of tall fescue in Kentucky is infected with an internal fungus (endophyte) that produces ergot alkaloids and results in decreased weight gains in growing ruminants and lower pregnancy rates in breeding stock, especially in hot weather. Varieties are now available that are free of this fungal endophyte or contain a nontoxic endophyte. Varieties in the latter group are also referred to as novel endophyte varieties, because their endophyte improves stand survival without creating animal production problems.

Smooth bromegrass (*Bromus inermis*) is a perennial pasture and hay grass native to Europe. Smooth bromegrass has creeping underground stems or rootstocks from which the leafy stems arise. This grass is palatable to all classes of livestock, from emergence to the heading stage. Meadow bromegrass (*Bromus biebersteinii*) is a native of southeastern Europe and the adjacent Near East. It resembles smooth bromegrass but only has short rhizomes or none at all. Meadow bromegrass is densely tufted and has a similar growth habit to tall fescue and has the advantage of greater seedling vigor than smooth bromegrass. Hybrid bromegrass is a cross between smooth and meadow bromegrasses that combines the vigorous growth of smooth bromegrass with the leafiness and good regrowth of meadow bromegrass. Alaska bromegrass (*Bromus sitchensis*), also called Sitka bromegrass, is a long-lived perennial bunchgrass that grows at moderate rates during the spring and summer season. It does not spread by rhizomes and is more suited to environments with harsh winters.

Prairie bromegrass (*Bromus wildenowii*) is a tall, cool-season, leafy, short-lived, perennial, deep-rooted bunchgrass. It was introduced from South America. Seedheads are produced throughout the growing season. To maintain productive stands for several years, it is necessary to manage at least one growth cycle each year for seed production and natural reseeding. Some prairie bromegrasses are susceptible to winterkill. Mountain bromegrass (*Bromus marginatus*) is native to North America from Alaska to northern Mexico, where it can be found in many different habitats. It is a short-lived, perennial, cool-season, sod-forming grass. Mountain bromegrass' leafy growth and deep, well-branched root system give erosion protection on sloping ground. It is similar to California bromegrass (*Bromus carinatus*), and some consider them to be synonymous. Compared to tall fescue, the bromegrasses retain quality better as they mature and grow better during dry weather. However they are generally less well adapted to Kentucky conditions.

Meadow fescue (Festuca pratensis) is a semibunch type cool season European grass that has great winter hardiness. It will yield slightly less than tall fescue and orchardgrass, but has better digestability and palatability for grazing applications.

This report provides Kentucky yield trial data on varieties of tall fescue and similar grass species as well as guidelines for selecting tall fescue varieties. Consult the UK Forage Extension website (https://forages.mgcafe.uky.edu) to access all forage variety testing reports from Kentucky and surrounding states as well as a large number of other forage publications.

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

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

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

## Important Selection Considerations

**Local adaptation and seasonal yield.** Select a variety that is well adapted to Kentucky, as indicated by good performance across years and locations in replicated yield trials such as those presented in this publication. Choose high-yielding persistent varieties and varieties that are productive during the desired season of use.

Tall fescues are often classified as either "Mediterranean" or "continental" types according to the area from which the parental material for the variety originated. In general, the Mediterranean types (e.g., Cajun and Fawn) are more productive in the fall and winter than the continental types (such as Kentucky 31). Compared to continental types, Mediterranean types mature earlier in spring and become dormant and nonproductive during the summer in Kentucky. They are also more susceptible to leaf diseases such as helminthsporium and rhizoctonia. Therefore, Mediterranean varieties are less preferred for use in Kentucky than continental types. Because Mediterranean varieties mature earlier in the spring, first-cutting yields are generally higher when the two types are harvested at the same time. However, the continental types produce more in the summer.

**Endophyte level.** Seed with infection levels of less than 5 percent is regarded as endophyte-free. Several varieties, both with and without the endophyte, are adapted for use in Kentucky. With the new "novel endophyte" tall fescues, the seed tag should specify the infection level. Seed of novel tall fescues should be handled carefully to preserve this infection, which means keeping seed cool and planting as soon as possible. Novel endophyte varieties need a high infection level to improve stand survival. Look for Alliance for Grassland Renewal seed quality assurance printed on each bag of novel fescue seed (grasslandrenewal.org).

**Seed quality.** Buy premium-quality seed that is high in germination and purity levels and free from weed seed. Buy certified seed of improved varieties. An improved variety is one that has performed well in independent trials. Please check label for the test date (which must be within the previous nine months), the level of germination, and the amount of other crop and weed seed. Order seed well in advance of planting time to ensure that it will be available when needed.

## Description of the Tests

Data from twelve studies are reported. Tall fescue varieties were sown at Lexington (2022, 2023, and 2024), Princeton 2023) and Quicksand (2024). Bromegrass varieties were sown in Lexington in 2022, 2023, and 2024. Meadow fescue varieties were sown in Lexington in 2022, 2023, and 2024. The soils at Lexington (Maury), Princeton (Crider) and Quicksand (Nolin) are well-drained silt loams and are well suited for tall fescue, bromegrass and meadow fescu6 production.

Seedings were made at the rate of 25 pounds per acre for tall fescue and meadow fescue and 20 pounds per acre for bromegrass into a prepared seedbed with a disk drill. Plots were 5 feet by 20 feet in a randomized complete block design with four replications with a harvested plot area of 5 feet by 15 feet. Nitrogen was topdressed at 60 pounds per acre of actual nitrogen in March, after the first cutting, and again in late summer, for a total of 180 pounds per acre over the season. The tests were harvested using a sickle-type forage plot harvester to simulate a spring cut hay/summer grazing/fall stockpile management system. The first cutting was harvested when all tall fescue and bromegrass varieties were at the boot stage or later. Fresh weight samples were taken at each harvest to calculate dry matter production. Management practices for these tests regarding establishment, fertility (P, K, and lime based on regular soil tests), weed control, and harvest timing were in accordance with University of Kentucky recommendations.

## Results and Discussion

Weather data for Lexington, Quicksand, and Princeton are presented in tables 1 through 3. Ratings for maturity (see Table 4 for maturity scale), stand, and dry matter yields (tons/A) are reported in tables 5 through 15. Yields are given by cutting date for 2025 and as total annual production for all years of the trial. Stated yields are adjusted for percent weeds, therefore the tonnage given is for crop only. Varieties are listed by total yield in descending order. Experimental varieties are listed separately at the bottom of the tables.

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

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

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

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

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

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

**Table 4. Descriptive scheme for the stages of development in perennial forage grasses.**

| Code | Description | Remarks |
|---|---|---|
| | **Leaf development** | |
| 11 | First leaf unfolded | Applicable to regrowth of established (plants) and to primary growth of seedlings. |
| 12 | 2 leaves unfolded | Further subdivision by means of leaf development index (see text). |
| 13 | 3 leaves unfolded | |
| • | • • • • • | |
| 19 | 9 or more leaves unfolded | |
| | **Sheath elongation** | |
| 20 | No elongated sheath | Denotes first phase of new spring growth after overwintering. This character is used instead of tillering which is difficult to record in established stands. |
| 21 | 1 elongated sheath | |
| 22 | 2 elongated sheaths | |
| 23 | 3 elongated sheaths | |
| • | • • • • • | |
| 29 | 9 or more elongated sheaths | |
| | **Tillering (alternative to sheath elongation)** | |
| 21 | Main shoot only | Applicable to primary growth of seedlings or to single tiller transplants. |
| 22 | Main shoot and 1 tiller | |
| 23 | Main shoot and 2 tillers | |
| 24 | Main shoot and 3 tillers | |
| • | • • • • • | |
| 29 | Main shoot and 9 or more tillers | |
| | **Stem elongation** | |
| 31 | First node palpable | More precisely an accumulation of nodes. Fertile and sterile tillers distinguishable. |
| 32 | Second node palpable | |
| 33 | Third node palpable | |
| 34 | Fourth node palpable | |
| 35 | Fifth node palpable | |
| 37 | Flag leaf just visible | |
| 39 | Flag leaf ligule/collar just visible | |
| | **Booting** | |
| 45 | Boot swollen | |
| | **Inflorescence emergence** | |
| 50 | Upper 1 to 2 cm of inflorescence visible | |
| 52 | 1/4 of inflorescence emerged | |
| 54 | 1/2 of inflorescence emerged | |
| 56 | 3/4 of inflorescence emerged | |
| 58 | Base of inflorescence just visible | |
| | **Anthesis** | |
| 60 | Preanthesis | Inflorescence-bearing internode is visible. No anthers are visible. |
| 62 | Beginning of anthesis | First anthers appear. |
| 64 | Maximum anthesis | Maximum pollen shedding. |
| 66 | End of anthesis | No more pollen shedding. |
| | **Seed ripening** | |
| 75 | Endosperm milky | Inflorescence green. |
| 85 | Endosperm soft doughy | No seeds loosening when inflorescence is hit on palm. |
| 87 | Endosperm hard doughy | Inflorescence losing chlorophyll; a few seeds loosening when inflorescence hit on palm |
| 91 | Endosperm hard | Inflorescence-bearing internode losing chlorophyll; seeds loosening in quantity when inflorescence hit on palm. |
| 93 | Endosperm hard and dry | Final stage of seed development; most seeds shed. |

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

Statistical analyses were performed on all data to determine if the apparent differences are truly due to varietal differences or just to chance. To determine if two varieties are truly different, compare the difference between them and the LSD (least significant difference) at the bottom of the column. If the difference is equal to or greater than the LSD, the varieties are truly different when grown under the conditions at the given locations. The coefficient of variation (CV) is a measure of the variability of the data and is included for each column of means. Low variability is desirable, and increased variability within a study results in higher CVs and larger LSDs.

Tables 16, 17, and 18 show information about proprietors/distributors for all varieties studied in this report. Varieties are listed in alphabetical order by species, with the experimental varieties at the bottom. Remember that experimental varieties are not available for farm use; commercial varieties can be purchased from agricultural distributors. Remember to consider the relative spring maturity and the distribution of yield across the growing season when evaluating productivity of tall fescue and bromegrass varieties.

## How to Interpret the Summary Tables

Summaries of yield data from 2007 to 2025 for tall fescue varieties, 2006 to 2025 for bromegrass varieties, and 2019 to 2025 for meadow fescue varieties are presented in tables 19, 20, and 21, respectively. 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 table 19, 20, and 21 summaries, but these comparisons can help to identify varieties for further consideration. Varieties that have performed better than average over many years and at several locations have stable performance, while others may have performed well in wet years or on particular soil types. These details may influence variety choice, and more information from past years can be found in the appropriate annual reports. See the footnotes in tables 19, 20, and 21 to determine the yearly report that should be referenced.

## Summary

Selecting a good variety of tall fescue and bromegrass is an important first step in establishing a productive stand of grass. Proper management, beginning with seedbed preparation and continuing throughout the life of the stand, is necessary for even the highest-yielding variety to produce to its genetic potential.

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

- Lime and Fertilizer Recommendations (AGR-1)
- Grain, Forage and Cover Crop Guide for Kentucky (AGR-18)
- Tall Fescue (AGR-59)
- Establishing Livestock Pastures and Hayfields. (AGR-64)
- Tall Fescue in Kentucky (AGR-108)
- Forage Identification and Use Guide (AGR-175)
- Rotational Grazing (ID-143)
- Tall Fescue Novel Endophyte Varieties and Establishment for Livestock and Horse Farms (AGR-275)

## About the Authors

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

| Variety | Endophyte Status[1] | Seedling Vigor[2] Oct 25, 2022 | Maturity[3] | | | Percent Stand | | | | | | | Yield (tons/acre) | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | 2023 | 2024 | 2025 | 2022 | 2023 | | 2024 | | 2025 | | 2023 | 2024 | 2025 | | | | | 3-year Total |
| | | | May 3 | Apr 30 | May 8 | Oct 25 | Mar 20 | Oct 17 | Mar 21 | Oct 18 | Mar 18 | Nov 5 | Total | Total | May 8 | Jul 2 | Aug 28 | Oct[4] | Total | |
| **Commercial Varieties-Available for Farm Use** | | | | | | | | | | | | | | | | | | | | |
| Estancia Arkshield | novel | 2.5 | 54.5 | 54.5 | 57.0 | 96 | 97 | 97 | 97 | 97 | 97 | 97 | 6.51 | 2.88 | 1.46 | 1.03 | 0.67 | – | 3.15 | 12.54* |
| Triumphant | free | 3.6 | 57.0 | 56.0 | 58.0 | 100 | 100 | 100 | 100 | 100 | 99 | 99 | 6.59 | 2.96 | 1.27 | 0.82 | 0.52 | – | 2.62 | 12.16* |
| Cowgirl | free | 3.3 | 53.5 | 51.5 | 56.0 | 100 | 99 | 99 | 99 | 99 | 99 | 99 | 6.28 | 2.68 | 1.41 | 0.76 | 0.51 | – | 2.68 | 11.64* |
| Lacefield MaxQII | novel | 3.8 | 53.5 | 53.0 | 56.0 | 100 | 99 | 99 | 100 | 100 | 100 | 100 | 5.88 | 2.54 | 1.24 | 1.09 | 0.61 | – | 2.94 | 11.36* |
| Greendale | free | 3.8 | 50.0 | 50.0 | 54.5 | 100 | 100 | 100 | 100 | 100 | 100 | 99 | 6.18 | 2.30 | 1.28 | 1.13 | 0.46 | – | 2.88 | 11.35* |
| SS0705TFSL | free | 3.5 | 54.5 | 53.0 | 56.5 | 100 | 98 | 98 | 99 | 99 | 99 | 96 | 6.16 | 2.44 | 1.15 | 1.00 | 0.48 | – | 2.63 | 11.24* |
| Cajun II | free | 3.6 | 56.0 | 55.0 | 57.0 | 100 | 100 | 100 | 100 | 100 | 100 | 98 | 5.74 | 2.52 | 1.36 | 0.87 | 0.47 | – | 2.70 | 10.96* |
| Jesup MaxQII | novel | 2.5 | 56.0 | 54.0 | 56.0 | 97 | 96 | 97 | 98 | 98 | 98 | 97 | 5.40 | 2.70 | 1.03 | 0.91 | 0.46 | – | 2.40 | 10.50* |
| KY31+ | toxic | 3.9 | 55.0 | 54.5 | 56.0 | 100 | 99 | 99 | 99 | 100 | 100 | 99 | 5.41 | 2.53 | 1.23 | 0.93 | 0.39 | – | 2.55 | 10.49* |
| Ranchero | free | 2.9 | 55.0 | 55.0 | 56.5 | 99 | 98 | 98 | 98 | 98 | 98 | 98 | 5.07 | 2.47 | 1.31 | 0.85 | 0.46 | – | 2.62 | 10.17* |
| BarOptima PLUS E34 | novel | 2.4 | 47.5 | 50.0 | 54.0 | 98 | 96 | 97 | 97 | 97 | 97 | 97 | 4.89 | 2.34 | 1.16 | 0.79 | 0.48 | – | 2.44 | 9.67 |
| Texoma MaxQII | novel | 2.3 | 54.5 | 54.5 | 56.0 | 95 | 86 | 94 | 96 | 96 | 96 | 96 | 4.29 | 2.44 | 1.05 | 0.88 | 0.40 | – | 2.34 | 9.06 |
| **Experimental Varieties** | | | | | | | | | | | | | | | | | | | | |
| GTC16081/T11044 | novel | 3.0 | 56.0 | 54.5 | 56.0 | 96 | 97 | 97 | 97 | 97 | 97 | 97 | 6.57 | 2.96 | 1.35 | 1.12 | 0.61 | – | 3.07 | 12.61* |
| GTC16076/T10941 | novel | 2.6 | 54.5 | 54.5 | 56.0 | 97 | 97 | 97 | 97 | 97 | 97 | 97 | 5.32 | 2.78 | 1.47 | 1.43 | 0.60 | – | 3.50 | 11.61* |
| GTC16077/T10942 | novel | 3.1 | 56.0 | 54.5 | 56.5 | 98 | 96 | 97 | 97 | 97 | 97 | 97 | 5.57 | 2.75 | 1.43 | 1.12 | 0.51 | – | 3.05 | 11.37* |
| PST-5FMP | free | 1.5 | 45.0 | 51.0 | 54.0 | 93 | 93 | 94 | 94 | 94 | 94 | 94 | 5.45 | 2.78 | 1.17 | 1.30 | 0.63 | – | 3.11 | 11.34* |
| PST-5FDS | free | 3.0 | 54.0 | 52.5 | 56.0 | 99 | 99 | 99 | 99 | 99 | 99 | 98 | 6.31 | 2.49 | 1.22 | 0.89 | 0.39 | – | 2.50 | 11.29* |
| GTC16082/T10947 | novel | 3.4 | 55.0 | 54.5 | 57.0 | 98 | 99 | 99 | 99 | 99 | 99 | 99 | 5.55 | 2.53 | 1.50 | 1.04 | 0.63 | – | 3.17 | 11.25* |
| RAD-TF119 | free | 2.1 | 54.5 | 54.0 | 56.0 | 97 | 96 | 96 | 97 | 97 | 97 | 97 | 5.74 | 2.70 | 1.34 | 0.91 | 0.56 | – | 2.81 | 11.25* |
| KY31- | free | 3.8 | 52.5 | 52.5 | 56.0 | 99 | 98 | 98 | 99 | 99 | 99 | 99 | 5.59 | 2.52 | 1.34 | 1.09 | 0.48 | – | 2.90 | 11.01* |
| KYFA9732/AR584 | novel | 3.5 | 49.0 | 52.0 | 56.0 | 99 | 97 | 98 | 98 | 98 | 98 | 96 | 5.67 | 2.33 | 1.11 | 1.11 | 0.61 | – | 2.82 | 10.82* |
| GTC16078/T10943 | novel | 2.6 | 55.5 | 53.5 | 56.0 | 97 | 97 | 97 | 97 | 97 | 97 | 96 | 5.25 | 2.52 | 1.27 | 1.03 | 0.50 | – | 2.80 | 10.57* |
| GTC16079/T10944 | novel | 2.8 | 55.5 | 55.0 | 56.5 | 99 | 98 | 98 | 98 | 98 | 98 | 97 | 4.89 | 2.64 | 1.37 | 0.85 | 0.43 | – | 2.64 | 10.18* |
| FTF96 | free | 2.5 | 49.8 | 50.5 | 54.0 | 96 | 97 | 96 | 97 | 97 | 97 | 97 | 5.21 | 2.43 | 0.87 | 0.92 | 0.51 | – | 2.30 | 9.94* |
| PST-5FEDS | free | 2.1 | 56.0 | 54.5 | 56.5 | 93 | 91 | 91 | 92 | 92 | 92 | 92 | 4.81 | 2.41 | 1.21 | 0.99 | 0.46 | – | 2.67 | 9.88* |
| GTC19068 | free | 2.1 | 56.0 | 54.5 | 56.0 | 95 | 95 | 95 | 96 | 96 | 96 | 96 | 4.20 | 2.32 | 1.12 | 0.97 | 0.45 | – | 2.55 | 9.07 |
| | | | | | | | | | | | | | | | | | | | | |
| Mean | | 2.9 | 53.7 | 53.4 | 56.0 | 98 | 97 | 97 | 97 | 97 | 98 | 97 | 5.56 | 2.57 | 1.26 | 0.99 | 0.51 | | 2.76 | 10.90 |
| CV,% | | 23.3 | 3.4 | 2.0 | 1.1 | 2 | 4 | 3 | 3 | 3 | 3 | 3 | 24.60 | 13.35 | 24.43 | 23.31 | 27.90 | | 19.70 | 18.97 |
| LSD,0.05 | | 1.0 | 2.6 | 1.5 | 0.9 | 3 | 6 | 4 | 3 | 3 | 3 | 4 | 1.93 | 0.48 | 0.43 | 0.33 | 0.20 | | 0.77 | 1.91 |

[1] Free-varieties that do not contain an endophyte. Toxic-KY31+ contains a toxic endophyte. Novel-varieties that contain an endophyte that aids persistence but is not toxic to cattle or horses.
[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 4 for complete scale.
[4] There was no fall harvest due to below normal precipitation in July, August, and early September, resulting in insufficient regrowth.
* Not significantly different from the highest numerical value in the column, based on the 0.05 LSD.

**Table 6. Dry matter yields, seedling vigor, maturity, and stand persistence of tall fescue varieties sown September 6, 2023, at Lexington, Kentucky.**

| Variety | Endophyte Status[1] | Seedling Vigor[2] Oct 24, 2023 | Maturity[3] | | Percent Stand | | | | | Yield (tons/acre0 | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | 2024 | 2025 | 2023 | 2024 | | 2025 | | 2024 | 2025 | | | | | 2-year Total |
| | | | Apr 30 | May 8 | Oct 24 | Mar 14 | Oct 18 | Mar 18 | Nov 5 | Total | May 8 | Jul 2 | Aug 28 | Oct[4] | Total | |
| **Commercial Varieties-Available for Farm Use** | | | | | | | | | | | | | | | | |
| Fawn | free | 5.0 | 57.5 | 58.0 | 100 | 100 | 100 | 100 | 100 | 5.13 | 1.89 | 1.02 | 0.47 | – | 3.38 | 8.52* |
| SS0705TFSL | free | 5.0 | 55.5 | 55.5 | 100 | 100 | 100 | 100 | 100 | 5.26 | 1.55 | 1.13 | 0.54 | – | 3.22 | 8.49* |
| Ranchero | free | 5.0 | 56.0 | 57.0 | 100 | 100 | 100 | 100 | 100 | 5.00 | 1.85 | 1.11 | 0.50 | – | 3.46 | 8.46* |
| Texoma MaxQII | novel | 4.6 | 54.0 | 57.0 | 100 | 100 | 100 | 100 | 100 | 4.94 | 1.87 | 1.11 | 0.50 | – | 3.48 | 8.43* |
| Greendale | free | 4.9 | 51.5 | 54.0 | 100 | 100 | 100 | 100 | 100 | 5.18 | 1.45 | 1.22 | 0.53 | – | 3.21 | 8.39* |
| BarOptima PLUS E34 | novel | 5.0 | 51.0 | 54.0 | 100 | 100 | 100 | 100 | 100 | 5.00 | 1.39 | 1.32 | 0.51 | – | 3.22 | 8.22* |
| Jesup MaxQII | novel | 4.5 | 56.0 | 56.5 | 100 | 100 | 100 | 100 | 100 | 5.00 | 1.53 | 1.10 | 0.49 | – | 3.12 | 8.12* |
| Cajun II | free | 5.0 | 56.0 | 56.5 | 100 | 100 | 100 | 100 | 100 | 5.21 | 1.42 | 1.00 | 0.48 | – | 2.91 | 8.13 |
| KY31+ | toxic | 5.0 | 56.0 | 56.5 | 100 | 100 | 100 | 100 | 100 | 5.00 | 1.51 | 1.09 | 0.43 | – | 3.04 | 8.04* |
| Lacefield MaxQII | novel | 5.0 | 55.0 | 56.0 | 100 | 100 | 100 | 100 | 100 | 4.84 | 1.47 | 1.13 | 0.52 | – | 3.11 | 7.95* |
| Iliade | free | 5.0 | 50.0 | 54.5 | 100 | 100 | 100 | 100 | 100 | 5.02 | 1.25 | 1.16 | 0.43 | – | 2.84 | 7.85* |
| Estancia Arkshield | novel | 4.9 | 55.5 | 57.0 | 100 | 100 | 100 | 100 | 100 | 4.88 | 1.46 | 0.89 | 0.48 | – | 2.83 | 7.71* |
| Palatine | free | 4.9 | 54.5 | 54.0 | 100 | 100 | 100 | 100 | 100 | 4.92 | 1.07 | 1.03 | 0.41 | – | 2.52 | 7.44 |
| **Experimental Varieties** | | | | | | | | | | | | | | | | |
| FTF-96 | free | 4.1 | 52.0 | 55.0 | 98 | 99 | 99 | 99 | 99 | 4.83 | 1.68 | 1.19 | 0.51 | – | 3.38 | 8.21* |
| KYFA9611 | free | 5.0 | 52.0 | 56.0 | 100 | 100 | 100 | 100 | 100 | 5.08 | 1.55 | 1.08 | 0.43 | – | 3.06 | 8.14* |
| SETFPC5BK | free | 5.0 | 56.0 | 56.5 | 100 | 100 | 100 | 100 | 100 | 4.74 | 1.72 | 1.16 | 0.51 | – | 3.40 | 8.14* |
| SETF-SGT | free | 4.9 | 55.0 | 56.0 | 100 | 100 | 100 | 100 | 100 | 5.04 | 1.63 | 0.93 | 0.43 | – | 2.99 | 8.03* |
| SETFN97 | free | 4.8 | 55.0 | 56.0 | 100 | 100 | 100 | 100 | 100 | 5.21 | 1.32 | 1.08 | 0.41 | – | 2.80 | 8.02* |
| KY31- | free | 5.0 | 53.5 | 56.0 | 100 | 100 | 100 | 100 | 100 | 4.90 | 1.43 | 1.11 | 0.47 | – | 3.01 | 7.91* |
| KYFA1014 | free | 4.8 | 53.5 | 56.0 | 100 | 100 | 100 | 100 | 100 | 4.74 | 1.43 | 1.13 | 0.41 | – | 2.98 | 7.72* |
| PVF-FTF-2030 | free | 5.0 | 56.5 | 56.5 | 100 | 100 | 100 | 100 | 100 | 4.62 | 1.41 | 0.92 | 0.51 | – | 2.84 | 7.47 |
| KYFA0304 | free | 4.4 | 53.0 | 56.0 | 99 | 99 | 99 | 99 | 98 | 4.32 | 1.44 | 1.08 | 0.49 | – | 3.01 | 7.33 |
| | | | | | | | | | | | | | | | | |
| Mean | | 4.8 | 54.3 | 55.9 | 100 | 100 | 100 | 100 | 100 | 4.95 | 1.52 | 1.09 | 0.48 | | 3.08 | 8.03 |
| CV,% | | 3.3 | 2.1 | 1.5 | 1 | 1 | 1 | 1 | 1 | 7.50 | 16.27 | 17.20 | 20.19 | | 13.13 | 7.43 |
| LSD,0.05 | | 0.2 | 1.6 | 1.2 | 1 | 1 | 1 | 1 | 1 | 0.52 | 0.35 | 0.27 | 0.14 | | 0.57 | 0.84 |

[1] Free-varieties that do not contain an endophyte. Toxic-KY31+ contains a toxic endophyte. Novel-varieties that contain an endophyte that aids persistence but is not toxic to cattle or horses.
[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 4 for complete scale.
[4] There was no fall harvest due to below normal precipitation in July, August, and early September, resulting in insufficient regrowth.
* Not significantly different from the highest numerical value in the column, based on the 0.05 LSD.

**Table 7. Dry matter yields, seedling vigor, maturity, and stand persistence of tall fescue varieties sown September 19, 2024, at Lexington, Kentucky.**

| Variety | Endophyte Status[1] | Seedling Vigor[2] Oct 8, 2024 | Maturity[3] 2025 May 14 | Percent Stand | | | Yield (tons/acre) | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | 2024 | 2025 | | 2025 | | | |
| | | | | Oct 8 | Mar 18 | Oct 31 | May 14 | Jul 2 | Aug-Oct[4] | Total |
| **Commercial Varieties-Available for Farm Use** | | | | | | | | | | |
| Texoma MaxQII | novel | 4.4 | 56.0 | 100 | 100 | 100 | 1.20 | 0.87 | – | 2.07* |
| BigSky | free | 4.9 | 55.5 | 100 | 100 | 100 | 0.95 | 1.07 | – | 2.03* |
| Tower Protek | novel | 4.5 | 56.5 | 100 | 100 | 100 | 1.08 | 0.93 | – | 2.01* |
| KY31+ | toxic | 5.0 | 56.0 | 100 | 100 | 100 | 1.01 | 1.00 | – | 2.00* |
| Teton II | free | 4.8 | 56.5 | 100 | 100 | 98 | 1.07 | 0.90 | – | 1.97* |
| Lacefield MaxQII | novel | 5.0 | 56.0 | 100 | 100 | 98 | 1.01 | 0.89 | – | 1.90* |
| Martin2 Protek | novel | 4.8 | 56.5 | 100 | 100 | 100 | 1.10 | 0.78 | – | 1.88* |
| Cajun II | free | 4.8 | 56.0 | 100 | 100 | 98 | 1.00 | 0.86 | – | 1.86* |
| Estancia Arkshield | novel | 4.9 | 55.5 | 100 | 100 | 100 | 0.88 | 0.81 | – | 1.68* |
| Triumphant Protek | novel | 4.6 | 56.0 | 100 | 100 | 100 | 0.87 | 0.75 | – | 1.63* |
| Palatine | free | 4.8 | 55.5 | 100 | 100 | 93 | 0.94 | 0.67 | – | 1.60* |
| Forza100 | free | 4.6 | 56.5 | 100 | 100 | 100 | 0.73 | 0.77 | – | 1.50 |
| BarOptima PLUS E34 | novel | 4.4 | 55.5 | 100 | 100 | 95 | 0.75 | 0.73 | – | 1.48 |
| RoyalQ200 | free | 4.4 | 56.5 | 100 | 100 | 98 | 0.71 | 0.74 | – | 1.45 |
| Armory | free | 4.8 | 56.0 | 100 | 100 | 98 | 0.77 | 0.67 | – | 1.43 |
| Jesup MaxQII | novel | 4.5 | 56.5 | 100 | 100 | 100 | 0.65 | 0.74 | – | 1.39 |
| **Experimental Varieties** | | | | | | | | | | |
| KY31- | free | 4.9 | 56.0 | 100 | 100 | 100 | 0.89 | 0.88 | – | 1.78* |
| KYFA9611 | free | 4.6 | 56.0 | 100 | 100 | 100 | 0.91 | 0.86 | – | 1.77* |
| BARFA137 | free | 4.9 | 55.0 | 100 | 100 | 99 | 0.98 | 0.74 | – | 1.72* |
| KYFA1014 | free | 4.5 | 55.0 | 100 | 100 | 98 | 0.77 | 0.70 | – | 1.47 |
| GEN-FCOV | free | 4.9 | 56.0 | 100 | 100 | 98 | 0.74 | 0.72 | – | 1.46 |
| KYFA0502 | free | 4.6 | 56.0 | 100 | 100 | 100 | 0.72 | 0.71 | – | 1.43 |
| | | | | | | | | | | |
| Mean | | 4.7 | 56.0 | 100 | 100 | 99 | 0.90 | 0.81 | | 1.70 |
| CV,% | | 6.5 | 1.9 | 0 | 0 | 4 | 30.36 | 16.80 | | 19.74 |
| LSD,0.05 | | 0.4 | 1.5 | 0 | 0 | 6 | 0.38 | 0.19 | | 0.48 |

[1] Free-varieties that do not contain an endophyte. Toxic-KY31+ contains a toxic endophyte. Novel-varieties that contain an endophyte that aids persistence but is not toxic to cattle or horses.
[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 4 for complete scale.
[4] There was no late summer or fall harvest due to below normal precipitation in July, August, and early September, resulting in insufficient regrowth.
* Not significantly different from the highest numerical value in the column, based on the 0.05 LSD.

**Table 8. Dry matter yields, maturity, and stand persistence of tall fescue varieties sown September 13, 2023, at Princeton, Kentucky.**

| Variety | Endophyte Status[1] | Maturity[2] | | Percent Stand | | | Yield (tons/acre) | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | 2024 | 2025 | 2023 | 2024 | 2025 | 2024 | 2025 | | | 2-year Total |
| | | May 31 | May 27 | Nov 3 | Oct 24 | Apr 9 | Total | May 27 | Aug 29 | Total | |
| **Commercial Varieties-Available for Farm Use** | | | | | | | | | | | |
| Estancia Arkshield | novel | 80.0 | 84.3 | 100 | 100 | 99 | 4.60 | 2.13 | 1.61 | 3.74 | 8.34* |
| Cajun II | free | 80.0 | 85.5 | 100 | 99 | 100 | 4.64 | 2.25 | 1.37 | 3.62 | 8.26* |
| SS0705TFSL | free | 80.0 | 85.5 | 100 | 100 | 99 | 4.86 | 2.04 | 1.16 | 3.21 | 8.07* |
| Texoma MaxQII | novel | 80.0 | 85.5 | 100 | 100 | 100 | 4.72 | 2.20 | 1.09 | 3.29 | 8.02* |
| Iliade | free | 75.3 | 85.5 | 100 | 99 | 99 | 4.71 | 1.86 | 1.43 | 3.28 | 7.99* |
| BarOptima PLUS E34 | novel | 78.8 | 85.0 | 100 | 99 | 99 | 4.34 | 2.06 | 1.37 | 3.44 | 7.78* |
| Lacefield MaxQII | novel | 78.8 | 83.8 | 100 | 100 | 99 | 4.59 | 1.95 | 1.24 | 3.19 | 7.77* |
| KY31+ | toxic | 80.0 | 85.5 | 100 | 99 | 99 | 4.64 | 2.10 | 1.00 | 3.10 | 7.74* |
| Ranchero | free | 80.0 | 86.0 | 100 | 99 | 99 | 4.50 | 2.09 | 1.12 | 3.20 | 7.71* |
| Jesup MaxQII | novel | 80.0 | 84.3 | 100 | 100 | 100 | 4.53 | 1.98 | 1.08 | 3.06 | 7.59* |
| Fawn | free | 85.3 | 87.5 | 100 | 99 | 100 | 3.83 | 2.29 | 1.30 | 3.59 | 7.42* |
| Palatine | free | 78.8 | 84.3 | 100 | 99 | 99 | 4.30 | 1.90 | 0.99 | 2.89 | 7.19 |
| **Experimental Varieties** | | | | | | | | | | | |
| KY31- | free | 80.0 | 83.8 | 100 | 99 | 100 | 4.62 | 2.09 | 1.16 | 3.24 | 7.87* |
| FTF-96 | free | 78.8 | 85.5 | 96 | 97 | 99 | 4.60 | 1.95 | 1.20 | 3.14 | 7.74* |
| PVF-FTF-20020 | free | 78.8 | 86.0 | 98 | 99 | 99 | 4.36 | 1.91 | 1.15 | 3.06 | 7.42* |
| KYFA1014 | free | 78.8 | 83.8 | 100 | 98 | 99 | 4.12 | 2.09 | 1.05 | 3.14 | 7.26 |
| KYFA9611 | free | 77.5 | 85.0 | 100 | 99 | 100 | 3.19 | 2.35 | 1.42 | 3.77 | 6.96 |
| KYFA0304 | free | 80.0 | 85.0 | 100 | 100 | 100 | 3.53 | 2.13 | 1.25 | 3.39 | 6.92 |
| | | | | | | | | | | | |
| Mean | | 79.5 | 85.0 | 99 | 99 | 99 | 4.37 | 2.08 | 1.22 | 3.30 | 7.67 |
| CV,% | | 2.7 | 2.0 | 1 | 1 | 1 | 10.25 | 13.91 | 22.31 | 13.48 | 9.32 |
| LSD,0.05 | | 3.1 | 2.0 | 1 | 1 | 1 | 0.64 | 0.41 | 0.39 | 0.63 | 1.01 |

[1] Free-varieties that do not contain an endophyte. Toxic-KY31+ contains a toxic endophyte. Novel-varieties that contain an endophyte that aids persistence but is not toxic to cattle or horses.
[2] Maturity rating scale: 37=flag leaf emergence, 45=boot swollen, 50=beginning of inflorescence emergence, 58=complete emergence of inflorescence, 62=beginning of pollen shed. See Table 4 for complete scale.
* Not significantly different from the highest numerical value in the column, based on the 0.05 LSD.

**Table 9. Dry matter yields, seedling vigor, and stand persistence of tall fescue varieties sown September 20, 2024, at Quicksand, Kentucky.**

| Variety | Endophyte Status[1] | Seedling Vigor[2] Oct 28, 2024 | Percent Stand | | | Yield(tons/acre) | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | 2024 | 2025 | | 2025 | | | |
| | | | Oct 28 | Mar 21 | Nov 14 | May 25 | Jul 30 | Sep 9 | Total |
| **Commercial Varieties-Available for Farm Use** | | | | | | | | | |
| Forza100 | free | 4.5 | 98 | 98 | 98 | 1.87 | 1.54 | 0.98 | 4.39* |
| RoyalQ200 | free | 4.1 | 90 | 93 | 93 | 2.39 | 1.24 | 0.73 | 4.36* |
| Armory | free | 4.8 | 98 | 98 | 98 | 1.23 | 1.41 | 0.76 | 3.40* |
| KY31+ | toxic | 4.9 | 100 | 100 | 100 | 1.48 | 1.03 | 0.76 | 3.27* |
| BarOptima PLUS E34 | novel | 4.6 | 100 | 100 | 100 | 1.69 | 1.11 | 0.47 | 3.27* |
| Estancia Arkshield | novel | 5.0 | 100 | 100 | 100 | 1.41 | 1.01 | 0.67 | 3.09 |
| **Experimental Varieties** | | | | | | | | | |
| KYFA6911GT | free | 5.0 | 100 | 100 | 100 | 2.49 | 1.71 | 1.04 | 5.23* |
| KYF1014 | free | 4.9 | 99 | 99 | 99 | 2.26 | 1.77 | 1.10 | 5.13* |
| Gen-FCOV | free | 4.6 | 100 | 100 | 100 | 1.82 | 1.50 | 0.99 | 4.30* |
| KYFA0502 | free | 4.3 | 97 | 98 | 98 | 2.08 | 1.22 | 0.92 | 4.22* |
| BARFA137 | free | 4.9 | 98 | 99 | 99 | 2.19 | 1.14 | 0.61 | 3.94* |
| KY31- | free | 4.9 | 100 | 100 | 100 | 1.46 | 1.18 | 0.75 | 3.40* |
| | | | | | | | | | |
| Mean | | 4.7 | 98 | 99 | 99 | 1.86 | 1.32 | 0.81 | 4.00 |
| CV,% | | 7.0 | 2 | 2 | 2 | 53.46 | 51.18 | 53.46 | 34.95 |
| LSD,0.05 | | 0.5 | 3 | 2 | 3 | 1.43 | 0.97 | 0.63 | 2.01 |

[1] Free-varieties that do not contain an endophyte. Toxic-KY31+ contains a toxic endophyte. Novel-varieties that contain an endophyte that aids persistence but is not toxic to cattle or horses.
[2] Vigor score based on a scale of 1 to 5 with 5 being the most vigorous seedling growth.
* Not significantly different from the highest numerical value in the column, based on the 0.05 LSD.

**Table 10. Dry matter yields, seedling vigor, maturity, and stand persistence of bromegrass varieties sown September 9, 2022, at Lexington, Kentucky.**

| Variety | Type | Seedling Vigor[1] Oct 25, 2022 | Maturity[2] | | | Percent Stand | | | | | | | Yield (tons/acre) | | | | | | 3-year Total |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | 2023 | 2024 | 2025 | 2022 | 2023 | | 2024 | | 2025 | | 2023 | 2024 | 2025 | | | | |
| | | | May 5 | May 1 | May 7 | Oct 25 | Mar 20 | Oct 17 | Mar 21 | Oct 18 | Mar 18 | Nov 5 | Total | Total | May 7 | Jun 19 | Aug-Oct[3] | Total | |
| **Commercial Varieties-Available for Farm Use** | | | | | | | | | | | | | | | | | | | |
| Arsenal | meadow | 4.1 | 57.5 | 56.5 | 60.0 | 95 | 94 | 96 | 96 | 94 | 75 | 30 | 6.70 | 1.95 | 0.99 | 0.85 | – | 1.84 | 10.50 |
| CDC Torsion | meadow | 3.1 | 56.5 | 56.5 | 59.0 | 95 | 89 | 90 | 91 | 87 | 63 | 25 | 6.26 | 1.95 | 0.88 | 0.89 | – | 1.77 | 10.24* |
| Stratus | meadow | 3.6 | 57.0 | 56.5 | 58.5 | 90 | 90 | 91 | 91 | 92 | 65 | 25 | 6.72 | 1.54 | 0.73 | 0.95 | – | 1.69 | 9.95* |
| Admiral | meadow | 4.1 | 57.5 | 58.0 | 59.0 | 98 | 96 | 96 | 96 | 93 | 68 | 33 | 6.20 | 1.44 | 0.84 | 0.90 | – | 1.73 | 9.35* |
| Arid | smooth | 4.4 | 50.3 | 46.8 | 54.5 | 96 | 94 | 88 | 90 | 85 | 60 | 25 | 6.14 | 1.62 | 0.68 | 0.82 | – | 1.50 | 9.27* |
| Artillery | smooth | 5.0 | 53.0 | 49.3 | 55.0 | 98 | 97 | 95 | 95 | 93 | 83 | 38 | 5.85 | 1.75 | 0.87 | 0.76 | – | 1.63 | 9.23* |
| Champaign | meadow | 2.0 | 56.0 | 58.0 | 59.0 | 63 | 53 | 60 | 65 | 68 | 50 | 15 | 5.62 | 1.80 | 0.90 | 0.82 | – | 1.71 | 9.13* |
| Macbeth | meadow | 4.3 | 57.0 | 57.5 | 59.0 | 95 | 94 | 94 | 91 | 89 | 63 | 30 | 5.90 | 1.35 | 0.82 | 0.85 | – | 1.67 | 8.92 |
| Peak | smooth | 3.6 | 50.3 | 51.5 | 54.5 | 96 | 81 | 81 | 81 | 80 | 60 | 20 | 5.31 | 1.58 | 0.60 | 0.89 | – | 1.48 | 8.37 |
| AAC Torque | hybrid | 2.9 | 55.5 | 54.5 | 55.0 | 87 | 74 | 71 | 71 | 71 | 51 | 18 | 4.80 | 1.43 | 0.61 | 0.74 | – | 1.35 | 7.76 |
| | | | | | | | | | | | | | | | | | | | |
| Mean | | 3.7 | 55.1 | 54.5 | 57.4 | 91 | 86 | 86 | 87 | 85 | 64 | 26 | 5.98 | 1.64 | 0.79 | 0.85 | | 1.64 | 9.31 |
| CV,% | | 20.7 | 3.4 | 3.4 | 1.7 | 5 | 9 | 8 | 8 | 9 | 17 | 27 | 10.88 | 12.97 | 26.06 | 17.71 | | 15.30 | 9.63 |
| LSD,0.05 | | 1.1 | 2.7 | 2.7 | 1.4 | 7 | 12 | 10 | 10 | 11 | 16 | 10 | 1.01 | 0.31 | 0.30 | 0.22 | | 0.36 | 1.40 |

[1] Vigor score based on a scale of 1 to 5 with 5 being the most vigorous seedling growth.
[2] Maturity rating scale: 37=flag leaf emergence, 45=boot swollen, 50=beginning of inflorescence emergence, 58=complete emergence of inflorescence, 62=beginning of pollen shed. See Table 4 for complete scale.
[3] There was no late summer or fall harvest due to below normal precipitation in July, August, and early September, resulting in insufficient regrowth.
* Not significantly different from the highest numerical value in the column, based on the 0.05 LSD.

**Table 11. Dry matter yields, seedling vigor, maturity, and stand persistence of bromegrass varieties sown September 6, 2023, at Lexington, Kentucky.**

| Variety | Type | Seedling Vigor[1] Oct 24, 2023 | Maturity[2] | | Percent Stand | | | | | Yield (tons/acre) | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | 2024 | 2025 | 2023 | 2024 | | 2025 | | 2024 | 2025 | | | | | 2-year Total |
| | | | Apr 22 | May 7 | Oct 24 | Mar 14 | Oct 18 | Mar 18 | Nov 5 | Total | May 7 | Jun 19 | Aug 28 | Oct[3] | Total | |
| **Commercial Varieties-Available for Farm Use** | | | | | | | | | | | | | | | | |
| Arsenal | meadow | 4.9 | 56.0 | 58.0 | 100 | 100 | 100 | 100 | 93 | 3.97 | 1.27 | 1.16 | 1.07 | – | 3.50 | 7.47* |
| CDC Torsion | meadow | 3.9 | 52.8 | 57.5 | 100 | 100 | 100 | 100 | 98 | 3.85 | 1.52 | 0.95 | 0.83 | – | 3.29 | 7.15* |
| Admiral | meadow | 4.5 | 55.5 | 57.5 | 100 | 100 | 100 | 100 | 95 | 4.03 | 1.03 | 0.88 | 0.77 | – | 2.68 | 6.71* |
| Artillery | smooth | 4.8 | 47.3 | 54.5 | 100 | 100 | 100 | 100 | 99 | 3.06 | 1.46 | 1.16 | 0.83 | – | 3.44 | 6.50* |
| AAC Torque | hybrid | 3.9 | 52.8 | 55.5 | 100 | 99 | 98 | 98 | 94 | 2.95 | 1.17 | 0.92 | 1.06 | – | 3.15 | 6.10 |
| Stratus | meadow | 4.4 | 54.5 | 56.5 | 100 | 100 | 100 | 100 | 89 | 3.28 | 1.09 | 0.95 | 0.76 | – | 2.80 | 6.08 |
| Champaign | meadow | 4.1 | 54.0 | 58.0 | 100 | 100 | 100 | 100 | 100 | 3.22 | 1.11 | 0.74 | 0.82 | – | 2.68 | 5.90 |
| Peak | smooth | 4.0 | 47.8 | 55.5 | 100 | 100 | 100 | 99 | 97 | 2.80 | 0.99 | 1.04 | 0.95 | – | 2.98 | 5.79 |
| Macbeth | meadow | 4.1 | 55.0 | 58.0 | 100 | 100 | 100 | 100 | 97 | 3.24 | 0.93 | 0.83 | 0.70 | – | 2.47 | 5.71 |
| Arid | smooth | 4.4 | 45.0 | 55.5 | 99 | 99 | 100 | 100 | 97 | 2.45 | 1.51 | 0.83 | 0.73 | – | 3.07 | 5.52 |
| **Experimental Varieties** | | | | | | | | | | | | | | | | |
| PVF-C2 | meadow | 3.1 | 52.8 | 58.0 | 99 | 99 | 99 | 99 | 96 | 3.18 | 1.10 | 0.91 | 0.75 | – | 2.75 | 5.93 |
| PVF-A2 | smooth | 3.9 | 45.0 | 54.5 | 100 | 100 | 100 | 100 | 100 | 2.46 | 1.09 | 0.93 | 0.76 | – | 2.79 | 5.24 |
| | | | | | | | | | | | | | | | | |
| Mean | | 4.2 | 51.5 | 56.6 | 100 | 100 | 100 | 100 | 96 | 3.21 | 1.19 | 0.94 | 0.84 | | 2.97 | 6.17 |
| CV,% | | 11.5 | 6.8 | 1.5 | 1 | 1 | 1 | 1 | 5 | 17.20 | 24.62 | 25.66 | 27.76 | | 20.64 | 14.74 |
| LSD,0.05 | | 0.7 | 5.0 | 1.2 | 1 | 1 | 1 | 1 | 7 | 0.79 | 0.42 | 0.35 | 0.33 | | 0.88 | 1.31 |

[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 4 for complete scale.
[3] There was no fall harvest due to below normal precipitation in July, August, and early September, resulting in insufficient regrowth.
* Not significantly different from the highest numerical value in the column, based on the 0.05 LSD.

**Table 12. Dry matter yields, seedling vigor, maturity, and stand persistence of bromegrass varieties sown September 5, 2024, at Lexington, Kentucky.**

| Variety | Type | Seedling Vigor[1] Oct 2, 2024 | Maturity[2] 2025 May 7 | Percent Stand | | | Yield (tons/acre) | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | 2024 | 2025 | | 2025 | | | | |
| | | | | Oct 2 | Mar 18 | Oct 31 | May 7 | Jun 19 | Sep 5 | Oct[3] | Total |
| **Commercial Varieties-Available for Farm Use** | | | | | | | | | | | |
| Admiral | meadow | 4.8 | 59.5 | 100 | 98 | 98 | 1.27 | 0.78 | 1.11 | – | 3.17* |
| Arsenal | meadow | 5.0 | 59.0 | 100 | 99 | 99 | 1.09 | 0.79 | 1.21 | – | 3.09* |
| Artillery | smooth | 5.0 | 55.5 | 100 | 100 | 100 | 1.22 | 0.70 | 1.10 | – | 3.01* |
| Arid | smooth | 4.9 | 54.5 | 100 | 100 | 99 | 1.20 | 0.76 | 0.98 | – | 2.95* |
| Champaign | meadow | 3.9 | 58.0 | 94 | 88 | 81 | 0.89 | 0.70 | 1.29 | – | 2.88* |
| Macbeth | meadow | 4.6 | 58.5 | 100 | 99 | 97 | 1.03 | 0.78 | 1.02 | – | 2.84* |
| Peak | smooth | 4.8 | 54.5 | 100 | 99 | 100 | 0.94 | 0.82 | 1.08 | – | 2.84* |
| Pella | smooth | 3.6 | 55.0 | 89 | 83 | 85 | 0.71 | 0.75 | 1.16 | – | 2.63 |
| | | | | | | | | | | | |
| Mean | | 4.6 | 56.8 | 98 | 96 | 95 | 1.04 | 0.76 | 1.12 | | 2.93 |
| CV,% | | 0.9 | 2.1 | 3 | 3 | 3 | 20.78 | 10.86 | 12.60 | | 9.77 |
| LSD,0.05 | | 0.3 | 1.7 | 4 | 4 | 4 | 0.32 | 0.12 | 0.21 | | 0.42 |

[1] Vigor score based on a scale of 1 to 5 with 5 being the most vigorous seedling growth.
[2] Maturity rating scale: 37=flag leaf emergence, 45=boot swollen, 50=beginning of inflorescence emergence, 58=complete emergence of inflorescence, 62=beginning of pollen shed. See Table 4 for complete scale.
[3] There was no fall harvest due to below normal precipitation in July, August, and early September, resulting in insufficient regrowth.
* Not significantly different from the highest numerical value in the column, based on the 0.05 LSD.

**Table 13. Dry matter yields, seedling vigor, maturity, and stand persistence of meadow fescue varieties sown September 9, 2022, at Lexington, Kentucky.**

| Variety | Seedling Vigor[1] Oct 25, 2022 | Maturity[2] | | | Percent Stand | | | | | | | Yield (tons/acre) | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | 2023 | 2024 | 2025 | 2022 | 2023 | | 2024 | | 2025 | | 2023 | 2024 | 2025 | | | | 3-year Total |
| | | May 16 | May 20 | May 13 | Oct 25 | Mar 20 | Oct 17 | Mar 21 | Oct 18 | Mar 18 | Nov 5 | Total | Total | May 13 | Jun 25 | Aug-Oct[3] | Total | |
| **Commercial Varieties-Available for Farm Use** | | | | | | | | | | | | | | | | | | |
| Raskila | 4.1 | 56.0 | 56.0 | 50.5 | 99 | 99 | 99 | 99 | 65 | 65 | 45 | 4.06 | 0.70 | 0.48 | 0.36 | – | 0.84 | 5.60* |
| Pradel | 4.0 | 58.0 | 53.0 | 54.0 | 99 | 99 | 99 | 99 | 38 | 45 | 33 | 4.20 | 0.67 | 0.35 | 0.28 | – | 0.63 | 5.50* |
| Hyperbola | 4.1 | 57.0 | 51.5 | 51.5 | 100 | 100 | 100 | 97 | 35 | 35 | 29 | 3.73 | 0.55 | 0.35 | 0.30 | – | 0.65 | 4.93* |
| **Experimental Varieties** | | | | | | | | | | | | | | | | | | |
| KYFP1301 | 4.9 | 57.5 | 56.0 | 55.5 | 100 | 100 | 100 | 100 | 70 | 72 | 50 | 3.43 | 0.49 | 0.73 | 0.50 | – | 1.22 | 5.16 |
| | | | | | | | | | | | | | | | | | | |
| Mean | 4.3 | 57.1 | 54.3 | 52.9 | 99 | 99 | 99 | 99 | 52 | 54 | 39 | 3.85 | 0.60 | 0.48 | 0.36 | | 0.84 | 5.30 |
| CV,% | 7.3 | 2.0 | 4.1 | 3.5 | 1 | 1 | 1 | 2 | 43 | 22 | 49 | 16.07 | 21.46 | 39.11 | 35.37 | | 29.05 | 12.58 |
| LSD,0.05 | 0.5 | 1.9 | 3.5 | 2.9 | 1 | 1 | 1 | 4 | 35 | 19 | 30 | 0.99 | 0.21 | 0.30 | 0.20 | | 0.39 | 1.07 |

[1] Vigor score based on a scale of 1 to 5 with 5 being the most vigorous seedling growth.
[2] Maturity rating scale: 37=flag leaf emergence, 45=boot swollen, 50=beginning of inflorescence emergence, 58=complete emergence of inflorescence, 62=beginning of pollen shed. See Table 4 for complete scale.
[3] There was no late summer or fall harvest due to below normal precipitation in July, August, and early September, resulting in insufficient regrowth.
* Not significantly different from the highest numerical value in the column, based on the 0.05 LSD.

**Table 14. Dry matter yields, seedling vigor, maturity, and stand persistence of meadow fescue varieties sown September 6, 2023, at Lexington, Kentucky.**

| Variety | Seedling Vigor[1] Oct 14, 2023 | Maturity[2] | | Percent Stand | | | | | Yield (tons/acre) | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | 2024 | 2025 | 2023 | 2024 | | 2025 | | 2024 | 2025 | | | | 2-year Total |
| | | May 9 | May 21 | Oct 24 | Mar 14 | Oct 18 | Mar 18 | Nov 5 | Total | May 21 | Jun 26 | Aug-Oct[3] | Total | |
| **Commercial Varieties-Available for Farm Use** | | | | | | | | | | | | | | |
| Raskila | 4.5 | 53.5 | 56.5 | 100 | 100 | 100 | 100 | 81 | 3.37 | 1.10 | 0.34 | – | 1.44 | 4.81* |
| HDR | 4.9 | 55.5 | 58.0 | 100 | 100 | 100 | 100 | 91 | 3.34 | 1.06 | 0.29 | – | 1.35 | 4.69* |
| Pradel | 4.6 | 56.0 | 56.5 | 100 | 100 | 99 | 99 | 20 | 3.24 | 0.81 | 0.34 | – | 1.15 | 4.39* |
| Hyperbola | 4.8 | 54.0 | 56.5 | 100 | 100 | 100 | 100 | 46 | 3.10 | 0.76 | 0.29 | – | 1.05 | 4.15* |
| | | | | | | | | | | | | | | |
| Mean | 4.7 | 54.8 | 56.9 | 100 | 100 | 100 | 100 | 60 | 3.26 | 0.93 | 0.32 | | 1.25 | 4.51 |
| CV,% | 6.4 | 1.8 | 1.5 | 0 | 0 | 1 | 1 | 32 | 11.38 | 18.18 | 22.04 | | 17.03 | 11.22 |
| LSD,0.05 | 0.5 | 1.6 | 1.3 | 0 | 0 | 2 | 2 | 30 | 0.59 | 0.27 | 0.11 | | 0.34 | 0.81 |

[1] Vigor score based on a scale of 1 to 5 with 5 being the most vigorous seedling growth.
[2] Maturity rating scale: 37=flag leaf emergence, 45=boot swollen, 50=beginning of inflorescence emergence, 58=complete emergence of inflorescence, 62=beginning of pollen shed. See Table 4 for complete scale.
[3] There was no late summer or fall harvest due to below normal precipitation in July, August, and early September, resulting in insufficient regrowth.
* Not significantly different from the highest numerical value in the column, based on the 0.05 LSD.

**Table 15. Dry matter yields, seedling vigor, maturity, and stand persistence of meadow fescue varieties sown September 5, 2024, at Lexington, Kentucky.**

| Variety | Seedling Vigor[1] Oct 2, 2024 | Maturity[2] 2025 May 13 | Percent Stand | | | Yield (tons/acre) | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | 2024 | 2025 | | 2025 | | | |
| | | | Oct 2 | Mar 18 | Oct 31 | May 13 | Jun 25 | Sep 5 | Total |
| **Commercial Varieties-Available for Farm Use** | | | | | | | | | |
| Dells | 4.9 | 57.0 | 100 | 100 | 98 | 1.68 | 0.71 | 0.35 | 2.75* |
| Pradel | 4.8 | 55.0 | 100 | 99 | 78 | 1.42 | 0.79 | 0.32 | 2.54* |
| Driftless | 4.9 | 52.5 | 100 | 100 | 100 | 1.29 | 0.74 | 0.43 | 2.45* |
| Hyperbola | 5.0 | 54.0 | 100 | 100 | 98 | 1.28 | 0.77 | 0.37 | 2.43* |
| Carpathi | 3.4 | 26.8 | 100 | 100 | 97 | 1.21 | 0.76 | 0.41 | 2.38* |
| Raskila | 3.9 | 52.0 | 100 | 98 | 99 | 1.03 | 0.84 | 0.30 | 2.17 |
| | | | | | | | | | |
| Mean | 4.5 | 49.5 | 100 | 99 | 95 | 1.32 | 0.77 | 0.36 | 2.45 |
| CV,% | 7.8 | 25.2 | 0 | 2 | 7 | 17.85 | 14.13 | 30.40 | 11.86 |
| LSD,0.05 | 0.5 | 18.8 | 0 | 2 | 10 | 0.35 | 0.16 | 0.17 | 0.44 |

[1] Vigor score based on a scale of 1 to 5 with 5 being the most vigorous seedling growth.
[2] Maturity rating scale: 37=flag leaf emergence, 45=boot swollen, 50=beginning of inflorescence emergence, 58=complete emergence of inflorescence, 62=beginning of pollen shed. See Table 4 for complete scale.
* Not significantly different from the highest numerical value in the column, based on the 0.05 LSD.

**Table 16. Proprietors of tall fescue varieties in current trials.**

| Variety | Endophyte Status | Proprietor/KY distributor |
|---|---|---|
| **Commercial Varieties-Available for Farm Use** | | |
| Armory | free | Barenbrug USA |
| BarOptima PLUS E34 | novel | Barenbrug USA |
| BigSky | free | Columbia Seeds |
| Cajun II | free | Smith Seed Services |
| Cowgirl | free | Pure-Seed Testing |
| Dominate | free | Allied Seed |
| Estancia Arkshield | novel | Mountain View Seeds |
| Fawn | free | Smith Seed Services |
| Forza 100 | free | Gentos SA |
| Greendale | free | DLF-Pickseed |
| Iliade | free | Columbia Seeds |
| Jesup MaxQII | novel | Pennington Seed |
| KY31+ | toxic | Ky Agric. Exp. Station/Public |
| Lacefield MaxQ II | novel | Pennington Seed |
| Martin 2 Protek | novel | DLF-Pickseed |
| Palatine | free | Mountain View Seeds |
| Ranchero | free | Smith Seed Services |
| Royal Q200 | free | Gentos SA |
| SS-0705TFSL | free | Southern States |
| STF43 | free | Barenbrug USA |
| Teton II | free | Mountain View Seeds |
| Texoma MaxQII | novel | DLF-Pickseed |
| Tower Protek | novel | DLF-Pickseed |
| Triumphant | free | DLF-Pickseed |
| Triumphant Protek | novel | DLF-Pickseed |
| **Experimental Varieties[1]** | | |
| BAR-FA137 | free | Barenbrug USA |
| FTF96 | free | DLF-Pickseed |
| GEN-FCOV | free | Gentos SA |
| GTC16076/T10941 | free | Univ. of Georgia |
| GTC16077/T10942 | free | Univ. of Georgia |
| GTC16078/T10943 | free | Univ. of Georgia |
| GTC16079/T10944 | free | Univ. of Georgia |
| GTC16081/T11044 | novel | Univ. of Georgia |
| GTC16082/T10947 | free | Univ. of Georgia |
| GTC19068 | novel | Univ. of Georgia |
| KY31- | free | KY Agric. Exp. Station |
| KYFA0304 | free | KY Agric. Exp. Station |
| KYFA0502 | free | KY Agric. Exp. Station |
| KYFA1014 | free | KY Agric. Exp. Station |
| KYFA9611 | free | KY Agric. Exp. Station |
| KYFA9611GT | free | KY Agric. Exp. Station |
| KYFA9732/AR584 | novel | KY Agric. Exp. Station |
| PST-5FDS | free | Pure-Seed Testing |
| PST-5FEDS | free | Pure-Seed Testing |
| PST-5FMP | free | Pure-Seed Testing |
| PVF-FTF-2030 | free | Pine View Farms |
| RAD-TF119 | free | Radix Research |
| SETFN97 | free | Smith Seed Services |
| SETFPC-5BK | free | Smith Seed Services |

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

**Table 17. Proprietors of bromegrass varieties in current trials.**

| Variety | Type | Proprietor/KY Distributor |
|---|---|---|
| **Commercial Varieties-Available for Farm Use** | | |
| AAC Torque | hybrid | Brett Young Seeds |
| Admiral | meadow | Cisco Seeds |
| Arid | smooth | Mountain View Seeds |
| Arsenal | meadow | Barenbrug USA |
| Artillery | meadow | Barenbrug USA |
| CDC Torsion | meadow | Brett Young Seeds |
| Champaign | meadow | Mountain View Seeds |
| MacBeth | meadow | Cisco Seeds |
| Peak | smooth | Allied Seed |
| Pella | smooth | DLF Pickseed |
| Stratus | meadow | Allied Seed |
| **Experimental Varieties[1]** | | |
| PVF A2 | smooth | Pine View Farms |
| PVF-C2 | meadow | Pine View Farms |

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

**Table 18. Proprietors of meadow fescue varieties in current trials.**

| Variety | Proprietor/KY Distributor |
|---|---|
| **Commercial Varieties-Available for Farm Use** | |
| Carpathi | Barenbrug USA |
| Dells | Mountain View Seeds |
| Driftless | Barenbrug USA |
| HDR | Barenbrug USA |
| Hyperbola | DLF Pickseed |
| Pradel | Barenbrug USA |
| Raskila | Columbia Seeds |
| **Experimental Varieties[1]** | |
| KYFF1301 | Ky Agric. Exp. Station |

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

**Table 19. Summary of Kentucky tall fescue yield trials 2009-2025 (yield shown as a percentage of the mean of the commercial varieties in the trial).**

| Variety | Endophyte Status[1] | Proprietor | Lexington | | | | | | | | | | | | | | Princeton | | | | | | | Quicksand | | | | Mean4 (#trials) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | 09[2,3] | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 10 | 12 | 15 | 17 | 19 | 21 | 23 | 13 | 16 | 18 | 21 | |
| | | | 3-yr[5] | 3-yr | 3-yr | 3-yr | 3-yr | 3-yr | 3-yr | 3-yr | 3-yr | 3-yr | 3-yr | 3-yr | 3-yr | 2-yr | 3-yr | 3-yr | 2-yr | 3-yr | 3-yr | 3-yr | 2-yr | 3-yr | 3-yr | 3-yr | 3-yr | |
| Armory | free | Barenbrug USA | | | | | | | | | | 98 | 99 | | | | | | | | 98 | 95 | | | | | | 98(4) |
| Baguala | free | Allied Seed | | | | | | 92 | | | | | | | | | | | 96 | | | | | | | | | 94(2) |
| BarElite | free | Barenbrug USA | | 100 | | | | | | | | | | | | | 92 | | | | | | | | | | | 96(2) |
| BARFASTF-43 | free | Barenbrug USA | | | | | | | | | | 99 | | | | | | | | | 85 | | | | | | | 92(2) |
| BarOptima PLUS E34 | novel | Barenbrug USA | | 107 | 108 | 102 | 99 | 113 | 99 | 90 | 95 | 102 | 101 | 96 | 88 | 99 | 99 | 100 | 96 | 105 | 102 | 99 | 99 | 93 | 118 | 85 | 81 | 99(24) |
| Bronson | free | Ampac Seed | 105 | 102 | 99 | 99 | | | 100 | | | 110 | | | | | 101 | 91 | 103 | | | | | | | | | 101(9) |
| Brutus | free | Saddle Butte Ag. Inc. | | | | | 90 | | | | | | | | | | | | | | | | | | | | | – |
| Bull | free | Improved Forages | | | 100 | | | | | | 100 | | | | | | | 99 | | | | | | 95 | | | | 99(4) |
| Cajun II | free | Smith Seed Services | | 97 | | 105 | 99 | 99 | 98 | 107 | 109 | 99 | 104 | 99 | 100 | 98 | 101 | | 104 | 91 | 111 | | 106 | 90 | 96 | 104 | 113 | 101(21) |
| Cowgirl | free | Rose-AgriSeeds | | | 94 | | | | | | | | | | 107 | | 100 | 98 | | | | | | | | | | 102(4) |
| DLFPS-FTF100 Protek | novel | DLF Pickseed | | | | | | | | | | 98 | | | | | | | | | 80 | | | | | | | 89(2) |
| Dominate | free | Allied Seed | | | | | | 90 | | | | | | 101 | | | | | 99 | | | 106 | | | | | | 99(4) |
| Drover | free | Barenbrug USA | | | | | 105 | 120 | | | | | | | | | | | | | | | | | | | | 113(2) |
| DuraMax GOLD | novel | DLF Pickseed | | 102 | | | | | | | | | | | | | | | | | | | | | | | | – |
| Enhance | free | Allied Seed | | 93 | | | | | | | | | | | | | | | | | | | | | | | | – |
| Estancia ArkShield | novel | Mountain View Seeds | | | 106 | | | | 96 | | 105 | 99 | 100 | 99 | 115 | 93 | | 102 | | | 102 | 97 | 107 | | 103 | | 87 | 101(14) |
| Fawn | free | Smith Seed Services | | | | | | | | | | | | | | 103 | | | | | | | 95 | | | | | 99(2) |
| Fillmore(FTF70) | free | DLF Pickseed | | | | | | | | | | | 103 | | | | | | | | | | | | | | | – |
| Flourish | free | Allied Seed | | | 92 | | | | | | | | | | | | | 101 | | | | | | | | | | 97(2) |
| FSG 402TF | free | Farm Science Genetics | | | | | | 92 | | | | | | | | | | | 103 | | | | | | | | | 98(2) |
| Goliath | free | Ampac Seed | 100 | | | 104 | | | | | | | | | | | 99 | | | | | | | | | | | 101(3) |
| Greendale | free | DLF Pickseed | | | | | | | | | | 105 | | 98 | 104 | 102 | | | | | 113 | 103 | | | | | | 104(6) |
| Greendale Protek | novel | DLF Pickseed | | | | | | | | | | 106 | 97 | | | | | | | | 116 | | | | | | | 106(3) |
| HyMark | free | Fraser Seeds | | 91 | | | | 104 | | | | | | | | | | | 103 | | | | | | | | | 99(3) |
| Iliade | free | Columbia Seeds | | | | | | | | | | | | | | 95 | | | | | | | 102 | | | | | – |
| Jesup EF | free | Pennington Seed | | 98 | 105 | | | | | | | | | | | | 103 | 100 | | | | | | | | | | 102(4) |
| Jesup MaxQ | novel | Pennington Seed | 110 | 103 | 100 | 93 | 106 | 102 | 111 | 104 | 101 | | 111 | | | | 100 | 98 | 98 | 103 | | | | 100 | 116 | 105 | | 104(17) |
| Jesup MaxQII | novel | Pennington Seed | | | | | | | | | | 103 | | 93 | 96 | 98 | | | | | | | 97 | | | | 105 | 99(6) |
| Kentucky 32 | free | Oregro Seeds | | 93 | 94 | | 101 | | | | 83 | 101 | | | | | 94 | 101 | | | | | | | | | | 95(7) |
| Kokanee | free | Smith Seed Services | | | | | | | | | | 81 | | | | | | | | | | | | | | | | – |
| Kora Protek | novel | DLF Pickseed | | | | | | | 101 | | | | | | | | | | | | | | | | 86 | | | 94(2) |
| KY31+ | toxic | KY Agric Exp Sta. | 102 | 93 | 95 | 103 | 100 | 99 | 103 | 101 | 107 | 71 | 93 | 102 | 96 | 97 | 112 | 101 | 92 | 105 | 105 | 99 | 99 | 110 | 110 | 107 | 118 | 101(25) |
| Lacefield MaxQ II | novel | Pennington Seed | | | | 97 | 104 | 93 | 92 | 94 | 106 | 112 | 100 | 100 | 104 | 96 | | | 105 | 100 | | 97 | 99 | 113 | 102 | 95 | 106 | 101(19) |
| Martin2 Protek | novel | DLF Pickseed | | 104 | | | | | 96 | | | 105 | 97 | | | | | | | | 99 | | | | 106 | | | 101(6) |
| Palatine | free | Mountain View Seeds | | | | | | | | | | | 101 | | | 90 | | | | | | | 92 | | | | 89 | 93(4) |
| Payload | free | Brett Young | | | | | | | 89 | | | | | | | | | | | | | | | | 111 | | | 100(2) |
| Ranchero | free | Smith Seed Services | | | | | | | | 92 | | 101 | 107 | 96 | 93 | 102 | | | | 96 | 107 | | 99 | | | | 105 | 100(10) |
| Select | free | Southern States | 98 | 90 | 100 | 97 | 103 | 97 | 102 | | | | | | | | 99 | 100 | 99 | | | | | 99 | 86 | | | 98(12) |
| SS-0705TFSL | free | Southern States | | | | | 99 | 99 | 106 | 111 | 94 | 110 | 103 | 106 | 103 | 103 | | | 103 | 101 | | 99 | 103 | | 101 | 104 | 99 | 103(16) |
| STF43 | free | Barenbrug USA | | | | | | | | | | | 91 | | | | | | | | | | | | | | | – |
| Teton II | free | Mountain View Seeds | | 107 | 105 | | 96 | | 103 | | | | | | | | | 99 | | | | | | | 91 | | | 100(6) |
| Texoma MaxQ II | novel | Pennington Seed | | | | | | | | | | 111 | 107 | 107 | 83 | 102 | | | | | | | 103 | | | | 96 | 101(7) |
| Tower | free | DLF Pickseed | | | | | | | 101 | | | 105 | | | | | | | | | 96 | | | | 91 | | | 98(4) |
| Tower Protek | novel | DLF Pickseed | | 98 | | | | | 104 | | | 102 | 90 | | | | | | | | 92 | | | | 81 | | | 95(6) |
| Triumphant | free | DLF Pickseed | | | | | | | | | | 95 | | 103 | 111 | | | | | | 95 | 106 | | | | | | 103(5) |
| Triumphant Protek | novel | DLF Pickseed | | | | | | | | | | 96 | 96 | | | | | | | | 97 | | | | | | | 96(3) |
| Tuscany II | free | Seed Research of OR | | | 97 | | | | | | | | | | | | | 106 | | | | | | | | | | 102(2) |
| Velvet | free | Oregro Seeds | | | | | | | | | | 91 | | | | | | | | | | | | | | | | – |
| 5CAN | free | Brett Young | 86 | | | | | | | | | | | | | | | | | | | | | | | | | – |

[1] Free-varieties that do not contain an endophyte. Toxic-KY31+ contains a toxic endophyte. Novel-varieties that contain an endophyte that aids persistence but is not toxic to cattle or horses.
[2] Year trial was established.
[3] Use this summary table as a guide in making variety decisions, but refer to specific yearly reports to determine statistical differences in forage yield between varieties. To find actual yields, look in the yearly report for the final year of each specific trial. For example, the Lexington trial planted in the fall of 2016 was harvested three years, so the final report would be "2019 Tall Fescue Report" archived in the UK Forage website (https://forages.mgcafe.uky.edu).
[4] Mean only presented when respective variety was included in two or more trials.
[5] Number of years of data.

**Table 20. Summary of Kentucky bromegrass yield trials at Lexington 2006-2025 (yield shown as a percentage of the mean of the commercial varieties in the trial).**

| Variety | Type | Proprietor/KY Distributor | 2006[1,2] | 2008 | 2010 | 2012 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | Mean[3] (#trials) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | 4-yr[4] | 3-yr | 3-yr | 3-yr | 3-yr | 3-yr | 4-yr | 3-yr | 3-yr | 3-yr | 3-yr | 3-yr | 3-yr | 2-yr | |
| AAC Torque | hybrid | Brett Young Seeds | | | | | | | | | | | | | 83 | 97 | 90(2) |
| AC Knowles | hybrid | Agriculture Canada | 85 | | 82 | 102 | 89 | | | | | | | | | | 89(4) |
| Admiral | meadow | Cisco Seeds | | | | | | | 107 | 106 | 100 | 100 | 102 | 102 | 100 | 107 | 103(8) |
| Arid | smooth | Mountain View Seeds | | | | | | | 94 | 93 | | | | | 100 | 88 | 94(4) |
| Arsenal | meadow | Barenbrug USA | | | | | | | | | 106 | 106 | 104 | 112 | 113 | 119 | 110(6) |
| Artillery | smooth | Barenbrug USA | | | | | | | | | 100 | 99 | 89 | 92 | 99 | 103 | 97(6) |
| Bigfoot | hybrid | Grassland Oregon | 108 | 116 | 105 | | | | | | | | | | | | 110(3) |
| Canterbury | mountain | Barenbrug USA | | 79 | | | | | | | | | | | | | – |
| Carlton | smooth | Pickseed USA | | | | 82 | 95 | | | | 85 | | | | | | 87(3) |
| CDC Torsion | meadow | Brett Young Seeds | | | | | | | | | | | | | 110 | 114 | 112(2) |
| Champaign | meadow | Mountain View Seeds | | | | | | | | | | | | | 98 | 94 | 96(2) |
| Doina | smooth | Barenbrug USA | | 114 | 108 | | | | | | | | | | | | 111(2) |
| Fleet | meadow | Agriculture Canada | 110 | | | 109 | | | | | | | | | | | 110(2) |
| Hakari | Alaska | Barenbrug USA | | 85 | 85 | | | | | | | | | | | | 85(2) |
| MacBeth | meadow | Cisco Seeds | | 136 | 119 | 107 | 116 | 107 | 103 | 123 | 100 | 95 | 105 | 104 | 96 | 91 | 108(13) |
| Olga | smooth | Barenbrug USA | | 116 | 101 | | | | | | | | | | | | 109(2() |
| Peak | smooth | Allied Seed | | 97 | | 100 | | 93 | 95 | 88 | 103 | | 99 | 89 | 90 | 92 | 95(10) |
| Persister | prairie | DLF Pickseed | | 72 | | | | | | | | | | | | | – |
| RAD-BI29 | smooth | Columbia Seeds | 96 | 86 | | | | | | | | | | | | | 91(2) |
| Stratus | meadow | Allied Seed | | | | | | | | | | | | 101 | 107 | 97 | 102(3) |

[1] Year trial was established.
[2] Use this summary table as a guide in making variety decisions, but refer to specific yearly reports to determine statistical differences in forage yield between varieties. To find actual yields, look in the yearly report for the final year of each specific trial. For example, the Lexington trial planted in the fall of 2021 was harvested three years, so the final report would be "2024 Tall Fescue, Bromegrass, and Meadow Fescue Report" archived in the UK Forage website (https://forages.mgcafe.uky.edu/).
[3] Mean only presented when respective variety was included in two or more trials.
[4] Number of years of data.

**Table 21. Summary of meadow fescue yield trials at Lexington 2019-2025 (yield shown as a percentage of the mean of the commercial varieties in the trial).**

| Variety | Proprietor/KY Distributor | 2019[1,2] | 2020 | 2021 | 2022 | 2023 | Mean[3] (#trials) |
|---|---|---|---|---|---|---|---|
| | | 3-yr[4] | 3-yr | 3-yr | 3-yr | 2-yr | |
| HDR | Barenbrug USA | 95 | 105 | 101 | | 104 | 101(4) |
| Hyperbola | DLF Pickseed | | | | 92 | 92 | 92(2) |
| Pradel | Barenbrug USA | 105 | 88 | 99 | 103 | 97 | 98(5) |
| Raskila | Columbia Seeds | | 103 | 100 | 105 | 107 | 104(4) |

[1] Year trial was established.
[2] Use this summary table as a guide in making variety decisions, but refer to specific yearly reports to determine statistical differences in forage yield between varieties. To find actual yields, look in the yearly report for the final year of each specific trial. For example, the Lexington trial planted in the fall of 2021 was harvested three years, so the final report would be "2024 Tall Fescue, Bromegrass, and Meadow Fescue Report" archived in the UK Forage website (https://forages.mgcafe.uky.edu).
[3] Mean only presented when respective variety was included in two or more trials.
[4] Number of years of data.

# Notes

# Notes

# 2025 Tall Fescue, Bromegrass, and Meadow Fescue Report

Martin-Gatton
College of Agriculture,
Food and Environment


1-2026