

# Selecting the Right Grass for Your Kentucky Lawn

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The best grass for your lawn is not necessarily the one you like the best, but the one that is best adapted to where you live and will take less work and fewer inputs (water, fertilizer, pesticides). Many people think that since Kentucky is the Bluegrass State, it's best to grow Kentucky bluegrass across our state. Actually, Kentucky bluegrass is only marginally adapted to our climate and can require more inputs to keep an appealing lawn than some other choices (Figure 1). In general, Kentucky bluegrass can be an option for parts of Central and Eastern Kentucky, while zoysiagrass may be a better option in Western Kentucky. Tall fescue is adapted to the entire state so is a good choice for most locations. Perennial ryegrasses and fine fescues are occasionally useful in different areas of the state, depending on specific conditions.

To know which species are best adapted to Kentucky, and then specifically which cultivars have done well in variety testing in Kentucky, look for variety recommendations at [www.uky.edu/ag/ukturf](http://www.uky.edu/ag/ukturf) or general variety testing in Kentucky and elsewhere at [www.ntep.org](http://www.ntep.org).

Think, "Right plant, right place." Many recurring turf problems can be avoided if you select an improved cultivar of the best adapted grass. The following descriptions may help you make the right selection.



**Figure 1.** A well-maintained Kentucky bluegrass lawn (top) and a low input Kentucky bluegrass lawn (bottom) showing that without fertilizer, weed control, supplemental water, and possibly disease control, many Kentucky bluegrass lawns can become thin and unsightly in a short period of time.

Cool-season grass:

## Kentucky Bluegrass

*Poa pratensis*

Dozens of Kentucky bluegrass cultivars are available including older “common” types like ‘Kenblue’ as well as improved types. The common varieties can persist if they are maintained at high mowing heights (e.g. >3”), limited nitrogen fertility, and minimal traffic. However, many improved cultivars have better summer quality, improved heat/drought tolerance, and disease resistance.

### Best Cultivars for Kentucky

Keeneland, Blue Note, Skye, Nu Chicago, Sudden Impact, Legend, Midnight, Rush, Empire, America, Avid, Arrowhead.

### Adaptation

Kentucky bluegrass grows best on well-drained, fertile soils in full sunlight. Performance in Western Kentucky is very poor.

### Major Qualities

- Fine leaf texture
- Dense
- Good mowing quality (e.g. the leaves cut cleanly)
- Good recovery (regrowth from rhizomes)

### Major Problems

- Poor traffic tolerance
- Not adapted to medium or heavy shade
- Severe white grub susceptibility (shallow rooted)
- Several turf diseases can cause thinning in spring and summer (e.g. dollar spot and summer patch)
- Thatch buildup can be severe, especially if excessive nitrogen is applied
- Irrigation is required when maintained with high nitrogen fertilization
- Becomes semi-dormant (brown) when not irrigated during most summers
- Slow seed germination (10-21 days)
- Slow establishment rate due to poor seedling vigor

### Seeding Rate

2 pounds pure live seed per 1,000 square feet (for an explanation of pure live seed, see UK Extension Publication *AGR-50: Lawn Establishment in Kentucky*).

### Blends

Blends are combinations of two or more different cultivars of the same species and can greatly improve seasonal lawn performance. Blending cultivars together can reduce disease pressure and increase heat and drought tolerance for the entire lawn. Blending two or more of the cultivars recommended above can greatly improve a lawn.

### Mixtures

Mixtures are combinations of two or more different species. Mixing compatible species together can reduce damage from pests, improve environmental performance (e.g. sunny vs. shaded areas), and can reduce fertilizer and water needs. Kentucky bluegrass mixes well with perennial ryegrass or fine fescue, and is sometimes included as a minor component of tall fescue sod production, as indicated below.

Cool-season grass:

## Tall Fescue

*Festuca arundinacea*

Tall fescue is used for lawns and pastures throughout Kentucky. However, when improved turf-type cultivars are selected and managed as a lawn, it has little resemblance to the tall fescue in pastures (e.g. Kentucky 31). Only purchase turf type tall fescues where a “better than average” lawn is desired. These grasses are the best choice for most lawns across the region. Although normally considered to be a non-spreading bunch-type grass, clumping is not a problem when a dense turf stand is established.

### Best Cultivars for Kentucky

Regenerate, Grade 3, Hemi, Bizem, Fesnova, Catalyst, Bullseye, Falcon IV, Falcon V, Terrano, Firebird 2. These turf-type cultivars are finer textured, darker green, and more dense than KY-31. They are best where a more formal lawn is desired. KY-31 has a coarse, wide leaf and lighter green color and is best suited for very low maintenance, utility turf areas or pastures.

### Adaptation

Tall fescue is the most widely adapted turfgrass for use in Kentucky, adapted to full sun or medium shade. Unlike Kentucky bluegrass, it will establish and perform well on a wide variety of soil types like heavy clay or sandy soils.

### Major Qualities

- Good traffic tolerance
- No serious insect problems
- Very competitive with weeds
- No thatch buildup
- Little if any irrigation required except during drought
- Relatively fast to establish; germination in seven to 10 days

### Major Problems

- Generally requires more frequent mowing than Kentucky bluegrass to look its best
- Leaf blades can shred if mower blades are not kept sharp
- Brown patch disease may be an issue during hot, wet summers
- Turf has little resiliency; lateral spread is very slow

### Seeding Rate

6 pounds per 1,000 square feet

### Mixtures

Mixtures with other species such as Kentucky bluegrass are not recommended except where sod is grown specifically for transplanting purposes. Overseeding turf-type tall fescue into poor-performing Kentucky bluegrass lawns is acceptable, however, as the presence of the tall fescue makes a better, more seasonally consistent lawn. Because of serious texture and growth differences, tall fescue should not be mixed with perennial ryegrass or fine fescue.

Cool-season grass:

## Fine-leaf Fescues

*Festuca rubra* ssp. *rubra* red fescue, *F. rubra* ssp. *commutata* chewing fescue; *F. ovina* sheep fescue; *F. longifolia* hard fescue

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The fine-leaf fescues are represented by four distinct species, and they should not be confused with the fine-textured (turf-type) tall fescues previously discussed. All fine fescues have a leaf texture much finer than Kentucky bluegrass and do not resemble tall fescue.

### Best Cultivars for Kentucky

Radar, Compass II, Bolster, Momentum, Cardinal II, Castle, Navigator II, Cascade, Seamist, Marvel.

### Adaptation

Best adapted to sites where very low inputs are intended and where some shade is present. As with all grasses, however, they are not adapted to heavy shade. May not survive full sun areas in Kentucky due to lack of heat tolerance or susceptibility to summer patch.

### Major Qualities

- Tolerant to low fertility
- Tolerant to drought and acid soils
- Has very fine texture

### Major Problems

- Poor traffic tolerance; often clumps when heavy traffic imposed
- Goes semi-dormant (brown) in summer when located in full sun
- Susceptible to severe grub and disease damage
- Slow lateral spread
- Will not survive heavy nitrogen fertilization
- Often accumulates thatch problem when grown with high nitrogen fertilization

Cool-season grass:

## Perennial Ryegrass

*Lolium perenne*

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Perennial ryegrass, in general, is not recommended as a primary grass for a lawn due to issues with disease, a tendency to be clumpy, and poor persistence, especially during warm summers. Newer perennial ryegrass cultivars blend well with Kentucky bluegrass and may be beneficial when obtaining quick cover is necessary, to prevent soil erosion, or for out-of-season seedings.

### Best Cultivars for Kentucky

Homerun, Furlong, Silver Sport, Evolution, Wicked, Pangea GLR, Stellar 3GL, Apple GL, Soprano, Allstar 3.

### Adaptation

When seeded alone, perennial ryegrass may not survive summer heat unless irrigation and disease control are provided. Although not adapted to heavy shade, it will often survive in shade for more than a year or two. Ryegrasses require minimum soil preparation and can often be broadcast-seeded into a thin turf.

### Major Qualities

- Fine leaf texture similar to Kentucky bluegrass (Figure 2)
- Dark green color
- Germinates quickly (five to seven days)
- Can be seeded with minimum soil preparation
- Excellent seedling vigor
- No thatch problems
- Great traffic tolerance
- Tolerates low mowing (approximately 1 inch)
- Will often dominate nimblewill and other weed species

### Major Problems

- Somewhat difficult to mow (requires sharp mower)
- Susceptible to many diseases including summer brown patch, Pythium blight, and gray leaf spot
- Little heat tolerance
- Needs summer irrigation if thick stand is established

### Seeding Rate

4-6 pounds of pure live seed per 1,000 square feet when broadcast-seeded.

### Mixtures

When seeding Kentucky bluegrass and quick establishment and increased erosion control are needed, seed about 15 percent perennial ryegrass by weight (approximately a quarter pound per 1,000 square feet) with Kentucky bluegrass (1¾ pounds per 1,000 square feet). Do not seed perennial ryegrass with tall fescue or fine fescue. Due to rapid germination and high seedling vigor, mixtures with 25 percent or more perennial ryegrass by weight will result in a mature stand dominated by the perennial ryegrass.

**Figure 2.** Texture differences between the common cool-season grasses in Kentucky.



Kentucky-31 Tall Fescue



Turf-type Tall Fescue



Perennial Ryegrass



Fine Fescue



Kentucky Bluegrass

**Seeding Time for All Cool-Season Grasses**

*(Bluegrass/Fescues/Perennial ryegrass)*

The best time to seed all cool-season grasses described above is from mid-August to late September. The second best time is from mid-February to mid-March and not later than mid-April. Due to weed competition and moisture/heat stress, late spring and early summer seedings are seldom successful. For more information on establishing a lawn, see UK Extension publication AGR-50: *Lawn Establishment in Kentucky*.

Warm-season grass:

## **Bermudagrass**

*Cynodon dactylon*

Common bermudagrass, often called wire grass, is a warm-season grass that grows naturally throughout Kentucky. It occurs mostly on full sun locations with droughty soils where very little maintenance inputs beyond regular mowing have been provided. For most home lawns, bermudagrass is an invasive weed that is very difficult to control. For some turf areas, however, bermudagrass is extremely hardy and has low maintenance requirements.

### **Best Cultivars for Kentucky**

Vegetative varieties (must be planted by sod, sprigs, or plugs): Latitude 36, Tahoma 31, Northbridge. Seeded varieties: Monaco, Rio, Arden 15, Yukon.

### **Adaptation**

All bermudagrass varieties have potential for winterkill when the temperature drops below 15°F and there is little to no snow cover; therefore, the best chance of survival is in Western Kentucky.

### **Major Qualities**

- Spreading habit of growth
- Summer heat, drought, and traffic tolerance
- Few pest problems
- Requires no mowing from October through April
- Somewhat tolerant to low fertility but responds favorably to nitrogen

### **Major Problems**

- Dormancy period (straw-brown turf) lasts from October (first killing frost) through mid-April
- Rapidly creeps into nearby gardens, flower beds, and neighboring lawns
- Dormant brown or tan color contrasts greatly with neighboring cool-season grass lawns from October through mid-April
- Best mowed with reel rather than rotary mowers
- Very poor shade tolerance
- Susceptible to winterkill

### **Planting Rate**

Place vegetative plugs on 1 foot center, or sprig in 6-inch rows 1 foot apart, or (for large areas) broadcast 2 to 10 bushels of shredded sprigs over 1,000 square feet and cover by light disking or a top dressing of soil (Figure 3). Higher sprigging rates result in quicker establishment.

### **Seeding Rate**

Seeded cultivars 1 to 2 pounds of pure live seed per 1,000 square feet.

### **Planting/Seeding Time**

May/June



**Figure 3.** Newly sprigged bermudagrass area showing sprigs pressed into the soil.



**Figure 4.** Zoysiagrass is often established by planting 2-inch diameter plugs into the soil on 1-foot centers and allowed to spread out from each plug.

Warm-season grass:

## **Zoysiagrass**

*Zoysia japonica*

Another warm-season grass, zoysiagrass is not commonly used for lawns in Kentucky but is extremely persistent once established.

### **Best Cultivars for Kentucky**

Meyer, Zenith, Zorro, Shadow Turf, Trinity, Innovation.

### **Adaptation**

Adapted across all parts of Kentucky. No serious cold, heat, or drought problems in any part of the state.

### **Major Qualities**

- Summer heat and drought tolerance
- Excellent traffic tolerance
- Few pest problems
- Requires no mowing from October through April
- Competitive against weeds after completely established
- Tolerant of low fertility
- Decent shade tolerance

### **Major Problems**

- Dormancy period (straw-brown turf) is from October through mid-April
- Creeps slowly into nearby gardens, flowerbeds, and neighboring lawns
- Dormant color contrasts with neighboring cool-season grasses from October through mid-April
- Thatch buildup can be severe if excessive nitrogen is applied
- Best mowed with reel rather than rotary mowers
- Extremely slow to establish—when sprigged or plugged into a prepared seedbed, three years may be required for a dense sod to develop; when plugged into an existing lawn, 10 to 15 years may be required for complete coverage (Figure 4)
- Susceptible to winterkill, but not as much of a concern compared to bermudagrass
- Susceptible to large patch disease

### **Planting Rate**

Plant 2-inch plugs on 1 foot centers, or broadcast 3 to 10 bushels of shredded sprigs per 1,000 square feet and cover with a light application of topsoil. Can be seeded, but seed germination is very erratic and slow.

### **Planting Time**

May/June

## Purchasing Seed

Select the best variety and purchase certified seed whenever possible. Such seed is generally pure and true to type for the characteristics developed by the plant breeder. Certified seed will contain fewer weed and other crop seed contaminants and will be free of inert filler. This seed will come with a blue tag signifying certification. High quality seed costs a little more upfront, often only a few cents more per pound, but this investment can save you money on reduced needs for fertilizer, water, and chemicals in the future. Additionally, higher quality seed often does not have unwanted weed seed.

You should be able to find certified seed in most areas. If you are unable to find certified seed or if there is any confusion to what certified seed is, look for seed with a specific name: i.e., Keeneland Kentucky bluegrass, Renegade tall fescue, etc. When you buy by kind (species) only (for example, Kentucky bluegrass, tall fescue, red fescue, etc.) you have no indication as to variety, adaptation, or expected performance.

Read the seed analysis tag before purchase. High-quality seed will have a high percentage of turf seed and a low percentage of weed seed, other crop seed, and inert matter. Likewise, the higher the germination percentage, the higher the quality. The analysis tag should be used to compare seed lots. Find seed with a recent testing date as fresh seed results in better establishment. Select the highest quality, even though it may cost slightly more than inferior quality seed.

## Purchasing Sod

Since sod offers immediate aesthetic satisfaction—in other words, “instant green”—purchase only high quality sod, because once it is planted it is often there for the life of the lawn. Sod quality often varies. If you are concerned about what you are buying, visit the sod grower, inspect the sod, and ask to see the seed tags that were used to plant the fields before it is delivered to your property.