



# Selecting the Right Grass for Your Kentucky Lawn

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*If you select the best grass species and cultivar for your lawn, you can avoid a lot of problems.*

The “right” grass for your lawn may not be the one you like best, but the one easiest to grow. Generally, Kentucky bluegrass is best adapted to Central and Eastern Kentucky and bermudagrass and zoysiagrass to Western Kentucky. Tall fescue adapts well throughout the state. Red fescue or perennial ryegrass also can be used in some situations. All of these grasses, however, differ in their performance and qualities.

Since cultivar testings provide the names of improved cultivars almost annually, the latest cultivar recommendations can be obtained at the following Web site:

<<http://www.uky.edu/agriculture/uk turf>>

Many recurring turf problems can be avoided if you select the best grass species and cultivar. The following descriptions may help you make the right selection:

## Kentucky Bluegrass (*Poa pratensis*)

More than two dozen cultivars of Kentucky bluegrass are sold in Kentucky. The “common” types of Kentucky bluegrass, such as the cultivar ‘Kenblue,’ are very persistent when maintained at high mowing heights, low nitrogen fertility, and minimum traffic. However, many improved cultivars have better summer quality, improved heat tolerance, and disease resistance.

### Best Cultivars

America, Award, Eclipse, Glade, Jefferson, Midnight, NuGlade, Odyssey, Quantum Leap, Rugby II, Total Eclipse, Unique.

### Adaptation

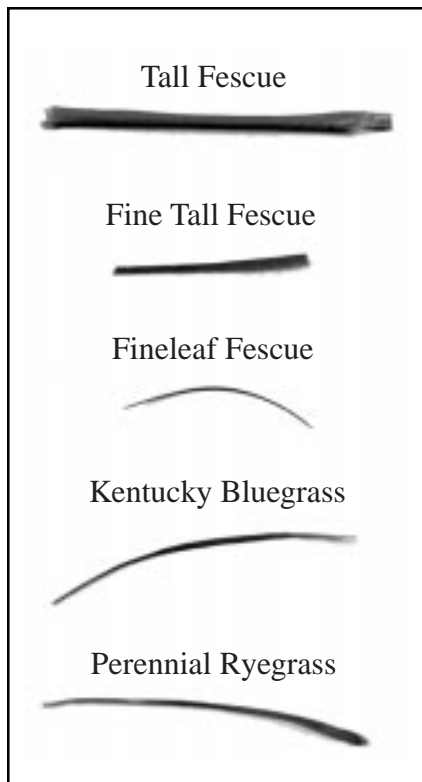
Kentucky bluegrass grows best on well-drained soils in light shade to full sunlight. Performance in Western Kentucky is very poor.

### Major Qualities

Fine texture, good sod resiliency, good spreading habit.

### Major Problems

- Very poor traffic tolerance.
- Not adapted to medium or heavy shade.
- Severe grub susceptibility.
- Diseases such as *Helminthosporium* cause thinning in May and June.
- Thatch buildup can be severe if excessive nitrogen is applied.
- Irrigation is required when maintained with high nitrogen fertilization.



*The leaf texture of turf species differ considerably, but persistence and pest resistance are much more important in choosing the right grass.*

- Becomes semi-dormant (brown) when not irrigated during the summer.
- Slow germination (10-21 days).
- Very poor seedling vigor causing slow establishment.
- Poor tolerance to mowing heights less than 1½ inches.

#### *Seeding Rate*

2 pounds per 1,000 square feet.

#### *Blends*

Use blends of two or more cultivars including at least one of the above-mentioned cultivars to achieve maximum disease resistance and heat tolerance.

#### *Mixtures*

Can be mixed with perennial ryegrass or fine fescue as indicated in paragraphs that follow.

### **Tall Fescue (*Festuca arundinacea*)**

Tall fescue is used for lawns, hay, and pasture throughout Kentucky. When properly seeded and managed as a lawn, it has little resemblance to the tall fescue in pastures, however. Although it is normally a bunch grass, leaf coarseness or clumping is not a problem when a dense sod is established.

#### *Best Cultivars*

Apache II, Coyote, Crossfire II, Debutante, Eldorado, Empress, Falcon II, Gazelle, Genesis, Grande, Houndog V, Jaguar 3, Masterpiece, Pixie, Rebel Jr., Rembrandt, Silverado, Southern Choice, SR 8200, Tomahawk. These cultivars are finer textured, darker green, and more dense than Ky 31 but may have more brown patch disease problems. They are best for highly maintained turf and more formal lawns. Ky 31 is coarser in texture and is best for most general and rough turf areas.

#### *Adaptation*

Tall fescue is the most widely adapted turfgrass for use in Kentucky, adapted to full sun or medium shade. It performs well on heavy clay to 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, with germination in seven to 10 days.

#### *Major Problems*

Requires more frequent mowing than Kentucky bluegrass, has brown patch disease problems during hot summer, 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. Because of serious texture and growth differences, tall fescue should not be mixed with perennial ryegrass or fine fescue.

### **Fine Fescues (*Festuca* sp., *F. rubra*—Red Fescue; *F. rubra commutata*—Chewings Fescue; *F. ovina*—Sheep Fescue; *F. longifolia*—Hard Fescue)**

There are four species designated as “fine fescues,” and they should not be confused with the fine-textured tall fescues previously discussed. All fine fescues have a leaf texture much finer than Kentucky bluegrass and do not resemble tall fescue.

#### *Best Cultivars*

The following Chewings Fescue cultivars have been the top performers in Kentucky: Banner III, Brittany III, Creeping Red Fescue, Eco, Jasper, Longfellow, Shademaster II, Shadow II, SR 5100, Victory II.

#### *Adaptation*

Best adapted where some shade is present; as with all grasses, it is not adapted to heavy shade.

#### *Major Qualities*

Tolerant to low fertility, droughty 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.

#### *Seeding Rate*

2 pounds per 1,000 square feet.

#### *Mixtures*

When a turf area includes both full sun and shade and a fine-textured turf is preferred, use a mixture of approximately 50-80 percent Kentucky bluegrass and 20-50 percent (by weight) of fine fescue. An example would be 1.5 pounds Kentucky bluegrass and 1 pound fine fescue per 1,000 feet<sup>2</sup>. The Kentucky bluegrass should dominate in full sun, and the fine fescue should dominate in the shade.

### **Perennial Ryegrass (*Lolium perenne*)**

Most perennial ryegrasses are not reliable and form a clumpy, open turf that has little appeal and poor persistence. However, new fine-leaf perennial ryegrasses are now available. They blend well with Kentucky bluegrass and may be beneficial when it is necessary for obtaining quick cover, protecting the soil from erosion, or for out-of-season seedings.

#### *Best Cultivars*

Brightstar II, Catalina, Chaparral, Divine, Imagine, Legacy II, Line Drive, Majesty, Panther, Pennant II, Prelude III, Premier II, Rebel III, Roadrunner, Wind Dancer.

#### *Adaptation*

When seeded alone, these ryegrasses may not survive summer heat unless irrigation and disease control are provided. Although

not adapted to heavy shade, they 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 texture similar to Kentucky bluegrass.
- Dark green color.
- Germinates quickly (five to seven days).
- Excellent seedling vigor.
- No thatch problems.
- Great traffic tolerance.
- Can be mowed short (approximately 1 inch).
- Will often dominate nimblewill and other weed species.
- Can be seeded with minimum soil preparation.

#### *Major Problems*

- Somewhat difficult to mow (requires sharp mower).
- Susceptible to summer brown patch disease.
- Little heat tolerance.
- Needs summer irrigation if thick stand is established.
- Sod has little resiliency.

#### *Seeding Rate*

4 pounds 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 ¼ 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. Because of fast germination and seedling vigor, mixtures with 25 percent or more perennial ryegrass will be dominated by the perennial ryegrass.

#### ***Seeding Time for All Cool-Season Grasses— Bluegrass/Fescue/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.

### **Bermudagrass (*Cynodon dactylon*)**

Native or common bermudagrass, often called wire grass, is a warm-season grass that grows naturally throughout Kentucky. It occurs mostly on droughty soils and in full sun locations. For many home lawns, bermudagrass is an invasive weed that is most difficult to control. For some turf areas, however, bermudagrass is extremely hardy and has low maintenance requirements.

#### *Best Cultivars*

Vegetative varieties: Quickstand and Vamont are coarse-textured varieties with more winter hardiness than all other varieties available. Midlawn and TifSport are newer varieties

with slightly finer texture and darker green color. All require vegetative establishment (no seed available).

Seeded varieties: Jackpot, Mirage, Princess, Savannah, Sundevil are light green, coarse-textured cultivars with less winter hardiness than vegetative cultivars mentioned above. However, these varieties can be seeded.

#### *Adaptation*

All bermudagrass varieties have potential for winterkill when the temperature drops below 10°F and there is no snow cover; therefore, best survival is in Western Kentucky and with Quickstand and Vamont.

#### *Major Qualities*

- Excellent sod resiliency.
- Spreading habit of growth.
- Summer heat, drought, and traffic tolerance.
- Few pest problems.
- Can be mowed very short (½ to 1 inch).
- Requires no mowing from October through April.
- Tolerant to low fertility but responds favorably to high nitrogen.

#### *Major Problems*

- Dormancy period (brown turf) is 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 adapted varieties must be vegetatively established (not seeded).
- Best mowed with reel rather than rotary mowers.
- No shade tolerance.

#### *Planting Rate: (Improved Bermudagrass Varieties)*

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 topdressing of soil.



*Sprigs of bermudagrass can also be put into a prepared soil and then partially covered by hand or hoe.*

### Seeding Rate

Seeded cultivars—1 to 2 pounds per 1,000 square feet.

### Planting/Seeding Time

May/June.

## Zoysiagrass (*Zoysia japonica*)

Another warm-season grass, zoysia is extremely hardy throughout Kentucky.

### Best Cultivars

Meyer (Z-52)—a coarse-textured variety that must be vegetatively established. The common types of *Zoysia japonica*, sometimes called Japanese or Korean lawn grass, can be seeded, but seed germination is very erratic and slow.

### Adaptation

No serious cold, heat, or drought problems in Kentucky.

### Major Qualities

- Excellent sod resiliency.
- Summer heat and drought tolerance.
- Excellent traffic tolerance.
- Few pest problems.
- Can be mowed very short ( $\frac{3}{4}$  to 1 inch).
- Requires no mowing from October through April.
- Competitive against weeds after completely established.
- Extremely tolerant of low fertility.

### Major Problems

- Dormancy period (brown turf) is from October through mid-April.
- Creeps slowly into nearby gardens, flower beds, and neighboring lawns.
- Dormant color contrasts with neighboring cool-season grasses from October through mid-April.
- Meyer zoysia must be vegetatively established (not seeded).
- Thatch buildup can be severe if excessive nitrogen is applied.
- Best mowed with reel rather than rotary mowers.
- Poorly adapted to shade.
- 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.

### 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.

### Planting Time

May/June.



*Plugging zoysia is very difficult. To plant on 1-foot centers, you must cut 1,000 holes and hand plant 1,000 plugs per 1,000 square feet. Good soil moisture is a MUST!*

## Purchasing Seed

Select the best variety and purchase *certified* seed when 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.

If you are unable to buy certified seed, it is still very important to buy seed by variety name: i.e., Midnight Kentucky bluegrass, Jaguar 3 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. All turf seed sold in Kentucky is required to have been tested within nine months prior to sale. Select the highest quality, even though it may cost slightly more than inferior quality seed.

### Purchasing Sod

Since sod should offer immediate aesthetics, purchase only high quality sod. The quality of Kentucky-grown sod varies considerably, but there are two basic classes:

The first and best class is nursery grown sod—any sod planted on cultivated agricultural land and grown specifically for sod purposes. This sod is mowed regularly and is otherwise managed from planting to harvest to maintain reasonable quality and uniformity.

The second class, field sod (better known as pasture sod) is lifted from pastures and meadows that may have been grown primarily for forages. This sod usually contains clump-type grasses, nimblewill, and broadleaf weeds, which are impossible or very difficult to control selectively.