
TURF OF THE MONTH

Kentucky Bluegrass

By Helen M. Stone

Surprisingly enough, Kentucky bluegrass did not originate in Kentucky. Instead, it was introduced from eastern Russia in the 17th century. Early transport ships used soil from the region for ballast. When they reached America's shores, the soil was shoveled out of the ships' holds, so they could be filled with goods from the New World. In addition, immigrants also brought seed with them. "Kentucky was the first place the seed was grown for commercial production, so that's how the name originated," says Dr. Doug Brede, research director for Jacklin Seed Co. in Post Falls, ID. Production began about 100 years ago.

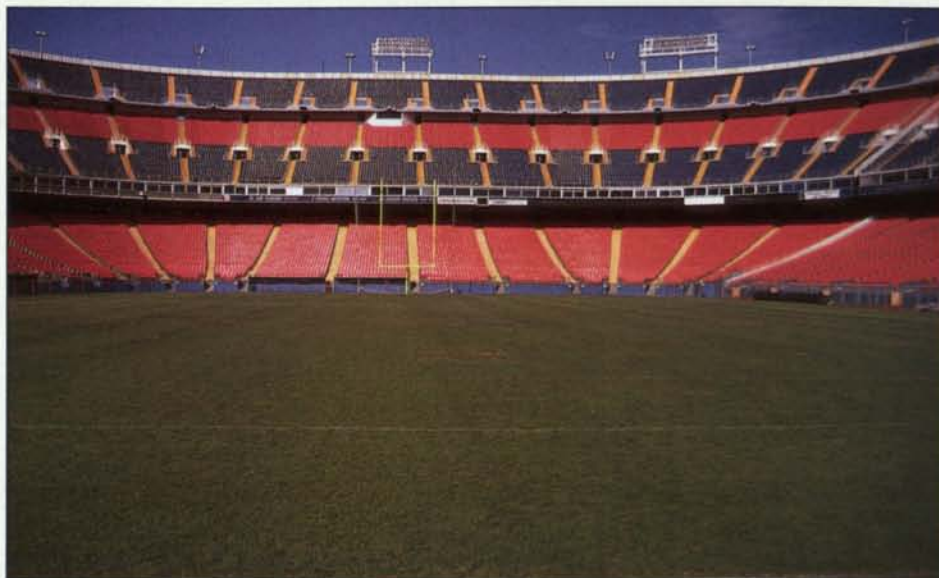
Today, Kentucky bluegrass is considered the most important and is certainly the most widely used northern turfgrass. You can find it throughout the cool-season zone, and even at high elevations in the subtropical zone.

Kentucky bluegrass produces rhizomes. These stems elongate horizontally from the crown of the parent plant, and grow beneath the soil surface (stolons also come from the crown of the plant, but grow along the surface of the soil). This spreading habit allows it to recuperate well after injury and "fill in" bare spots with time and proper culture. However, it is considered only moderate in wear resistance.

The leaf texture is medium to medium fine. Establishment rate from seed is considered slow. Nitrogen requirement can vary according to cultivar, but is considered medium among turfgrasses, ranging from 2 to 6 pounds per 1,000 sq. ft. per year.

Mowing frequency is less than for perennial ryegrass and about the same as turf-type tall fescue. Of course, your mowing schedule will be affected by the fertilizer and water scheduling.

Drought tolerance is considered good. However, this tolerance comes at a price. When temperatures are high and drought



conditions occur, the turf will become dormant and lose color. It will recover soon when cool, moist conditions return.

Since Kentucky bluegrass is considered a cool-season turf, it should come as no surprise that the majority of root initiation occurs in the spring. There is also some root growth during the cooler weather in the fall. The grass also retains a major portion of its roots for more than a year, so it is classified as a perennial rooting grass. (Some bentgrasses and perennial ryegrass replace most of their root system every year and are considered annual rooting grasses.)

Kentucky bluegrass has been the subject of a great deal of research and breeding. Some of the varieties recommended for sports fields include Asset, Broadway, Buckingham, Haga, Julia, Limousine, Miracle, NuBlue, NuStar, Parade, Unique, Viva and Wildwood. However, since new varieties are released every year and your location, soil and climate will influence performance, you need to cultivate local contacts for recommendations. Your cooperative extension office or seed supplier are both good places to start. If you are fortunate enough to have a college or university with a turf program nearby, most will run trials that can help you find a suitable cultivar. In addition, networking with other turf professionals at local association meetings is a good way to learn more about what works in your area.

At Mile-High Stadium in Denver, Kentucky bluegrass takes hard traffic and still provides an excellent playing surface. Photo courtesy: Jacklin Seed Co.

Insects and Diseases

Like all plants, healthy turfgrass that is adequately watered and fertilized is the least likely to develop insect and disease problems. In addition, turfgrass breeders have developed Kentucky bluegrass cultivars that are resistant to some of the most common maladies.

However, sometimes in spite of your best efforts, your playing fields may be plagued with pests. Here are some of the more common problems associated with Kentucky bluegrass, along with steps you can take for control.

- **Bluegrass billbugs.** If your turf looks wilted and you know irrigation has been adequate, chances are you have a billbug infestation, especially if it's mid to late summer. Billbug larvae feed on turf roots and stems, and turf can be pulled up easily. "Frass," a material that looks like sawdust, can often be found in turfgrass thatch. Billbugs can be controlled with carbaryl (Sevin, Sevimol), chlorpyrifos (Dursban), isazofos (Triumph) and isofenphos (Oftanol). A recently introduced product, imidacloprid (Merit), also provides control.

• **Grubs.** Grub infestation signs are similar to those of billbugs, with drought-like symptoms. Turf can be pulled up like a carpet if damage is severe. If turfgrass is being dug up by vertebrate creatures, such as skunks or crows, grubs might be the cause. All the chemicals listed above will provide control, along with bendiocarb (Turcam), diazinon (not for use on golf courses or sod farms), ethoprop (Mocap) and trichlorfon (Proxol, Dyllox).

• **Chinch Bugs.** Like grubs and billbugs, chinch bug damage often looks like drought stress. The chemicals listed for both of those insects will provide control, along with acephate (Orthene), cyfluthrin (Tempo) fluralinate (Mavrik) and propyl thiopyrophosphate (Aspon).

• **Sod Webworms.** Sod webworm damage might first be thought to be a disease, because they cause small brown spots. Eventually, these can spread and become large patches of dead or dying turf. You can sometimes see insect burrows in the soil. Most of the chemicals listed above will help you control sod webworms.

• **Helminthosporium leaf spot.** This disease is also called "melting out" because

the turf will be thin and weak, as if it is actually melting. Excessive nitrogen fertilization can contribute to the disease. Since helminthosporium thrives in damp conditions, try keeping leaf blades as dry as possible by watering early in the morning. Several fungicides control helminthosporium. In addition, there are resistant varieties, including America, Bristol, Eclipse and Kimono.

• **Stripe smut.** Serious stripe smut infections can kill large amounts of turf in a relatively short time. The first symptoms are light yellow blades. The blades then curl and black stripes appear. Black "soot" can be rubbed off the leaves. Cutting back nitrogen applications to no more than 1/2 pound per 1,000 square feet per month can help keep the disease at bay. It is crucial that the turf be kept moist at all times. While a healthy stand of Kentucky bluegrass will recover after heat- and drought-induced dormancy, it will die if these conditions occur during a stripe smut infection. Drenches of systemic fungicides in early spring or fall can aid in control.

• **Dollar spot.** The name of this disease

is fairly descriptive, with straw-colored round spots about the size of silver dollars as the primary symptom. At first, the leaves have straw-colored bands with reddish-brown borders. Small bleached spots appear, which grow into larger spots. Sometimes you can see white, cobweb-like mycelium. Keep the soil moist and apply adequate nitrogen to diminish the occurrence. Washing the dew off the plants in the morning can also help stop the spread of infection. Many contact and systemic fungicides provide control.

• **Stem rust.** Rust begins with light yellow spots, which develop into rust-colored pustules. Keep nitrogen levels up to encourage strong growth, provide adequate irrigation and simply mow off the rust-infected tissue. Fungicides can be used if the turf is growing slowly because of prolonged cool, wet weather.

Check with your county agricultural commissioner, extension agent or licensed pest control adviser to find out which chemicals are registered in your state—it will vary. Needless to say, if you are using chemicals for insect or disease control, always follow label directions to the letter. □

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