CHALKBOARD

TIPS FROM THE PROS

KENTUCKY BLUEGRASSES DESERVE BETTER IMAGE

Kentucky bluegrasses, the backbone of the golf and sports turf market in the north, have been suffering from an identity crisis lately. The volume of proprietary perennial ryegrass, tall fescue, and creeping bentgrass has leaped during the '80s, partly at the expense of bluegrass. However, if you listen to turf breeders, the seed market relative to the golf and sports turf industry has not yet stabilized. The jury is still out.

Development of improved Kentucky bluegrasses simply takes longer than other cool-season turfgrasses. While an exceptional tall fescue or ryegrass can go from test plots to production in less than five years, a better bluegrass takes ten or more years to get to market. Quite a few of the big-name Kentucky bluegrasses on the market today have been around for more than 15 years.

The primary improvement of Kentucky bluegrasses during the past 20 years has been in the areas of disease resistance, shade tolerance, darker color, density, and heat and drought tolerance. Beginning in the '60s, seed companies could patent improved varieties to get a return on their research and marketing investment. The market began to swing away from common types toward proprietary varieties. Today, proprietaries dominate the golf and sports turf market.

Research continues for bluegrasses that require less frequent mowing, can be mixed with turf type tall fescues, and have greater resistance to regional disease problems. The goal has been to provide dense turf that requires less maintenance.

Meanwhile, the maintenance level of golf and athletic field turf has been increasing to meet the growing demand for safe, high-quality recreational turf areas. Use levels and higher standards are pushing turf to its limits. Golfers want fairways cut at 1/2-inch, superintendents stretch their water supply by cutting back irrigation in the roughs, coaches and players want low-cut fields like the pros, and groundskeepers have to make repairs in days instead of months.

"Breeders have begun to focus more attention on the requirements of the sports turf industry for bluegrasses," explains Dr. Douglas Brede, director of research for Jacklin Seed Co., Post Falls, ID. "A growing number of seed companies and universities have machines for testing the wear tolerance of turfgrasses in their plots. Hopefully, wear testing will become part of NTEP's (National Turfgrass Evaluation Program) Kentucky bluegrass test going in this fall."

While U.S. breeders have been concentrating heavily on density, dark color, and fine texture, their European counterparts have been more concerned about wear tolerance. European cultivars tend to be lighter green, more wear tolerant, more aggressive, and green up earlier in the spring. "The Europeans have been torturing their grasses, while we have been holding a beauty contest," says Brede. "It's a matter of priorities, and maybe it's time for us to change ours."

Virtually every seed company recommends that mixtures of two or three Kentucky bluegrasses should be sown to provide the broadest protection against diseases, shade, and site conditions. Mixtures offer the widest range of adaptation and allow flexibility where conditions vary within the turf facility. The best-adapted variety will dominate the stand within a few years.

In residential and commercial turf, where traffic is not the primary concern, blends of moderately aggressive Kentucky bluegrasses have been fairly standard. This prevents one aggressive type from overtaking the stand. However, the aggressive component may not be best suited for disease or shade conditions and will be more prone to creating thatch.

For golf and sports turf, a certain amount of thatch is desired. The turf manager has the ability and equipment to manage it. His primary needs are traffic tolerance and rapid recovery. As far as diseases are concerned, the main problem is overwatering, says Dr. Virgil Meier, turf breeder for O.M. Scott & Sons in Marysville, OH. The use of a well designed, well managed irrigation system plus adequate drainage can go a long way in gaining control over many diseases.

"Our results over the past two years have been that the denser, more aggressive varieties of each species have shown the best traffic tolerance under our traffic simulator," reveals Dr. William Meyer, director of research for Turf Seed, Inc., in Hubbard, OR. "Comparing species, the perennial ryegrasses are usually the most traffic tolerant, followed by the better Kentucky bluegrasses and tall fescues."

It is also important to remember that Kentucky bluegrass is the only one of these three species that creeps. "Kentucky bluegrasses will cover two to three times the area covered by ryegrasses or tall fescues during establishment," adds Meier. "It should be the base of any fairway of sports field north of the transition zone."

In the long run, bluegrass can take a lower cut than perennial ryegrass," Meier adds. "Those turf managers who tried to manage perennial ryegrass [without bluegrass] are switching back. They still use ryegrass for repairs and spot seeding, because it germinates so quickly.

"Kentucky bluegrass should be mixed with perennial ryegrass (50:50) during overseeding, once before the fall season and [then again] immediately after the season ends. By the spring, you will have restored the bluegrass base."

The slow rate of germination for Kentucky bluegrass is partially solved by mixing it with perennial ryegrass. In the future, seed priming and pregermination may speed up establishment by weeks. However, Kentucky bluegrass still needs time to spread and must be maintained throughout the growing season.

Superintendents and sports turf managers can take advantage of modest price reductions in many varieties of Kentucky bluegrass this fall. Most companies report good supplies and lower prices. However, some varieties are already sold out.

More specific comparisons of varieties are available from the National Turfgrass Evaluation Program, c/o Kevin Morris, U.S. Department of Agriculture, Agricultural Research Center, Beltsville, MD 20705.