sportsTURF

Turf of the Month: Tall Fescue



By Mike Augsdorfer

ately, tall fescue, once a powerhouse among athletic turfgrasses, has taken on the role of the understudy. While other turfgrasses such as bermuda, ryegrass, bluegrass and zoysia have gained popularity due to the development of improved cultivars, tall fescue has settled into a niche as a solid, low-maintenance transition-zone turfgrass used mostly for residential lawn applications. Improved cultivars have enabled warm-season grasses to move north and cool-season grasses to move south, sqeezing tall fescue into limited use in the process. However, tall fescue (Festuca arundinacea) should be considered as a possibility when developing or renovating a field in the transition zone, particularly for utility fields or practice facilities where lowmaintenance requirements are a priority over appearance.

Tall fescue is very effective in the transition zone because it tolerates hot weather better than many other cool-season grasses. Tall fescue is easy to maintain, tolerates heavy traffic and adapts to a wide range of soil conditions. While heat and drought stress tolerance are good, tall fescue is susceptible to low-temperature injury and, therefore, is generally a poor choice for high elevations and areas that face extreme cold.

Although tall fescue germinates quickly, it spreads slowly and tends to grow in clumps or bunches. Tough leaves and sturdy roots give tall fescue excellent wear tolerance, but it is slow to recover when injured and can be damaged easily by traffic during the first season.

Drought tolerance is enhanced by a deep root system. Tall fescue requires less frequent irrigation than perennial ryegrass or Kentucky bluegrass due to its deep rooting, and dwarf-type fescues can provide even more efficient water use.

Tall fescue will grow on infertile sand, compacted clay, and alkaline and saline soils. Thatching tendency is low. Tall fescue should be mowed above 1 1/2 inches and fertilized minimally in spring only. The newer, medium-textured varieties of tall fescue, such as Adventure, Brookstone, Houndog, Jaguar, Olympic and Rebel, produce a more attractive, denser turf than the older, coarse-leafed varieties such as Kentucky 31 and Alta.

Tall fescue is often green year-round in the South and grows best when temperatures average between 60 and 75 degrees Fahrenheit, displaying rapid growth during the spring and fall but little during periods of extreme heat or cold. Dwarf varieties grow slightly slower than older varieties, which could result in slightly less mowing over the course of a year. Fertilization requirements vary, but generally five pounds of nitrogen per 1,000 square feet per year are sufficient for most varieties of tall fescue. Tall fescue is generally tolerant of insects, and varieties containing endophytes are resistant to surface-feeding insects.

Turf-type fescues are distinguished from other varieties by lower leaf growth and a slower vertical elongaton rate. Turf-type fescues also have finer texture, greater density and a darker green color than other types.

Planting and Establishment

"Fall is generally the best time of

This tall fescue field at the University of Nebraska-Omaha is used for just about every physical activity on the campus, including intramural flag football. Photo courtesy: Jim Veiga.

year to plant tall fescue," says Dr. Gil Landry Jr., extension turf specialist for the University of Georgia in Athens, GA, and former president of the STMA. "Earlier plantings undergo excessive heat stress, and later planting may not become fully established prior to winter. Early spring seeding is generally not recommended because the plant does not have time to develop the deep root system needed to survive the hot summer."

Craig Edminster, research program director for International Seeds, Inc., of Halsey, OR, notes that while tall fescue is one of the more traffic-tolerant, coolseason grasses, considerable differences exist among individual cultivars. Dwarf varieties, he says, typically do not recover as quickly from traffic damage and divots as turf types. However, he adds, forage-type tall fescues such as Kentucky 31, Martin and AUTriumph do not do well under the low mowing heights required for high-quality sports turf. "The best tall fescues for sports turf are generally the improved turf types such as Houndog, Mustang, Era, Rebel II and Bonanza," he explains. "Double-dwarf types such as Bonsai, Mini-Mustang, Crewcut, Silverado and others are adapted to low-maintenance situations where hot, dry temperatures are common."

One of the strongest assets of tall fescue as a sports turf, says Edminster, is that it can be used year-round in warm climates. "Especially in the southern climates and environments, tall fescue grows virtually all year long," he relates. "It fits for baseball in the spring and football in the fall."

Rick Myers, general manager for Medalist America in Albany, OR, agrees with Edminster's assessment of tall fescue as a grass that transcends seasonal boundaries. "It fits that niche between warm-season and cool-season grasses," says Myers. Spring green-up, he adds, is faster in transition zone than bermuda or other grasses, and tall fescue does not suffer from winterkill. However, he cautions, "The farther north you go, the less tall fescue you'll see." Tall fescue, says Myers, looks nicer than other grasses in the transition zone. "The tall fescue does not thatch as much as bermuda," he explains, "and you've got a deep root system that helps get you through the warm season."

Gary Bovard of St. Louis-based Nutri-Turf, Inc., says the company's turf farm in Tennessee has handled a number of requests for tall fescue. "It seems to be growing in popularity down toward Atlanta," he relates. "They use it on golf course fairways and some athletic fields." Bovard admits that tall fescue will tend to struggle through July and August due to the high heat and humidity in the Southeast. "For a football field it's fine. They can let it struggle through the summer and bring it out in September."

While tall fescue is not frequently used as a turf for high-profile sports fields, it gets a lot of use as a turfgrass for off-the-beaten-path applications. "Where I'm seeing a lot of the fescue going is in roughs on golf courses," says Bobby Winstead, president of Winstead Turf Farms, Inc., in Arlington, TN. Because tall fescue retains its color year-round with minimal maintenance, golf course superintendents can focus their energies on the fairways and greens.

Horse Racing on Fescue

Tall fescue is also effective as a surface for horse racing. Santa Anita Park near Los Angeles is currently sodded with ryegrass, but the turf track will be redone in tall fescue for the next racing season. "Ryegrass, we found, is not the best grass for horse racing," admits Leif Dickinson, turf manager at the racetrack. For horse racing in Southern California, says Dickinson, the best

grass to use is based on the time of year the track runs. "We run twice — first in October and then December to April. Bermuda is completely dormant at that time, even if you overseed it."

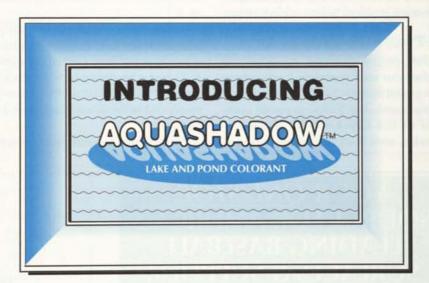
Year-round stability was a key issue in the decision to go to tall fescue at Santa Anita. "Tall fescue is the grass we found to do well over the entire 12-month period," relates Dickinson. "We did a lot of research, looked at test plots of tall fescue and came up with tall

fescue as the grass of choice."

Dickinson points out that several characteristics make tall fescue an ideal turf for horse racing at Santa Anita. "It has excellent crown strength, and it also produces some thatch, mimicking what bermuda would do with stolons," he explains. He cites durability as another reason for choosing tall fescue over ryegrass. "Tall fescue doesn't recover from injury as quickly as ryegrass, but

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it's a much tougher grass," he relates.

Dickinson plans to keep tall fescue as the primary overstory grass at the track. He intends to let it grow to four inches when the track is not in use, then mow it no higher than two inches during racing season.

Dickinson says Santa Anita will use the Bonanzo, Coronado and Silverado varieties of tall fescue. He anticipates some brown patch problems and is already preparing to take preventive steps. "I would start preventative applications about a month ahead of brown patch season," he notes, adding that turf managers should never wait for something to become a problem before taking action.

All-Purpose Fields

Tall fescue provides an excellent surface for multipurpose fields where low maintenance takes priority over appearance. Jim Veiga, grounds manager at the University of Nebraska-Omaha, used K-31 tall fescue to reseed a utility field at the school in 1981. "It's about a two-acre field," he explains. "They do everything out there." Students use the field for just about every physical activity on the campus, including varsity football practice, intramural flag football, band practice, rock concerts, marathon events, volleyball contests and festivals attended by approximately 10,000 people per day, not to mention sunbathing, pickup football games and any other casual activity students can conduct on a grass surface.

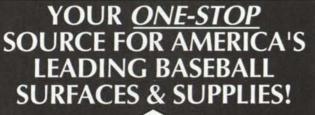
"It's nothing but sun and good, old Nebraska clay soil," says Veiga. "[Due to] the fact that it's being used for any type of activity, we were looking for a durable surface. We wanted something that could handle the amount of traffic we have on it."

Veiga overseeds the field each year with either the K-31 or Houndog varieties of tall fescue. "We've noticed occasionally K-31 has a tendency to winterkill," he notes. "This mixture over time has responded to the abuse of tear and wear, however."

Veiga's maintenance program for the

field includes aeration in the spring and fall followed by fertilization. Veiga applies no more than three pounds of nitrogen per 1,000 square feet per year. He also applies preemergent herbicide to prevent development of crabgrass on the field. Irrigation procedures call for watering at least every two days. "We irrigate it at least an inch a week on a Toro system." says Veiga. The turf is cut regularly to three inches under normal conditions, but Veiga will cut it shorter for certain student activities. "For big events we go to two inches for safety reasons," he explains. The shorter turf reduces the risk of a pedestrian tripping, says Veiga.

While bermuda, bluegrass, zoysia and others will continue to get the high-profile assignments on professional and college athletic fields, tall fescue should not be overlooked for sports turf applications. Tall fescue provides an excellent surface for practice or utility fields. If aesthetics are not a major concern, tall fescue can provide a durable surface that can withstand heavy traffic with minimal maintenance needs.





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