Turfgrass Research: Fall Update

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Last year, many of our research plots were planted late in September, which is a couple of weeks later than we would like. About that time, we kept saying things like, "We can't let this happen again," or "Next year will be different." If everything would have gone as planned, we would have had all of our turf plots in by the end of the first week of September.

Surprisingly, not everything went as planned. Just before Labor Day, it was looking as if we would be on track to meet our deadline; however, our deadline soon passed. Each day we would watch the weather forecast, and each day it would include the chance of rain. The rains came just often enough that we were not able to get out in the field.

Fortunately, the rains finally stopped for a couple of days and on September 16 we were able to finish our fall turf plots for 2005. Several new turfgrass research studies were planted in the past month. Here are some the highlights:

The 2005 Kentucky bluegrass NTEP trial includes 110 selection and cultivars and has been planted in several locations throughout the country, including the St. Paul campus. You will be able to view data as it becomes available at the National Turfgrass Evaluation Program website (www.ntep.org) or at the University of Minnesota Turfgrass Science homepage (www.turf.umn.edu).

Velvet bentgrass has shown some promise as a possible species for use on golf greens in Minnesota, especially where shade is an issue. Throughout the past year, we have watched the velvet bentgrass entries in the 2003 NTEP greens trial go from being the most beautiful varieties to the ugliest plots. In order to better understand the reasons for this decline, we will be conducting management studies on several of the newer velvet bentgrass varieties on a native soil green at the TROE center.

Creeping bluegrass, the perennial form of Poa annua, has been an important component of the University of Minnesota research program for many years. In late August, we seeded a large turf trial in order to evaluate newer germplasm for important turfgrass characteristics. A creeping bluegrass management trial was also established as part of Sam Bauer's graduate research project.

Tall fescue is not used extensively in Minnesota; this is primarily due to its perceived lack of winterhardiness. Last spring, we established a tall fescue trial and all of the varieties survived the winter without any noticeable damage. This fall, we seeded two trials in order to determine if fall-established tall fescue can survive a Minnesota winter.

Low input fairway trial.

Perennial ryegrass has many attributes that make it a tempting option for turfgrass managers in Minnesota; however, it has poor winter hardiness and is highly susceptible to crown rust. Newer breeding material is being developed that will have increased winter hardiness along with enhanced rust resistance. A small turf trial with some of the newest breeding material was planted on the St. Paul campus.

Native grasses may eventually be an important component of lawns and other turf areas in Minnesota. We are currently establishing breeding nurseries of both tufted hairgrass *(Deschampsia cespitosa)* and prairie junegrass *(Koeleria macrantha)*. The prairie junegrass nursery will be composed of plants that were the result of a collection trip to Nebraska and Colorado earlier this summer. We recently planted a small tufted hairgrass turf trial that consists of newer breeding material.

Seeding the Kentucky bluegrass NTEP trial

Low-input turfgrass for golf course fairways are the focus of Sam Bauer's graduate research. The newest low-input fairway trial consists of over 20 different grass species maintained at various management levels.

Craig Krueger carrying irrigation pipe.