### research updates

### SUMMARY

Annual ryegrass and intermediate ryegrass transitioned faster than most perennial ryegrass varieties.

### DATA

2000-2001 and 2001-2002 from 10 southern and western sites. Sponsored by USGA, NTEP and GCSAA.

### SOURCE

Kevin N. Morris, Executive Director of the National Turfgrass Evaluation Program.

### MORE INFORMATION

www.netp.org/onsite/ost./htm or kmorris@ntep.org.

# On-site testing of grasses for overseeding bermuda

verseeding bermudagrass fairways is a common practice throughout the southern half of the United States. This project evaluated new cultivars on bermudagrass fairways at ten (10) golf courses in the Southern and Western U.S.

The evaluation trials were jointly sponsored by the Golf Course Superintendents Association of America (GCSAA), the United States Golf Association (USGA) Green Section and the National Turfgrass Evaluation Program (NTEP). Trials were positioned strategically in the following areas: southern California; Arizona; Houston, Texas; Dallas, Texas; Mississippi; central Florida; Myrtle Beach, S.C.; Virginia; Atlanta, Ga.; and St. Louis, Mo.

The trials were located on active play sites where golfers hit fairway golf shots and/or drive golf carts. The forty-two (42) entries were established in fall 1999 and then again, in exactly the same physical location, in fall 2000. Grass species entered included perennial ryegrass, intermediate ryegrass, annual ryegrass, *Poa trivialis* and blends and mixtures of these species. Data from 1999-2000 and 2000-2001 was compiled and published via hard copy, and posted on the NTEP web site (www.ntep.org/onsite/ost.htm). Variety performance varied from location to location, however, a number of trends emerged:

Perennial ryegrass entries, in general, provided the highest quality turf averaged over the entire season.

Poa trivialis entries and perennial ryegrass/Poa trivialis mixtures were slower to establish, reducing their quality ratings at most locations. However, at three locations, due to other factors, the Poa trivialis entries finished on top, complicating the ability to predict where Poa trivialis may be used effectively.

Annual ryegrass and Intermediate ryegrass entries transitioned faster than most perennial ryegrass entries.

At some sites, the entries that contain *Poa trivialis* transitioned back to bermuda faster than perennial ryegrass, while at other sites, the opposite was true. This leads us to believe that the transition phenomenon is highly weather and management-related.

### SUMMARY

Update on second year of low cut trials for Kentucky bluegrass cultivars.

### DATA

2000-2002 National Kentucky Bluegrass Test. Sites in Colorado, Maryland, Michigan, Nebraska, New Jersey, New York and Wisconsin (study to continue through 2005).

### SOURCE

Kevin N. Morris, Executive Director of the National Turfgrass Evaluation Program.

### MORE INFORMATION

www.netp.org/onsite/ost./ htm, or kmorris@netp.org.

## Low cut trials of Kentucky bluegrass

There is increased interest again in the use of Kentucky bluegrass for fairways and tees. To address this need, several locations of the 2000 National Kentucky Bluegrass Test are being maintained with a low height of cut. Seeded in fall 2000, these trials are mowed at 1 inch or less (most are maintained at  $\frac{1}{2} - \frac{3}{4}$ ") with 3 - 4 lbs. of nitrogen applied per 1,000 sq. ft. per year and irrigated to prevent dormancy. Trial locations include universities in Fort Collins, Colo.; College Park, Md.; E. Lansing, Mich.; Lincoln, Neb.; New Brunswick, N.J.; Ithaca, N.Y.; Brookings, S.D. and Madison, Wis.

Turfgrass quality data collected in 2001 reflected establishment rate as well as the ability to tolerate a low height of cut. In data averaged over seven of the

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### TABLE 2.

Kenjucky Bluegrass Cultivars in the top statistical grouping in both 2002 and 2003 at low height of cut NTEP locations

	Bedazzled	
	Midnight II	
-	Impact	
	J-1838	
	Award	
	Princeton 105	
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#### SUMMARY:

New selective herbicide options for rough bluegrass control

### DATA:

Summer 2002 and 2003 studies on several cultivars of *Poa trivialis* and creeping bentgrass in West Lafayette, Ind. Studies to be expanded in 2004.

### SOURCE:

Dr. Zac Reicher, turfgrass Extension specialist, Purdue University

### MORE INFORMATION:

www.agry.purdue.edu/turf (under annual research reports), or zreicher@purdue.edu

### New control for Poa trivialis

here are two basic types of golf courses — those that already have *Poa trivialis* and those that will eventually get it. To find solutions to this significant golf course problem a number of compounds are being tested to determine control.

Poa trivialis is often confused with Poa annua, but the difference is important because controls for one do not always work for the other. The following are keys to differentiate the two: Poa trivialis is a gasoline or metallic green in color, goes dormant in the summer and has no visible seed heads. In contrast, Poa annua is an apple green, dies in the summer, and seed heads will be visible.

Field tests were conducted in the summers of 2002 and 2003 for control of *Poa trivialis*. The most promising compound was Battalion, a Monsanto product with the active ingredient sulfosulfuron. Over the course of the summer of 2002, Battalion gave more than 70 percent control.

The next two most positive controls in 2002 tests were TranXit, by Griffin, with the active ingredient, rimsulfuron, which gave 65 percent control; and a single application of Roundup Pro which gave 60 percent control.

Results in 2003 were disappointing due to record rainfall and very cool weather. In these tests Battalion still gave the most effective control, but the control level was only half the 2002 control level, and that was

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above locations, twenty-nine entries finished in the top statistical grouping (see www.ntep.org/data/ kb00/kb00\_02-1/kb0002t01.txt). This first year of data showed some trends and some cultivars to watch, but is not enough information to make an informed cultivar decision.

Data from 2002 showed more cultivar separation as all entries were well-established and mature turf stands. Only eleven entries fell into the top statistical grouping in 2002 turfgrass quality data with the commercial cultivar 'Bedazzled' and the experimental entry 'PP H 6366' tied at the top (rating = 6.2) averaged over eight locations (see www.ntep.org/data/kb00/kb00\_03-2/ kb0003t01.txt).

The top statistical group also included 'Impact', 'Princeton 105', 'Award', J-1838', 'Langara', 'Midnight II', 'North Star', 'Nu Destiny' and 'Serene' (see Table 1). Only six entries finished in the top statistical group for turfgrass quality averaged over both years of the low-cut trial locations (see Table 2). This trial will continue through 2005, and 2003 data will be released this spring. Consider at least three years of data before making cultivar decisions. achieved only after using a 2X rate from the year before. Another factor being investigated is the possible effect of the grass cultivars.

While Battalion is already a registered and labeled product, the manufacturer is delaying commercial sales until further field tests have been done regarding rates, timing and evaluation of a number of other grassy weeds. This summer field tests with Battalion will be done at more than 50 cooperating golf courses. In addition to control of *Poa trivialis*, the evaluations will include control of yellow nutsedge, tall fescue, quack grass and several other grassy weeds. Battalion has not been shown to be effective on established *Poa annua*.

Field tests to date indicate the following program has been the most effective for Battalion: Four-plus applications at 0.02/LB per AI applied at two-week intervals. Three-week intervals could be used if there is concern about turf safety for bentgrasses. There is slight phytotoxicity that must be tolerated, and the reduction of *Poa trivialis* will be gradual. Timing of applications could begin in late April or early May and continue through mid-June.

The active ingredient is also very active on creeping bentgrass in cool weather, such as applications done in mid-October.

Overseeding with creeping bentgrass can begin three weeks after final application, which would enable seeding to begin in August.

### TABLE 1.

Mean turfgrass quality ratings of Kentucky Bluegrass cultivars grown at eight locations in the U.S.

(Low Height of Cut Cultivar Name	Top Statistical Group Only) Turf Quality Data Mean of 2002 (1-9 Scale; 9=Ideal Turf)	
Bedazzled	6.2	
PP H 6366	6.2	
Impact	6.1	
Princeton 105	6.1	
Award	6.1	
J-1838	6.1	
Langara	6.0	
Midnight II	6.0	
North Star	6.0	
Nu Destiny	6.0	
Serene	6.0	
LSD Value	0.2	