

Experiences with Prograss Applied to Creeping Bentgrass

by Peter H. Dernoeden, The University of Maryland

Our experiences with Prograss began on perennial ryegrass fairways at Baltimore CC and Bonnie View CC in 1982. It worked great at Baltimore CC, but it was a flop at Bonnie View CC. Regardless, the BCC evaluation showed the enormous potential of this herbicide for controlling annual bluegrass safely in perennial ryegrass fairways. Further research conducted at Chartwell CC between 1984 and 1986 clearly showed that two applications of Prograss (i.e., 2.0 lb ai/A in late Sept. + 1.0 lb ai/A in mid-late-Oct.) provided exceptional (>93%) annual bluegrass control. The level of control provided by one application of 1.0 lb ai/A or 2.0 lb ai/A were about 30 and 80% control, respectively. Single applications at lower rates were ineffective.

Prograss research on bentgrass greens was initiated at Chartwell CC and the Naval Academy GC in 1984. We observed that there was objectionable discoloration at rates exceeding 0.75 lb ai/A. The 0.75 lb ai/A applied twice in the fall provided between 10 and 60% annual bluegrass control and most of the bentgrass injury dissipated by December. The superintendents at that time believed that the injury was too objectionable for most golf courses. Also, the bare ground areas resulting from eliminating a lot of bluegrass was unacceptable. Our interests in pursuing Prograss use on greens ended, at least temporarily, in 1985.

In the early 1990s, the use of growth regulators as an annual bluegrass reduction strategy became popular in the Mid-Atlantic region. These products sometimes cause extended periods of objectionable discoloration. This discoloration was predictable and found to be acceptable to superintendents. Ten years ago when we worked with Prograss on greens the discoloration elicited was not much more severe as is sometimes experienced growth regulators. We therefore began working on Prograss again in 1991 to see if the discoloration problem could be minimized. We found in 1992 that the methylol-urea product N-sure, when tank-mixed at 0.25 lb N/1000ft² with Prograss, greatly minimized bentgrass discoloration. In 1993, Prograss treatments were applied to a practice putting green at Norbeck (sunny, good drainage, and well rooted) and several greens-in-play at Port America (wet, shades, poorly rooted). At Norbeck, Prograss was very safe to the bentgrass, but

at Port America there was extensive bentgrass injury. Much of the bentgrass eventually recovered at Port America, but the recovery period was several months. The Port America study, which was conducted by Ken Ingram, indicated that there was less injury with Scott's Granular Prograss versus Prograss 417 SC.

Below, I have summarized in the form of a list what we have learned about using Prograss on creeping bentgrass. Please note, these comments summarize research findings and *do not* constitute a recommendation. Remember, this herbicide is not labeled for use on putting greens or bentgrass tees. It is, however, labeled for use on bentgrass fairways.

Rate. This has been narrowed down to either two applications at the 0.75 lb ai/A rate or three applica-

See Prograss, page 4

NOW! Unsurpassed effectiveness and convenience in one pre-emergent weed control product

There's an easy way to apply the toughest, most cost-effective preemergent weed control—pendimethalin—with the convenience of water-soluble packaging. Scotts, Weedgrass Control 60WP* controls six common sprouting grassy weeds and nine common sprouting dicot weeds. There's no hassle with measuring or container disposal for a truly user-friendly ProTurf, product.

Ask your ProTurf Tech Rep for details.



*Not available in Canada



Prograss, from page 3

tions at 0.5 lb ai/A. I favor the high rate applied twice. There is more initial discoloration, but there also can be more rapid recovery before winter. Three applications at the low rate can provide erratic levels of control; whereas, 0.75 lb ai/A applied twice can be counted on to provide from 20 to 90% control. The level of control, even at the higher rate, is site dependent and therefore it is not predictable.

Safener. Tank-mixing Prograss 4.17 SC with N-Sure (at 0.25 lb N/1000ft²) greatly minimizes bentgrass, but not annual bluegrass, discoloration. Lescoc's Fe+N and Ferremec also help to mask injury if nitrogen use is not desired.

Timing. Initial treatment was best in late September or early October. Prograss works best when applied on a 21-day interval. Frost and cold weather are required for Prograss to effectively control annual bluegrass. The annual bluegrass generally does not die until spring. Spring applications of Prograss are often ineffective.

Dangerous Situation

1. Prograss can severely injure vegetative bentgrass varieties and the so-called "Old South German" bents.

2. Initial annual bluegrass populations greater than 10 to 15% could lead to problems with bare ground. When there are large areas of annual bluegrass killed by the Prograss they must be overseeded in spring. Spring seedings can be fraught with problems.

3. Poorly rooted bentgrass in sunny or shaded locations is severely damaged.

4. Bentgrass in low and wet areas is often severely damaged.

5. Bentgrass grown in moderate to heavy shade, where bentgrass rooting is invariably poor, also can be severely damaged by Prograss.

It appears that Prograss may only be safe where creeping bentgrass is grown in sunny, well drained sites. Where bentgrass rooting is poor, regardless of the reason, the bentgrass is generally damaged severely by Prograss. These problems are less of a concern in higher-cut fairway turf. Regardless, it would be prudent for a superintendent to spray only small test plots across bentgrass fairways to gain needed experience with the product. This is because Prograss performance and bentgrass tolerance can be

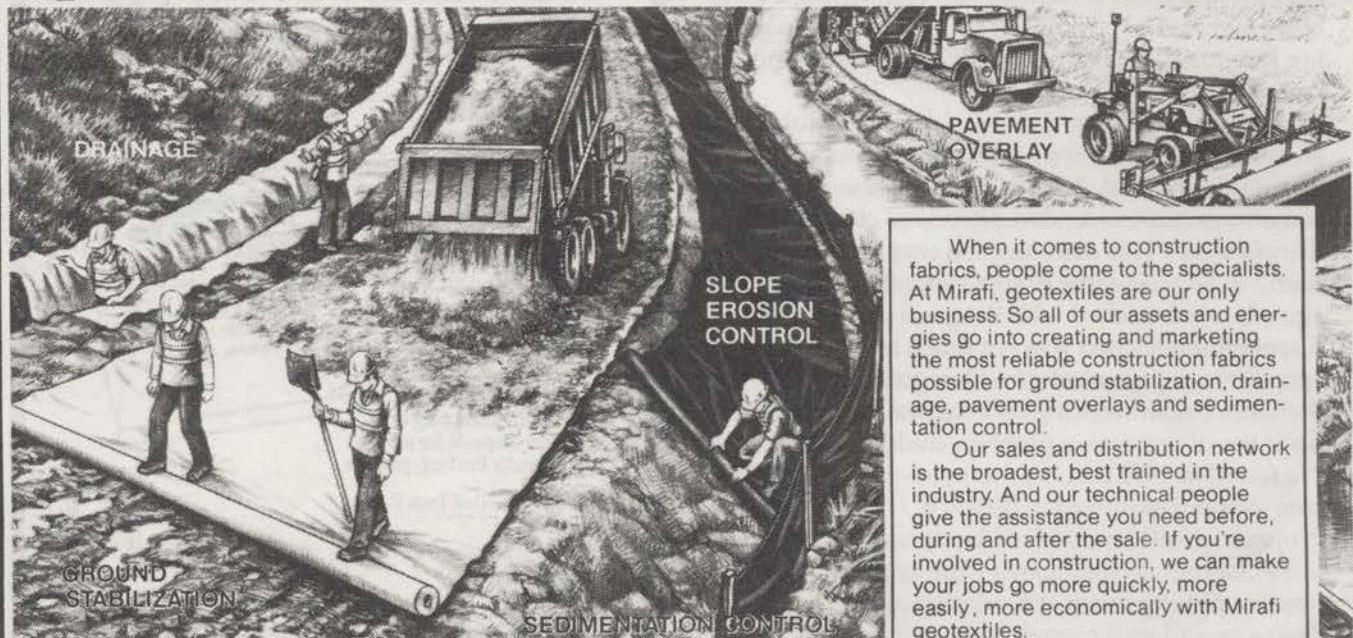
See Prograss, page 5



**Standard
Supplies**

AND

**Mirafi[®] is all you need to
know about construction fabrics.**



When it comes to construction fabrics, people come to the specialists. At Mirafi, geotextiles are our only business. So all of our assets and energies go into creating and marketing the most reliable construction fabrics possible for ground stabilization, drainage, pavement overlays and sedimentation control.

Our sales and distribution network is the broadest, best trained in the industry. And our technical people give the assistance you need before, during and after the sale. If you're involved in construction, we can make your jobs go more quickly, more easily, more economically with Mirafi geotextiles.

Gaithersburg
14 Chestnut Street
Gaithersburg, MD 20877
(301) 948 - 2690

Frederick
5831 Buckeystown Pike
Frederick, MD 21701
(301) 831-4522

Baltimore
906 Leeds Avenue
Baltimore, MD 21229
(410) 646-3600

Waldorf
3345 Gough Drive
Waldorf, MD 20601
(301) 843 - 6410

MIRAFI[®]
Division of NICOLON Corporation

Prograss, from page 4

variable from fairway to fairway. For example, we observed on our Penncross research green (3/16" mowing, sunny, excellent rooting, no traffic, etc.) that Prograss at rates as high as 1.0 lb ai/A only mildly discolored bentgrass. At Port America, 0.5 lb ai/A caused severe injury to bentgrass grown on a wet, shaded green. I don't believe liquid formulations of Prograss will be labeled for use on greens in the foreseeable future. O.M. Scott, however, is attempting to label a granular formulation for use on greens and fairways. There will be limitations placed on using the granular product and registration is not expected until 1995.

GOLF NOTES

Many thanks to Jon Machmuller and The Beach Club for hosting the September meeting and the Two-man Championship. It proved to be a wonderful day all around. **Gross winners** were: **1st**, Ron Hawkins/Kirk Intermill—70; **2nd**, Scott Wagner/Jim McHenry—75; **3rd**, Nick Vance/Tim Sage; **4th**, Craig

Reinhardt/Ken Keller—78. **Net winners: 1st**, Ken Braun/Paul Brandon—61; **2nd**, Gordon Caldwell/Tim Davisson—64; **3rd**, Joe Perry/Todd Cowing—64; **4th**, Bill Neus/Ryland Chapman. **Long Drive**: Walter Montross; **Closest to Pin #5**—Tim Davisson, **#8**—Craig Reinhardt, **#11**—Kirk Intermill, **#15**—Craig Reinhardt.

I would also like to thank our sponsors for the day: **Egypt Farms, Finch Services, G.L. Cornell, TESCO, and Turf Diagnostic.** Thanks so much for your support.

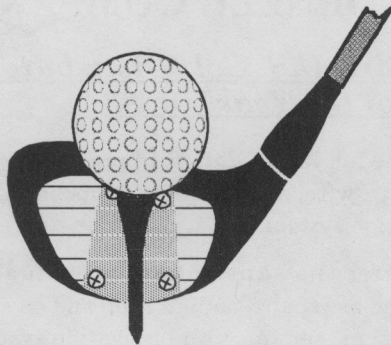
Remember October 11 is our individual Championship at the River Course, Queenstown Harbor Golf Links. You should have received a separate mailer with all the details. **Take Note: the permanent reservation list is not in effect for this meeting. You must call 410-479-0666.**

Jim McHenry, Golf Chairman



Outside Unlimited, Inc.

SPECIALIZING IN GOLF COURSE CONSTRUCTION



- Green & Tee Construction (Natural & Artificial)
- Irrigation (New & Trouble Shooting)
- Sandtrap Installation & Repair
- Hydroseeding & Sodding
- Landscape Installation & Design
- Wholesale Nursery

252-3027

239-2153

4195 St. Paul Road Hampstead, Maryland 21074

LANDSCAPE CONTRACTORS ASSOCIATION
MID-ATLANTIC ASSOCIATION OF GOLF COURSE SUPERINTENDENTS
MARYLAND NURSERYMEN'S ASSOCIATION - MARYLAND ARBORIST ASSOCIATION
PROFESSIONAL GROUNDS MANAGEMENT SOCIETY