

# Why using NTEP reports is worth the effort

by Christopher Sann



**D**O NOT KID YOURSELF. Selecting a top quality turfgrass seed variety is not an easy job. Anyone who has gone through the time-consuming practice of using the NTEP Progress Reports to help determine the best varieties for their particular circumstances knows: the process can be tedious. So, asking the obvious, is all

that work worth the effort?

Having used the NTEP and locally produced reports for the last ten years to make varietal choices, the answer to that question is an unqualified yes! The work that it takes to select a top-rated turfgrass variety for your particular problems pays dividends in the short-term and excellent benefits for the long-term.

To illustrate these advantages, I have selected a series of comparisons between well-known common varieties and older hybrid varieties and the lesser-known, newer hybrid varieties of bluegrass that are currently testing at higher levels of performance.

NTEP 1991 Kentucky Bluegrass Report (Medium/High Maintenance)

**Table 1 - Turfgrass Quality**

Variety	Mean Rank	% Increase
Midnight	6.2	52
Suffolk	6.0	47
Nassau	5.6	37
Touchdown	5.5	34
Merit	5.4	32
Kenblue	4.6	12
Merion	4.2	3
S. D. Cert.	4.1	0

▲ With South Dakota Certified (common) as the base, the other common variety (Kenblue) and a first generation hybrid (Merion) show little difference in overall quality. The older hybrids (Nassau, Touchdown and Merit) show considerable improvement in overall quality over the common varieties, but the newest hybrids (Midnight and Suffolk) show the best increase in quality.

**Table 2: Genetic Color**

Variety	Mean Rate	% Increase
Midnight	7.1	58
Blacksburg	6.8	51
Eclipse	6.3	40
Challenger	6.0	33
A-34	5.0	11
Kenblue	4.6	2
S.D. Cert.	4.5	0

▲ With South Dakota Certified (common) as the base, the other common variety (Kenblue) and an early hybrid (A-34) show little increase in color. The later hybrids (Eclipse and Challenger) show significant increases in color, and the latest hybrids show even more increase in color. This 50% increase in color can translate into a substantial reduction in the yearly amount of fertilizer applied.

**Table 3: Leaf Spot**

Variety	Mean Rate	% Increase
Blacksburg	8.3	830
Cobalt	7.7	770
Touchdown	5.3	530
Merit	4.3	430
Baron	4.0	400
Kenblue	1.7	70
S.D. Cert.	1.0	0

▲ With South Dakota Certified (common) as the base, the common varieties (Kenblue and South Dakota Certified) show very poor resistance to Leaf Spot. The early hybrids (Touchdown, Merit and Baron) show substantial improvements of 400% to 500% over the common varieties in Leaf Spot resistance. The latest hybrids (Blacksburg and Cobalt) show an almost 100% increase in quality over the early hybrids. This could translate into an almost complete elimination of fungicide applications for Leaf Spot.

**Table 4: Pythium**

Variety	Mean Rate	% Increase
Midnight	8.0	248
Cobalt	6.3	174
Eclipse	5.0	118
Nassau	5.0	118
Baron	4.7	104
S.D. Cert.	4.0	74
Ginger	2.3	0

▲ With Ginger (a common variety) as the base, the common varieties (S.D. Certified and Ginger) show only slight resistance to Pythium. The early hybrids (Eclipse, Nassau and Baron) show only slight improvements over the common varieties in Pythium resistance. The newer hybrids (Midnight and Cobalt) show a 47-110% increase in quality over the early hybrids. This tremendous increase in resistance to Pythium could translate into the possible elimination of preventive fungicide applications, or their use only when the weather dictates.

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### Court rules against OSHA

A federal court has rejected the U.S. Dept. of Labor's attempt to speed up restriction of over 400 toxic workplace chemicals. The court ruled that OSHA's attempt to set general limits was laudable, but flawed, and that—even though the chemical by chemical approach has been slow—that approach would stand.

### Entotech/Mycogen lawsuit settled

Entotech, Inc. and Mycogen, Inc. have settled a lawsuit that arose out of a claim of patent infringement and interference by Entotech against Mycogen. The suit revolved around the patent rights for *Bacillus thuringiensis*, a now widely used biological control for beetles. Six of the patents and all the associated rights were assigned to Entotech.

### Why granular Triumph isn't available

In the article on "Grub control: old standbys and new directions" (*TGT July, 1992*), publisher Christopher Sann made a statement concerning Ciba-Geigy's product Triumph, a major product repackager's concern about Triumph relatively high oral toxicity, and the repackager's failure to offer Triumph in a granular formulation. Technically, the statement was correct, but it conveyed the wrong impression.

In a phone conversation with Dr. Douglas Houseworth of Ciba-Geigy, we learned that the company has been attempting to get a granular formulation of Triumph registered with the E.P.A. for the past three years. First the E.P.A. refused to grant registration to a granular formulation, citing an estimated increased danger to birds. When extensive testing showed that Triumph does not pose an increased threat to avian populations, the E.P.A. switched arguments and again refused to grant Triumph registration for a granular formulation—this time citing the potential for toxic exposure to children playing on treated turf. The E.P.A.'s argument was based on an older study that reported that children playing outside eat enough thatch and dirt that, when combined with the Triumph's long residual, could lead to possible poisonings.

Despite indications that this new E.P.A. policy is incorrect, Ciba-Geigy has decided to suspend further pursuit of the required registration since they are unable to test children and disprove the "new" E.P.A. argument. We want to thank Dr. Houseworth for being helpful and forthright in discussing the facts concerning the possible granular formulation of Triumph. ■

### Not a complete show, just a glimpse

OBVIOUSLY, SEED-PRODUCERS have been developing new varieties that represent real improvements. The above examples are not a complete listing of all of the advantages of choosing a newer turfgrass variety over a common or better known, older variety, but it is representative. These tables reflect only a portion of the data collected for the 1991 Kentucky Bluegrass Progress Report. The same kind of analysis can be performed on the other species progress reports, and it will yield essentially the same results.

Doing the work of choosing the best new variety to meet the specific requirements of your turfgrass sites can:

- REDUCE THE AMOUNT OF FERTILIZER required per year,
- REDUCE THE NUMBER AND AMOUNT of preventive fungicide applications,
- INCREASE THE AMOUNT of live turf cover,
- AND IN GENERAL RAISE the overall quality of the turf stand.

The bottomline is that using NTEP's treasure-house of information can eliminate hours and hours of avoidable field work resulting from less rigorous seed-buying decisions. ■

### LETTERS TO THE EDITOR

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# Soil

## A biological resource worth managing

by Dr. Eric B. Nelson

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**F**OR SOME turfgrass managers, soil is simply the "dirt" that holds plants in the Earth and keeps them from falling over. For the more advanced turfgrass manager, soil is usually held in higher esteem than dirt. Soil is considered by these turfgrass managers as the life-supporting matrix of the higher plant, since everyone knows that dirt is simply the "stuff" that accumulates under fingernails after a hard day's work.



Turfgrass managers who acknowledge that plants are anchored in soil, instead of in dirt, might generally admit that, for the most part, their understanding of soil is poor at best. Everyone knows what soil looks like, but they are not quite sure where it actually comes from or why it is sometimes black, sometimes brown, and sometimes red. Even though most people would admit that soil has a pleasant and somewhat fragrant odor, most are really not sure why soil smells as it does. They may think that soil is a nutrient-holding material important in the health of plants, although the exact manner in which this can be is sometimes obscure.

Certainly, most know that living things, such as worms and insects, can also reside in the soil, but they're just not quite sure where in the soil they live or what they live on. In fact,

I might be safe in assuming that few turfgrass managers consider soil as something that should be managed as prudently as the turf growing on top. However, it is becoming clear that the management of the soil, in particular its biological components, is perhaps as important as the management of the plant itself—for the long-term productivity of a turfgrass stand.

So, how can we manage the biological components of soil? To a large degree, turfgrass managers already manage certain biological components of the soil. Pathogens and some insect pests are routinely managed, since their activities are readily observed, and they are generally harmful to a turfgrass stand. However, it is the group of organisms whose activities are not readily apparent that we must learn to manage. These include the microorganisms that affect nutrient availability to the plants, those that directly enhance plant growth through the production of plant hormones, those that suppress the activities of pathogens and reduce disease development, and those that reduce the build-up of thatch. Additionally, there are organisms that affect the efficacy and mobility of pesticides in turfgrass soils, as well as many organisms whose activities are not clearly defined, but are an important part of the turfgrass ecosystem.

In coming issues of *TurfGrass Trends*, I plan to explore some of the important attributes and activities of soil microorganisms—in the hope that our readers will gain a renewed awareness of soil and the importance of proper soil and microbial management to the health of a turfgrass planting. ■

**Next month:** *What is soil anyway?*

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