The Pennfine Challenge.

Name another winter grass that delivers all these advantages.

Mowability. Pennfine was specifically bred for soft fibers that take a smooth, clean cut.

Smooth putting. When mowed to "green height", Pennfine produces extra tillers for a thick, smooth putting surface.

Texture. University trial data indicates that Pennfine has the finest texture of any perennial ryegrass.

Purity. All Pennfine seed is certified. Growers are paid a premium to deliver quality seed.

Play-tested. Pennfine has been used on hundreds of golf courses as well as parks, cemeteries and athletic fields.

Ruggedness. Pennfine retains the ruggedness of the old ryegrasses, takes traffic well and repairs easily.

Spring transition. Pennfine is non-competitive, makes a smooth transition to bermudagrass in the Spring.

You're invited to compare Pennfine Perennial Ryegrass, benefit for benefit, with any other grass you can use for winter overseeding.

We're betting you won't find anything that measures up to Pennfine.

In five years of rapidly-expanding use, Pennfine has become the new standard for winter overseeding in the South. Hundreds of superintendents have put it to the test; we've yet to hear of a real weakness.

Other breeders have tried to duplicate Pennfine's qualities; we've yet to see another variety that can match Pennfine's performance record. Of course, you're the ultimate judge of what goes on your course. All we ask is this. Before you select a winter grass, compare it—benefit for benefit—with Pennfine. For more information, write: Pennfine, P.O. Box 923, Minneapolis, MN 55440.

If it has a weakness, nobody's found it yet.
12 New Products, New Problems for Turf Managers—With EPA’s opposition to chlorinated hydrocarbons, turf managers will have to use a wider variety of products with a narrower range of insect control.

14 New Charm for an Old Boston Landmark—Working from dusk until dawn for six nights, tree experts planted 25 seven to ten-inch diameter trees for the opening of the Faneuil Hall Mall and beat their deadline.

18 The Green Industry/a Self Portrait—Green industry leaders across the country speak out on major issues in 1976 and take a look at 1977.

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ON THE COVER: The Green Industry takes a hard look at where it is today. See story on page 18.
TO OUR READERS

For our December cover story we commissioned a self-portrait of the Green Industry. New Assistant Editor Eric Friedman's assignment was to find out exactly how industry leaders see the state of their businesses now and in the future. A good way, we thought, for Friedman to get his feet wet. The story turned out to be an education for the whole staff as leaders across the country spoke out on major issues. "Articulate, informed, enthusiastic, optimistic," is how Friedman described his contacts.

In early November, wrapped in a greatcoat I braved Illinois' unseasonably cold weather to visit Coon Creek Farm in Marengo. Well worth the trip, for I learned a whole new concept in tree farming from two of the four innovative partners in this unusual enterprise. If you've got equipment, land, experience or capital, you'll want to read about the Coon Creek experiment on page 22.

Just a reminder — Help us help you be a better professional in the Green Industry. If you have not already filled out your Editorial Quality Control Audit from our last issue, please do so. This audit will be used to determine what material we cover in 1977. We want to provide you with stories that will help you in your business, but we need to know what you want. So far the response has been good, the comments interesting and informative. But we need to hear from more of you.

Several months ago we visited the Ohio Agricultural Research and Development Center in Wooster on a tip that a research grant had been awarded for the study of the devastating black vine weevil. The study, it turned out, is being funded by both the Lake County Nurserymen's Association and the USDA. Dr David Nielson, the congenial outgoing project director, tells us the study is moving along well. Good news for nurserymen in the east and midwest. Read about it in our From the Campus column.

The WEEDS TREES & TURF staff would like to take this opportunity to wish you, our readers, a very happy holiday season. In the coming year we hope to expand our network of resources so that we might better apprise you of the vital developments in the Green Industry. We encourage a free exchange of information among our readers and ourselves. We shall continue to offer WEEDS TREES & TURF as a forum for the dissemination of current news, research findings, technical developments and position papers. Our singular goal is to deliver a comprehensive and informative publication to you, our readers. And you, our readers, are our most valuable contributors.
Before a Johns-Manville irrigation system is put to the task, it's put to the test at the most modern test facility in the business.

We want to make sure that our Buckner irrigation systems will provide years of perfect irrigation to protect your turf investment. So we put the Buckner products to the test at our new Fresno proving ground.

Our new facility, the most modern of its kind in the irrigation industry, is equipped with the latest technological equipment. Product performance is electronically measured and a visual read-out shows exactly how sprinkler heads distribute water.

We go to all this trouble for three very good reasons:

First, it helps us develop new irrigation products.

Second, we want to make sure that every Buckner sprinkler can do everything the specifications call for.

Third, the test facility helps us develop programs to design the irrigation system that exactly fits your needs, based on variables such as climate, soil and types of turf.

So the next time you're planning to replace an old system or need to add a new one, call the Irrigation TECHspert at your nearest J-M distributor. (He's in the Yellow Pages.) His specialized knowledge and experience will help you in designing your system, and make all the difference when it comes to protecting your turf investment.

For more information, call Carroll Wood at (303) 770-1000, ext. 3330, or send the coupon.

Over twenty turf insects are listed on the Diazinon label. More than any other major turf insecticide. Granted, a turf manager must be able to recognize an insect problem and know when to apply treatment for the most effective control.

But when you’ve got Diazinon, the one broad-spectrum turf insecticide with the label to prove it works for you, it sure makes things easier.

The insects: Lawn chinch bugs, Ants, Armyworms, Clover mites, Springtails (Collembola), Crickets,
turf insects than turf insecticide.

Cutworms, Digger wasps, Earwigs, Frit flies, Lawn billbugs, Sod webworms (Lawn moth), Sowbugs, White grubs (such as Japanese beetle larvae), Brown dog ticks, Bermuda mites, Chiggers, Fleas, Leafhoppers, Millipedes, Rhodesgrass scales.

If you'd like to have a copy of the Diazinon label, pick up one from your local supplier.
Or write us. Agricultural Division, CIBA-GEIGY Corporation, P.O. Box 11422, Greensboro, NC 27409
The USDA has established a national agricultural pesticide assessment program to assist the U.S. Environmental Protection Agency in a comprehensive evaluation of pesticides needed in the production, processing and distribution of crops, livestock and forest products, Acting Secretary of Agriculture John A. Knebel announced today.

Amendments to the Federal Insecticide, Fungicide, and Rodenticide Act require that EPA review all existing pesticide registrations and make reregistration decisions. Any pesticide that exceeds certain EPA risk criteria will not be reregistered until EPA determines that its benefits exceed any risks associated with the use of the product.

Environmental Protection Agency Administrator Russell E. Train has accepted a plan proposed by the State of Mississippi to end all use of the controversial pesticide Mirex for fire ant control in the South by June 30, 1978.

Regarding substitutes, Train said that the pesticides diazinon and dimethoate and insect juvenile hormones "show some promise but have not been adequately tested." In addition, a Mississippi State University scientist is now experimenting in combining Mirex with amine compounds to increase its degradation time from years to days.

Twenty-four oriental fruit flies have now been trapped in Los Angeles, California—a situation that may prove to be the third major fruit fly infestation in that state in three years—the U.S. Department of Agriculture announced.

California's last oriental fruit fly outbreak was eradicated in the San Diego area in May 1975, after having been detected the previous September. Some 528 oriental fruit flies were trapped and many others killed at bait stations before the infestation was eradicated.

Under a cooperative agreement with the U.S. Department of Agriculture, Boyce Thompson Research Institute of Yonkers, N.Y. will investigate the culturing of a mosquito parasite, the nematode Reesimermis nielseni, in vitro—in an artificial environment outside the living host.

USDA's Agricultural Research Service will provide $25,000 for the research, which would also serve as a model system to extend others in vitro studies to control mosquitoes and other biting flies.

EPA has requested 12 companies to submit samples of herbicides which may contain nitrosamines, suspected carcinogens.
Glade is a healthy little bluegrass with a higher level of resistance to powdery mildew and a better ability to grow under trees in up to 60% shade. Grows beautifully in open sun, too! Glade Kentucky bluegrass is your guarantee of physically pure and genetically true seed. You won't be plagued with annual bluegrass (*Poa annua*), bentgrass or short-awned foxtail when you plant Glade.

A selection from Rutgers University, Glade has improved resistance to stripe smut, leaf rust, and good resistance to leaf-spot. Nationally tested as P-29, Glade is one of the fastest germinating bluegrasses. It establishes quickly forming a dense sod and thick, low-growing, leafy turf of a beautiful, medium to dark green. Glade mixes well with fine fescues for higher acid soils and blends well with other elite bluegrasses, persisting in moderate shade when others weaken.

Specify Glade Kentucky bluegrass for use in full sun or in mixtures with fine fescues for shade. You'll find Glade at your local wholesale seed distributor.
$13,000 awarded for turfgrass research

The Ohio Turfgrass Foundation has awarded a $13,000 grant to the College of Agriculture at Ohio State University.

The grant will support turfgrass research in agronomy, entomology and plant pathology.

Grants from the foundation have totaled more than $130,000 to turfgrass research since 1968.

Purdue to make revegetation study

Purdue University's Department of Horticulture has received a $50,000 grant from the Cooperative State Research Service to develop techniques for the rapid establishment of plants on lands disturbed by strip mining.

Dr. Phillip L. Carpenter, professor of horticulture, has been named as the project's principal investigator; his associate will be Dr. B. C. Moser, who is the current head of the horticulture department.

The researchers will divide their work into two major areas. Carpenter will work to establish a rapid cover for mined areas through plant communities that utilize nitrogen fixing "nurse" crops. Moser will focus on developing methods of improving root regeneration of transplanted woody plants, thus improving their chances of survival.

According to the researchers, large areas of southwestern Indiana and southern Illinois are either being strip mined for coal or will be in future years as the demand increases. One coal company alone strip mined 1500 acres a year in Indiana, the horticulturists point out. Returning this land to productive use as soon as possible is of great importance both economically and ecologically, they add.

The grant will cover a 24-month period. CSRS is a branch of the U.S. Department of Agriculture.

Cushman-Ryan has service schools

Cushman-Ryan will establish the turf-care industry's first known regional factory service training network.

Jack Northrup, service training manager, said service schools will be set up in Atlanta, San Francisco and Lincoln, Nebraska. Classes will be geared to mechanics in the turf care industry.

The 1976-77 curriculum will include 2 1/2-day classes to be conducted on a rotating basis through March. Northrup said classes have been structured to permit specialized training.

Dow testing new pyridine herbicide

Dow Chemical U.S.A. reports that a new broad-spectrum pyridine herbicide under test in an experimental program is controlling ash, oak and root-sprouting brush species that often survive treatment with other chemicals.

Garlon 3A herbicide has been applied to utility rights-of-way, roadsides, railroads, industrial sites and on forest lands by 140 cooperators in 37 states in a program approved earlier this year by the Environmental Protection Agency.

According to Larry H. Speer, Dow product sales manager, the results of the program are being monitored with the expectation that the data generated will lead to full registration for use of the product on non-crop areas.

In addition to delivering the best control yet achieved with herbicides on ash, oak and root-sprouting brush species in many areas of the country, Speer said, Garlon 3A is active against a long list of annual and perennial broadleaf weeds and woody species normally controlled with 2,4-D and 2,4,5-T phenoxy herbicides and Tordon mixture herbicides.

Watershed study begins in Oregon

The Special Studies Branch of the U.S. Forest Service's Forestry Sciences Laboratory at Corvallis, Oregon has begun a cooperative study to biologically evaluate nutrient contributions to streams from logged watersheds.

With the controls, 15 experimental Oregon watersheds are included in the study. The timber in some watersheds has been totally clearcut, some watersheds have been partially clearcut, and others have had only selected harvesting of trees.

In some watersheds the slash (material remaining after harvesting) has been burned, while in others it has not. The primary tool used in this project is the algal assay, described in a Corvallis Environmental Research publication entitled "Algal Assay Procedure: Bottle Test."

One area encompassing four of the experimental watersheds is being researched more intensively and studies include the response of macro-invertebrates as well as phytoplankton.

Plant industry expands in Texas

The ornamental plant industry in Texas is now valued in excess of $75 million and shows great potential for continued expansion.

Because of its central location and favorable growing climate, the state is rapidly becoming a major producer of ornamental plants in the United States.