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Pennsylvania State University completed development of a remarkable fineleafed perennial ryegrass with all the advantages of ryegrass. And none of the drawbacks. They called it Pennfine. Now, just six years later, the success of their undertaking is evident. On golf courses and athletic fields. In parks

of their undertaking is evident. On golf courses and athletic fields. In parks and cemeteries. And on public grounds across the country.

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Proven in tests. Among the nine perennial ryegrasses tested over a five-year period at University Park, Pennsylvania, Pennfine ranked finest in texture. Most resistant to disease. First in density and decumbency (low growth).

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CONTENTS

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Letters	7
Government News	10
Landscape Contractor News	15

GREEN INDUSTRY NEWS

Basics Stressed at Virginia Turf Conference . . . Bolens and Jacobsen Settle Over Mulching Mowers . . . Container Stock Available for Reclamation . . . New Bluegrass Variety Announced. 8

FEATURES

Managing Turfgrass Transition

George Kozelnicky, Assistant Professor of Turfgrass Disease and Genetics at the University of Georgia, gives in-depth advice on how to get bermudagrass through dormancy without winter-kill. 16

Geochemical Reasons for Reclamation Complications

Why does replaced overburden reject vegetation? Acid and recently uncovered elements affect erosion control crops in detrimental and beneficial ways, according to University of Illinois scientists. 28

SYMPOSIUM ON THATCH

Five speeches on past and present studies of thatch's effect on turfgrass health given at the University of Nebraska's Turf Conference. This special pull out section was made as a special reference for turf managers. 45-60

Biological and Chemical Control of Japanese Beetles

Is milky spore disease an adequate substitute for chemical control of Japanese beetles? Perhaps a combination of both is best. 62

Trees and Shrubs for the Northeast

American Garden Cole's horticulturist Collins gave his recommendations in a speech to the New York Nurserymen's Association. 68

Vegetation Management	76
Products	78
Classifieds	98
Events	102
Advertiser Information	102

Cover: Photos courtesy of Northrup King Co. showing that the reclamation site was fertile, as evidenced by the turnips, but the grass didn't take hold as well as anticipated because of poor seeding practices.







5

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It is my habit to scan journals coming across my desk for information that might be newsworthy to the layman in the field. In talking with several authors of articles in our magazine, it has come to my attention that journal articles are a means of recognition for researchers by their supervisors. One author went so far as to say, "They don't care what is in WEEDS TREES & TURF, if it isn't in a iournal, it doesn't count."

What a shame, and what a loss to those who depend upon trade magazines for information, and to those who don't receive the journals, aren't aware of them, can't bear the expense of multiple society memberships to receive them, don't have the time to interpret a highly technical journal article, or simply don't understand the language of journals.

It is of extreme benefit to have these scientific articles available to anyone in the scientific community who is interested, for reference, etc. But at the same time, those researchers who go further and present their material to the end user in lay publications like Weeds Trees and Turf ironically fail to achieve the degree of recognition they deserve.

All I am trying to gain is recognition of researchers who publish articles in our magazine. Journal articles are great, but should not always take preference over getting the information to users.

That is our function and we must work with authors to do it. It is also not our habit to make the authors pay for the privilege of being published, quite the contrary. We feel that it is necessary to present up-to-date information to our readers so that they support our function.

We strive to be the "turf journal" that is readable and reaches the most readers with the most significant information. To this end, we wish to have it recognized that those researchers that supply us with articles are performing one of the greatest services of their profession: Supplying you, the end user, with information that helps you carry out your business with the most professionalism possible.

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GREEN INDUSTRY NEWS

TURF

Basics emphasized at Virginia Turf Conference

The turfgrass industry has played a major role in increasing the homeowners' expectations and desire to have a perfect, weed-free lawn, according to A. J. Powell. Powell, speaking before 380 persons attending the 19th annual Virginia Turfgrass Conference at the Williamsburg, Virginia conference center, told turf managers that "the turfgrass industry is changing as never before." He noted that although a 100 percent eradication of weeds and crabgrass isn't expected in most areas, it is when the home lawn is the object of the treatment.

He cautioned that lawn managers have to be careful in soil testing. More is needed information about how minerals affect good plant growth, he said. "We don't test for iron because we really don't know how its lack affects growth. This is true in other areas."

"We need a lot of research on how these other minerals affect the growth of turf and determine exactly what their roles are," he added. "We are taking the buffers out of the environment and we should have adequate knowledge as to what is needed."

Palmer Maples of Lawrence, Kan., director of education for the Golf Course Superintendents Association of America, told the largest crowd ever to attend one of the turf conferences that continuing education is necessary in the turfgrass industry, calling it a "tool of management."

Maples noted four reasons why continuing education is needed in the turfgrass industry. They are:

-Government regulations are requiring more and more time and knowledge. Various regulations, local, state and national, are requiring that a turf manager know herbicide and pesticide regulations and their effect on the environment. -New and more sophisticated equipment are requiring knowledge and skill in their operation. New developments are occurring regularly and a person must learn how to operate the equipment if he wants to do a better job.

—A person has to keep abreast of the management needs of a company and learn how to meet them. Good management is essential in the operation of a firm and the manager must continually keep abreast of the needed procedures.

—Water will become more and more of an issue. The use of effluent water and the ramifications of its use will continue to grow in importance. Knowledge in this area is essential.

Dennis E. Brown of Richmond, supervisor of the seed and sod section of the Virginia Department of Agriculture and Consumer Services warned that closer labelling of seed is essential and called for the increased use of certification to protect the consumer from noxious weeds in their seed.

Joseph P. Harden, former meteorologist-in-charge of the National Weather Service Office in Rich-



John F. Doss of Suffolk, president of Tidewater Turfgrass Association, presents \$500 check to Richard E. Schmidt, associate professor of agronomy at Virginia Tech, to be used for development of turfgrass program at Southern Piedmont Research and Continuing Education Center at Blackstone.

Officers of Virginia Turfgrass Council pose for picture after re-election. They are: from left, **Kenneth P. Giedd**, Richmond, vice president; **Rex H. Harris**, Little Creek, assistant secretary-treasurer; **Earl H. Odell**, Chesapeake, vice president; and **Gus C. Constantino**, Richmond, president.



mond, observed that there are many sources for weather information for those in the turfgrass industry. Local weather bureaus now have available 30-day forecasts which can prove extremely helpful.

Richard E. Schmidt, associate professor of agronomy at Virginia Tech, traced the outline of the turfgrass program at the University. He noted turfgrass research currently is being conducted at Blacksburg, Blackstone, Langley Air Force Base, Newport News, Orange, Petersburg, Remington and South Hill.

He said there currently are 25 variety evaluation tests, 1 overseeding experiment, 12 fertilization projects, 6 bermuda grass programs, 2 irrigation experiments and 4 sod product projects being conducted.

The final session of the one-anda-half-day meeting involved separate sessions on golf courses and the basics of nitrogen use and management techniques; general turf and athletic fields and the basic practices in turf management, and the basic practices in lawn service.

The annual meeting was sponsored by the Virginia Cooperative Extension Service, Virginia Tech and the Virginia Turfgrass Council, Inc.



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EPA will vigorously enforce Silvex ban

A. E. Conroy II, director of the Pesticides and Toxic Substances Enforcement Division said that enforcement of the Environmental Protection Agency's emergency suspension of 2,4,5-T and Silvex on Feb. 28 will be "vigorous". Suspended uses of all pesticides containing Silvex are: commercial and ornamental turf uses including recreational areas, aquatic weed control and ditch bank uses, forestry uses, rightofways uses, and home and garden uses.

Precautions added to Kerb uses

The Environmental Protection Agency (EPA) has proposed that uses of the pesticide pronamide, marketed as Kerb, be allowed to continue as currently used on turf, commercial nursery plantings, plus some other agronomic crops, but with additional precautions to reduce potential risks to human health. "In general, EPA has concluded that for all uses the economic benefits of pronamide outweigh its risks," Steven Jellinek, assistant administrator said. The benefits come primarily from its use on lettuce and alfalfa. Jellinek added that approximately \$17.3 million might be lost by growers.

The use of the pesticide would be restricted to trained applicators wearing protective clothing, and pronamide would be marketed only in water soluble packaging to keep down dust emissions when mixing.

EPA's proposal is not a final action. The proposal will be reviewed by the Agency's Scientific Advisory Panel, the USDA, pronamide registrants, environmental groups and other interested parties. EPA will consider comments in reaching a final decision.

AQUATIC

Abscisic acid helps control pondweed

Lars Anderson, with the U.S. Department of Agriculture, suggests using a plant growth regulator and careful water level management to modify pondweed so it is more susceptible to herbicides. The regulator, abscisic acid (ABA), occurs naturally in some fruits and the herbicides are commercially available.

Current attempts to rid canals of aquatic weeds by using herbicides are not very effective and are limited by lack of chemicals registered by the U.S. Environmental Protection Agency. Herbicides, in order to work, must be added to irrigation water in such huge volumes that the cost is prohibitive or the risk of chemical residues on crops being irrigated is too great.

Pondweed is especially troublesome because it spreads by rhizomes, underground stems that send up shoots which eventually grow into other complete weeds. Cutting or other physical control methods are usually a waste of time and effort. The weeds just grow back as fast, or faster, than they can be removed, or are spread further down the canal.

Normally in spring, pondweed first forms long, narrow submerged leaves, suited for underwater growth. Floating leaves usually are produced later in the season.

Anderson proposes flooding weed-infested irrigation waterways in early spring for 2 to 3 days. After draining the water, pondweed would germinate and begin forming leaves. Under these conditions of waterstress, floating-type leaves are normally formed, or could be induced to form with a spray of ABA which causes pondweed to prematurely produce floating leaves. These leaves are much akin to leaves of terrestrial plants and can be killed with direct herbicide spray. Unlike the submerged leaves, floating leaves have stomata on their upper leaf surfaces for exchanging carbon dioxide and oxygen. These stomata may also allow penetration of herbicides. Preliminary greenhouse studies have shown that herbicides such as Dalapon, simazine or glyphosate can control American pondweed when sprayed directly on the weed about 1 week after the ABA treatment or water stress. Anderson suggests that this system could be used in the field before canals are needed for irrigation.

The next phase of Anderson's

research with USDA's Science and Education Administration is to determine minimum spray rates for effective control. He is also experimenting with 6 other growth regulators.

Of course more data must be collected before approval can be obtained from EPA and before any recommendations can be made. However all three herbicides are currently approved for other crop uses, and Dalapon is registered for use on irrigation canals.

TURF

FMC/Bolens-Jacobsen settle out of court

FMC Corporation, manufacturers of Bolens lawn and garden equipment, has reached an out-of-court settlement with Jacobsen Manufacturing Company, Inc., Racine, Wisconsin, in regard to a patent infringement suit initiated by FMC against Jacobsen last fall, according to Robert E. Bergen, division manager of FMC's Outdoor Power Equipment Division.

The suit, filed on November 18, 1977 by FMC was for damages, and to enjoin Jacobsen from infringing U.S. patent No. 3, 085, 386 which relates to a rotary lawn mower marketed by FMC under the Bolens Mulching Mower trademark.

In the terms of the settlement, FMC granted a license agreement to Jacobsen (for an undisclosed amount) covering the life of the Bolens Mulching Mower patent.

According to FMC, the patented Bolens Mulching Mower revolutionized the rotary lawn mower industry in the 1960's. The mower utilizes a special cutting chamber without a discharge chute along with a multi-pitched blade which cuts and then re-cuts the grass clippings, blowing them down into the lawn, thereby elminating the need for raking and bagging.

SOIL

Texas scientists study effects of iron oxide

Research is underway at Texas A&M University to develop ways to predict whether certain soil management practices, such as liming or heavy fertilization, will improve or hurt soil properties by changing the reaction of iron oxides. Scientists with The Texas Agricultural Experiment Station say that iron oxide min-