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Without question, the Barrier sheeting to be used is the very heart of a successful PURR-WICK installation. Don't take chances with an inferior poly film...get the recommended barrier material...**TU-TUF** Cross Laminated.



### From "UNPLAYABLE" TO PLAYABLE LIES

Looking down the perennially water soaked unplayable fairway at Battle Creek Country Club, work has begun to eliminate a condition that has plagued members for years. The 300,000 sq. ft. area employed **TU-TUF** Cross-Laminated barrier material.

**TU-TUF** being unrolled down the fairway from a golf cart. Lengths and widths are available to order.



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## Volume on Street Trees Published by Penn State

Street trees, used properly in an urban environment, provide lasting benefits to man. But, a tree planting plan in which details are ignored — either in the development or actual establishment — usually ends in disaster.

The Pennsylvania State University's College of Agriculture has published a book, *Street Trees*, designed to assist those who take part in planning and carrying out tree beautification programs in urban areas.

"This book has been prepared for use by shade tree commissions and professional horticultural firms who plan and carry out tree planting and maintenance," said Dr. Roland R. Daniels, Penn State assistant professor of environmental horticulture and author of the publication.

Topics include site selection, variety selection, site preparation, planting, and care and maintenance following planting. Included in an appendix are a checklist of current street plantings and analysis of potential planting sites; proposed specifications for selecting, planting, and maintenance of street trees within developments; general speci-



Newly elected officers of the Midwest Regional Turf Foundation are from left, Danny Quast, Milwaukee Country Club, president; Dr. W. H. Daniel, Purdue turf specialist, re-elected as executive secretary; and Kermit D. Delk, Springfield Country Club, Ohio, vice president. Over 700 attended the Foundation's conference last month at Purdue.

fications for deciduous shade and flowering trees; standards of workmanship for tree care and maintenance; and suggested contract specifications for establishment and maintenance of street plantings.

Two other features are a tree hardiness zone map of Pennsylvania and an outline of characteristics of all trees suitable for planting in the state. The book may be purchased for \$2.00 plus six percent Pennsylvania sales tax. Make check or money order payable to The Pennsylvania State University and send with your name and address to STREET TREES, Box 6000, University Park, Pa. 16802.

## Frank's Nursery Sales Inc. Expects To Boost Sales 15%

Frank's Nursery Sales Inc. said it expects 1976 sales to be about \$60 million, up 15 percent from \$52.3 million last year.

The increased revenue will come from 62 stores it will have operating at year-end, compared with 54 units a year earlier, the company said. During the year, Frank's said, it plans to open 11 stores, including two garden centers it is acquiring from Anderson's in Columbus, Ohio.

## Improved Quarter Margins Reported by Toro Company

Toro Company, Minneapolis, has reported sales of \$35.8 million and earnings of \$751,000 for the second fiscal quarter ended Jan. 31. Sales for the similar period of the preceding year were \$37.4 million and earnings \$849,000.

Sales for the first six months ended Jan. 31 were \$56.8 million, a decrease of 13.4 percent from the \$64.4 million registered for the same period of the preceding fiscal year. Net earnings for the first half were \$98,000, compared with \$941,000 in the first half of fiscal 1975.

## Sales Up 50% Last Year, Echo Chain Saw Reports

The Echo Chain Saw Division, Kioritz Corp. of America, Northbrook, Ill., has announced sales for the 1975 fiscal year were up over 50 percent in a recent statement by Donald A. Bartelt, director of marketing.

"While the chain saw industry, in general, was off approximately six percent during the past 12 months, our sales were up dramatically for the third consecutive year since the Kioritz Corporation of America was established," he said.

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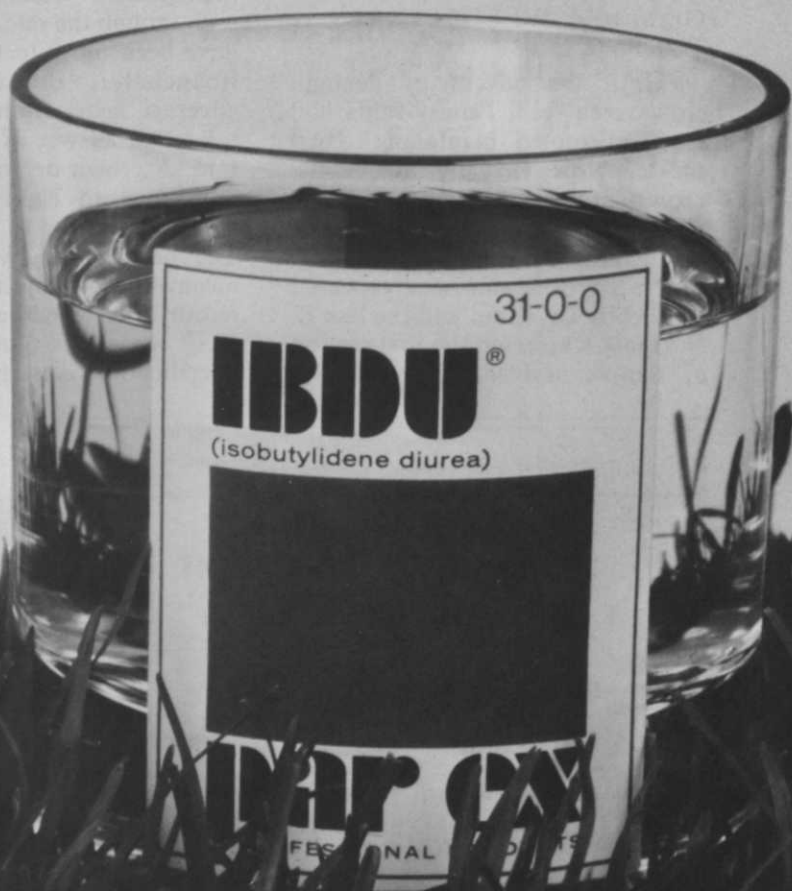
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WTT-4

## Crownvetch—Seed or Plants?

Until 1946, no seed or crownvetch was commercially available. Plantings had to be done slowly and laboriously and expensively with crowns, according to well-known agronomist Dr. Fred V. Grau.

When Grasslyn, Inc. brought forth hulled, scarified seed of crownvetch in 1946, it amounted to a revolution in establishing erosion-control groundcover on slopes. For the first time, this ground-hugging legume could be established by the low-cost method of seeding, Dr. Grau told WEEDS TREES & TURF.

Until the advent of Penngift crownvetch seed, Pennsylvania had specified rooted plants of honeysuckle. Now virtually all of the crownvetch established on the slopes of the thousands of miles of highways is done by hydroseeding. This is a process that was pioneered in 1939 by Dr. Grau and the late C. N. (Doc) Keyser on the first section of the Pennsylvania Turnpike. It

consists of a water slurry of seed, limestone, fertilizer and other ingredients. The slurry is sprayed on a rough slope and mulched with straw, wood cellulose fiber or various kinds of nets. Planting of plants or crowns continued for a time because old habits are hard to break. Soon the economics of seeding on raw subsoil slopes dictated the demise of the slow, expensive plant-planting method, Dr. Grau said. Ironically, Grasslyn was the only firm producing both crowns and seed, but consistently their management recommended seed, even though the sale of plants would have been more to their advantage financially. "But don't you get coverage faster from plants?" some ask. The answer is no, Dr. Grau said. A crown or potted plant may take four to eight weeks to get rooted down and to start spreading. The bare soil between the plants meanwhile is subject to erosion. A recent hydroseeding job in New York State was done in late June. Specifications were prepared by Dr.

Grau. Two months later, when he saw the slope, there was 100 percent cover of crownvetch and companion grass. The legume was six to eight inches tall and appeared to be six to eight months old.

He said specifications writers would do well to seek the source of accurate information before putting a spec out to bid. The first consideration is "no topsoil." Next come adequate lime and the correct analysis of fertilizer. Third, and of extreme importance, is excess inoculant. Fourth is adequate mulch and the right kind for the circumstances.

## New Rain Bird Distributor In West Is Polson Company

Rain Bird Sprinkler Manufacturing Corp., Glendora, Calif. has appointed Polson Company as its new franchised turf distributor for the state of Washington and parts of Idaho and Montana.

Polson manager John Bangert said his company's new irrigation facility in Seattle, Wash. is now opened and handles all of the contractor's needs.

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John Van Dam (center), University of California cooperative extension farm advisor, accepts a \$2,000 check from Alan M. Dennis (left), president of the Southern California Turfgrass Council to help sustain ongoing turf research at the University's South Coast Field Station in Santa Ana. Charles F. Rei (right) is chairman of the Council's turfgrass research fund.

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## Headquarters Sales Group Created by Scott's ProTurf

Jack Cantu, O. M. Scott & Sons vice president and general manager of the Pro-Turf Division, Marysville, Ohio, recently announced the formation of a special department to provide products and services from Scott headquarters directly to company lawn, school and cemetery turf managers, as well as to commercial lawn applicators and landscapers.

John Dunham and Jim George will jointly head the department. Dunham has a strong technical turf background with experience in the lawn applicator industry, while George is a former ProTurf sod market technical representative.

Cantu made it clear that the headquarters sales group will limit its activities to direct sales to specified portions of the professional turf market. Golf course superintendents, sod growers and commercial nurserymen will continue to be served through ProTurf's coast-to-coast network of 67 tech reps.

## Johns-Manville Plans Center In New Jersey for Service

Johns-Manville's Ag-Turf Division has announced plans to establish a service facility in northern New Jersey to serve the eastern irrigation market, according to William J. Christman, division general manager.

The new center, which the company expects to have in operation during the first half of this year, will serve as a physical distribution point for the company's complete line of sprinkler products. Johns-Manville, whose sprinkler manufacturing facilities are located in



Turf research at Penn State has been supported by \$9,000 from members of the Penn State Turfgrass Alumni Club over the past four years. Club president Gerald Brennemen of the Longvue Country Club, Pittsburgh, second from left, presented a check for research to the faculty at Penn State during the annual turfgrass conference held recently at University Park, Pa. Faculty shown are Dr. J. M. Duich, left, Dr. D. V. Waddington, receiving grant, and Dr. T. L. Watschke, right.

Fresno, Calif., is opening the center in view of the importance of the eastern market.

"The new service center, in conjunction with our new California brass foundry, should enable us to give better service to the irrigation market on the East Coast than any of our competitors," Christman said. "We recognize the importance of this market, and that is why we are gearing up to do something about it," he said.

A new Johns-Manville red brass foundry, located in Fresno, went on-stream last month. Utilizing electric furnaces, the automated facility will be devoted to the production of sprinklers and accessories. Anticipated production runs will average

500 molds an hour. The foundry cost almost \$10 million.

## Diamond Shamrock Exec Says Growth To Continue

Diamond Shamrock Corporation Chairman, C. A. Cash told the Cleveland Society of Security Analysts recently he expects 1976 results to exceed 1975, when the company recorded net income of \$114 million on sales of \$1.1 billion. However, he noted that, "While we cannot expect to maintain the kind of percentage growth rates we have achieved in the last two years, we do expect to achieve a continuous record of earnings growth."

Reviewing the diversified chemicals and oil and gas company's performance, he noted that since 1970: return on sales doubled to 10% in 1975; return on equity increased to 26% last year; and return on capital employed rose to 15%.

In the new Biosciences and Metals Unit, Cash said the company will have doubled its production capacity for its proprietary fungicides in time for 1978. He attributed the rapid growth of the agricultural chemicals business to research successes such as Daconil and Bravo fungicides and Dacthal herbicide.

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R. R. 6, Box 332A, Martinsville, IN 46151

Or write Dept. E 455

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## Davey Lawnscape Division Expands Service in Ohio

Davey Lawnscape Service, the lawn care division of Davey Tree Expert Co., Kent, Ohio, has opened two new offices and warehouse facilities to provide expanded service in northeastern Ohio.

Davey's new lawn care service was introduced last year to homeowners and commercial establishments in Portage and Summit counties. In view of the public's initial response and acceptance of the program and demand from adjacent counties, Davey Lawnscape Division is expanding to provide service in Cuyahoga and Stark counties this year.

The service — a professionally applied, full season lawn fertilization, insect and weed control program — was specially designed to fit the grasses and seasonal growth patterns in northeastern Ohio, according to J. Martin Erbaugh, lawnscape general manager.

"Davey Lawnscape Service is four separate, balanced formula, liquid chemical applications which provide the right nutrients, herbicides and insect control ingredients at properly timed intervals to feed lawns and control common weeds and insects," Mr. Erbaugh told WEEDS TREES & TURF.

"The service is provided at a price competitive with what the homeowner or businessman would spend for materials on a do-it-yourself basis, and we will care for all, or just a portion, of the property," added Mr. Erbaugh. "With our service, time is saved, proper application at the right time is assured, and most important, it is done by trained professionals."

Each technician, a graduate of the Davey Institute of Lawn Sciences, operates a spray vehicle equipped with a specially designed applicator. The applicator is designed to assure uniform coverage while minimizing overspray, "drift" and unsightly streaking.

## Superintendents, Sod Farms Aid California Turf Study

The golf Course Superintendents Association of Southern California and Pacific Sod Farms have made donations to the turfgrass research fund of the Southern California Turfgrass Council. The superintendents donated \$700 and Pacific \$500.

## Program Outlines Completed For California Turf Institute

Program outlines for the 1976 Southern California Turf & Landscape Institute, to be held April 28 and 29 at the Royal Inn, Anaheim, have been completed, reports John Van Dam, co-chairman of the educational event which attracted nearly 700 registrants last year.

Sharing sponsorship of the Institute are the University of California Cooperative Extension and the Southern California Turfgrass Council. Co-chairman with Van Dam is Alan Dennis, Council president. Van Dam is a UCCE turfgrass specialist.

According to program coordinator Victor A. Gibeault, extension horticulturist, joint sessions will be held Wednesday morning and Thursday afternoon. Among the topics slated for review are how grasses grow, drought tolerant varieties, pest activity, sodding practices and climaxed with a closing panel discussion Thursday afternoon that will consider problems and solutions associated with intensely used turfgrass areas.

With split sessions scheduled Wednesday afternoon and Thursday morning, registrants will choose between subjects related to plant management or personnel management. One plant session will be devoted to living with kikuyu grass. Employee development, visual aids in training and updating of CETA, OSHA and pesticide regulations are to be feature topics in the personnel management segment.

Among the noted speakers for the 1976 Institute are Drs. James Beard, Texas A & M University; Jack Butler, Colorado State University; and A. L. Turgeon, University of Illinois.

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## Toro Names Michigan Man Regional Contractor of Year

Bern Flier, president of Flier's Underground Sprinkling, Grand Rapids, Mich., has been named Upper Midwest "Contractor of the Year" by Toro Co., Minneapolis.

## Control of Mole Crickets In Bahiagrass Explained

Mole crickets can create real problems for bahiagrass, according to the Florida Nurserymen and Growers Association. These insects become very active in late March and early April. The female emerges from the ground, she begins to fly hunting for the male and then they mate.

Control of mole crickets is difficult while the breeding season is in progress. As soon as this is over the female may then bury into the soil to deposit eggs. If a soil insecticide is applied, residual in the soil, there is a chance much of the population

will be eliminated. Bahiagrass should be watched for signs of mole cricket runs, the soil will be soft and spongy. In bare areas the runs may be seen.

## Two New Turf Distributors Are Appointed by Rain Bird

Rain Bird Sprinkler Mfg. Co., Glendora, Calif. has appointed two new franchised turf distributors.

Western Industrial Supply, Amarillo, Texas, will serve the Panhandle Texas market area. Ernest Oakley, president of Western, said it will stock the full line of Rain Bird turf irrigation equipment as well as other related equipment. It will also have capabilities in assisting with design, specification and installation of irrigation systems for residences, commercial sites and golf courses.

Irrigation Sprinkler & Turf Co., Division of Perry Supply, Albuquerque, N.M., will serve New Mexico. Paul Clendenin, president of

Irrigation, said it will carry the complete Rain Bird turf line and other related products. The company said it has broad experience in the turf care field.

## International Harvester Co. Profit Slump in 1st Quarter

International Harvester Co., Chicago, said its earnings fell 54 percent in its first fiscal quarter. The company reported profit of \$29.9 million, down from a record \$65.2 million in the year-earlier period. Sales in the period ending Jan. 31 fell slightly to \$1.08 billion from \$1.09 billion the year before.

The company said, however, that its first quarter net rose sharply from the "depressed" levels of fiscal 1975, when Harvester earned \$720,000 and \$1.5 million, respectively, from continuing operations. Harvester also said its first quarter profit was the second best ever for the period.

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