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12 Effluent Water — New Hope for Greener Turf — The severe drought in the West has caused researchers to step up efforts to refine this experimental method of irrigation.

16 Ten Ways to Ruin Your Business — Your performance as a Green Industry manager can make or break your organization but you can reduce the risk by avoiding these management traps.

20 Living in 1977 With the Tax Reform Act of 1976 — Joseph Arkin, CPA, MBA, gives a practical interpretation of what the tax law changes mean to your everyday operation.

26 Arborists Statistics for 1976 — See how your financial operations stack up against those of the members of the National Arborist Association.

28 Florida’s Aquatic Weed Control — The Key is Maintenance — Vigorous management programs have helped keep the state’s recreational waterways an important economic resource.

32 Chlorosis of Red and Silver Maple — Research shows proper diagnosis of the symptoms may lead to manganese deficiency as the cause, a situation that can be remedied.

38 The Greening of Portland International Airport — A half million dollar landscaping project has helped transform this major airport into one of the most beautiful in the nation.

ON OUR COVER — This WEEDS TREES & TURF interpretation of a greenback illustrates our emphasis this month on the business side of the Green Industry.
Don’t let insects make your turf a jungle.

For less money than any other major turf insecticide, DURSBAN* brand insecticides can keep more than a dozen insect pests from turning healthy turf into a teeming insect jungle. Chinch bugs, sod webworms, you name it. If it’s a major turf insect problem, DURSBAN 2E or more concentrated DURSBAN 4E probably controls it. Economically. Just one application of either product provides several weeks of effective residual insect control. Simply mix with water and spray.

Or call one of our selected custom formulators, and apply a DURSBAN granular formulation straight or in a dry fertilizer mixture. Life is a big enough jungle without insects tearing up your turf. So for broad-spectrum insect pest control at a very low cost, make DURSBAN insecticides part of your turf program. Just read and follow all label directions and precautions. Agricultural Products Department, Midland, Michigan 48640.
Morris- "quality management is essential"

This month I am most pleased to announce the appointment of Ron Morris as assistant editor for WEEDS TREES & TURF. Ron comes to us from Purdue where he was graduated with a B.S. in agronomy. He has a strong background in turfgrass management and communications, a tailor-made background for his new position.

Bred in a small Indiana town, Ron is "a countryboy at heart" with a great affinity for the outdoors. When he says, "People who do not regard the environment with the highest regard are little better than criminals," he means it. Ron also believes in quality management for cultivated green areas. "With new houses going up in what used to be pasture areas, it's a necessity," he emphasizes, "Besides, plants are a lot prettier than cement."

Living with the realities of business is our thrust this month. No matter how knowledgeable we may be about the technical aspects of our jobs, if we aren't sound business managers, we are far less than adequate and may even endanger our organizations.

On page 16 you'll find the results of a study by the University of Pittsburgh Bureau of Business Research on ten of the most common management traps that lead to business failure. Don't miss it. Another important facet of business management is understanding taxes, the new Tax Reform Act made several changes that can affect you. Be sure to read John Arkin's plain talk about what these changes mean to you, page 20.

Contributing writer Harold Le Sieur prepared an in-depth article on effluent water, see page 12, exclusively for WEEDS TREES & TURF. This experimental irrigation method is already in use in parts of drought-stricken California, and for the rest of the West and Southwest it's just a matter of time before waste water is the norm for irrigating turfgrass.

For coping with large-scale jobs, see how Florida's sound management program for aquatic weed control has lead to cleaner lakes and waterways which, in turn, means great economic gains for the state. On page 38 you'll learn how a million dollars and much work and effort turned Portland International Airport into the "greenest in the country."

There is still time to send in your suggestions and material for our new publication, LAWN CARE INDUSTRY, to be launched later this month. We are all deeply involved with this new publication, as well as WEEDS TREES & TURF, and continue to appreciate two-way communication with our readers.
FOR MICKEY MANTLE AND WHITEY FORD, IT'S "A WHOLE NEW BALL GAME"...

...now, more than ever, THE "NAME OF THE GAME" IN TURF.

RATED OUTSTANDING FOR OVERALL PERFORMANCE

...IN YEARS OF UNIVERSITY TESTING
...IN ACTUAL USE BY PEOPLE WHO KNOW GREAT GRASS,
GROW GREAT GRASS and DEMAND GREAT GRASS.

• DARKER GREEN COLOR THE ENTIRE GROWING SEASON
• EXCELLENT DENSITY • GOOD DISEASE RESISTANCE
• TOLERANCE TO MODERATELY CLOSE MOWING

IF YOUR "GAME" IS GRASS...BE A WINNER LIKE MICKEY AND WHITEY. USE "ADELPHI".

"ADELPHI" HAS BEEN CHOSEN by the Plant Variety Protection Office, U.S.D.A., AS A STANDARD FOR DARK GREEN COLOR to which all bluegrasses applying for plant protection will be compared for color classification.

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Canadian Inquiries: National-NK Seeds Ltd., Box 485, Kitchener, Ont. • Rothwell Seeds Ltd., Box 511, Lindsay, Ont.
Other International Inquiries: Northrup, King & Co., Inc., Minneapolis, Minn. 55413
EPA has begun an inquiry into a possible cancer hazard associated with pronamide, a weed and grass killing pesticide used on lettuce, alfalfa, berries and fine turf, such as golf courses. The Agency is also seeking information on economic and other benefits from the herbicide. The inquiry is known as a "rebuttable presumption against registration." It was initiated because a 1974 study by the Medical College of Virginia in Richmond shows that pronamide caused liver tumors in mice.

EPA has published a 72-page report on the "Susceptibility of Woody Plants to Sulfur Dioxide and Photochemical Oxidants." The report, prepared by Dr. Donald D. Davis of the Center for Air Environmental Studies at Pennsylvania State University, is a detailed review of United States and European literature. For your free copy, write to the Office of Public Affairs, Corvallis Environmental Research Laboratory, 200 S.W. 35th St., Corvallis, OR 97330.

OSHA is considering development of generic standards for classes of chemicals, it was disclosed by Gilbert J. Salter at the Joint Conference of the American Chemical Society and the Chemical Institute of Canada held in Montreal recently. The class standard approach was opposed at the meeting by Dow Chemical's Dr. Etetyl Blair. Blair said he was opposed because of the "peculiarities specific to every single molecule." As an example, he said, vinyl chloride and DDT are both chlorinated hydrocarbons, but that they differ widely in their ability to concentrate in water, as opposed to fatty substances. Blair said he favors a listing of priority items for the establishment of standards.

The delegation of authority in a majority of pesticide misuse cases to the EPA regional offices is expected to take place soon. Delegation of the duties now performed by the Pesticide Misuse Review Committee has been delayed because the headquarters office wanted to wait until the fate of the proposed amendments of Section 12(a)(2)(G) was decided. Since the decision to give FIFRA a simple extension and hold oversight hearings later this summer delayed any changes in the use provision for some months, PTSED is thinking of going ahead with the plan for the regions to handle misuse along with the other civil and criminal sanctions.
Pramitol® is the industrial herbicide that gives you nothing—but what you want. Beautiful, weed-free, bare ground.

Pramitol gives you season-long control of most broadleaf weeds and grasses. Including tough perennials.

With Pramitol you get both contact and residual kill. So you can quickly eliminate undesirable vegetation. And, at the same time, prevent germinating weeds from ever seeing the light of day.

What's more, Pramitol 25E is registered for use both under asphalt. And in a mix with cutback asphalt.

If there's an area you'd like to keep bare-ground clean for vehicles, storage or anything else, see your chemical supply dealer about Pramitol Industrial Herbicide. It's the one thing that gives you nothing. But weed-free, bare ground.

Or write, Agricultural Division, CIBA-GEIGY Corporation, P.O. Box 11422, Greensboro, NC 27409

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20. Seed Growers
21. Tree Service Companies/Arborists
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Project Pest Alert affected in 16 ports

Plant pests invading the US will be less likely to become established because of a new early warning system to find them promptly, according to the USDA.

The warning system, called "Project Pest Alert," establishes a 100-mile detection belt around 16 major ports of entry that stand a high risk of offering a foothold to foreign plant pests. USDA animal and plant health inspectors will systematically survey about 1,000 locations in each detection belt.

USDA plans to expand the project to 39 locations within three years.

Syracuse Research gets EPA contract

The EPA has awarded a contract to Syracuse Research Corp. for the study of chemical methods for the degradation/detoxification of pesticides.

The study includes a state-of-the-art evaluation on the chemical reactions which are capable of degrading forty pesticides and assessment of the environmental hazards of the various degradation products.

The information collected will be used to prepare a manual which describes the practical methods for the disposal of waste pesticides and pesticidal solutions. The manual is intended for pesticide users with limited technical knowledge in pest control.

Scotts develops new winter blends

A Scotts research team headed by turf agronomist Eugene Mayer has developed two winter overseeding blends, according to Dick Stahl, ProTurf director.

The first blend, Winter Turf I, is approximately a 40-30-20-10 combination of Manhattan perennial ryegrass, Loretta perennial ryegrass, Pennfine perennial ryegrass and Victa Kentucky bluegrass. It can be mowed as low as three-sixteenths of an inch.

Winter Turf II is an all ryegrass blend featuring two improved varieties, including approximately 40 percent Derby Perennial ryegrass, 30 percent Loretta perennial ryegrass and 30 percent Linn perennial ryegrass.

Univ. of Minn. field rebuilt

The University of Minnesota Memorial Stadium (Minneapolis) has just undergone a complete rebuilding of their football field. Originally 11,000 square yards of artificial turf was replaced at a cost of $600,000, according to Glenn Rehbein, ASPA Board member.

The artificial turf and the blacktop and rock under it, are being replaced by sprinklers and drain tile, along with topsoil and grass. The artificial turf has been used for only about five years.

TAES recommends slow-release N

Recent research by the Texas Agricultural Experiment Station indicates that a sizable fraction of the nitrogen applied to golf greens as conventional fertilizer may be lost, and may additionally constitute a stream pollution hazard.

The use of slow-release and organic forms of fertilizer including sewage sludge eliminated the loss problem, thus providing both economic and environmental benefits.

150 attend service training school

The turf-care industry's first known regional factory service training network attracted 140 students in the 1976 academic year.

Daniel L. Hedglin, Cushman-Ryan service manager, has announced.

The curriculum includes 2 1/2-day classes conducted on a rotating basis at regional schools in Atlanta, San Francisco, and Lincoln, Neb. Classes are structured to permit specialized training by mechanics in the turf care industry.

Hedglin said Cushman-Ryan hopes to expand the regional school system this fall by adding facilities in Fairfield, N.J. and Seattle.

Edmonton gets AAN GSC designation

The American Association of Nurserymen has announced the official designation of Edmonton, Alberta, Canada, as a Green Survival City. The city had been previously recognized as a Green Survival City by the Canadian Nursery Trades Association.

The official AAN designation now brings the total Green Survival Cities to eleven. Other cities so recognized include Raleigh, N.C.; Athens, Ga.; Burlingame, Calif.; Maryville, Tenn.; Anderson, Ind.; and Corvallis, Ore. Counties honored with Green Survival designations include Shelby County, Tenn., and San Diego County, Calif.

Fungus may help regenerate oaks

A shot of a special kind of fungus may regenerate young oak seedlings which have a tendency to just "sit there".

Gene Cox and Gene Garrett, University of Missouri-Columbia forestry researchers, are inoculating soil surrounding seedling roots with a mycorrhizal fungus to produce a symbiotic relationship between the fungus and the tree root. The researchers believe the fungus will help the roots by improving their uptake of water and nutrients. In return, the tree root will provide food for the fungus.
Why TERSAN® fungicides give you Total

LEAF SPOT (Helminthosporium spp.) on bluegrass.

DOLLAR SPOT* (Sclerotinia homoeocarpa) on bentgrass.

TYPHULA BLIGHT or Gray Snow Mold (Typhula itoana) on a fairway.

LEAF SPOT on bentgrass (melting-out stage).

LARGE BROWN PATCH (Rhizoctonia solani).

TYPHULA BLIGHT or Gray Snow Mold, close-up view.

RUST (Puccinia graminis) on bluegrass.

FUSARIUM BLIGHT (Fusarium roseum and Fusarium tricinctum).

PYTHIUM BLIGHT or Cottony Blight (Pythium spp.).

TERSAN LSR Turf Fungicide controls Leaf Spot and Rust. It is also effective against Large Brown Patch.


TERSAN SP provides outstanding control of both Typhula Blight and Pythium Blight.

*In order to help reduce the possible development of tolerant strains of dollar spot it is recommended that TERSAN 1991 be used in conjunction with TERSAN 75 or another suitable contact fungicide.