

Nutsedge Control Shown In Soil Fumigation Study

Soil fumigation has been an accepted practice for about 20 years among nurserymen who desire healthy ornamental plants that are free of soil-borne diseases and insects.

Now horticultural research workers associated with the University of Maryland at College Park have shown that soil fumigation each fall at sufficient rates and proper soil temperatures also can control yellow nutsedge—a pesky perennial weed—in the following growing season.

Research findings to support this conclusion were formally presented in a technical paper by Dr. C. Edward Beste, extension horticultural weed specialist for the University of Maryland.

His published report represents the finale of a three-year study begun by the late C. Dwain Altman, also an extension horticultural weed specialist, at the University of Maryland's vegetable research farm west of Salisbury.

The Beste-Altman study involved three commercial fumigants, bearing the trade names Vorlex, Telone C

and DD-PIC. It showed that commercially acceptable yellow nutsedge control was obtained with Vorlex at 30 gallons per acre, and with Telone C or DD-PIC at 40 gallons per acre applied in the fall.

Effectiveness of nutsedge control with all three fumigants was reduced measurably as soil temperatures at the six-inch depth fell from 50 degrees F. to 40 degrees F. at the time of fumigation.

Effectiveness of Vorlex in controlling nutsedge, for instance, dropped off from 80 percent to only 20 percent with a 10-degree drop in soil temperature at six inches.

The other two commercial fumigants each showed an effectiveness drop from 80 percent to 60 percent for nutsedge control under identical temperature conditions in the Maryland study.

Since cultural practices for the light soils on Maryland's lower Eastern Shore, along with normal seasonal workloads, dictate that soil fumigation be done in the fall, Dr. Beste concluded that the fumigants should be applied in October. This timing would normally allow at least two weeks with soil temperatures of 50 degrees F. or more at the six-inch depth.

FoamSpray Chemicals, Inc. Buys Ag-Chem Div. Of LTV

Acquisition of the agri-chemical products division of The LTV Corporation by FoamSpray Chemicals, Inc., has been announced jointly by both companies.

Neither company revealed financial details of the transaction. However, C. B. "Bob" Franklin, president of FoamSpray Chemicals, said the company was formed specifically to accommodate the acquisition.

Investors in the company include certain of the former Agri-Chemical employees who now are with FoamSpray Chemicals.

The company produces and markets a patented chemical additive known as FoamSpray which is used with herbicides and insecticides to form a spray mixture for use in all forms of agriculture. Additional products marketed under the FoamSpray trademark include the growth aides OD4 and Microtil and a complete line for Home & Garden.

FoamSpray first was developed by R. L. Wilson Co., Inc., a Houston-based subsidiary of Service Technology Corporation and marketed under the trade name of Wilsco FoamSpray on a nationwide basis.



John F. Cornman has been elected professor of turfgrass management emeritus upon retirement in June from the N.Y. State College of Agriculture and Life Sciences, Cornell University. A specialist in turfgrass management, Cornman has been a faculty member of the college's department of floriculture and ornamental horticulture for 33 years.

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Rigid Field Burning Standards Set For Idaho Seed Producers

Smoke billowing across some of Idaho's fields have, because of a pollution problem, caught the eye of environmental protection officials.

And, unless the problem is solved, a growing and relatively new Idaho agricultural industry is likely to suffer. University of Idaho researchers in the College of Agriculture are seeking answers to the problem.

The industry is bluegrass and other lawn-type grasses grown for seed. Practically all the Idaho production is in the state's northern panhandle. Latah County production, although relatively small, contributes to the value of the industry, estimated at about \$12 million annually in Idaho.

The reason environmental protection officials are concerned is that growers burn off fields following a seed crop harvest and the burning frequently creates air pollution.

Grass seed producers have been cooperating with Idaho air pollution officials to hold down the pollution caused by burning grass fields. Burning of grass fields is timed by the U.S. Weather Bureau to coincide with the most favorable conditions in order to minimize the problem in local communities.

However, since there sometimes is a problem, Idaho pollution control officials, in cooperation with grass growers, have developed schedules concerning grass seed field burning. The schedules comply with the 1970 Amendments to the National Clean Air Act.

The schedules are:

—by May 1974, a study shall be conducted to show feasibility of straw removal prior to burning, on lowering smoke emissions.

—by 1975, open field burning will be prohibited after first year production, if alternatives are available.

—burning field grasses shall be prohibited after the 1974 harvest. This does not apply to turf grasses.

—grass fields scheduled for tear out will not be burned after 1975.

—by December 1976, a study will be conducted to determine alternative means of disease and production control to eliminate burning of turf grasses.

—alternate methods to field burning shall be used as soon as they are available.

Dr. Ronald Ensign, UI plant scientist, is heading up research to find ways to meet grass seed production environmental requirements. UI colleagues working with him are Drs. A. A. Boe and Clayton Oslund, plant physiologists, and Dr. Richard Naskali, biologist.

Ensign said burning has for years been an economical means of removing plant residues following grass seed harvest. Under good conditions, a 100-acre field can be "cleaned" in an hour or two.

Also, research has shown burning the post-harvest residue stimulates seed production the following year. In fact, many turf grass varieties will not produce much seed if fields are not burned, Ensign said.

Burning is a good control measure for some weeds. It also enables plants to make better use of fertilizers; part of the nutrients need not be used to break down old plant material. University research has proven that burning destroys insects and some disease organisms.

These are among reasons producers credit the burning practice with helping maintain good seed yields and keeping stands strong for seven to eight years.

Ensign said College of Agriculture research objectives are to:

—evaluate effects of various burn and management treatments on growth and development of bluegrass plants.

—study methods of residue disposal other than burning and assess their effects on air pollution.

—examine turf grass varieties to determine their ability to produce without extensive burning.

—cooperate with seed producers and pollution control agencies to help control pollution under economic seed production practices.

Ensign said a series of field plots has been established representing bluegrass areas in northern Idaho. About 10 or 15 turf varieties common to the Northwest are to be studied for growth habits under various conditions and cultural practices.

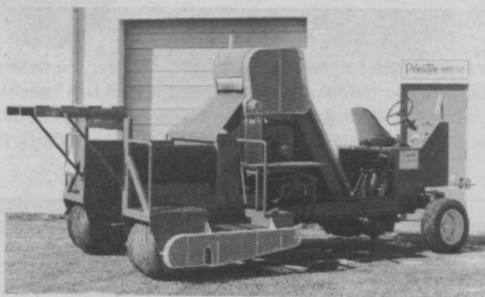
Build-up of certain disease and insect populations and their effects on seed production will also be studied.

It may be that new varieties might have to be developed to meet environmental standards and at the same time enable the grass seed industry to survive and grow, Ensign stated.

Idaho production figures for Merion Kentucky bluegrass seed over a span of years illustrates growth of the industry. Acres planted in successive years from 1954 through 1970 were 600, 700, 950, 1,100, 1,000, 1,300,

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1,600, 1,900, 2,100, 2,000, 2,200, 3,000, 4,00, 6,300, 5,700, 5,700 and 5,500.

In addition, the state boasts 25,000 acres of other proprietary and common grasses.

chitectural committee decided that Fylking was the variety most likely to please an estimated five million visitors.

Average cleaned seed yields ranged from a low of 145 pounds per acre in 1955 to a high of 345 in 1962 and 1967. The average from 1954 through 1970 was 260 pounds per acre.

Economic impact of the bluegrass seed industry in Idaho is illustrated by annual sales of only Merion Kentucky bluegrass seed harvested in Idaho from 1954 through 1970.

Those figures are: \$158,000, \$194,000, \$358,000, \$194,000, \$269,000, \$492,000, \$401,000, \$360,000, \$380,000, \$468,000, \$704,000, \$733,000, \$561,000, \$870,000, \$740,000, \$1,017,000, and \$1,544,000.

Idaho Crop and Livestock Reporting Service figures show Idaho, Oregon and Washington produced about 90 per cent of the 47 million pounds of bluegrass seed grown in the United States in 1972.

Idaho, with 6,076 acres under certification, was the largest Merion producer in 1972. Enough seed was grown in the state to plant over 200,000 average size lawns.

Ensign pointed out the figures quoted are only for Merion, only one of the many varieties and strains of cool season, lawn type grasses grown in the Gem state. Climatic conditions in the north Idaho area are ideal for growth of these grasses.

Expo '74 Committee Selects Fylking 0217 Official Grass

0217 brand Fylking Kentucky bluegrass has been selected as the official grass to be planted throughout the 100-acre site of Expo '74, the only World's Fair on the environment, it was announced today.

The first choice of Expo '74 landscape architects, Fylking Kentucky bluegrass will be used to highlight and enhance acres of trees, shrubs and flower gardens in a beautiful natural setting on the banks of the Spokane River in Spokane, Washington.

In carrying out the theme for Expo '74, "Celebrating Tomorrow's Fresh New Environment," the architectural committee was the variety most likely to please an estimated five million visitors.

During more than a decade of intensive testing in the United States, Canada and abroad, Fylking Kentucky bluegrass has proven its ability to thrive under adverse conditions and heavy traffic, yet maintain unexcelled color and appearance.

Fylking produces a finer, denser turf than most grasses according to Doyle Jacklin. It is one of the most energetic oxygen producers available. It requires little care and resists drought, disease and weed infiltrations. Fylking also receives high marks from environmentalists because of its ability to flourish with the application of little or no weed or disease control chemicals, he said.

Expo '74 visitors will be able to see lawns of Fylking Kentucky bluegrass, as well as foreign and domestic pavilions and exhibits on the environment, from May through October, 1974.

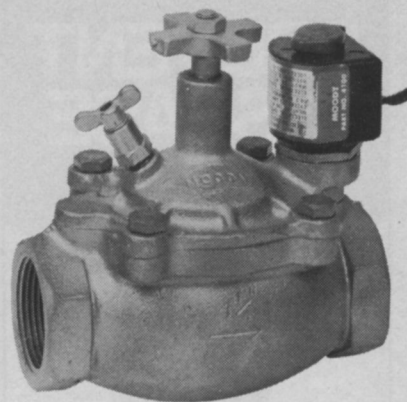
Drawdown Technique Holds Promise In Lake Weed Control

As the demand for water-oriented recreation continues to grow, lake weeds are proving to be an ever-increasing problem in our lakes. The Inland Lake Demonstration Project, a joint venture between the University of Wisconsin-Extension and the Wisconsin Department of Natural Resources, studied the use of overwinter drawdown (partial draining) to control lake weeds in two flowages in northwestern Wisconsin.

Dr. S. A. Nichols, Aquatic Biologist with the Project, reported a single drawdown during the winter of 1971-72 was very effective at controlling Robins pondweed, and to a lesser extent water lilies in the Mondeaux Flowage. The single drawdown eliminated approximately 50% of the problem vegetation with no direct costs involved.

The Chippewa Flowage was used to study the long-term effects of drawdown. The Flowage has been drawn down annually for 50 years. This study identified groups of plants which could and could not be controlled by drawdown.

Natural lakes, unlike impoundments, are not so readily manageable. However, Nichols indicates that even some natural lakes can be drained, using high capacity pumps, to achieve weed control. But he cautions that the resulting costs would be much higher and the environmental impacts must be carefully assessed.



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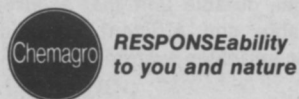
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TURF MANAGEMENT

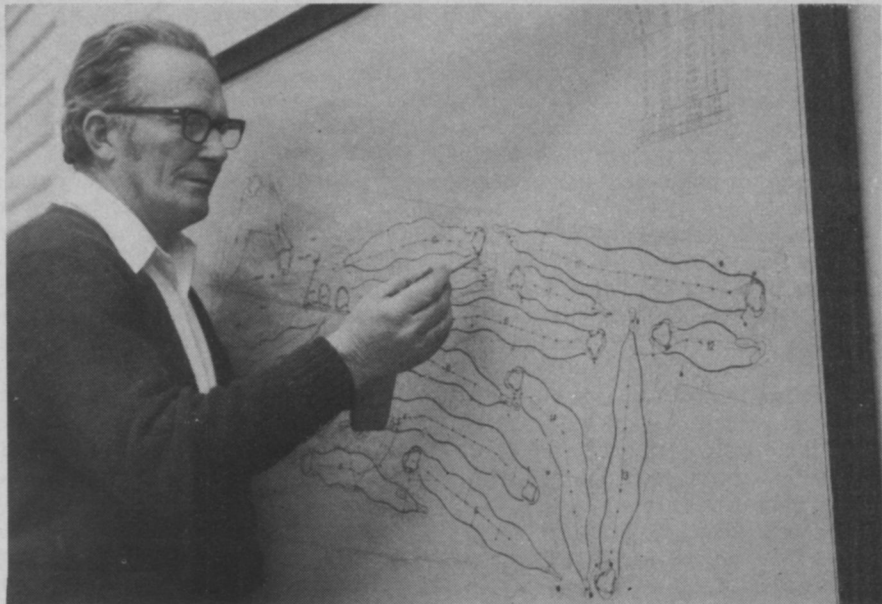
(from page 15)

cluding the hiring of women as members of his maintenance crew.

Work assignments are made on the basis of know-how, skill, and course needs. One man handles major mechanical maintenance, though all the men are expected to keep their tractors and mowers lubricated. One man has been trained in boom spraying, so he can apply fertilizer and turf protectants. One man mows fairways; another mows the roughs; and others handle maintenance in sand traps and bunkers, trees, and the watering.

The Pines Club has a semi-automatic sprinkler system and its use is conditioned in part by the weather, with water being started just before the wilt stage on the fairways. Greens and tees have pop-up sprinklers; heads must be attached for fairway sprinkling.

To keep things running smoothly, Denny spends part of every day walking the course and anticipating needed maintenance. A clipboard



Irrigation is an integral part of the operation at Pines Country Club. Dennison reviews the pipe layout on the master plan. Ample source and supply of water has been essential in establishing turf on this four year old course.

and a pencil prove useful for notes, as he makes his rounds. He schedules two of his crew for the night shift to handle fairway watering; but greens and tees are watered in the morning to help keep disease pressure down on these critical areas.

Looking ahead, Denny recognizes unfilled needs. He is starting a turf nursery to insure availability of turf in a crisis and to serve as a test area for new turf programs. For he recalls an incident at another course when over zealous representatives misapplied a fertilizer and burned up most of a green.

He is also working to increase his knowledge of turf and course maintenance. He attends four or five short courses each year to learn more about equipment or turf disease. He meets with technical representatives of chemical firms. And for years he has been active in the

Allegheny Mountain Superintendents Association and the Golf Course Superintendents Association of America. This year, in fact, he is serving as president of the Allegheny Mountain Association, that meets 10 times a year to review mutual problems and needs that relate to better turf and better golf.

Pines Country Club in Morgantown is one of many new courses to open in the past decade. With an investment of more than \$500,000 already and with an interest in improving club facilities in the future, the club needs the best kind of superintendent it can find. Denny has developed the experience and know-how useful in keeping turf disease under control. Managing turf programs has also yielded other dividends. And a man like Denny Dennison has the ability to put it all together. □



Dennison's son John adjusts a nozzle on this turf sprayer. He is a maintenance foreman at the club.



This is the maintenance shop. It adjoins Dennison's office and the supply storage area — all in one building.

— meeting dates —

International Shade Tree Conference, 49th annual meeting, Sheraton-Boston Hotel, Boston, Mass., Aug. 13-16.

International Pesticide Applicators Association, annual meeting, Marriott Inn, Berkeley Marina, Berkeley, Calif., Aug. 15-18.

North Dakota State Horticultural Society, annual meeting, Canada Department of Agriculture Research Station, Morden, Manitoba, Aug. 21-22.

Turf and Landscape Day, Ohio Agricultural Research and Development Center (OARDC), Wooster, Ohio, Sept. 11.

Kansas Arborist Association Field Day, 15th, Phillipsburg, Kans., Sept. 11.

Midwest Agricultural Chemicals Association, annual meeting, Lodge of the Four Seasons, Lake Ozark, Mo., Sept. 12-14.

Michigan Turfgrass Field Day, Crop Science Field Lab, Michigan State University, E. Lansing, Mich., Sept. 13.

Virginia Tech Turf Field Days, Sept. 19-20. (Contact Dick Schmidt or John Shoulders, VPI for more details.)

Lawn & Garden Distributors Association, annual meeting, Sheraton-O'Hare, Chicago, Sept. 19-21.

Professional Grounds Management Society, annual meeting, Oglebay Park, Wheeling, West Virginia, Sept. 23-26.

Course for Licensing of Tree Pruners, Agricultural Extension Centre, Brandon, Manitoba, Canada, Oct. 1-5.

American Horticultural Congress, meeting of the American Horticultural Society, New Orleans, Oct. 1-7.

Society of Municipal Arborists, 9th annual meeting, Sheraton Inn, Flint, Mich., Oct. 3-5.

Tropical Plant Industries Trade Show, sponsored by the Florida Nurserymen and Growers Association, Diplomat Hotel, Hallandale Beach, Fla., Oct. 5-7.

Southwest Turfgrass Conference, Albuquerque, N.M., Oct. 11-12.

Industrial Weed Control Conference, 8th annual, Texas A&M University, College Station, Tex., Oct. 15-17.

Central Plains Turfgrass Conference, Manhattan, Kans., Oct. 17-19.

Turfgrass Equipment & Materials Educational Exposition, 13th annual, sponsored by Southern California Turfgrass Council, Orange County Fairgrounds, Costa Mesa, Calif., Oct. 17-18.

Wisconsin Golf Turf Symposium, eighth annual, Pfister Hotel, Milwaukee, Oct. 24-25.

Southeastern Agricultural Chemicals Association, 19th annual meeting, Callaway Gardens, Pine Mountain, Ga., Oct. 28-30.

Michigan Pesticide Association, fall conference, The Olds Plaza, Lansing, Mich., Nov. 7-8.

Washington State Weed Conference, Cosmopolitan Chinoook Motel and Tower, Yakima, Wash., Nov. 7-9.

Penn-Del Chapter, International Shade Tree Conference, general meeting, Marriott Motor Hotel, Philadelphia, Pa. Nov. 8.

New Jersey Federation of Shade Tree Commissions, annual meeting, Haddon Hall Hotel, Atlantic City, N.J., Nov. 17-19.

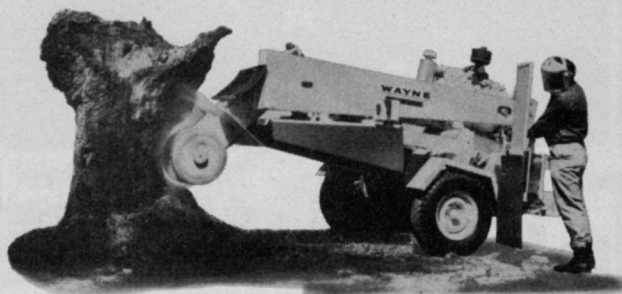
EDITORIAL (from page 5)

talents and effective leaders within their communities and sales territories. Yet, when problems arose, these men found solutions only after long hours of difficult diagnosis.

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National Golf Foundation To Survey Golf Market

"Operation — GOLF UPDATE" a survey about golf and golfers in the U.S., will be the most comprehensive effort ever made to compile all available significant information. According to Don A Rossi, executive director of the National Golf Foundation, the upcoming survey will be sent to more than 11,000 golf courses in mid-August.

Rossi explained that golf records maintained by the Foundation, and dating back to its origin in 1936, are no longer valid since many golf courses have changed in the interim — in ownership, in size, in type of operation and in the facilities offered. He said many new trends in golf course planning, construction and operation have emerged in recent years which cannot be statistically measured by the foundation's present records.

"To function effectively in meeting the growing demand for help in the development of every type of golf facility we must bring our unique storehouse of golf information up to date," Rossi said.

The "GOLF UPDATE" questionnaire has been especially designed

for quick and easy fill-out, and features humorous cartoons to make it fun to complete. It is arranged for computer analysis, for quick 'read-out' of information.

"This is one survey that will reward the respondents directly because it will produce a useful yardstick for every private, daily fee and municipal golf operation," he noted. "However, for this yardstick to be truly useful, we need much more than a 'token' response.

"We receive inquiries daily on how many golf courses have installed automatic or semi-automatic irrigation, where they are located, are they successful, what are the problems, etc.

"Other questions involve the use and operation of golf car fleets at the different types of golf courses, mechanized golf course maintenance — even golf course lighting for night play or night maintenance," said the executive director.

"One very important area of information requested is whether the golf operation employs a golf professional, a course superintendent or a manager — any one of these, or all, or a combination of any two of these. The answer to these questions could indicate a need for additional

trained specialists for these departments."

Rossi added that the final 'read-out' of the survey will not only furnish much additional important information for the foundation in helping existing golf operations with problems as well as assisting in the development of new golf courses. It will also indicate future directions for Foundation literature and consultant services.

The National Golf Foundation, a non-profit organization dedicated to the development of more golfing opportunity for Americans through its facility and activity development programs, is headquartered in Chicago's Merchandise Mart.

Energy And Clean Air Is Possible Says EPA's Fri

Robert W. Fri, Acting Administrator of the Environmental Protection Agency, has said it is possible for the nation to have "clean air and adequate energy—both by narrow but reliable margins—in this decade."

Speaking at a dinner meeting of the 27th conference of the Aerospace Industries Association of America, Inc. in Williamsburg, Virginia, the EPA official declared that the nation must use its coal reserves to meet energy needs and at the same time attain the primary, or health-related air standards.

"We have written to the Governors of the key coal-using states urging them to modify state plans as necessary to insure that national air quality health needs are met first," he said. "If these states modify their plans, the available clean coal and limited supplies of coal stack-gas cleaning technology can be used in the most polluted areas and the primary standards can be met."

Fri said that if Americans undertake a coordinated program, they also can reduce energy use by up to 20 percent without impairing their standard of living. Measures such as improved home insulation, more efficient air conditioning, streamlined industrial processes, and improvements in transportation all would help.

"By cutting down on energy demand and with some adroit juggling of clean fuel supplies, we should be able to get through the mid-1970's crunch," he declared. "For the mid-term—1980 into the 21st century—we must develop our present energy technologies to the optimum."



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ROBERT COLEMAN joins Bozell & Jacobs, Inc. as group supervisor in the agricultural division.

* * *

A. D. DEGIDIO named vice-president-general manager for Toro Pacific. He will be in charge of three company owned distribution facilities in California.

* * *

RICHARD M. HUFF becomes assistant manager of marketing; **DR. E. GENE MAITLEN** becomes director of development; **FRANCIS R. RACINE** becomes national sales manager; **JOE B. ASHCRAFT** becomes manager, southern department; **RICHARD A. BROOM** becomes manager of legislative compliance; and **STEPHEN C. GOTH** becomes manager of planning and analysis for the agricultural chemical division of FMC Corporation. In other company moves **CHARLES E. KANEEN** becomes controller and **DOUGLAS D. NELSON** becomes manager international.

* * *

D. A. SCHWARTZ to marketing manager of specialty chemical group for Nalco Chemical Company.

* * *

RANDY RUSSELL appointed ProTurf representative in Georgia for O. M. Scott & Sons. He's a former golf coach. **JIM BOGART** will be working for ProTurf in western Michigan. Representing the company in western New York is **TOM WENTZ** and **FRAN BERDINE**, recent graduate in turf management from Cornell University, will handle sales in northern New Jersey.

* * *

JACK J. CANTU becomes vice president and director of O. M. Scott & Sons. His 27 year career covers almost every aspect of marketing.

* * *

JOE RHONE, JR. named regional sales manager for the southwest territory of the Weather-matic division of Telsco Industries. He will be responsible for sales in Texas, Okla., Ark., La. and western Tennessee.

* * *

BRUCE WATSON, JR. appointed district manager for the Los Angeles region of Rain Bird Sprinkler Mfg. Corp. **JAMES BELL** named golf market manager to handle all planning in the golf field for both the domestic and international markets. **LARRY ETHRIDGE** becomes golf irrigation specialist.

* * *

JAMES S. BRINCKERHOFF to general manager, chemicals division, United States Gypsum Company.

* * *

DR. ROBERT E. TREECE named associate chairman of the department of entomology at the Ohio Agricultural Research and Development Center, Wooster.

* * *

WILLIAM M. FLUEGEL becomes manager, national accounts for agrichemicals, Elanco Products Company. **JAMES T. WHITEHEAD** has replaced Fluegel as regional sales manager, agrichemicals, for the Fresno region. In other company moves, **BEN D. AGNOR** has been promoted to director of sales for agrichemicals. He succeeds **ROBERT E. HOWERTON** who was named director of market planning for agrichemicals. **D. STANLEY GEISER** who held that position now becomes director of agricultural communications.

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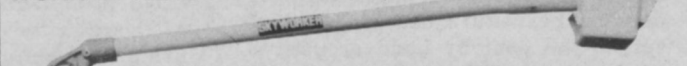
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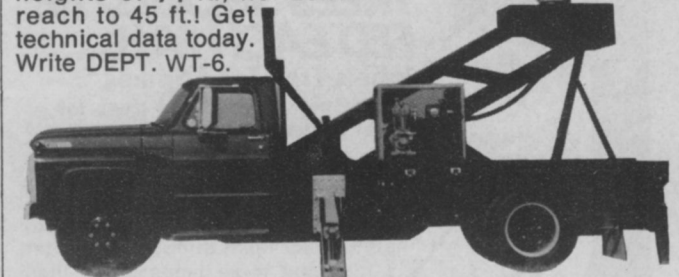
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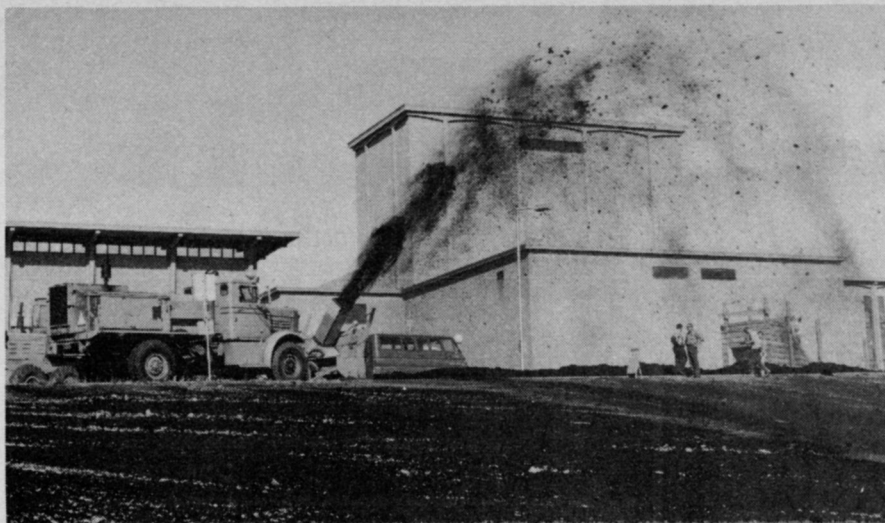
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Large snowblower above makes quick work of lumpy peat in the reseed program at the University of Alaska. Peat fell evenly over a hillside that would have not been practical to landscape by hand.

Alaska's Snowblowers Serve Dual Purpose

There's topsoil falling from the sky. And University of Alaska officials are using it to cover newly graded slopes on the campus in Fairbanks.

Physical plant personnel were not able to arrange special cooperation from the Almighty for their reseed program, but they did the next best thing. They found that snow removal equipment can be utilized in landscaping.

"We used our snow-blower to spread peat over some of the steep slopes around the new road," said Hal Kelly, equipment supervisor. "It does a beautiful job. If we had spread the peat by hand or used a grader, it wouldn't be even, and it would be lumpy. The blower covers evenly and pulverizes the peat as fine as if it had been put through a screen."

The grounds crew dumped the peat in the road, and used a grader

a plow it to one side like snow. The blower followed the grader, spewing out a black cloud of peat to fall evenly along the slope to a distance of some two hundred feet.

Such use of snow equipment for landscaping purposes is unique as far as is known. The next time the University of Alaska crew plans a further refinement of the method by incorporating the grass seed in the final layer of peat, thus saving also the last step of hand scattering the seed.

Turfgrass Researchers Honored At Penn Conference

Two prominent turfgrass specialists were cited for achievements during the annual Turfgrass Conference held recently at The Pennsylvania State University. Honored were Dr. Fred V. Grau of College Park, Md., and Dr. Joseph M. Dutch of University Park, Pa. Each received a service award plaque from the Pennsylvania Turfgrass Council.

The Penn State Turfgrass Conference was dedicated to Russell A. Smith, turfgrass research technician at the University for 36 years. Due to illness, Mr. Smith was unable to attend but was represented at a testimonial dinner by brother John, vegetable technician, who has served Penn State for 37 years, and brother William, floricultural technician, who served the University for 42 years. Regrettably, Russell Smith died two days after the conference.

The service award to Dr. Grau recognized his outstanding contributions and devotion to furthering the turfgrass industry both at home and abroad—especially for his most recent contribution as executive director of the Pennsylvania Turfgrass Council.

Dr. Joseph M. Dutch was honored with a service award plaque for his outstanding dedication as a turfgrass teacher and researcher. Dutch has taught at Penn State for more than 13 years and is responsible for the success of the Turfgrass Short Course Program which to date has involved students from 22 states, Canada and Mexico.

Elected president of the Pennsylvania Turfgrass Council was Martin Stolpe of New Castle. The new first vice president is David O. Miller of Bethlehem. Second vice president is Robert Hummer of Manheim. Treasurer is David Boyd, Jr., of New Wilmington. Continuing as executive director is Dr. Grau.

Named directors of the Council were Clyde Lyons of West Middlesex, Craig Monroe of Somerset, Richard Valentine of Ardmore, William Helbling of Pittsburgh, Levi Travis of Hawley, and C. William Black of Hagerstown, Md. The Penn State Turfgrass Conference is co-sponsored by the College of Agriculture and the Penna. Turfgrass Council.



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—insect report—

TURF INSECTS

CICADAS

(*Okanagana spp.* and *Olatypedia spp.*)

NEVADA: Adulya unusually heavy on rangeland and adjacent land in areas of Carson City and Douglas, Esmeralda, Lyon, Storey, and Southern Washoe counties.

WESTERN TUSSOCK MOTH

(*Hemerocampa Vetusta*)

NEVADA: Larvae up to two-thirds grown defoliated scattered bitterbrush (*purshia tridentata*) at 5,000-6,000 foot level near Galena Creek, Washoe County.

WHITELINED SPHINX

(*Hyles Lineata*)

NEW MEXICO: Larval migration heavy on highways adjacent to rangeland in Harding County.

FALL CANKERWORM

(*Alsophila pometaria*)

NORTH CAROLINA: Active for third consecutive year on Coweeta Hydrological Experiment Station in Macon County. Third and fourth instars defoliated 75+ acres of hardwood on watershed, interfered with long-range water runoff experiments. Peak defoliation expected first half of July.

ORNAMENTAL INSECTS

BAGWORM

(*Thyridopteryx ephemeraeformis*)

TEXAS: Extremely heavy populations noted evergreens in Brazos County. Populations up to 10 per branch. Heavy populations also noted on live oaks and pecan trees in same area.

TUMID SPIDER MITE

(*Tetranychus tumidus*)

DELAWARE: Very common on philodendron house plants in Newark, New Castle County. This is a new State record.

SPRUCE SPIDER MITE

(*Oligonychus ununguis*)

FLORIDA: Nymphs and adults severely infested 90 percent of 7,450 juniper plants (*Juniperus excelsa*) and 90 percent of 81,000 arborvitae plants at nursery in Baker County.

LECANODIASPIDID SCALE

(*Lecanodiaspis prosopidis*)

SOUTH CAROLINA: Heavy infestation on wild azalea in Oconee County April 30, 1973. This is a new State Record.

SHADE TREE INSECTS

PINE COLASPIS

(*Colaspis pini*)

ARKANSAS: Found on 4 and 5-year old pine plantations in Calhoun and Ouachita Counties. Frequently heavy on clumps or spots of several trees. Feeding damage evident and some loss of foliage expected.

PERIODICAL CICADA

(*Magicicada septendecim*)

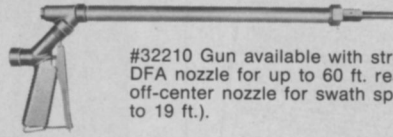
WISCONSIN: Heavy in southeastern Grant, Iowa, Green, Rock, Walworth, Richard, and Sauk counties. Predation by birds heavy; fungus disease noted on some specimens. Heavy population expected to diminish in next few weeks.

SPRINCE BUDWORM

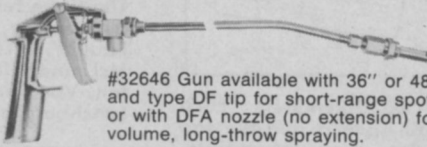
(*Choristoneura fumiferana*)

MAINE: Development still slow. In central Aroostook County area, around Oxbow and Ashland and in the Telos Lake country, about 90 percent of larvae in third instar. Development more advanced with more larvae in fourth instar at St. Francis and Fort Kent and in eastern areas into Washington County. Spraying operations proceeded in experimental blocks. Treatment of

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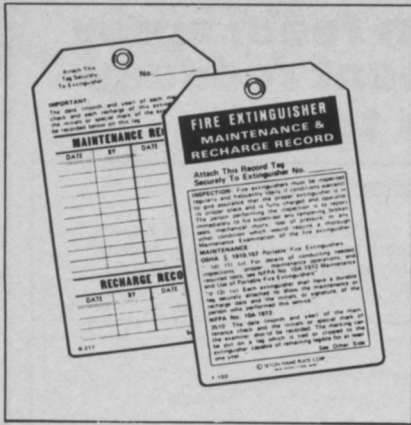
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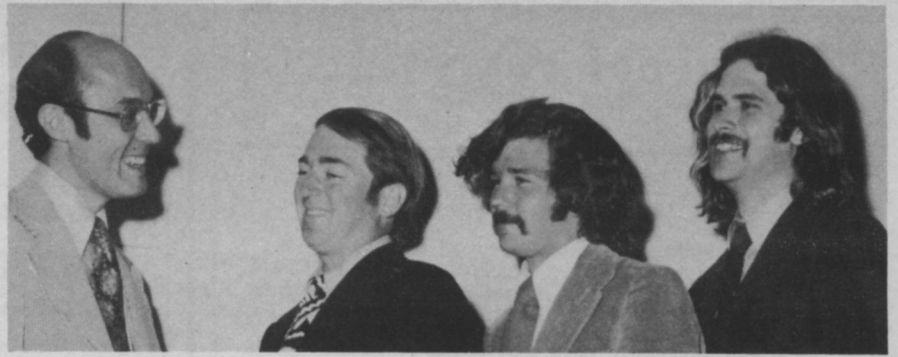
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The three fellows on the right are graduates of the Institute of Applied Agriculture, a two-year professional program at the University of Maryland. They are: (l-r) Paul W. O'Leary and George E. Renault III, both of Alexandria, Va., and James K. McLennan III of Richmond, Va. They are shown with Kenneth G. McMillan of Arlington, Va. principal speaker at the ceremony. Not present are: Lee W. Holofchak of Lynchburg and Stuart Span of Falls Church, Va.

Green Industry Newsmakers

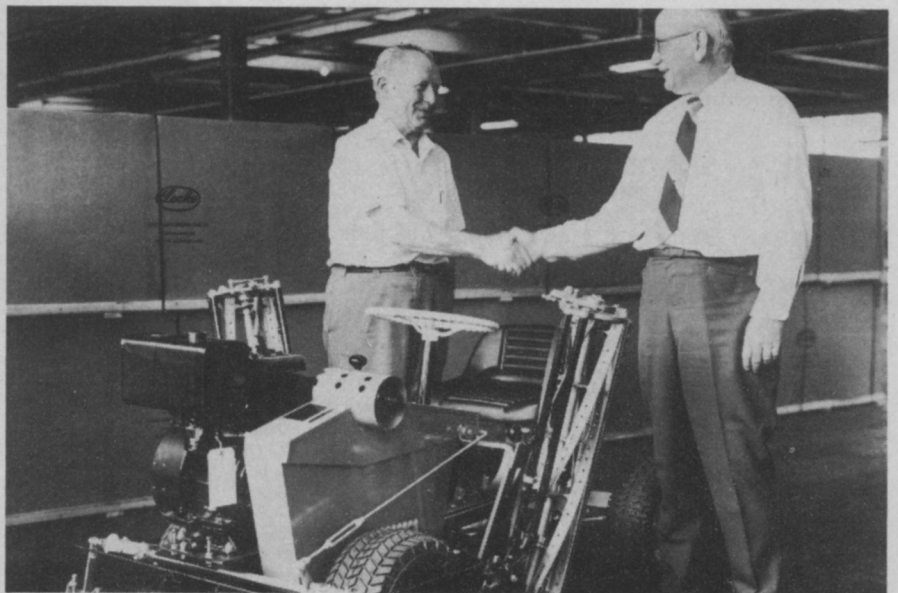
PEOPLE PLACES EVENTS



Dr. Fred V. Grau, College Park, Md. (l) is honored for his lifelong contributions to the turfgrass industry. Here, Martin Stolpe, president of the Pennsylvania Turfgrass Council presents a service award plaque at the annual turfgrass conference at Penn State.



Virginia Turfgrass Council president J. L. Kidwell (l) presents R. D. Cake Memorial Award to John F. Shoulders, extension turf specialist for Virginia Tech. Award is made to individuals who have rendered outstanding contributions to the turfgrass industry.



This is the first Maxi II reel mower to leave the Locke Manufacturing Division Bridgeport, Conn. plant. Mower was introduced earlier this year at the GCSAA Show. Pictured are shipper Louis Revelli (l) and George Wiese, vice president and general manager, Locke Mfg. Div.