



David C. Harmon (right), superintendent at the Golden Horseshoe golf course at Colonial Williamsburg, is the new president of the Virginia Turfgrass Council, succeeding Jack Henry. Serving with Harmon are (from left) Rex H. Harris, superintendent of the Eagle Haven golf course near Norfolk, assistant secretary-treasurer; Earle H. O'Dell, assistant manager of the turf and garden division of Todd Co., Chesapeake, secretary-treasurer; and Samuel L. Kessel, superintendent of the Country Club of Fairfax, vice president.

Superintendents Form Industry Council

The executive committee of the Golf Course Superintendents Association of America has formed an Industrial Advisory Council to discuss problems and ideas in the industry. It will consist of representatives of the turf industry and certain members of the GCSAA executive committee.

Members of the Council are Conrad Scheetz, GCSAA executive director; Lou Haines, director, Denver Country Club; Richard Malpass, president, Riverside Golf and Country Club, Portland, Ore.; Ted Woehrle, vice president, Oakland Hills Country Club, Birmingham, Mich.; Gordon Witteveen, director, Board of Trade Country Club, Woodbridge, Ontario; John Kinkead, National Mower Co., St. Paul, Minn.; Tom Haschen, Du Pont Co., Wilmington, Del.; George Horn, O. M. Scott & Sons, Marysville, Ohio; James Latham, Milorganite, Oak Creek, Wis.; Robert Moore, Aquatrols Corp. of America, Pennsauken, N.J.;

Theodore Smith, Jr., Smithco, Inc., Wayne, Pa.; Roger Thomas, Jacobsen Manufacturing Co., Racine, Wis.; James R. Watson, Toro Co., Minneapolis, Minn.; and Vernon Worrel, Cushman Ryan, Lincoln, Neb.

The industry members were chosen for three-year terms. A GCSAA spokesman said the idea behind the selection of Council members was to cross product lines and sizes of companies, and to also get high-level persons in each company that could speak with authority on industry matters.

The Council met March 31 and April at GCSAA headquarters in Lawrence, Kan. and discussed a number of topics, including: the annual conference, industrial relations committee, membership, legislative matters, education, scholarship and research, identification of problems between industry and turf professionals and public relations. The Council will meet again in the fall.

Golf Course Builders Directory Now Available

The 1976 annual directory of America's builders and construction equipment suppliers is available free from the headquarters of the Golf Course Builders of America, 725 15th St., N.W., Washington, D.C. 20005.

The 44-page directory features photos, biographies and golf course construction references of GCBA members from New York to California. The booklet also contains a membership application for firms that wish to join the association as a builder member or as an associate or supplier member.

OSHA Fines to Golf Courses Handed Out by Inspectors

Government inspectors from OSHA have visited golf courses in Baltimore and Washington and have handed out fines, according to reports in the newsletter of the Pennsylvania Turfgrass Council. Most frequently violated standards are:

- (1) Failure to ground lines and equipment; overloading lines, frayed wires; improper insulation; unprotected switch and fuse boxes.
- (2) Unguarded belts, fly wheels, drive chains and gears.
- (3) Outdated fire extinguisher inspections, improper mounting and inaccessible locations.
- (4) Inadequate point-of-operation guards for all machines.
- (5) Unguarded saw blades on woodworking machinery.
- (6) Unprotected drops of four or more feet within floors, wall openings or holes.
- (7) Unclean and wet working areas: projecting nails and splinters.
- (8) Improper storage of compressed gases.
- (9) Improperly adjusted grinder tool rests and missing guards.
- (10) Unmarked exits, sometimes locked or improperly lighted.
- (11) Improper storage of flammable and combustible liquids.
- (12) Sanitation.

Authority on Developing City Shade Trees Dies

Edward H. Scanlon, founder of the Society of Municipal Arborists and an internationally recognized authority on developing shade trees for city use, died recently in Cleveland. He had been commissioner of shade trees for that city. He was also a founder of the International Plant Propagators Society.

He supervised the planting of more than 85,000 trees in his eight years at the Cleveland post and later as commissioner for the Cleveland Electric Illuminating Co. He developed many types of ornamental trees on his 70-acre farm near Cleveland.

He developed a controversial program to replace towering elm trees. "We should plant a tree that fits the space," he once said. The elms were dangerous in storms, often falling on houses and people, and they ruined grass, cracked sidewalks and obscured street lights, making streets dark and dangerous.

Nursery Management Seminar Is July 25-30 in Colorado

The American Association of Nurserymen's 21st Management Seminar will be held July 25-30 at Colorado State University, Fort Collins, Colo.

The seminar is a solid week of professional development to sharpen management skills, equipping staff people in any nursery business organization to operate more productively and more professionally, an Association spokesman said. It is built around specific lecture sessions — applicable to management and key employees in every wholesale, retail and landscape operation of any size — and these are supplemented by smaller group discussions.

Seminar leader is Dr. Eric W. Lawson, chairman of the Finance Department in the Syracuse School of Management. He is well-known to many in the nursery industry, widely experienced in matters of the nursery business and highly respected as an outstanding consulting authority. For further information, contact the Association at 230 Southern Building, Washington, D.C. 20005.

Sod Survey—Marketing Change Needed

A recent survey of the Maryland sod industry indicates there is a vital need for a change in marketing patterns, according to University of Maryland turf specialist Prof. John R. Hall.

"The days of sod demand exceeding supply are over for a while and new marketing techniques are needed," Prof. Hall said. "The sod industry rode the high wave of sod demand that housing construction created in 1972 and 1973 and did not broaden its marketing potential during this period."

He said perhaps innovative advertising and marketing concepts are in order to attract new consumers. The "roll your own sod" concept that is gaining momentum can serve to open the gates to the totally untapped homeowner need for sod. He said sod has so many advantages over seeding for the homeowners that it is a small wonder this market has not been extensively explored. Homeowners spend close to \$50 million per year maintaining lawns in Maryland. A great deal of this money could be spent on improving existing lawns with sod if sod were more available to the average homeowner. He said there are many other areas where the advantages of sodding should be made known.

"The time for diversification and

development of new marketing and advertising techniques has arrived," he said. "The sod industry can no longer sit idly by and wait for demand to knock on its door."

The report showed the number of sod growers decreased from over 80 in 1973 to 67 in 1975. Sod acreage in the state has decreased from 13,150 acres in 1973 to 10,778 acres in 1975. The average cost of an acre of sod at the point of first sale excluding installation charges increased from \$1,366 per acre in 1974 to \$1,419 per acre in 1975. These are gross averages and include variable services provided at each farm; 3,162 acres of sod were sold in Maryland in 1974 and only 2,367 acres in 1975.

Total value of sod sales in Maryland on a cash first sale basis has decreased over 22 percent from over \$4.32 million in 1974 to over \$3.35 million in 1975. The value of sod sold on a cash first sale basis was greatest in 1972 and has decreased rapidly with the general decline in housing construction.

The survey response for Maryland indicates over 65 percent of the acreage in sod production was treated with a herbicide in 1975 while insecticide and fungicide treated acreage was over 28 percent and over six percent respectively.



New officers of the National Arborist Association are: (seated, from left) Kenneth Kirk, second vice president; Gerald Farrrens, first vice president; Boyd Haney, president, and Larry Holkenborg, secretary. (Standing, from left) Tom Morrison, past president; directors, Earl Sinnamon, Walter Money, George Tyler, Erik Haupt; Bruce Walgren, treasurer.

Arboriculture Convention August 8-12 in St. Louis

The 52nd annual convention of the International Society of Arboriculture, formerly the International Shade Tree Conference, will be August 8-12 in St. Louis, Mo. The headquarters hotel will be Stouffer's Riverfront Towers and all educational sessions will be held there.

This year's program emphasizes the Bicentennial with discussion sessions and contributed paper sessions. One highlight will be an all-delegate day at the Missouri Botanical Gardens. This affair will consist of outdoor equipment demonstrations by manufacturers, a luncheon with entertainment, and a special attraction — the Arborist's Tree Climbing Jamboree — where the world champion tree climber will be chosen.

Society president Jack R. Rogers of Pasadena, Calif. has chosen the theme "Trees Form an Archway to the Future" for the meeting. Over 50 commercial companies will exhibit and demonstrate their products and equipment and an anticipated 1,500 shade tree persons will attend.

Alternatives to Pesticides in Ag Research Proposal

Alternatives to chemical pesticides, photosynthesis, nitrogen fixation and alternative technologies that reduce consumption of energy are part of a proposal that \$110 million be given to areas crucial to agricultural productivity. The proposal was made recently by the National Academy of Sciences.

The Academy proposed a major reorganization of the agricultural research system in the United States. It recommended the U.S. Dept. of Agriculture appoint a high level administrator to devote his major interest to agricultural research. Further recommendations call for state and federal support of agricultural research to be increased by 40 percent, from \$450 million to \$630 million.

The Academy also urged a program of competitive grants be initiated and administered by the Dept.



Officers of the American Society of Consulting Arborists are: (front row, from left) O. J. Andersen, Houston, immediate past president; F. Earle Martin, Toronto, president; William P. Lanphear, Cleveland, president-elect; F. Lewis Dinsmore, St. Louis, vice president; Spencer H. Davis Jr., Milltown, N.J., executive director. Also, (back row, from left) Walter J. Barrows, Ventura, Calif.; Arnold H. Webster, Waterloo, Iowa; Nat P. Dunn, Memphis, Tenn.; and William J. Griffin, Santa Barbara, Calif., directors.

of Agriculture to encourage research in the mentioned areas. Of special importance for immediate research is a proposal to focus on ways of decreasing dependence on chemically synthesized fertilizer.

Pennsylvania Nursery Show Scheduled for July 27-29

The Penn Allied Nursery Trade Show is scheduled for July 27-29 at the Hershey Motor Lodge Convention Center, Hershey, Pa.

Exhibit space for the show has been expanded to 222 booths for plant material, equipment and supplies. Last year, 2,400 persons from 31 states attended. For information, write: S. Howard Davis, Penn Allied Nursery Trade Show, 169 W. High St., Carlisle, Pa. 17013.

New Florida Sales Agency Named by Melnor Turf

Peter C. Zaphiris, executive vice president of Melnor Industries Turf Irrigation Division, Moonachie, N.J., has appointed W & B Associates, 1180 North Rome Avenue, Tampa, as its sales agency for Florida.

Under the direction of Robert Pressner, W & B Associates will be responsible for the sales of Melnor's line of agricultural and irrigation equipment to pump and sprinkler specialty supply houses in Florida.

Landscape Contractors Form Wisconsin Chapter

The Wisconsin Landscape Contractors Association has formed a new chapter to be known as the Southeast Wisconsin Chapter of the Association. The organization has 16 charter firms from Racine, Kenosha and Walworth counties.

Elected to serve as officers are: Leo Schuch, Town & Country Pines, Kenosha, president; Ray Hintz, Ray Hintz, Inc., Caledonia, vice president; and Arnold Sieg, The Bruce Co., Kenosha, secretary-treasurer. Other charter members include:

Roger Condrad, John Condrad Sr. & Sons Landscaping, Burlington; Scott Davis, Davis Sod & Landscaping Service, Racine; Warren Guentzel, G & S Landscaping, Racine; Dick Swartz, The Swartz Nurseries, Kenosha; Randy Larsen, Lawn Specialist, Inc., Racine; Gerald Kramer, Kramer's Construction Co., Inc., Kenosha; Douglas Karge, McKay Nursery Co., Racine; Phillip J. Cruz, Jr., Racine; George Kauffman, Parkside Lawn Service, Kenosha; T. R. Garcia, Tarr Lawn Service; Kenosha; Henry Halter, Halter Farms, Inc., Union Grove; Bill Burmeister, Burmeister Sod, Waterford; and Don Passehl, Wisconsin Turf Equipment Corp., Racine.

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NEWS from page 8

Pennsylvania Turf Council Gives \$16,000 to Penn State

The Pennsylvania Turfgrass Council has given \$16,000 in grants to turfgrass programs at Penn State University in University Park, Pa.

The Council recently presented \$11,000 to Dr. James L. Starling, head of the agronomy department. These funds have two purposes — \$6,000 is earmarked for a Ph.D. graduate assistantship for David Wehner, and \$5,000 is to be used for renovation of the soil modification area at the Joseph Valentine Research Center.

Also, Dr. Herb Cole has accepted a check for \$5,000 from the Council on behalf of the Department of Plant Pathology at Penn State. The funds will be used to help defray the costs associated with analyzing the diseases affecting the plant samples sent to the diagnostic lab.

Borer Control Research Conducted in St. Louis

Dr. John Severson, a biologist for the St. Louis University Department of Arts and Science, has done research to prove that borers can successfully be controlled in municipal street trees with a minimum cost and effort.

His research to perfect an improved technique of controlling in-

sects was prompted by recent regulations of the federal Environmental Protection Agency regarding uses of certain insecticides in municipal tree spraying programs, that have hampered use of blower-mist sprayers, it was reported by Robert J. Stoffel in *Trees*.

In a cooperative research venture with the St. Louis Community Development Agency, Dr. Severson treated a boulevard planting of Modesto ash infested with lilac tree borer. The insects hatch in May and June and feast on the cambium layer throughout the summer. The tree is soon completely pruned of top growth by the insect girdling the limbs.

A systemic insecticide was dissolved in a nutrient solution containing iron chelate and injected into the root zone. A specially designed patented drill/injector was used to go rapidly through the concrete and adjacent soil without interference of roots and rocks. The drill/injector is attached to a self-contained unit with regulating control tanks. Various concentrations of systemic insecticides were used with some being dissolved only in water. Water-soluble dyes were used as indicators.

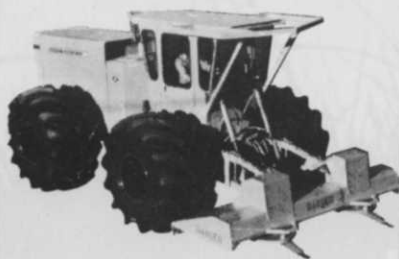
Results showed rapid translocation of the systemic insecticide into the woody tissue and leaves. Dead insect larvae were found in their tunnels containing the dye.

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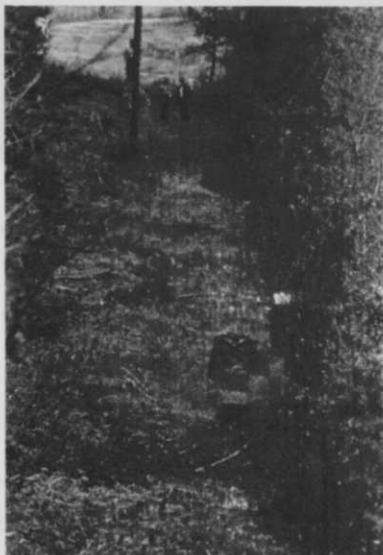
Connecticut Landscape Contractors Association officers are: (from left) Albert Glazier III, secretary; Dana Hinman, treasurer; William Butler, vice president; and James Cunningham Jr., president.

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NEWS *continued*

Baron Kentucky Bluegrass Wins Toronto Fair Award

Baron Kentucky bluegrass was awarded first prize recently at the Toronto Royal Agricultural Winter Fair. The sample was entered by Oseco Ltd., Ontario, Canadian distributor for Lofts Pedigreed Seed, Inc., Bound Brook, N.J.

The sample was grown at Pugh Seed Farms in Shedd, Ore. The fair is Canada's largest agricultural fair and seed show and attracts many different seed variety entries from all parts of the world.

Use Dormant Oil Sprays To Control Aphids, Scale

If aphids, scale insects or spider mites were a major problem in your landscape plants last year, get a head start on control this year by using dormant oil sprays in spring. According to Jim Liebherr, extension entomologist at Michigan State University, dormant oil sprays kill overwintering insects and eggs by suffocating them.

"Aphids overwinter as eggs," he told WEEDS TREES & TURF. "Some types of scale — oystershell and euonymus scale — are in the egg stage during winter, and others — such as juniper scale — are nearly full-grown. Spider mites usually overwinter as fertile females hidden in cracks and crevices. Oil sprays applied to twigs and branches coat the eggs, insects or hiding places and suffocate the pests."

Oil sprays are used in spring before plant growth begins. That is why they are called dormant sprays, he said. Use them if you had heavy aphid problems last year or if you can see large populations of scale insects on plants, he said. For best results, spray on a sunny, windless morning in spring when the temperature is above 45 degrees.

"Oil sprays are not all-purpose sprays," he cautions. "They will not control all your insect problems, and they should not be used on certain plants. Sugar maple, Japanese maple, birch, beech, walnut, hickory and butternut may be burned by oil sprays. Do not use oil sprays on blue spruce either — it will remove the bloom."

He said if you cannot use dormant oil sprays to control aphids and scale in spring, insecticide sprays can be used through summer. The best time to spray depends on the insect. "If your problem is scale insects, you must control them while they are in the immature, active stage," he said. "When they become older, they stop moving around and develop a waxy upper covering. At that stage, they are almost impervious to insecticides."

He said if the problem is spider mites, they can be controlled by spraying leaf surfaces anytime from spring through fall with kelthane or tedion. Aphids can be controlled during summer with insecticide sprays of malathion or diazinon.



Siemens

New Course Builders' Head Is Siemens of California

Nick A. Siemens is 1976 president of the Golf Course Builders of America.

A former school teacher, he entered the contracting business 24 years ago and has built many golf courses along the West Coast and as far east as Kansas. He is president of Siemens' Contracting, Inc., Fresno, Calif. He succeeded Frank A. Underwood of Bowie, Texas.

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NEWS *continued*

New Pesticide Periodical Now Available for Free

A new periodical from Waters Associates, entitled *Pesticide Notes*, covers all aspects of pesticide analysis. Assays of fungicides, herbicide metabolites and insect growth regulators are discussed along with an inexpensive clean-up procedure in the first issue.

Detailed case studies of successful analyses are offered to the interested reader. For a free subscription to this newsletter, write Waters Associates, Inc., Maple Street, Milford, Mass. 01757.

Ohio's Lakeshore Equipment Honors Three Top Salesmen

Lakeshore Equipment and Supply, Elyria, Ohio, honored three of its top salesmen at its recent annual awards dinner.

First in sales was Art Wick, who covers northeastern Pennsylvania, and has been with the company since 1971. Second in sales was Herb Cole, who covers northwestern Ohio and eastern Michigan and has been with the company since 1963. Third in sales was Larry Crittenden, who covers northeastern Ohio and western New York, and has been with the company since 1972.

New Sprinkler Test Facility Operated by Johns-Manville

A new test facility which accurately measures the performance of irrigation products is now in operation in the Fresno, Calif. plant of Johns-Manville, Denver, Colo.

Douglas A. Bruce, manager of product development for the company's Ag-Turf Division, describes the precipitation testing equipment as accurate to one hundredth of an inch. Tests results in a profile or graphic illustration of how a sprinkler head distributes water. Performance is electronically measured, and a visual read-out is produced. Flow rate is measured with an accuracy of 0.5 percent of demand.

Purpose of the new facility, according to the division's marketing management, is two-fold. Its initial

purpose is to insure that irrigation industry customers get equipment performance in line with specifications. Beyond this, the company plans to develop programs that will permit analysis of an irrigation customer's needs, taking into account such basic variables as climate, soils and type of turf. This will permit Johns-Manville to determine and recommend optimum designs for proposed irrigation systems.

BASF Reports Record Year, Basagran Sales Up Sharply

Basf Wyandotte Corp., Parsippany, N.J., reported record sales and earnings for 1975. The company said sales of inorganic chemicals as well as the newly introduced Basagran herbicide increased sharply.

Sales totalled \$589.8 million, a gain of 14 percent compared to \$517.4 million in 1974 sales.

Environmental Industries Buys Western Landscape

Environmental Industries Inc., San Diego Calif. said an agreement in principle has been reached to acquire Western Landscape and Interstate Landscape, San Diego, according to Burton Sperber, Environmental president.

Western Landscape has been providing its services to the residential market in San Diego for over 12 years and is believed to be one of the largest companies of its kind in the industry. They offer their clients a total package including not only landscaping and sprinklers but such other items as patios, swimming pools, paddle and tennis courts and putting greens.

Interstate Landscape has provided landscape services for commercial, industrial and public works developments in San Diego for over six years. Environmental will merge this operation with Valley Crest Landscape, its wholly-owned subsidiary with offices throughout California, as well as in Denver, Colo. and Seattle, Wash.

Management of Western Landscape headed by Robert Weiland and Charles Barranco will continue and the company will be operated as a wholly owned subsidiary of Environmental Industries, Inc.

Dow Sales are \$1.14 Billion In First Quarter

Dow Chemical Co., Midland, Mich., said it earned \$125.9 million on sales of \$1.14 billion in this year's first quarter.

The results include a gain of \$20.5 million on the sale of investments in several unconsolidated foreign companies. The company said U.S. business is continuing steady improvement and that Europe is also showing signs of moving out of a recession.

Bakersfield Turf Distributor Appointed by Rain Bird

Rain Bird Sprinkler Manufacturing Corp., Glendora, Calif. has named Smith Turf & Irrigation Supply, Inc. as its franchised turf distributor for the Bakersfield, Calif. area.

Smith Turf president Richard Smith said his company will carry the complete Rain Bird turf line and other related products and will offer complete service to the irrigation trade. Larry Bridges is manager and sales representative for the firm.



Johnson

Lawn-Boy/Pioneer Salesman Wins Indiana Sales Award

Jerry L. Johnson, distributor salesman for Lawn-Boy/Pioneer Sales of Indiana, won the 1976 Indiana Distinguished Salesman Award. The statewide award is presented annually by the Sales and Marketing Executives of Indianapolis, Inc.

Johnson earned the award by exceeding his 1975 sales goal by 25

percent in a declining market. He calls on dealers throughout northern Indiana and is the second Lawn-Boy/Pioneer sales representative to win the award. James L. Van Busum received the award last year.

Wind King Mfg. Company Purchased by Kuivanen

Wind King Manufacturing Co., Merrill, Iowa, now sells its line of trenching machines under the name of Digz-All, Inc.

The company was purchased by George Kuivanen, who is president of the newly formed corporation. G. Chesen is treasurer, and L. Tokar is secretary.

\$2.3 Billion in Sales Reported by FMC Corp.

FMC Corp., Chicago, in its annual report, said 1976 could be a "year of record high performance" if the economic recovery continues and order rates increase at certain of its machinery divisions.

For 1975, the company earned \$108.2 million on sales of \$2.3 billion.

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NEWS *continued*

Three New Distributors Named by Weather-matic

Three new lawn and turf irrigation product distributors have been named by Weather-matic Division of Telesco Industries.

Hawaii Irrigation Supply Co., Honolulu, will be exclusive distributor for the Hawaiian Islands. Turf Equipment & Supply Co. will handle Phoenix and Las Vegas. Irrigation & Sprinkler Supply Co. will handle Tucson.

Crabgrass Control Methods Explained by Agronomist

Crabgrass is a hot weather annual with a seed that winters in the soil and then sprouts when spring temperatures reach about 55 degrees. The weed spreads by trailing runners that infiltrate turf rapidly in warm weather, choking and smothering it.

"There are a number of ways to take some of the curse out of crabgrass," according to Doyle Jacklin, agronomist with Jacklin Seed Co.,

Spokane, Wash. "One is to prevent sprouting of its seed. Pre-emergence crabgrass preventers do that. Precise timing is required, before the crabgrass seed sprouts, and uniform blanketing of the turf where the crabgrass customarily grows is necessary."

He said preventers may depress the turf slightly, restraining depth of rooting and perhaps altering color and texture somewhat. One can wait until crabgrass has definitely made its appearance, and then spray with post-emergence arsonates a few times. This kills most of the crabgrass with only some momentarily discoloration of the turf.

"But there is still another way to fight crabgrass," Jacklin said. "Why not let your turf fight most of the battle? It will do this if it is dense and vigorous. Moderate fertilization and high mowing early in spring are often sufficient to help the turf fight crabgrass. This will be especially effective if the turf is leafy, strongly rhizoming cultivars or if these cultivars are overseeded into thin turf." *please turn page*

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NEWS *continued*

Spring Is the Best Time To Control Bluegrass Billbugs

May is the best time to control adult bluegrass billbugs with an approved insecticide, according to Dr. Dean Kindler, entomologist of the U.S. Dept. of Agriculture Research Service, Peoria, Ill.

The billbug, a native pest known for 100 years, has only recently increased to damaging numbers. Dr. Kindler told WEEDS TREES &

TURF it has been identified in 30 states east of a line from western South Dakota into Texas, as well as in Colorado, Utah, Idaho, Washington and Oregon.

"Billbug larvae can completely destroy the root system in a patch of grass," he said. "This damage, during dry, hot weather in late June to late August, often is attributed to lack of water, fertilizer burn or disease. Larvae are still feeding on the roots when damage first becomes noticeable. But insecticides applied then do not always give satisfactory larval control. The insecticide becomes chemically tied up in the thatch and does not penetrate the soil deeply enough and with sufficient toxicity for control."

Dr. Kindler's studies in cooperation with the University of Nebraska indicate some bluegrass varieties are more readily damaged than others. The most resistant ones have been Park, Nebraska common, South Dakota certified, Delta, Fylking, Newport and Nu Dwarf. The most susceptible varieties are Warren's A-20, Nugget, Victa, Baron and Sydsport. The billbug prefers Kentucky bluegrass and also infests but seldom seriously damages fescue and perennial rye. For control, Dr. Kindler suggests approved insecticides such as diazinon, dursban or sevin.

He said the adult bluegrass billbug overwinters on the soil surface in protected spots such as under trees or bushes. Adults become active about April, depending on temperature. From late May into July, the females lay eggs in holes they have chewed in grass stems near the plant's crown. Larvae hatched from the eggs feed initially on stems, then move to the roots and cut them off.

Ask the Lawn Expert Book Published by Paul Voykin

Paul N. Voykin, superintendent at Briarwood Country Club, Deerfield, Ill., has written his second book entitled *Ask the Lawn Expert*, published by Macmillan Publishing Co., 866 Third Ave., New York, N.Y. 10022.

Voykin tells how to choose and care for a perfect lawn for almost any use and climate. Written largely in question-and-answer format, the book deals with actual queries Voykin received in response to his writing and lecturing and radio and television appearances. He tells how to plant or restore home lawns, how to control insects and weeds and the best way to fertilize, water and mow.

NAA Management Seminar Set Next Month in Chicago

The National Arborist Association will host its first management seminar June 15-16 at the O'Hare Hilton in Chicago. Budgeting, accounts receivable, cash flow and cost analysis will be emphasized.

For further information, contact Robert Felix at association offices at 3537 Stratford Rd., Wantagh, N.Y.

Pesticide Training Movie Available from Arborists

Pesticides — Play It Safe, a movie designed to help train workers using pesticides, is available from the National Arborist Association.

The film reminds workers of the hazards of pesticides, and is available for rent at \$25. For further information, contact Robert Felix at NAA headquarters at 3537 Stratford Rd., Wantagh, N.Y. 11793.

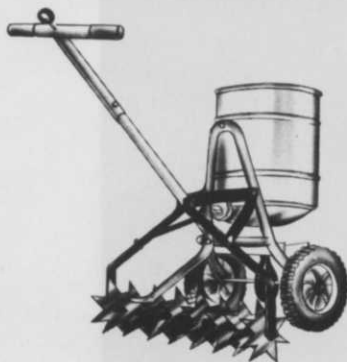
J-M's Ag-Turf Division Expands Irrigation Line

Johns-Manville's Ag-Turf Division has expanded its irrigation systems line to include Greenlawn Sprinkler Company products for lawn and garden applications.

The plastic sprinkler equipment manufactured by Greenlawn will complement Johns-Manville's line of brass products. Included among the Greenlawn products are plastic pop-up spray heads, a plastic valve line and accessories.

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Weed Society Scientists Name Hilton Award Winner

Dr. James L. Hilton, chief, pesticide action laboratory, Agricultural Environmental Quality Institute, Agricultural Research Service U.S. Department of Agriculture has been selected to receive the Seventh Ciba-Geigy/Weed Science Society of

America Agricultural Recognition Award.

Hilton has been a researcher with the U.S. Department of Agriculture since 1956. His research work has involved the modes and actions of various herbicides in the soils. His research efforts have included studies of dalapon, trifluralin, simazine and the uracils. Ciba-Geigy Corp. is headquartered in Greensboro, N.C.

Hercules Sales Rise 25% In First Fiscal Quarter

Hercules Inc., Wilmington, Del. reported sales for the first quarter rose almost 25 percent from the year-earlier \$321 million.

President Werner C. Brown said heavy start-up costs at several intermediate chemical plants could penalize earnings somewhat when final figures are released. The company earned \$4.9 million in last year's first quarter.

Expansion of Sales Force Announced by J I Case Co.

An expansion of the field sales force of the Outdoor Power Equipment Division of J I Case Co., located in Winneconne, Wis., has been announced by Jack Ziegler, sales manager.

Zeigler explained the realignment and expansion of the sales effort will afford "greater and closer contact between our sales force and their respective dealers." He said the division formerly had 16 sales persons serving a dealer network in 33 states. The force has been expanded to 25.

Plant Nutrient Increases Reduced Quality of Water

Connecticut Agricultural Experiment Station scientists in New Haven have reported increases in plant nutrients have reduced the quality of water in 15 of 20 Connecticut lakes during the past 35 years.

Wendell Norvell and Charles Frink of the Department of Soil and Water have reported many of the lakes they studied have become eutrophic due to these increases in plant nutrients. "Most of the lakes have become more fertile, especially in the nutrient phosphorus," Norvell told WEEDS TREES & TURF. "The lakes grow considerably more algae today than they did in the past, and the transparency of the waters and the supply of oxygen in the deep water are reduced."

Norvell said their results show clearly phosphorus is more important than nitrogen in controlling the growth of algae in the lakes.

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