

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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FOR SALE: 52 ft. Skyworker, 85 ft. Arlo crane, Vermeer tree spaces, late model Hydro-Ax's, other used equipment. Please contact Jeff Gould, P.C. Gould Sales Co., Box 178, Essex, Connecticut 06426. 203 767-1636.

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NEXT MONTH

The June issue of WEEDS TREES & TURF will feature a special report on aquatic weed control — the problem areas, chemical and other means of control, the manufacturers — and a report and manufacturer's update on fungicides.

Trimnings

The brochure published by the American Sod Producers Association introduced at its winter meeting in Clearwater Beach, Fla. is now available in quantities.

Entitled *The Dream Lawn Is Yours in Hours with Sod*, the short brochure is the first of a series being designed for the use of sod producers in promoting the use of sod. Ordering is done through the association at: Association Building, Ninth and Minnesota, Hastings, Neb. 68901.

Shooting seedlings into the ground from a helicopter may become the future method for planting trees.

The innovative technique, involving a seedling encased in an icicle-like projectile, is being studied by the U.S. Forest Service in Missoula and Portland, Wash. Donn Eddy, a Portland helicopter pilot, developed the process which he believes can reforest hard-to-plant areas, including steep, inaccessible areas. If it is determined the device would be an economical and practical way of planting seedlings, the agency's Missoula Equipment Development Center would perfect the technique.

General soil characteristics, especially soil depth, influence directly the potential rooting depth of planted trees and indirectly the amount of water and nutrients taken up by the trees to support the growth processes, according to Carl A. Budelsky, assistant professor in the Forestry Department at Southern Illinois University at Carbondale. He has completed a study on the relation of soil depth to tree survival and height growth.

He said a composite sample of 122 trees was selected randomly from those receiving shallow cultivation for five years to control herbaceous vegetation. The sample included sycamore, yellow poplar, sweetgum and white ash trees.

He said decreases in height growth may be expected if adequate

control is not maintained on the herbaceous vegetation that competes with trees for available soil water and nutrients where there is already a limiting rooting space.

"The past history of surface erosion, especially on land abandoned from agricultural uses, also can reduce effectively the rooting zone," he said. "Thus, careful evaluation of soil conditions present on lands to be planted to hardwood tree species is not only prudent, but is an indispensable prerequisite for satisfactory establishment and growth of trees."

Instead of spending \$500,000 on a revamped water treatment plant, Orange Grove, Miss. runs its raw sewage into a lagoon loaded with water hyacinths, according to a report from the Associated Press.

"We have been treating the wastes of about 1,500 persons with these water hyacinths and they are doing a tremendous job," said Clarence Johnson, president of Orange Grove Utility. Using water hyacinths which clog waterways throughout the South to clean polluted water is the idea of Bill Wolverson, a researcher at the National Space Technology Laboratory in St. Louis.

"They are ideal for sucking pollutants out of the water because they grow so fast and have a nice, big root system," he said. But there is a limit to how much each plant can absorb, so every couple of weeks some of the hyacinths are yanked out, dried and processed.

"Since those hyacinths are free of heavy metals, we have a program going with the Mississippi State University agricultural experiment program to turn them into animal feed," he said. "Water hyacinth meal would make a great protein supplement because the plant is about 20 percent protein, as compared to eight percent for corn and 11 percent for wheat."

The National Space Laboratory technology lab has also installed its own hyacinth-filled lagoon to remove the silver, other heavy metals and chemicals from its waste water. "Our tests prove the water coming out of our chemical waste

pond is lower in chemicals than the water coming out of our taps," Wolverson said.

His research shows 2.5 acres of hyacinths can remove:

- More than 500 pounds of phenol, a toxic chemical derived from coal tar, every three days.

- About 300 grams of cadmium or nickel, both of which can cause cancer, every day.

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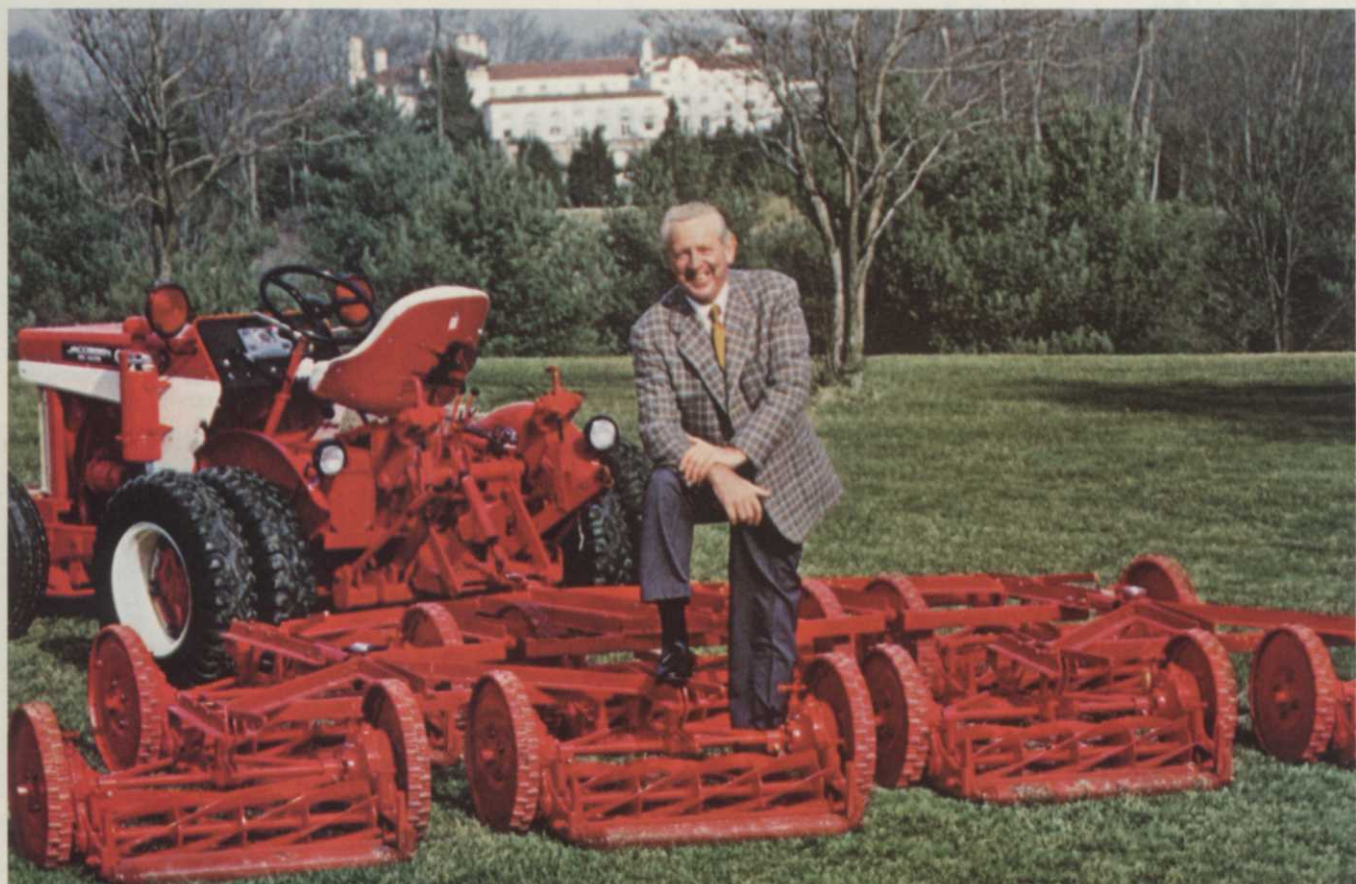
At Orange Grove, about 115,000 gallons of the effluent flows daily into a three-acre lagoon to settle. Then it is slowly filtered through about an acre of water hyacinths. And after about two weeks it is clean enough to be returned to a local stream.

Major emphasis is being given to soil physical improvement, especially for golf greens, according to Dr. Jack Butler of Colorado State University, Fort Collins, Colo.

"At the various turf conferences that I have been to this season, this has been a big topic," Butler said. "As I recall, it was not more than 10 years ago that standard greens mixes and topdressings were something like equal parts of sand, soil and peat. Today sand is just about all that is being talked about and being considered for golf greens."

He said the primary concern is now that of sand quality. Organic matter is beginning to get much needed attention and the effects of various quality organic amendments on the physical quality of the soil is being investigated. He said one golf course builder will soon be using straw for organic matter in the sand for establishment of bentgrass.

"It seems that the extensive work done on golf green medias has given some much needed information," he said, "and now the time to research improvement techniques of large turf area soils is at hand. A question that needs to be answered is how can we significantly improve the heavy soils that handle so poorly on golf course fairways." His comments were reported in the newsletter of the Rocky Mountain Golf Course Superintendents Association.



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