

EPA OKAYS PENDULUM LABEL

WAYNE, N.J. - The federal Environmental Protection Agency has approved an expanded label for Pendulum WDG herbicide from American Cyanamid Co. The new label allows superintendents to use the product over the top of an additional 70 species of ornamental plants. With the new label, Pendulum may now be used to control grasses and broadleaf weeds in more than 260 species of trees, shrubs, flowering beds and ground covers.

ZIELINSKI JOINS TURF-SEED

HUBBARD, Ore. - Gordon Zielinski is Turf-Seed, Inc.'s new executive vice president, a position created to assist President Bill Rose with special projects and

international growth. Immediate duties include new product development, marketing packages to distributors, company structure development,



and acreage expansion management. Zielinski has a horticultural degree from Oregon State University and has been a bank agricultural finance officer for farms and businesses since 1976.

MAKELIM TO REP KUBOTA OUT WEST

SO. SAN FRANCISCO, Calif. - H.G. Makelim Co. has joined Kubota Engine Division's national network of gasoline and diesel distributors. Makelim, which serves nothern California and northern Nevada, is also a full-service distributor of Kubota and Kohler engines and parts. For more information, contact Glen Firchow at H.G. Makelim Co., 219 Shaw Road, So. San Francisco, Calif. 94080, 415-873-4757.

RANSOMES TAPS GOREE FOR S'WEST

LINCOLN, Neb. - Ransomes America Corp. has hired Tim Goreé as territory manager for the Turf Products and Professional Lawn Care divisions. In his new position, Goreé will be in charge of sales and dealer relaons throughout Arizona, California, Louisiana, New Mexico and Texas, as

well as Mexico. A native of Valley Park, Mo., Goreé worked for a turf maintenance equipment dealership in South Florida prior to joining Ransomes.

GOLF COURSE NEWS



GCSAA sponsorships continue to mount

Textron, Lebanon the latest firms to sign on

By HAL PHILLIPS

LAWRENCE, Kan. - The Golf Course Superintendent's Association of America (GCSAA) has reached an agreement with Jacobsen, E-Z-GO and Textron Financial Corp., all divisions of Textron, for a multi-year exclusive sponsorship of the association's annual banquet and show.

GCSAA President Joseph G. Baidy said the agreement marks the type of partnership established as one of the central goals in GCSAA's strategic plan for future development of member support.

Textron's banquet sponsorship is the most recent example of golf course industry firms partnering with the GCSAA organization through financial backing.

The association's trade show and conference - scheduled this year for Feb. 20-27, in San Francisco - has been the primary sponsorship target.

For example, The Toro Co. has entered a long-term agreement to sponsor the GCSAA member golf tourney; Ciba Turf and Ornamentals International will co-sponsor the International Lounge; Toro and International Seed will co-sponsor interpreting services for the show's overseas guests; and Pursell Industries/J.R. Simplot Co. will sponsor a reception following Rocky Bleier's keynote address.

However, GCSAA has also made it clear that in-house research and organization functions are fair game. Through Continued on page 58



The SoMat System was used to test the Jacobsen LF3810.

Putting test results to the test By GARY ELLERTSON

cquiring data on any riding mower is difficult because the recording equipment must be portable and imper vious to grass, dirt and water.

During the development of the LF3810, Jacobsen used the model 2100 Field Computer System (FCS) from SoMat Corp. of Champaign, Ill. The FCS is a small, portable data acquisition system impervious to the elements, capable of handling multiple channels of data and of being downloaded to a laptop computer in the field. The system's ability to collect multiple channels of data simultaneously helped to quickly identify and solve a pressure spike concern in the prototype.

The main testing focus on this mower was determining reel

speed, pressure, horsepower requirements, operating temperatures, and frame stress under varying duty cycles. In the past, data acquisition for development projects of this type was accom-

plished by designing a prototype with a miniature, single-channel, data-logging device. Most turf equipment testing requires multiple-channel acquisition in order to track the effects of important events throughout the various systems. Using a one-channel device made it necessary to repeat events several times, each time connecting the logger to a different sensor. This took large amounts of time and detracted from accuracy because once a swath was cut, it couldn't be repeated - and no two swaths are exactly alike.

After investigating multiple-channel data acquisition alternatives, Jacobsen found a number of portable multiple-channel data-acquisition devices but all were too large to fit on riding turf equipment. Further, they weren't rugged enough to Continued on page 55

Gary Ellertson is a senior engineering test technician with the Jacobsen Division of Textron, Inc., in Racine, Wis.

MID-ATLANTIC TEAMS WITH TEXTRON, BUYS **FLYING DUTCHMAN**

NEW PRODUCT OF THE MONTH

COLLEGEVILLE, Pa. - Mid-Atlantic Equipment Co., an East Coast distributor of golf cars and

industrial utility ve- John Clough

hicles based here, has reached an agreement with Textron, Inc. to represent its E-Z-GO division's product lines.

By adding E-Z-GO to its current line of Yamaha vehicles, Mid-Atlantic now offers customers two nationally recognized, proven lines of equipment, according to John Clough, Mid-Atlantic president.

Clough also announced that Mid-Atlantic has purchased Flying Dutchman, Inc., an independent golf car dealership located in Stuart, Fla.



Millbrook at 1-800-879-6507. For more new products, see page 58.

Millcreek Manufacturing Co. has received U.S. Patent protection for its PowerBrush. Millcreek

fits a 3-inch long stiff-bristled polyethylene PowerBrush, 22-inches diameter, at the rear. It works

with a set of adjustable fins and high-tension bristles designed to flick debris across the ground,

like a coin skidding across a table top. For more information on the PowerBrush, contact

Public offering aids Aquagenix expansion FT. LAUDERDALE, Fla. - Newly

capitalized Aquagenix, Inc. has acquired the lake management division of Mitigation Services, Inc., an affiliated company of Jacksonvillebased Environmental Services, Inc.

The sale price was approximately \$250,000 in cash and notes, said Andrew P. Chesler, president of Environmental Waterway Management, an Aquagenix subsidiary.

According to terms of the contract, Aquagenix will acquire a portfolio of service contracts in a six-county area covering northern Florida and southern Georgia; assume an office warehouse lease in southern

Jacksonville's Phillips Industrial Park; and purchase aquatic equipment.

Once the acquisition is completed, the new Jacksonville office of Environmental Waterway will be run by Darrell Blackall, former head of aquatic management programs for the St. Johns River Water Control District.

Aquagenix has been one of the golf course industry's busiest firms since going public earlier this year. At last check, the firm had completed its initial public offering of 1.25 million shares of common stock, at \$5 per share, and 1.25 redeemable warrants at \$.10 per warrant.

Continued on page 54



Deere reorganizes Lawn & Garden

RALEIGH, N.C. — Streamlined product development, focused dealer service and enhanced customer satisfaction are behind a new market-based structure recently implemented by the John Deere Lawn & Grounds Care Division based here.

The division is structured into product groups to serve key markets: commercial, golf & turf (golf, commercial and sports field); lawn & garden products (rear-engine riding mowers through tractors); and power products (hand-held and walk-behinds). Each group has responsibility to develop new products, support the retailer organization and fill orders, advertise products and support end users. All product groups share support services such as public relations and overall business development.

"This is not a major upheaval of jobs and people, but more a realignment to position John Deere for an aggressive effort in what we have identified as our key markets," said Bob Tracinski, manager of public relations for the new division.

EPA APPROVES PRIMO'S WETTABLE POWDER

WASHINGTON, D.C. — The federal Environmental Protection Agency has approved registration of Primo WSB, a new wettable powder formulation packaged in water-soluble bags. Primo WSB, a product of Greensboro, N.C.based Ciba, may be used to regulate turf growth on golf courses. The new Primo product is also labeled for putting surfaces.

Field testing Continued from page 53

withstand the constant buffeting with cut grass, water and dirt.

Then, the company heard about the SoMat Model 2100 FCS, the first commercially-available device capable of multiplechannel data collection in fieldtesting applications. The Model 2100 FCS consists of a series of stackable modules which are mated together in a bus-like architecture and packaged in an aluminum case for rugged field testing applications. When the test request for the 3810 came in



CIRCLE #146

you'll keep golfers from tracking disease up on to your greens and tees. And you'll get excellent control of powdery mildew and rust on ornamentals. What's more, BAYLETON comes in water soluble packets for easy mixing and less applicator exposure.

To find out more, contact Miles Inc., Specialty Products, Box 4913, Kansas City, MO 64120. (800) 842-8020.

Then, just apply BAYLETON, and the rout is on.

from the engineering department, Jacobsen had already purchased a four-channel 2100 FCS and had gained some experience with the unit.

The prototype was set up with the 2100 FCS and appropriate inputs for strain gauge pressure transducers. A laptop computer was used to program the 2100 FCS. Then, it was taken out to a local golf course for a number of endurance runs which focused on cross-cutting cycles which involve stopping and starting drive motors every 15 to 20 seconds.

Back in the lab, the device was downloaded into a laptop computer running SoMat Test Control Software (TCS) which downloads the data and displays it on the screen as desired. It was immediately apparent that startup spikes in the hydraulic reel motors in the prototype design were of concern.

Collecting three channels of data at one time, it was relatively easy to trace the spike from the drain line to the valve to the motor and determine the cause of the problem was an electrical solenoid valve used in the prototype. The response time of the valve was so short that it produced a pulse that could be tracked throughout the hydraulic system by graphing the three channels of data simultaneously on the screen.

The solution was replacing the valve with a special soft start-up model that ramped up to the desired speed. Collecting only a single channel at a time would have made it very difficult to sort out the relative effects of each of the components in the hydraulic line. Other important aspects of the testing program included strain gauge work on critical frame areas which insure that structural limits would not be exceeded when the four-wheel drive option was added to the mower. Temperature testing for various hydraulic components was also conducted.

With the one-channel device it was necessary to download data into the desktop computer after each run which took about a half-hour per run.

A laptop computer can be connected to the SoMat model 2100 FCS to view data immediately after the test is completed — or even in real time, while the test is running. This time-saving feature makes it possible to immediately determine whether appropriate data is being generated so that a test can be re-run immediately if necessary.

Generally, the model 2100 FCS is bolted to the fender of the equipment, although the latest models have gloveboxes into which the units can be tucked. The unit can be self-powered with three 9-volt batteries thus eliminating the need to provide power from the vehicle for short duration tests. The entire unit, including laptop computer, fits into one oversized briefcase which can be packed as carry-on luggage.

January 1995 55