Monitoring at night

DACS: A home-grown solution for pump station monitoring without the cost of a PLC

BY MICHAEL LEVANS

SAN FRANCISCO — During his 15 years in the pump-station business, Pump Repair Service's John Dexter never had a clue as to the status of a station while it hummed away unnoticed at night. “Electricity is expensive and water costs money,” said Dexter. “If you can find out what a pump station is doing you can tailor your irrigation system to be more efficient.”

If a station’s vital information — flow, upstream and downstream pressure, etc. — can be harnessed using existing equipment to monitor status and alert a superintendent to a problem without buying a PLC, thought Dexter, then maybe pumping efficiency and cost savings could be achieved.

Enter the Data Acquisition and Control System (DACS), a home-grown project

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RohMid, Rohm & Haas get the nod

PARSIPPANY, N.J. — It’s been nearly two years of waiting, but RohMid, the much ballyhooed joint venture between Rohm & Haas Co. and American Cyanamid Co., has found that patients pays.

On May 20, RohMid received word that its Mach 2 turf insecticide — the venture’s initial product offering — was registered by the U.S. Environmental Protection Agency (EPA) for use in controlling grubs and other soil-borne pests.

Approved formulations include a liquid (2SC), which may be used on golf courses and commercial landscapes, and 1.5 percent granular, which may be used on all turf sites. The products will be available for the 1998 application season.

According to John Thomas, Ph.D.,

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Toro/Hardie: Just a little bit closer

BLOOMINGTON, Minn. — Taking another step in its integration with the James Hardie Irrigation Group, The Toro Company has announced a new facility strategy for its irrigation operations.

Administrative and distribution functions currently at the Toro Hardie Irrigation facility in Launa Niguel, Calif. — Hardie’s headquarters — will move to Toro’s Riverside, Calif., irrigation headquarters. The company currently has 99 employees at Laguna Niguel — all but 15 were offered positions in Riverside. The company said it will “exchange manufacturing expertise” between the Riverside site and its Toro Hardie El Paso, Texas, manufacturing plant. All Toro irrigation valves that are now produced in El Paso, as well as all Toro irrigation spray production, will take place at Riverside. The company said the shift is not expected to affect the number of jobs at each location.

“These moves...will let each facility specialize in the production technology that they do best,” said Rick Parod, vice president and general manager of Toro’s U.S. irrigation business. “We’re pleased that the integration is progressing smoothly and that we can achieve synergies with a minimum of disruption and job loss.”

In other Toro news, the company has

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NEW PRODUCT OF THE MONTH

Dakota Peat & Equipment’s new Turf Tender 440 material handling unit features 4.2 cu. yd. capacity, a hydraulic swing-away conveyor, electric vibrator and remote hydraulic drive system. The 440 allows one operator to load fill, move, spread and level materials with one machine.

For more information see New Products, page 64.

RAINBIRD UPGRADE FINISHED AT BALTUSROL

A combination of Rain Bird’s full-and part-circle Eagle 700, 750 and 900 series rotors were recently added during an upgrade of Baltusrol’s irrigation system. One of the goals of the upgrade was to allow the roughs to be watered separately from the rest of the course.

Operated by a Nimbus central control, Baltusrol’s system includes a network of 137 MSC satellites, the Freedom System, a StormWatch System and a Rain Bird weather station.
Monitor

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developed by Dexter that allows a superintendent's office-based PC to talk to the pumping station.

He began searching for equipment that I could buy off the shelf that I could fit in a station," he said. "I found that you can take a constant speed pumping station, or any station, and adapt it to a monitoring system just by using transducer technology and a laptop computer."

DACS' Windows-based software package charts trends based on a 24-hour period or historical data collected over 50 days. "The user can scroll in one-hour segments, tracking pressure and flow as well as how many times a pump started in 24 hours," said Dexter. "The user then knows how long the pump ran, allowing benchmarks to be set for efficiency."

Dexter's next step is to give the superintendent remote access through a communications package to monitor and control the station from anywhere on the course. When connected, the remote access functionality will page users or dial home at night when a pump fails.

At this point, Dexter has DACS up and running at two test courses in the Bay Area.

"In the old system we had a lot of pressure gauges," said Ken Schwerk, superintendent at San Leandro-based Tony Lema Golf Course, who eliminated 15 pressure gauges in his effort to streamline his station.

According to Schwerk, the wire clutter is gone and he'll be able to pare more than $24,000 off his pumping station's $100,000 electric bill.

"In the past I just had some idiot lights telling me what pump was on and which one was off," said beta-tester Lou Tonelli, superintendent at Lake Merced Country Club. "But now I know what's happening over night. I can match my field pressure and pump pressure and I can fine tune it."

Dexter will be offering the system through Pump Repair Service for $7,000-$10,000. He is currently working on a customer install system that will be packaged with video instructions that he'll be marketing worldwide.

EPA Roundup

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RohMid's manager, "The completion of the various state registrations will create a patchwork of product availability, limiting our full sales potential in 1997."

Thomas added that RohMid will be conducting a demonstration program with various golf courses using the liquid.

Mach 2 belongs to class of chemical compounds called molt accelerating compounds (MACs), which interfere with the normal molting processes of targeted pests.

PHILADELPHIA — Rohm & Haas Co. has received EPA registration for revised labeling on its Eagle turf fungicide.

For turf, the label adds instructions for using higher application rates for certain diseases, with correspondingly longer application intervals, up to 28 days.

The new instructions apply to dollar spot, powdery mildew, rusts, necrotic ring spot (spring dead spot) and summer patch.

INDIANAPOLIS—DowElanco has announced that its new product Conserve SC turf and ornamental insect control, has received an accelerated registration for sale in the U.S. under the EPA's "Reduced Risk" registration program.

Conserve is derived from a naturally occurring organism and offers control of sod webworms, cutworms, and armyworms.

WILMINGTON, Del. — The California EPA has approved AgrEvo's ProStar, a systemic fungicide for control of turf diseases caused by Basidiomycetes including Rhizoctonia brown patch, for use on California turf.

"ProStar can be applied as a preventative treatment or as a curative treatment after brown patch develops," said George Raymond, AgrEvo's market manager.

It can also be used to control gray snow mold and is known to be effective on fairy ring.

For more information about Quelant-Ca call Nutramax Laboratories at: 800-925-5187

moved not only to facilitate absorption by the leaves and roots, but to increase mobility of the calcium within the plant as well.

Quelant-Ca is normally applied as a foliar spray and may also be applied through fertigation. Either way, it is tank-mix compatible with herbicides, soluble fertilizers, insecticides, fungicides and plant growth regulators. It will even help improve the efficiency of most of these treatments by increasing their absorption and translocation within the plant.

Best of all, Quelant-Ca is economical to use and it protects the environment.

Quelant-Ca — a true systemic. It's new...it's unique...and nothing else works quite like it!