Ohio firm introduces pond-cleanup technology

BY HAL PHILLIPS

A technique pioneered at a Maine country club appears to have resuscitated a seven-acre pond system that had been choked by years of pesticide build-up.

The innovative technique, called bioremediation, was applied at an Ohio firm specializing in acid mine drainage — the treatment of mine effluent laden with heavy metals. The Columbus-based Lambda Systems, Inc. had never before worked on a golf course project — that is, until Portland Country Club officials secured its service in 1989.

The ponds at Portland CC had been taken over by excessive cattail growth, to the exclusion of most other species. Wildlife that inhabited the pond's ecosystem had also been forced off. In December 1989, according to Lambda's Joel Davison, soil and water samples indicated toxic levels of lead, mercury and arsenate, as well as high levels of other heavy metals and sulfates.

In a balanced micro-ecosystem, you have producers (algae, for example), consumers (which eat producers) and decomposers (fungus and bacteria that break down dead consumers and producers).

"This is the most efficient recycling system in the world," Davison explained. "It's a circle, and if one link in the circle breaks down, the circle dies. This is what happened in Portland. The ecosystem was out of balance."

Portland CC officials had a few choices: They could remove the pond bed (at great cost), fill it, or incinerate it under special conditions.

Instead, club elders opted for bioremediation: the introduction of microorganisms and bacteria which are encouraged to multiply, consume the toxic material, then disposed of it through the digestive process. Only organisms indigenous to the area are applied.

Lambda calls this the BIO-CARB process.
WASHINGTON, D.C. — The Fertilizer Institute has established the Retail Compliance Task Force, part of TFI's Retail Business Council, to help retail fertilizer and agriculture chemical retail dealers comply with the "morass of regulations."

The task force is composed of compliance specialists in the retail sector and will provide a forum for sharing information among the entire retail community.

Other goals for the task force include: Identification of resource experts who can help dealers in various regulatory areas, establishment of a database of regulations that will be made available to retail dealers, cooperation with state associations to develop resources that are state-specific and to provide guidance to TFI staff in formulating responses to federal regulators.

"It is widely recognized that regulators write and enforce regulations based upon the 'least common denominator,' or the worst case to be found," said TFI Retail Business Council Chairman Mike Hochgesang. "For this reason, the entire industry benefits from efforts like this to help all dealers identify compliance issues and provide the information needed to comply."

"Compliance has become the number-one concern of many dealers today," said TFI President Gary D. Myers. "This task force will help retailers pool their resources in an attempt to keep up with the ever-changing compliance landscape."

Ransomes offers leasing program

Ransomes America Corporation has formed Ransomes America Credit Corporation, a financial service company designed to provide new leasing programs for Ransomes' product lines.

This program is designed to enable Ransomes' distributors to offer creative payment options and alternative financing for Ransomes' products, including Ransomes, Cushman, Ryan, Supreme and Steiner. With this program, Ransomes distributors will have access to a marketing specialist who will assist on individual transactions. Other aspects of the program, designed to enhance customer service and convenience, include a distributor/dealer hotline, application facsimile, 72-hour application feedback in most cases, and individually designed programs.

For more information, call Ransomes America at 402-475-9981.

Pan-Pacific show

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When Golf Course News went to press, The 1993 Show shouldn't have any space problems, as it will be held at the larger Sheraton Waikiki, Sept. 1-3.

The Landscape Industry Council is composed of many green industry participants, including the American Society of Landscape Architects, Hawaiian chapter and the Hawaiian GCAS.

For early information on the 1993 show, contact Dave Klawitter at 1-808-841-3305.

Pond-cleanup technology pioneered

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cess (patent pending), and it worked in Maine.

At first, Portland CC commissioned a study from Lambda, which concluded the toxic materials were present as a result of an excessive build-up of pesticides, herbicides and fungicide residue, Davison explained. After seven months of evaluation — which included the establishment and test treatment of mirror site conditions — the BIO-CARB process was applied on Aug. 6, 1990.

Three-and-a-half tons of activated charcoal — wrapped in burp sacks and loaded with indigenous micro-organisms and bacteria — were applied in and around the pond system at a cost of $265,000.

"Nobody even knew we were treating the site," said Davison. "I think they were running a women's tournament at the time."

After a month, levels of lead, mercury, arsenate, cyanide and toxins were reduced to drinking-water standards. The water's pH level, which had stood as low as 4.5, was raised to 7.5 and remains there to this day. New plants have replaced the receding cattails and wildlife has returned, as evidenced by nesting communities in the area.

"Now that the micro-ecosystem has been straightened out, the macro-ecosystem — fish, flora, fauna — can come back. And it has come back," said Davison. "And I think we saved them $60 to $80,000."

Superintendent Pat Lewis, who oversaw the BIO-CARB application, confirmed that application of the process didn't disrupt life at Portland CC one iota.

"At this point we're cautiously optimistic," said Lewis. "We'll need another summer or two to know whether there will be lasting change."

Lewis arrived at PCC well after the pesticide damage had been done — indeed Lewis is recognized by his peers as one of the most environmentally-conscious superintendents in the country.

"Nobody deliberately created a problem there in Portland," said Davison. "But after 125 years, you're going to deplete parts of the system."

"Pat Lewis deserves a lot of credit. He took the steps, he did it right, and should be praised for it."

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