BRIEFS

HURRICANE RELIEF SENT

South Florida golf course maintenance employees whose homes were destroyed or damaged by Hurricane Andrew are getting help from their "golf family." The Florida GCSA has established a relief fund. First financial shot was fired by the Palm Beach GCSA, which donated $1,000. West Virginia's GCSA matched that. The Carolinas and Georgia GCSAs were as quick to offer assistance. Relief fund checks payable to the FGCSA should be sent to 1760 Northwest Pine Lake Drive, Stuart, Fla., 34994; phone number is 407-692-9349.

LAKE CONFERENCE HELD

CINCINNATI — The North American Lake Management Society's (NALMS) 12th annual International Symposium, geared to protecting and enhancing surface water quality, will be held here Nov. 2-7. While many of the workshop topics will be highly technical, there will be many presentations for volunteers who monitor water quality. The symposium comes during the 20-year Clean Water Act, which is under review and revision by Congress. More information is available from NALMS, One Progress Blvd., Box 27, Alachua, Fla. 32615; 904-462-2554.

COURSECO NABS RODGERS

FRESNO, Calif. — Gary Rodgers, superintendent at Riverside Golf Course and former board member of the Central California Chapter of the GCA of California, has been named director of maintenance and construction for CourseCo, Inc. Based in Fresno, he will continue as superintendent at Riverside. He will plan and oversee maintenance and construction at all CourseCo-managed facilities.

Rodgers has been superintendent and agronomist at Riverside since 1989.

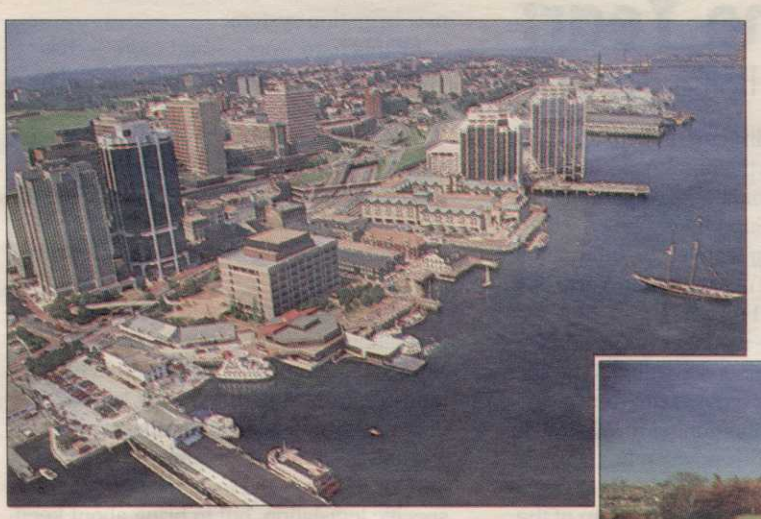
HAYES GCSAA EDUCATION MANAGER

The Golf Course Superintendents Association of America has named Alan Hayes education manager for technical training. Hayes will conduct and refine spray technician seminars and help develop other topics for the organization's technical training.

TAAGEN HIRED AT CORDILLERA

EDWARDS, Colo. — Cordillera has named Timothy T. Taagen superintendent, according to Gerry Engle, project general manager. Taagen will be responsible for all facets of construction, operation and maintenance for the 7,500-yard, par-72 Hale Irwin-designed course, which is scheduled to open with all 18 holes in 1994. Taagen, 28, has worked for three of the top 50 courses in the country. Most recently, he was superintendent at Green Gables Country Club in Denver. Prior to this, he was Assistant Superintendent at Cherry Hills Country Club in Denver.

North of the border, Canada draws supers to 'learning' show



Photos courtesy of Nova Scotia Tourism & Culture

Scenic Halifax (above), sitting on the east coast of Nova Scotia, is the site for the Canadian Golf Superintendents Association's 44th Canadian Turfgrass Conference and Trade Show. Halifax, itself, is home to some wonderful golf courses, including Ashburn Golf Course (right). The event, Nov. 29-Dec. 2, is being held in the World Trade and Convention Center and Halifax Metro Centre. Despite the time of year, weather is not normally a problem in Halifax. Most all of the major hotels, the convention center and shopping malls are connected by elevated "pedways" — enclosed walkways connecting the buildings — that can bring you indoors from the harbour up to Citidel Hill. The Prince George Hotel, the headquarters hotel for the conference, is connected by an underground tunnel to the World Trade and Convention Centre.

By MARK LESLIE

HALIFAX, Nova Scotia — The speakers program and attendance is expected to be the best in years, but trade show booths are down for the 44th Canadian Turfgrass Conference and Trade Show, to be held here Nov. 29-Dec. 2.

According to Vince Gillis, executive director of the sponsoring Canadian Golf Superintendents Association, "We anticipate the attendance will be as good or better than in years" to hear an all-star lineup of speakers.

But the economy "has taken a bite this year," he said.

"We're looking at the neighborhood of 50- to 60-percent capacity. We average 25,000 net square feet. Last year in Toronto we had 23,008 square feet. We were sold out, full to capacity. Exhibitors were hanging from the rafters.

"This year we were banking on 18,000 square feet and we're at 10,000."

Gillis blamed the registrations on the economy and distant Atlantic Coast location.

"Even friends of many years instead of taking six or eight booths are taking four or five. One takes two and he's taking one," he said.

Gillis said daily attendance may be down from previous years, but full-time attendance will be greater than normal — drawn by the talks by such notables as Drs. Paul Reike of Michigan State University, Tom Watschke of Penn State University, Dr. Richard Cooper of the University of Massachusetts and Robert Carrow of the University of Georgia, U.S. Golf Association Green Section National Director Jim Snow, and architect Thomas McBroom.

Gillis feels "a sleeper in terms of interest" will be a panel discussion Wednesday morning on where golf is headed. The panel will include Canadian PGA Pro Linden Garrow; club manager Dick Grimm of The Royal Canadian Golf Association, who has run the Canadian Open for a number of years; Canadian GSA President Paul White; and Golf

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HydroJect's influences debated

The following story has been reprinted from the MET GCSA Newsletter, with permission of the Metropolitan Golf Course Superintendents Association.

By PAT LUCAS

Not since the introduction of the triplex greensmower has a single piece of equipment generated as much interest as the Toro HydroJect (HJ). Its initial attraction was that it allows you to aerify with only minimum surface disturbance. But after a year-and-a-half on the market, what most superintendents are more interested in knowing is, "Does it really work?"

Though, admittedly, there's still a lot to be learned, I and several other area superintendents who have used the HJ extensively can shed some light on the inner workings — and the pros and cons — of the machine.

My hope is that they'll spare you hours of trial-and-error when operating the Toro HydroJect on your course.

• • •

Bob Alonzi, CGCS, Winged Foot Golf Club, Mamaroneck, N.Y.

Objective: We're a heavily played club, so we get a lot of soil compaction-particularly in June, July, and August. Our prime objective with the HydroJect was to try to alleviate that compaction without inconveniencing our membership.

Use: Last year, we did all the greens twice during the summer and once late fall. The fall treatment was intended to improve drainage during the winter.

This year, we went out in July and again just recently to alleviate any stress.

Results: The HJ, combined with other practices, such as summer patch control, and spring and fall coring-does seem to help combat the effects of heavy play on our small greens. It's hard to tell, though, whether our fall treatment did improve drainage.

Comments: A concern I have with long-term use of the HJ is soil separation below the surface. This situation should be carefully monitored. I don't think the HJ replaces coring. Coring allows you to modify the soil by incorporating amendments into the holes. I think, for now, it's best to stick to a program that combines conventional coring with deep aerification and HJ use during the summer. If nothing else, this type of program will offer a better balance in fighting compaction.

John Gallagher, Racebrook Country Club, Orange, Conn.

Objective: Our greens suffer from soil compaction, which has created puddling, reduced infiltration, and shallow rooting. To remedy some of these problems-with only minimal disruption to the playing surface-we began using the HydroJect last year.

Use: We do some of our problem greens once a week during the season-not necessar-

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Int'l experts share wisdom at symposium

By PETER BLAIS

A record number of scientific research papers, many from abroad, will be presented at the 7th International Turfgrass Research Society meeting scheduled for July 18-24 at The Breakers Hotel in Palm Beach, Fla.

The 160 accepted papers is almost double the previous high of 98 presented at the 1989 Tokyo conference. About one-third of this year's presenters are from outside the United States.

"The goal is to exchange information regarding turfgrass research on an international basis every four years," said Toro Co. consultant Jim Watson, one of the organizers.

"It has been dominated by the United States in the past. But each time the international segment has become more and more important."

The meeting is being divided into two symposiums, according to program chairman Bob

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Compare and Contrast:

Market-bound products handle their tasks differently

By MARK LESLIE

Nearly a decade of research has been done on the pioneering sub surface injection machines. So, what are the differences?

Prof. Mark Sears of the University of Guelph in Ontario said, "I think they're comparable."

Most all force water, at high pressure, into the ground, causing probes that look similar to aeration holes.

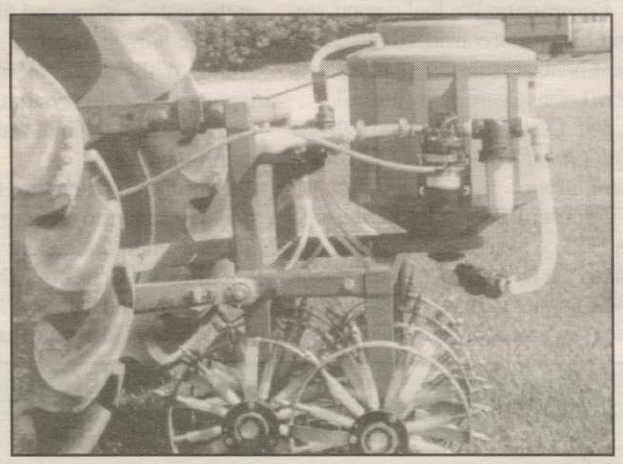
Rogers Innovative's Liquid Pulse Injector (LPI) is "a Cadillac unit," Sears said. "You can set all the variables. It's larger [than the Toro HydroJect — 48 versus 33 inches]. It runs on hydraulic pressure and you need a good-sized tractor. It also has a 300-gallon tank, so you don't have to carry a hose around like the HydroJect.

Calling the LPI "big and a bit cumbersome," Sears noted that Rogers is working on a smaller unit that mixes chemicals into water.

Units on the Pattison Brothers Agro's Spoke Injector, according to President Rick Pattison, can be joined to make it anywhere from one to 50 feet wide.

Rogers President R. Barry Rogers said his LPI pulses liquid electronically, compared to the mechanical operation of the HydroJect and Spoke Injector.

"That gives us flexibility in pressure, plus makes it easier to adjust the length our valves are on as we go along," Rogers said. "You have to dig in [the ground] and find out the depth the water has gone. That will vary according to type of soil, but you can regulate it by the pressure and by the size of the jet stream, which we can reduce as low as 13/1000ths of an inch."



Pattison Bros. Agro Ltd.'s prototype for its subsurface injection machine

The HydroJect is set up so that the operator must use most of the volume. The LPI volume is adjustable. The Spoke Injector operates on 20 to 50 pounds pressure.

"Our unit is electronically controlled by a digital computer," Rogers said. "In the future it will be made to sense the color of the grass and adjust the application."

He said the LPI can put down insecticides at one gallon per 1,000 square feet, or go as high as 28 gallons of water per 1,000 square feet while aerating.

"The more water you use, the more aeration, fraction and lift in the soil," he said.

The LPI can speed along as fast as 3.4 mph, which equates to 72,000 square feet per hour injecting pesticides. It can pump nine A gallons per minute.

Ransome America's Liquidator was birthed in the LPI. Rogers licensed it to Ransome to manufacture self-propelled models, something the Rogers plant is not equipped to do.

Marvin Jaques, director of engineering and technology at Ransomes America, was reluctant to discuss specifics about the Liquidator.

It will use the same chassis as that used on Cushman's deep aerator, Jaques said.

Jaques said the Cushman/Ryan prototype using a colter is "on our palette of things we're looking at and working on. There are two distinct markets: the golf course and large turf areas; and the home lawn maintenance. The requirements are different for the products and what they do. You can break that up into liquids and granular. We're trying to address the needs of everyone."

Pattison's Spoke Injector is a pull-behind unit equipped with a round wheel with 12 spokes on it that come from a center hub. When the spokes enter the ground in the down position, the hub injects liquid into the soil under pressure. When the spokes leave the ground, they seal up.

It injects on a six-inch grid and can inject from 1-1/2 to two inches deep with one set of spokes and three inches with a second set.

Pattison said the Spoke Injector has been sold since 1990 in the agricultural market for fertilizer applications. It has had to undergo modifications for a pesticide application.

While not a lot of testing has been done on white grubs with these machines, Rogers said he has "shot polymers into the ground" with the LPI, and Dr. Drew Smith at the University of Saskatchewan is testing its use of fungicide for fairy rings.

Rogers Innovation's Liquid Pulse Injector at work.

Manufacturers trying to perfect systems to inject below ground

Continued from page 1

Department of Environmental Biology has done tests with the HydroJect, Spoke Injector and LPI and says there are two areas of "great potential" for these machines.

"One is that [subsurface injection] gets the pesticides right at the grubs, where they live, without having to leach it through the thatch. If we can cut our rates by half, it's great.

"The other benefit is, in Ontario we have strict regulations on putting a product on turf. This way we can inject it below the surface to avoid surface runoff and human contact... It's more efficient and it's more environmentally sound."

Sears discounted worries that injecting chemicals may increase the potential for polluting ground water, saying that most emulsifiable concentrates are immobile.

Meanwhile, Dr. Harry Niemczyk, professor emeritus at Ohio State University, who has been studying subsurface injection in cool-season grasses since the early 1980s, believes all the hard work and high finances may have no pay-off in results.

"We're not convinced that any kind of point injection system will work," he said. "We think subsurface placement is the most likely to work. The injection system is the least likely to be useful. This is a very, very precise placement. You have to get the grubs where they live — where the thatch and soil meet — one-half to three-quarter-inch deep in cool-season grasses."

Niemczyk, working with project leader Dr. Dave Shetlar at OSU, said tests have been moderately successful placing liquid and granular material through a Cushman/Ryan prototye for an unnamed machine. Using an eight-inch colter disc, the device makes a slice in the turf and a tube behind the colter delivers the material into the ground.

"We have worked with this extensively, and our success with the colter system has been limited at best. And I don't think we can do a better job of placing it. The results are not yet as good as with broadcast surface treatment," Niemczyk said.

"Theoretically, it should work. But we're dealing with a living organism. And how they behave when they encounter the chemical is another matter. It's like shooting ducks. You either have to hit the animal on the nose or else. If you place it below the grubs you've missed them."

Saying tests show that pesticides do not move vertically or laterally, he said, "The pesticide doesn't come to the grub. The grub has to come to where the pesticide is. We're talking about a grub population at the thatch soil interface that can range from two or three to 15 per square foot."

Yet, Niemczyk did not discount manufacturers' efforts.

"Someone may come up with a system that works," he said. "I wouldn't discourage anyone anybody who has an idea, for a point injection system or whatever."

Marvin Jaques, director of engineering and technology for Ransomes America, said if subsurface injection is perfected, "The big gain will be in the public. We hope for commercial success, but we also hope it will evolve into an environmentally sound product. That way, everyone wins."

Deaths illustrate importance of protection

TEXARKANA, Texas — The importance of workers being provided — and wearing — protective clothing and equipment when working in confined spaces was emphasized after the recent deaths of three local workers overcome by toxic fumes from an underground storage tank.

One man was overcome by fumes as they cleaned the tank, the others when they attempted rescue.

Edward K. "Red" Hayse, Texas Workers' Compensation Commission chairman, said the three men and four others who recently died in Texas while working in confined spaces might still be alive had they been wearing respirators or safety harnesses.

Halifax the venue for Canada's annual conference

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Course Superintendents Association of America President Bill Roberts. Peter Hope, past president of Royal Canadian Golf Association, will be the moderator.

A special companions program and special nights will add spice to the program, which includes the Grey Cup party and opening reception Sunday, Nov. 29, a lobster party Monday, skating party and East-West hockey game Tuesday, and banquet with dancing Wednesday.

Also, the 1992 Superintendent of the Year, Thom Charters (See story, page 12), will speak, broadcaster Danny Gallivan will deliver the keynote address, and General John Cabot Trail will entertain at the closing banquet.