

# BRIEFS



## NY TURF SHOW PLANNED

SUFFERN, N.Y. — The New York State Turfgrass Association is holding its annual Grounds Exposition II at the Holiday Inn-Suffern on Feb. 28 and 29. Headlining speakers include Dr. Houston Couch of Virginia Polytechnic Institute and Dr. Richard Cooper of North Carolina State University. Couch will discuss his latest research on growth regulators as they impact disease development. Cooper's presentation will focus on turfgrass pesticide fate. More information is available by calling NYSTA at 1-800-873-8873.

## MAINE GCSA READIES SHOW

ROCKPORT, Maine — The Maine Golf Course Superintendents Association will host its annual Turfgrass Conference on March 6-8, at Samoset Resort here. The conference will feature three days of events, including two full days of speakers on subjects like "Turf Response to Low Temperature Stress," "The Grow-In Manager," "Getting the Most out of Insecticides," and "A Closer Look at Organic Fertilizers." There will be also be a GCSAA-sponsored seminar on personal stress management and a mechanics session on March 7. For more information call 201-761-7878.

## NYSTA ELECTS SMITH

LATHAM, N.Y. — Stephen Smith of Old Colony Landscaping of Taunton, Mass., has been elected president of the New York State Turfgrass Association. Also elected were Vice President Anthony Peca Jr. of Batavia Turf Farms and Secretary-Treasurer John Fik of Hobart and William Smith College. New directors are James Hornung of North American Park in Buffalo; Michael Maffei of Back O' Beyond in Brewster; and Joseph Hahn of Oak Hill Country Club in Rochester, N.Y.

## MANAGEMENT SCHOOLS SET

NEW BRUNSWICK, N.J. — The Rutgers Professional Golf Turf Management School has one final educational session this academic year.

Planned for Feb. 27-28, the Advanced Turfgrass Management Symposium will be held at the campus here. Interested people may contact Miss Marcianite at 908-932-9271.

## COVE CAY CC INKS ISS

CLEARWATER, Fla. — Cove Cay Country Club has signed ISS Golf Services to maintain its 18-hole golf course and surrounding landscape. Cory McDonough will transfer from ISS' Wyndemere Country Club operation in Naples to oversee the maintenance operation of Cove Cay. ISS is a Tampa-based golf course maintenance firm.

# Audubon expands horizons, goes international

SELKIRK, N.Y. — It's official. Audubon International — Center for Sustainable Resource Management (AI) has been formed and is operating, bringing under one umbrella the national and international programs formerly managed by the Audubon Society of New York State (ASNY).

Citing a mission of improving the quality of the environment through research, education and conservation assistance, AI expects the public to better understand the breadth of the society's programs through its name change.

## Audubon International

Board of Directors  
International Resource Advisory Board

## Development, Planning & General Operations

Administrative  
Membership  
Financial  
Personnel and Public Relations

## Research & Education

Audubon-Siena Institute  
Biological Research  
Sustainability Research  
Seminars & Training

Audubon-Ann Arbor Publications  
Books

Audubon-Epic Productions  
Video Productions

## Conservation Assistance

Audubon Signature Program

Audubon Conservation Services  
Technical Assistance

Audubon Society of New York State

Audubon Cooperative Sanctuary System

"We have members in countries around the world," said ASNY President Ron Dodson, who serves as president and chief executive officer of Audubon International.

"Audubon International was created to help deal with 'geographic' limitation issues regarding the name 'New York.'"

Audubon International's mission is much broader than that of ASNY.

It is recognized that much of the transition will be phased in over time for the sake of utilizing program materials already in existence and for the opportunity of educating existing members as to the new structure being established.

# Pine Ridge GC undergoes a 'natural' conversion

By PETER BLAIS

BALTIMORE — With completion of its new cart-storage facility, city-owned Pine Ridge Golf Course converted its 70-vehicle E-Z-GO golf car fleet from gasoline to natural gas in early December, an environmentally friendly move that is meeting with mixed reviews.

"It's really been more show than substance," said Art Slusark, public information director with Baltimore Gas and Electric (BGE), which partnered with Baltimore Municipal Golf Corp. (BMGC) in the original pilot program to test four compressed natural gas (CNG) vehicles at Pine Ridge.

"We were looking for highly visible sites to test natural gas units. Pine Ridge is considered one of the premier public courses in the country and gave us the opportunity to get exposure for natural gas vehicles with the many business people who play the course. We knew they could help us break down some of the barriers to their use. But economi-



Natural gas golf cars are the way to travel at Pine Ridge Golf Course in Baltimore.

cally, it's really not a cost-effective system for golf courses, yet. They don't put enough miles on the carts to make it worth putting in the pumping station."

For BMGC, the non-profit entity that

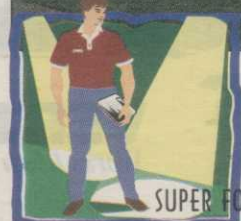
operates the city's five courses, the switch to natural gas is more environmentally than economically motivated, according to Executive Director

Continued on page 52



## RETIRING PERSONALITIES

When Dave Fleming "retired" from greenkeeping, he put his hand to designing such spectacular golf holes as this one — the 147-yard, par-3 9th hole at El Tamarindo Club de Golf in Manzanillo, Mexico. Fleming is one of many ex-superintendents keeping their hand in the golf business. (See story, next page.)



SUPER FOCUS

# Roberts urges more carbon use in root-zone mixes

By MARK LESLIE

SPARTA, Tenn. — Saying researchers "haven't begun to explore the use of grasslands as a depository for effluent and other materials," Dr. Eliot Roberts declared: "Anything with carbon in it ought to be processed and mixed into the soil when you build a golf course."

Roberts, retired executive director of The Lawn Institute and former head of turfgrass programs at Iowa State University and the University of Rhode Island, said golf course soil systems are aerated and "while carbon would never decompose in a landfill, it would feed microorganisms in a golf course."

"Paper, plastics, animal and plant wastes all have carbon. They can be processed and pulverized to feed soil."

Pointing to the 45 quadrillion micro-

Continued on page 52



## Roberts: Resources galore

Continued from page 21

organisms that live in the root zone of 1,000 square feet of turf, Roberts said: "They have to eat. Carbon is what they eat. The main source of carbon in the soil is the roots of the plants. Why are the best soils in Indiana, Illinois, Iowa? Because the soil there has humus.

"We don't need to wring our hands and say, 'It's too bad we don't have organic matter.' We can add humus, humic acids, or humates. There is concern that there is ink on newspapers. But the turf system will biodegrade all of that."

Any source of carbon to add to soil is helpful, he said, suggesting that superintendents "think about something other than NPK [nitrogen, potassium, magnesium] that feeds grass; think

of things that feed the micro-organisms that feed the soil."

Roberts, who operates a turfgrass consulting firm here called Rosehall Associates, lamented the fact that no leading agribusiness companies are promoting organic products for this purpose.

"They are promoting organic products as pesticides, fertilizers, or any other number of products — but not for building humus for the soil," he said. "So the world's industrial complex isn't behind this concept and it hasn't advanced rapidly.

"It's unfortunate that many of the more 'backward' countries know more about this than the industrialized countries. We get more interested in it as a means to cleaning up and reducing pollution than in recognizing the value of carbon compounds for creating and maintaining a living biological soil."

## A natural gas conversion

Continued from page 21

William Cook.

"It's costing us more [than would gas-powered vehicles], but we're charging golfers the same rate as we would for gas cars," Cook said. "Our leasing cost is about 50 percent higher than gas cars would be. But we're very excited about the conversion."

Pine Ridge is located on the environmentally sensitive Loch Raven watershed. BMGC is seeking permission to invest \$4 million to build another 18 holes, 3-

hole handicapped facility and nature trail there. BMGC officials hope the use of natural gas cars plus a \$300,000 environmental study that showed the golf course has not and will not affect the environment, will sit well with those deciding on the expansion, Slusark said.

While the economic benefits of natural gas cars are few, their environmental advantages are many. In fact, the federal government is pushing CNG as one way for companies to comply with federal Clean Air Act requirements that fleets of 10 or more vehicles (golf cars are exempted) begin converting to a clean, alternative fuel by 1998.

According to BGE literature, natural gas cars are cleaner and safer than gasoline-powered cars. CNG produces less ozone-forming hydrocarbons, carbon monoxide and toxic emissions than gasoline. CNG is stored above ground, eliminating the possibility of underground storage tank leaks.

Because it is lighter than air and dissipates rather than pools if it leaks, natural gas reduces the risk of ignition and groundwater contamination. CNG's ignition temperature is twice that of gasoline and storage cylinders are strong enough to withstand bullets, dynamite or high-speed collisions.

BGE claims natural gas performs better because of its higher octane rating, 130 compared to gasoline's 87.

Because CNG is stored in gaseous form and doesn't have to be vaporized before use, CNG vehicles also run better than gasoline vehicles on cold days.

Cook said the CNG golf cars actually have about 10 percent less power, although golfers rarely notice the difference. "And there's no doubt they operate better in cold weather," he added.

E-Z-GO is providing the golf cars at Pine Ridge. According to company Manager of Marketing Services Ron Skenes, gasoline vehicles are easily modified with a natural gas kit that replaces the gasoline tank. All other components — except the carburetor, which is replaced by a mixer — are identical in the gasoline and CNG models.

"We've seen some interest in converting to natural gas cars at other courses around the country," Skenes said. "It's not a huge demand, but we're keeping an eye on it."

The natural gas cars can complete two 18-hole rounds with a single filling, Skenes said. Refueling takes less than a minute. The cost of natural gas versus gasoline varies around the country. In some places natural gas is more economical, in others gasoline is a better buy, he said.

"The only added expense is installing a pumping system for compressed natural gas," Skenes said.

GOLF COURSE NEWS

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