Off The Fringe

briefs

Briefs continued from page 14 now enrolled in Kansas State's program. Gourlay believes PTI can contribute to the development of the students and program.

Floratine, Valent team up

Floratine Products Group and Valent Bio-Sciences Corp. signed a joint agreement to develop new biological nematicide technology. Valent will provide technical information and materials on its nematode control products, and Floratine will help develop their commercial uses in the professional turf industry.

Deere posts strong quarter

Moline, III.-based Deere & Co. announced worldwide net income of \$401.4 million, or \$1.58 per share, for the third quarter ended July 31, compared with net income for the same period last year of \$247.5 million, or \$1.02 per share. For the first nine months. net income was \$1.049 billion, or \$4.14 per share, vs. \$572.4 million, or \$2.37 per share, last year. Commercial & Consumer Equipment Division sales were up 3 percent for the quarter and 17 percent for nine months.

ITODA honors Moore

The Independent Turf and Ornamental Distributors Association (ITODA) presented Demie Moore of Aquatrols Corporation of America with its Distinguished Service Award. Moore chaired ITODA's Professional Development Committee, which plans all the organization's educational programming. Moore currently heads Aquatrols Commitment to Excellence (ACE) initiative.

New golf course sales group formed

Coldwell Banker Commercial Nicholson-Williams Realty launched a golf course sales group by engaging the support of Coldwell Banker Commercial affiliates nationally and appointed Art West to head the group. The headquarters of the new group is in Jacksonville, Fla.

Clarification

In September's Hot Products section, North American Green's phone and fax numbers should have read: phone, 800-772-2040, fax, 812-867-0247

Hot Stuff (and Cool, too)

GEOTHERMAL HEAT EXCHANGE COULD PROVIDE FINANCIAL AND ENVIRONMENTAL BENEFITS TO GOLF COURSES.

JUST ASK SUTTON BAY By Mark Leslie

hen playing golf at the Sutton Bay Club, a remote property in the Badlands along Lake Oahe in northern South Dakota, one can't help but feel solitude and serenity. And yet, that intangible ingredient, remoteness, supplied one of the greatest challenges to Sutton Bay's builders - how to heat and cool all the structures with single-phase electrical power.

Their solution, geothermal heat exchange, could provide financial and environmental benefits not only for Sutton Bay, but for golf courses around the country. A technology that has been greatly improved over the last 30 years, geothermal systems are among the alternatives to electricity and oil recommended by the Audubon Cooperative Sanctuary Program for Golf Courses.

"We had to bring the power a mile and a half to the lodge area, then another quarter to a third of a mile down the hill to the duplexes and fourplexes," explained Sutton Bay partner/general manager Mark Amundson. "The single-phase power we had did not provide sufficient amperage to run air-conditioning and heating systems."

In a land where temperatures can dip well below 0 degrees and soar to above 100 degrees, Sutton Bay's developers needed both. And they needed it for their lodge, five fourplexes (units with four bedrooms and four baths with a common living area), three twoplexes (containing two bedrooms and a central bathroom), and maintenance complex, all of which sit on a hilltop and along its side overlooking the lake 300 feet below. In all, the buildings encompass 36,000 square feet of living space in addition to the main maintenance complex.

"Sutton Bay had all the classic reasons to go geothermal," said Mark Grebner, a principal of West Plains Engineering of Sioux Falls, S.D., who consulted on the project. "It didn't have three-phase power. And it was a remote site, with no natural gas available since it would have to be trucked from 30 miles away."

"The lack of three-phase power drove us in that direction," Amundson acknowledged. "Geothermal is the most efficient heating and cooling system in ex-Continued on page 18



Fully heated and cooled by geothermal technology, the lodge at Sutton Bay Club includes a dining room, lounge with large fieldstone fireplaces, exercise and locker rooms, a gathering area, second-story lookout bar and a private wine cellar.

Off The Fringe

Continued from page 14 istence. And it is the least expensive to operate over time."

While installation of the geothermal system cost about \$150,000 to \$175,000 more up front than typical heating and cooling systems, Amundson expects to recoup that expense in seven years through savings in operation and rebates from electrical companies.

Grebner said the normal payback period is actually five years on buildings used year-round because its cost of operation is 20 percent that of traditional systems.

"If you're building a new home and comparing geothermal to fuel oil, you will find the geothermal system will cost \$5,000 more. But you will reduce airconditioning and heating costs to 20 percent of normal costs," Grebner said. "It is a huge deal."

West Plains Engineering has consulted on installation of geothermal sys-



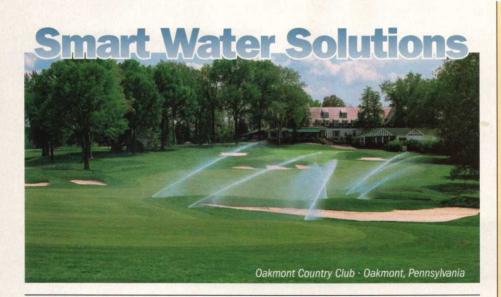
A well-drilling rig goes to work next to one of Sutton Bay's living quarters.

tems in schools and office buildings that are much bigger than Sutton Bay; rest areas that are much smaller; and even one other golf course, municipally owned Jones Park Golf Course in Cedar Rapids, Iowa. Jones Park Director of Golf Tom Lavrenz said the unit, installed this spring, is "working phenomenally."

"This is not unusual in the Plains," said Bill Kubly, CEO of Landscapes Unlimited, which built and is part owner of Sutton Bay Club. "It seemed a perfect way to accomplish what we wanted."

Indeed, expertise in geothermal technology has increased exponentially since heat pumps were introduced in the '70s, when developers explored the possibilities of using the earth as a gigantic "heat exchanger." Doug Chase of Chase Drilling of Wessington Springs, S.D., which drilled Sutton Bay's 300 wells, said the technology has gained in popularity because of increased oil and propane costs and its environmental friendliness.

Explaining the technology, the Geothermal Heat Pump Consortium states: "The Earth's natural heat is collected in winter through a series of pipes, called a



Hiring a professional irrigation consultant is very important to the success and outcome of a major irrigation installation or restoration project. The planning and specifications, prepared by a professional consultant, lay the foundation for lasting solutions that achieve environmental and business objectives."

JOHN ZIMMERS

Golf Course Superintendent • Oakmont Country Club
Oakmont, Pennsylvania

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111 E. Wacker 18th Floor Chicago. IL 60601 312.372.7090 Fax: 312.372.6160 www.ASIC.com loop, installed below the surface of the ground or submersed in a pond or lake. Fluid circulating in the loop carries this heat to the home. An indoor geoexchange system then uses electrically driven compressors and heat exchangers in a vapor compression cycle — the same principle employed in a refrigerator — to concentrate the Earth's energy and release it inside the home at a higher temperature. In typical systems, duct fans distribute the heat to various rooms.

"In summer, the process is reversed in order to cool the home," the Consortium continues. "Excess heat is drawn from the home, expelled to the loop, and absorbed by the Earth. Geoexchange systems provide cooling in the same way that a refrigerator keeps its contents cool — by drawing heat from the interior, not by injecting cold air."

Leslie is a freelance writer from Monmouth, Maine.

Quotable

"Speaking of industry trends — these days a golf course superintendent is just a salesman in training."

— John Kopack, former superintendent of the Legacy Club at Alaqua in Florida and now a sales representative for Pro Plus.

"That's not too bad, is it? I've had a good run. I'm not disappointed about the ranking; I'm disappointed in not winning."

— Tiger Woods, after losing golf's No. 1 ranking to Vijay Singh after 264 weeks. (Here's betting Tiger regains the ranking as fast as you can say Augusta National three times.) (Associated Press)

"We lost part of the roof on the maintenance building. I now have a 'skylight' in my office."

— Joe Boe, superintendent of Coral Oaks Golf Course in Cape Coral, Fla., after his course took a hit from Hurricane Charley.



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