

## Travels

consulting agronomist Terry Buchen visits annually with his digital camera in hand. He shares helpful ideas equipment from the golf he visits – as well as a few ideas of his own with timely photos explore the changing world of golf course



Terry Buchen, CGCS, MG, is president of Golf Agronomy International. He's a 41-year, life member of the GCSAA. He can be reached at 757-561-7777 or terrybuchen@earthlink.net.

## **VERSATILE FORMER GOLF CART**

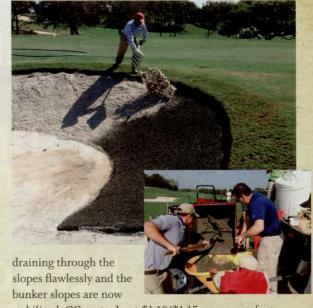
The 27-hole Grandee Nasu Shirakawa Golf Club in Fukushima Perfecture, Japan, is the only golf course in Japan designed by Robert Trent Jones, Sr., who was assisted by Roger Rulewich, in 1995. Shigeto Hayashi is the golf course superintendent. This Yamaha Turf Mate was formerly used by women caddies to transport four golf bags around golf courses in Japan, where this type of vehicle was ultimately replaced by traditional four-wheel golf carts. Hayashi purchased it used about 10 years ago, along with four spare wheels and tires, for approximately 10,000 Japanese Yen (\$100 U.S.). It was then modified by removing the upper golf bag holder frame and installing the round plastic case and supports and the hooks for the topdressing drag mat to be attached to, which cost about 2,000 JY (\$20 U.S.). The greenskeeper operates this vehicle standing up and it is used for course setup, dragging in topdressing, dragging the dew off of the

fairways, etc. It took about four hours to modify it.



## **CAPILLARY CONCRETE TEST BUNKER**

apillary Concrete (CC), the unique pervious concretebased bunker liner that is designed and manufactured in Sweden by Martin Sternberg, CGCS, is now being tested by Stephen Ehrbar, CGCS, director of golf course maintenance, and Nick Sabatino, assistant director of golf course maintenance, at the Jupiter Hills Club in Jupiter, Fla. The chipping green was initially built with a native sugar sand base, which is quite soft, and it needed to be stabilized. Ehrbar and Sabatino decided to test CC on the bunker slopes only so that golfers could walk up and down the slopes, with a new stabilized subsurface base, to play a shot. An 8-cubic-foot concrete mixer was used to blend the equivalent of one cubic yard of light weight porous aggregate (expanded shale or expanded slate, which are manufactured in seven different facilities in the U.S.), six bags of CC and 18-20 gallons of water. The mixture was then spread at a 2-inch consistent depth with a shovel and bunker rake and then it was smoothedout with a long-handled paint roller. The mixture was allowed to dry for four hours after it was covered with a tarp to keep the sun off of it so it would set-up better. The mixture was tapered into the sub grade at the bottom of the slopes and then bunker sand (that settled to a 2-inch depth) was placed over it. Irrigation and rain water are



stabilized. CC costs about \$1.10/\$1.15 per square foot, the light-weight aggregate costs about 40 cents per square foot and the installation production was about 130 square foot per labor hour. The mixture was installed in late March and it is performing quite well.