

## Mr. Fertigation, Jim Loke, breaks fresh ground

ANCASTER, Pa. - "Our goal," said H. James Loke, superintendent here at Bent Creek Country Club, "was to set the standard, to have a state-of-the-art fertigation system for grow-in and subsequent maintenance."

Loke may have met his goal with this Jay Morrish-designed private club course, grown-in back during 1992. Measuring 6,700 yards while using 120 acres of the 300-acre development, Bent Creek is maintained to tournament conditions all season long in the rolling hills of southeast Pennsylvania.

"After doing comprehensive research on all the systems on the market, we went with the Plant Star System," Loke explained. "We owe a lot of our success to our fertigation system, which was installed just prior to grow-in. We use it even more actively today

"At first, fertigation was perceived as a New Age idea and possibly a toy. Very quickly during grow-in, though, I realized the projected savings... were going to complete the grow-in and pay for installation of the fertigation equipment, as these savings were based projections I had budgeted.

"Now fertigation is a very useful tool that I cannot live without

According to Loke, some of the advantages to using fertigation include: no labor needed to apply fertilizer; no labor needed to repair

applicator damage during grow-in; no flush turf growth, thus less need to mow; potential for less fertilizer use because only one-tenth of a pound actual nitrogen is applied as needed and where it is needed.

"It takes from 5 to 20 minutes to set up our fertigation equipment," Loke explained. "We fertilize when we need it. We can wait until we need it. Our N-P-K ratios can be changed at any time because we have two tanks, one that stores straight nitrogen and the other can store a complete N-P-K-fertilizer.

An interesting phenomenon took place when the 2-year-old USGA [United States Golf Association] specified greens were ponding with irrigation water after only five to eight



minutes of a routine watering cycle. Black layer was becoming evident as the top area was staying too wet.

"After many exhaustive irrigation water tests, we noticed that our irrigation water had gotten much worse since grow-in as the pH had risen to between 7.6 and 8.1.

and our calcium bicarbonates were creating a thin layer - in effect sealing off the top portion of our greens mix," Loke said. "We added a second injector system, designed by GreenTurf International, and began treating our irrigation water as it left the pumphouse with pHairway [a sulfuric acid derivative manufactured by Unocal 76]. Within a month of injecting pHairway, we noticed very good water movement through our greens mix.

"The pHairway applications help unlock nutrients tied up in the soil as we lowered the pH last year from 7.6 to 6.7, and this year to the 6.3-6.7 range. By accomplishing this, we reduced our fungicide usage by 30 percent and our liquid fertigation also by 30 percent.

"Fertigation is the cake and pHairway is the icing on the cake at Bent Creek."



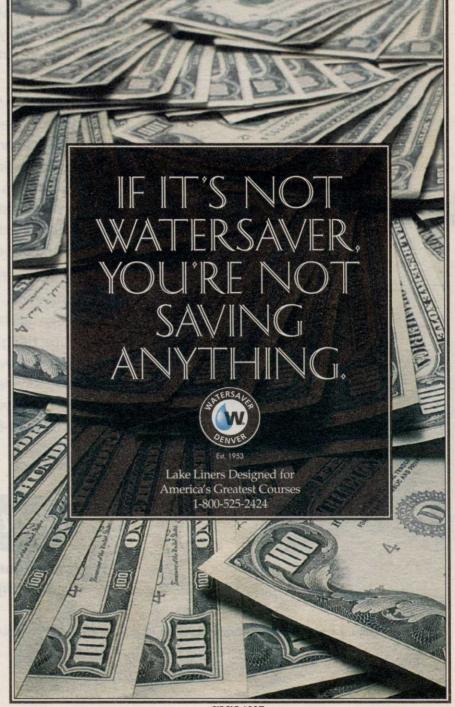
Loke, who holds a bachelor's degree in agronomy specializing in turfgrass management from Ohio State University, has been a certified golf course superintendent since 1986. He accrued extensive tournament experience at Firestone Country Club, which hosted seven of the PGA Tour's World Series of Golf and the 1975 PGA Championship during his tenure.

In his "post-Firestone" days he was superintendent for 10 years at Quail Hollow Resort in Mentor, Ohio, where he hosted the 1991 and '92 Ben Hogan PGA Tour event, the Ohio Open and many U.S. Amateur qualifiers. He also worked with Tom Weiskopf and Jay Morrish on the planning and routing of another 18 at Bent Creek.

A workaholic, Loke is a voting delegate and Certification Committee member of the GCSAA, having previ-

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## **Bator opens consultant firm**

CLEVELAND, Ohio — Richard M. Bator, former superintendent at Pine Valley Golf Club, Oak Hill Country Club, Merion Golf Club and Kirtland Country Club has opened a turfgrass consulting enterprise.

"I want to help golf courses 'get back to the basics' in sensible golf course maintenance programs," Bator said, "to help restore original golf course architectural design on existing courses; help with new course grow-in specifications, as well as long-term maintenance programs; assist with proper golf course maintenance building recommendations; provide emergency trouble shooting at any golf course anywhere; show course officials attention to detail at its finest and to provide single-or multiple-visit services."

Willing to travel nationally or internationally, Bator said he enjoys training staff and helping courses prepare for tournament play. "I am another set of eyes, as most successful people like to have a second opinion to maintain their high standards," he added.

Bator prepared Oak Hill for the 1980 PGA Championship; Pine Valley for the 1985 Walker

## Loke on fertigation

Continued from previous page ously served on the Election, Education, Scholarship/ Research and Nominating committees. He was also a seminar chairperson.

Loke is a former secretary-treasurer, current vice president and director of the Central Pennsylvania GCSA; past president and former environmental editor for the Northern Ohio GCSA; former director and member of the Program, Membership, Golf and OPARR (Ohio Pesticide Applicators for Responsible Regulation) committees of the Ohio Turfgrass Foundation; and a former director of the OPARR.

"I really like helping other superintendents with their questions about fertigation and acid injection as I like comparing notes with the professional turf manager," he said. "Our fertigation system can easily perform fungicidal chemication and I speculate that fungicides can be injected at low, less-than-label rates and get the same effect over time.

"We are very proud of the tournament conditioning of Bent Creek during last year's terrible heat and humidity — one of the toughest years for weather on record. We were in the best condition in my 26 years in the business."

Cup; and Kirtland for the 1997 U.S. Open qualifier. He designed, built and grew in Blue Hills Country Club as well as Gypsum Mills Golf Club both in Rochester, N.Y.

His office is located at 8110 Deepwood Blvd., Suite C-15, Mentor, Ohio 44060; telephone 216-255-6543.

## UMass schedules '97 Advanced Green School

HADLEY, Mass. — The University of Massachusetts Extension Service's 1997 Advanced Green School, offering intensive advanced training on plant diagnostics and winter identification of woody plants, will be held at the UMass Hadley Farm here, Feb. 26 to March 12.

The class on winter identification of woody plants will be taught by Associate Professor Jack Ahern from 9:30 a.m. to noon on Feb. 26

and 28 and March 5, 7 and 12.

Diagnosing woody plant problems will be taught from 1 to 3:30 p.m. on those same days by Extension educators Kathleen Hickey, Robert Childs and Gary Couch.

People may apply for admission by Dec. 1 by writing to Advanced Green School, French Hall, University of Massachusetts, Amherst, Mass. 01003.



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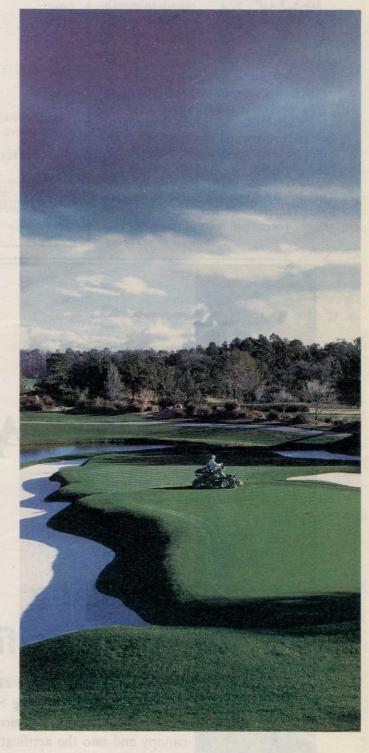
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