North Palm Beach, Fla. — Golf turf, a worldwide agronomic and maintenance golf course consulting firm, has expanded its golf course services. A division of Golden Dear International, Golf turf will assist in planning and development, agronomy/construction and planning, maintenance services, and golf course improvement.

"The Golf turf staff has been providing the premier agronomic and maintenance in the golf course industry for 30 years," said Edward A. Etchells. "By expanding our operation, we will be able to better service new and existing clients." Golf turf's credentials include work on 10 of the U.S. Top 100 courses as well as sites to more than 100 professional golf tournaments around the world. Among Golf turf's clients is Muirfield Village Golf Club in Dublin, Ohio.

Golf turf, which has serviced Nicklaus-designed golf courses for more than 20 years, provides agronomic and turfgrass consulting and environmentally responsible maintenance consulting to new and established golf courses around the world. Continued on page 19

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Tips to help overcome challenges of course grow-in

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equipment and maintenance equipment should be accomplished early on or at least secure temporary storage while building is under construction. Obtain temporary offices, if necessary.

- Arrange for irrigation water source, e.g. wells, domestic, effluent, runoff water rights, etc.
- Have wetlands commission and/or Army Corp of Engineers give the "green light" before construction begins. In writing.
- Contact state Soil Conservation District Office for topsoil, subsoil, history, maps, topographical mapping, etc.
- Hire engineering firm to provide data for architect/contractor. Surveys are usually a division of the engineering firm.
- Have all native topsoil areas tested for atrazine levels — especially if it has been farmed recently prior to construction.
- Secure burning permits, if applicable.
- Work with golf course architect on final construction specifications with common goals/objectives/budgets in mind.
- Coordinate the moving of trees, while clearing greens/tees/fairways/roughs to other areas of course while watering/staking/saucering accordingly.
- Have green and tee root zone soil mix tested per new USGA specifications. Monitor testing during blending without causing any undue construction delays. Determine if methyl bromide will be needed. Have subsurface gravel tested also per USGA specs. New USGA Green specifications standardized testing will determine if the intermediate sand layer (chocker) is needed so be prepared to send sample for testing.
- Have all native topsoil areas for fairways, roughs and natural areas tested for nutrient levels, pH, minor elements, etc. Have green and tee root zone soil mix tested for nutrients also.
- Have maintenance supplies on hand, plenty early, to handle water/soil/tee maintenance various maintenance and irrigation vehicles.
- Help design rainshelters, restrooms, pumphouses, etc. with building architect. Provide all utility hookups.
- Prepare grow-in maintenance budget. Prepare subsequent routine maintenance budget.
- Prepare "Big 5 Capital Budgets":

a. Golf Course Maintenance Equipment
   - Shop Equipment/Landscape Tools
   - Office/Lunchroom/Locker Room Equipment
   - Irrigation/Drainage Equipment
   - Golf Course Accessories
- Contact other golf course superintendents that have gone through the "grow-in". Growing grass in a golf course is directly opposite of routine maintenance regarding fertilizer and pesticide applications.
- Help determine grassing delineations with architect/contractor.
- Coordinate security force (sometimes off-duty police) guarding against vandalism/theft for all areas on property.
- Secure permanent telephone numbers for entire club operation;
- Make sure listing are in white/yellow pages when desired.
- Mark all greens/bunkers drainage flushouts with railroad valves so they can be found with a metal detector. Also mark gate valves, isolation valves, wire splices, air relief valves, quick coupler valves and plastic drainage gates so they can be found easily if the turf grows over them.
- Mark all green and tee root zone soil mix tested per new USGA specifications. Monitor testing during blending without causing any undue construction delays. Determine if methyl bromide will be needed. Have subsurface gravel tested also per USGA specs. New USGA Green specifications standardized testing will determine if the intermediate sand layer (chocker) is needed so be prepared to send sample for testing.
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- Prepare "Big 5 Capital Budgets":
**MAINTENANCE**

Grow-in tips

Continued from previous page

- Order grow-in fertilizers/pesticides and schedule delivery when needed with temporary/permanent storage capacities in mind.
- Have bunker sand tested and make recommendations to owner/architect. Put out sand samples for key golf people to hit shots from, if applicable: Bunker sand must follow USGA recommendations.
- Protect/mark off all tree locations susceptible to construction damage to roots or soil elevation changes.
- Coordinate silt fencing/hay bale locations with architect/contractor around catch basins and all other areas susceptible to erosion onto sensitive areas.
- Irrigation system should be flushed out and fully tested well before grassing commences.
- Consider hiring your irrigation technician and have him work with/for the irrigation contractor during all irrigation installations. He careful: This can be a sensitive area for employee relations.
- Contractor will sometimes ask for your guidance and approval of all seeding rates and equipment calibration. Work together for this very important common goal.
- Measure golf course yardage and sprinkler head yardage with laser distomat. Local golf association can do it, hire a private contractor to do it, or rent a laser distomat ($50-$150/day) and do it yourself.
- Mark all irrigation equipment with white pizza pans or white large kitchen trash bags for color irrigation as-built aerial photograph. Scale of photograph is usually 1 inch=200 feet, 1 inch=100 feet, or ultimately 1 inch=50 feet. Little budget allows. Overlay as-built can be made of topographical, drainage, and underground utilities as well.
- Order all golf course accessories, i.e. ball washers, cups, flagsticks, etc. one month prior to opening.
- Irrigate only during daylight hours. Be sure to water in the morning, put it to bed late each night. Consider using field controllers only and have one employee irrigate semi-automatically 46 holes/each to water properly.
- Ask for your guidance and approval of all irrigation rates, etc. It's not recommended as an employee/s of yours should be observing the watering to make sure that enough/too much is properly applied. Turf students are an excellent choice to help with the grow-in irrigation special techniques.
- Make the critical decision about when golf course will open for initial play. Probably the hardest decision you will make during grow-in.

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For more information, call RISE at (202) 872-3860, or write to 1155 15th St. N.W., Suite 900, Washington, D.C. 20005.

**Flood**

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"We still can't find the bridges," Cook said. "They're probably buried somewhere under silt."

Crews replaced the lost bridges with two old ones, so that a second nine holes could be opened up. The backside of the course was closed about two weeks and opened Jan. 22 before the Feb. 7-8 rainstorm repeated the terror and carried away the two replacement bridges.

"We have a wash every year, but not to this extent," Cook said.

Her plans were to wait out the rainy season, then hire an earthmover to level sand out and grade it. Her crews will then seed it. Until then, all four affected holes will have modified tees.

The entire operation was exacerbated because crews had to trailer equipment around to the other side of the golf course to mow the greens and tees there. It was a 45-minute drive to the neighboring town to reach a bridge.

Yet, through most of the ordeal, Cook kept 18 holes open — nine holes on the East Course and another nine between the South and West courses.

The two floods were Cook's biggest challenge in her career, she said. Yet, every day, she said, "I get a lot of satisfaction in looking over the golf course and seeing what great things the crew has done. We've all worked together to make it very playable and very beautiful. I get a lot of satisfaction out of that."

**Nicklaus Turf**

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the world. The firm specializes in developing and implementing grassings, irrigation, course improvement and pest management programs. Each concentrates on the most current environmental philosophy of low chemical, fertilizer and water use.

March 1993