BRIEFS

FTGA ELECTS BARNES PRESIDENT

TAMPA, Fla. — David Barnes has been elected 1997-1998 president of the 1,200-member Florida Turfgrass Association (FTGA). Elected during the FTGA's 45th annual Conference & Show here, Barnes has more than 20 years experience in golf course turfgrass management. He is vice president and general manager of the Greg Norman Turf Co. in Avon Park. He has been a member of the FTGA since 1988, serving as vice president in 1996-1997. Barnes is also involved with the University of Florida IFAS.

MIDWEST EXPO IN JANUARY

INDIANAPOLIS, Ind. — The 1998 Midwest Turf Expo will be held Jan. 20-22 at the Indiana Convention Center here. A pre-Expo Golf Course Superintendents Association of America (GCSAA) seminar entitled "Design, Construction and Maintenance of Chemical Storage Facilities" will be held on Jan. 19. Registration and exhibitor information is available by calling Beverly Bratton at 765-494-8039.

IMG INKS FOUR CONTRACTS

LAKELAND, Fla. — International Golf Management has signed golf course maintenance contracts with The Blueberry Plantation Golf and Country Club in Alma, Ga., and with three golf facilities in Florida — Heritage Greens, Pelican Strand in Naples and Delray Country Club in Delray Beach. Heritage Greens is an 18-hole course scheduled to open in January. Pelican Strand is a semi-private 27-hole facility whose final nine holes will open in mid-January.

FREE BALLS? YES ... AT THAYER CC

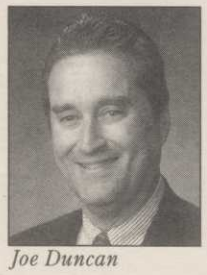
THAYER, Mo. — No, that is not a misprint. Thayer Country Club has devised a plan to east the "fall foliage frustration" that strikes golfers each autumn. You know: Great drive, down the middle, but unfindable because of tree leaves. Thayer's new policy won't find those lost balls for its golfers, but it gives them the chance to replace them. Using the honor system, golfers can just take the balls they lost that round from a collection of those found throughout the year by superintendent Tom Benyo. "I've never heard of a course replacing lost balls, but why not?" said Benyo. "After all, these balls came from the golfers. Let's give them back."

Ohio show hits hot buttons

President stresses green 'marriage'

By MARK LESLIE

COLUMBUS, Ohio — Calling the relationship of the state's golf course superintendents, sports turf managers and lawn-care operators "a beautiful marriage," new Ohio Turfgrass Foundation (OTF) President Joe Duncan said the different groups are learning more and more from each other as time passes.



Joe Duncan

"That relationship has existed for a long, long time, but we depend on each other more than ever before," said Duncan, owner of Evergreen Lawn Care Inc. in Troy, who succeeded Hank Chafin at the OTF Conference and Show here, Dec. 8-11. "We're learning that everything we do is an integral part of each other's work. Things that happen on sports turfs and on golf courses, and the research they are fostering, affect us all."

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Prof. pushes more biological control

By MARK LESLIE

COLUMBUS, Ohio — Questions abound in the arena of turfgrass soil ecology and biology, but Dr. Michael Boehm pointed to a future where biological care plays an equal role in maintenance with chemical and cultural care and the turfgrass' genetic resistance.

The Ohio State University (OSU) assistant professor of plant pathology painted a picture in which current maintenance practices are dominated by chemicals, and where cultural practices and genetic resistance dwarf biological controls.

"We want to get all spheres relatively the same size to give turfgrass managers the ultimate and largest arsenal to combat turfgrass diseases," Boehm told an audience at the Ohio Turfgrass Foundation Show and Conference here.

"Our goal," he said, "is the integrated management of diseases ... to push the responsible use of biorational, environmentally friendly and environmentally

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GOLF AND THE ENVIRONMENT

A water sample is taken at TPC River Highlands in Cromwell, Conn.

Tackling unreasonable expectations

By RON DODSON

It's interesting how jobs seem to define who we are. For instance, when we ask, "What is a golf course superintendent?" we're really asking what job does he or she do, and, believe me, everyone's got an answer about what they're supposed to do.

First of all, everyone seems to agree that a superintendent's primary job is to manage the golf course (meaning turfgrass). And it follows that every golfer has an opinion about how a golf course should be managed. They've played a lot of golf, they have a lawn, they have a lot of money, and they know how their greens ought to look and play. That makes them experts on how turfgrass ought to be managed. Right?

Sometimes that's how it sounds when I talk with golfers about superintendents.

Well, I'm here to tell you that good golf course superintendents do a whole lot more than manage turfgrass. In addition to all of the work and expertise it takes to manage turf, they manage water, and from this environmentalist's perspective they also manage wildlife, wetlands, lakes, streams, forests, landscape ecology, insects, the weather, the media, the government, their staff, and the biggest challenge of all: the unreasonable expectations of golfers.

What do I mean by unreasonable? From an economic and environmental perspective, think about wall-to-wall manicured turfgrass, both in terms of man and machine hours as well as in loss of habitat. Think about fertilized turf right down to the edge of water bodies, both in terms of cost of fertilizers, man hours to spread it, and the potential damage to water quality

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Gathering data by GPS and GSI.

Computer maps offer advantages for maintenance and construction

By KEVIN P. CORBLEY

LAKEWOOD, Colo. — Computerized mapping is the future of golf course maintenance and construction. That's the direction Larry Rodgers of Larry Rodgers Design here sees the industry taking. And his clients, some skeptical at first, tend to agree.

For more than a year, Rodgers has been using Global Positioning System (GPS) and Geographic Information System (GIS) technologies to monitor and map the installation of irrigation systems his company designs for new and existing courses. When each project is completed, Rodgers' clients not only have new irrigation, they are left with a digital map of the course they can use for many purposes.

1ST OF 3 PARTS

"Digital mapping essentially replaces aerial photography in golf course mapping," explained Rodgers. "GPS and GIS are a lot more accurate and much less expensive in the long run than air photos."

Typically, an aerial photo of a course is taken after construction and has limited use as a map reference for some maintenance and future design changes. Digital mapping is conducted throughout the construction process, whether for a new course or a replacement irrigation system at an existing one. The digital map is created in layers as the project progresses and can be used to facilitate the construction itself.

"The bottom line is, this technology saves money by virtually eliminating change orders in renovations of existing courses," said Rodgers.

Digital maps give contractors an extremely accurate visual guide they can follow during construction. As a result, completed projects match very

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Global mapping to make (golf) life easier

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closely with the original design, requiring few changes. And when construction does deviate from the plans, the designer sees it immediately on the updated maps and can fine tune the design as needed.

GPS AND GIS EXPLAINED

GPS and GIS are separate technologies that work together in creating digital maps. GPS pinpoints the locations of objects, and GIS contains information about those objects.

"Imagine it like this," said Rodgers: "GPS gives the house address, while GIS gives a description of the house."

The U.S. government developed GPS as a navigation and positioning tool. Orbiting satellites emit signals picked up by small GPS receivers which determine exact latitude, longitude and elevation positions on Earth.

Receivers are small enough to be carried in a pocket or backpack. The GPS receiver can record the location of a single point, such as a tree or sprinkler head, or the location and length of a linear feature, such as an irrigation pipe or fairway edge. It can even determine the area of a large spatial feature, such as a green or bunker, by collecting points along the perimeter.

Those GPS points can be loaded directly into the GIS, which is a multi-layered map database. Besides containing attributes of features, the GIS also displays those features geographically in their correct absolute and relative positions. In other words, a bunker is mapped in its correct latitude/longitude coordinates, as well as its exact position relative to the green, fairway, tees, shrubs and irrigation equipment.

Rodgers spent about $30,000 for his GPS/GIS system, which includes a Trimble XRP backpack GPS, Fujitsu Pentium Pentop computer and mapping software. He has tailored the software to map golf course features.

"This system locates points with an accuracy of less than one meter," said Rodgers.

In a typical project, a member of Rodgers' field crew walks the golf course with the GPS backpack and computer, stopping at each feature to collect a GPS point with the press of a button. For spatial features, he walks their perimeter, recording points every few feet.

These collected points are fed directly into the pentop computer which creates an immediate on-screen map of the features as the associate walks. In addition, the associate uses a point-and-click interface on the computer to acquire database information.

For instance, if he plots the location of a tree, he chooses "tree" from the screen menu. Additional pull-down menus allow him to click on the type of tree, its age and condition. Back at the clubhouse, the course superintendent can add notes about when the tree was planted, when it should be fertilized and other information.

"This is how we build the course map and collect information at the same time," said Rodgers. "And because it's so quick, we go out many times and map each phase of construction, adding accurate information on sod, greens, tee boxes, irrigation pipes, layer by layer as they are built."

Depending on how many features the course manager wants mapped, Rodgers collects from 30,000 to 100,000 points on any given mapping project.

"Thanks to the digital map, we have few change orders on existing projects and very happy owners and designers at the ends of our projects," said Rodgers.

Editor's Note: In next month's issue, part 2 in this series will describe the specific uses Rodgers and his clients are finding for digital maps in the construction and maintenance of new and existing golf courses.

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