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THE NEWSPAPER OF THE GOLF COURSE INDUSTRY

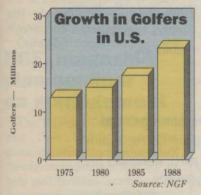
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Success hinges on detail

Do a market study or roll the dice, experts tell potential developers at conference

BY MARK LESLIE

The keys to success for golf course developers are to have a market study done, plan with care, put together a team of tested professionals and create "an experience" for the golfer, according to a score of experts in the golf industry.

Speaking at a Golf Real Estate Development Conference in Palm Beach, Fla., organized by Crittenden News Service, experts hammered home the importance of detail

"The salient message all of us would give to you," said conference chairman and golf course architect Michael Hurdzan, "is 'plan with care.'

A project should be driven by facts, not Continued on page 26

Course plans				
in the Southeast				
	Under	Being		
	Construction	Planned		
Alabama	2	4		
Florida	30	39		
Georgia	13	7		
Louisiana	0	3		
Mississippi	1	1		
North Carolina	16	10		
South Carolina	19	11		

Tennessee

6

England learning new ropes

BY MARK LESLIE

Canadian Brian Turner's new \$51-million project could be entitled "The Americanization of England," with a plot of taking championship-quality golf course design and maintenance where it has never gone before.

Turner, transplanted to England in 1984, saw an opportunity in Great Britain to combine business (he's a real-estate developer) with pleasure (he's also an avid golfer). The result: East Sussex National Golf Club in Horsted, Sussex, which introduced an American-style golf course and country club to that country for the first time when it opens eight holes of its West Course at the end of August. The rest of the West Course and the entire East Course are expected to open next May 31.

"What I saw was a business opportunity to bring excellence in golf course design and golf course conditioning to the British Isles. It didn't exist over here," Turner said.

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Beauty and danger come into play on this 18th hole at Highland Springs Country Club in Springfield, Mo. Designed by Robert Trent Jones Jr. and built by Greenscape, Ltd. of Menlo Park, Calif., the 18-hole private course meanders around four lakes and over rolling terrain. More information on new courses around the country and a table listing courses on which plans have started in the last month are on pages 12 and 13.

Jones: Stress the values of courses

At a time when some environmental groups are opposing golf course developments the golf industry should focus on the benefits of green belts, says the president of the American Society of Golf Course Architects.

Robert Trent Jones Jr., a former chairman of the California State Parks and Recreation Commission, believes golfers and those in the industry should unite and explain more vigorously that a golf course serves as an animal habitat, bird sanctuary, oxygen-

Continued on page26



Robert Trent Jones Jr.

Sci-fi-like invasion worries supers

BY WILL BARTLETT

South of the Mason-Dixon line an invasion is taking place by a well-organized army: Imported fire ants. Lacking any natural enemies, the ants have spread unchecked across the South and Southeast, damaging everything in their path from golf course rough, fairways, cart paths and irrigation systems to crops, grasslands and animals.

There are two methods of treating the problem of fire ants: Individual mound treatment and broadcast treatment of the entire area with a bait insecticide. Most golf course superintendents spot treat the

Continued on page 5

Fire ants annoying courses as they spread

Continued from page 1

mounds while entomologists and other experts recommend broadcast treatment. Both groups, however, present a good rationale for using their particular methods.

The fire ant zone in the United States now extends to 11 states across the South and Southeast, from Texas to Florida and as far north as southern Oklahoma and North Carolina. "The farther south you go in that area, the more fire ant mounds you would tend to see," according to Pat Cobb, Extension entomologist at Auburn University.

Most efforts now are directed at keeping the infestation from spreading, especially to the West. Arizona and California don't have a problem with them yet, but experts say it is now only a question of time.

Fire ant experts recommend the broadcast method because it eradicates them more thoroughly and kills the queen. But that treatment takes several weeks and the entire area must be treated, making it difficult and far more costly.

Golf course superintendents across the South are most commonly using the individual mound method because they say it is easier, quicker, less labor intensive and serves their particular needs.

"It is hard to broadcast a material at a pound to a pound and a half per acre (which is the recommended amount for broadcast treatments.) You usually broadcast materials at anywhere from 100 to 300 pounds per acre," says Jeff Cornelson, assistant superintendent at the Country Club of Mobile, Ala.

If the broadcast treatments were a final solution to the problem there would be more interest in broadcasting. But presently, even when eradicated with a broadcast treatment, the ants will at some point reclaim the treated land with a vengeance.

Those in the golf course industry have resigned themselves to the fact that the red imported fire ant (solenopsis invicta) will always be around. As superintendent Bob Martin of Citronelle (Ala.) City Golf Course puts it: "The only solution I know to the fire ant problem is the old joke that you should spray them real hard for three weeks and then move away."

Red fire ants have been spreading their way across the Southeast since about 1940, replacing the previous problem of the black imported fire ant (solenopsis richteri.) Unfortunately, red fire ants are an even greater nuisance than black fire ants on pastureland, athletic fields and other grasslands.

"Fire ants create essentially two problems on golf courses," says Homer Collins, a fire ant specialist with the U.S. Department of Agriculture in Gulfport, Miss.: "Fire ant nests are large unsightly structures made of soil and can reach as much as 2 feet in height, although on golf courses they don't always get to that height because of routine grounds maintenance.

"The other problem is that golfers might be stung when they step in a nest, disturbing the ants so that they come out en masse and sting the golfer about the ankles and legs. As many as 200,000 ants can be in one nest."

Multiple-queen colonies are a more recent threat and can now be found in parts of Mississippi, Louisiana, Georgia, Texas and Florida. Multiple-queen colonies were first discovered in Mississippi in 1973 and appear to be a much more potent threat than the single-queen ants. There can be as many as 250 ant mounds per acre as opposed to 40 mounds per acre with the single-queen colonies.



Ant hills as high as 2 feet pepper some Southern fields



Photo and map courtesy of the Texas Department of Agriculture

Southern greenkeepers have employed the wisdom of university Extension Services, entomologists, chemical experts, the U.S. Department of Agriculture and others. All information indicates that infested areas in the warmer climates (those with 10 degrees Fahrenheit minimum) will remain infested until an as-yet-undiscovered solution to the problem is found.

Treatments can vary greatly, although the most popular are local treatments such as mound drenches, surface dusts, injected toxicants, fumigants and mechanical

Only a couple of products are available for broadcast treatment, consisting of baits composed of soybean oil and a toxicant formulated on a corn grit carrier. Amdro and Logic are two of the more popular baits. Broadcast use of Diazanon is now illegal, although it can still be used for spot treatment.

Golf course superintendents call the ants a nuisance and, as such, find it easiest to simply spot treat problem areas as they see fit.

"They are not really a problem where we mow frequently," says Martin, "such as on greens, fairways and tees. They get in and around sign posts, irrigation boxes and other unmowed areas, so while our course ranger is on patrol he'll spot treat the mounds when he sees them. About once a week he will look around trees, sign posts and other areas.

"They can be a problem around irrigation control boxes when they get in around the wires and eat the insulation. We've actually had short circuits caused by ants."

"In the past when we have problems, we spot treat," says Leon DuBose, superintendent at Cypresswood in Houston,

Texas. "We give our course marshals a small spray can of Dursban granular and if they see a problem they'll treat the mound individually. It's too expensive to treat it on a wide scale. Unless you kill the queen you're not permanently affecting the mound. It is better to treat them individually."

According to Cobb and other experts and golf personnel, most golf courses have trouble in the rough. If a fire ant establishes a new mound in fairways, greens and tees, they will eventually move away to areas where the mound is not disturbed by mowers and other mechanical devices. The mound is an incubator — a solarium — in which the immature ants live. Fire ants don't like to have the mound disturbed. For that reason, mounds will be along the edges of walkways, against the bases of trees and in the deep rough.

Harold Childers, superintendent at Lake Point State Park Golf Course in Eufaula, Ala., has first-hand experience with what happens to golfers and course employees: "I, myself, have been bitten while standing in a mound in the rough. I was able to get most of them off my leg before they really got me and I finished my round without any problems."

Fire ants, unlike honeybees, each can sting numerous times, causing in humans a burning sensation, which is how the ant got its name. Humans mostly experience minor discomfort, a general burning and itching sensation where stung. In 15 minutes to a half hour the burning subsides. In 24 hours a sterile pustule will form on the sting and that will go away in about a week. Further complications will occur if an individual is allergic to insect venom or if they are bitten extensively.

To treat any non-crop areas of an acre or more, it is recommended to have an area

Sod quarantined

A quarantine in the fire ant zone requires sod producers to obtain a permit from the Animal Plant Health Inspection Service branch of the USDA in order to ship sod into non-infested areas. Plants, sod and hay must be certified free of fire ants before shipping. Some states will soon require inspections of sod and nursery stock being taken from one state to another.

Fire ants would prosper and spread quickly if they could find a ride west to the rich soil of Arizona and California and it would only be a matter of time before they made their slow march all the way to Seattle, Wash. "That's why it's important that no sod leave the infested areas without first being treated and inspected," says Auburn University entomologist Pat Cobb.

Any geographical area with a10degree Fahrenheit or higher minimum temperature is ideal for the ants, except for some of the drier areas of the Southwest

treatment of fire ant bait, followed a week later with a mound treatment with a contact insecticide, according to Auburn University's Cobb. The active ingredient in baits is Dursban or another chemical deadly to the ants.

The bait will entice the foraging worker ants to bring the 'food' back to the nest. After the ants feed on the bait the infected food will eventually make its way back to the queen. Over a period of a few weeks the queen will become sterile and eventually the colony will die off. It's a slow process but it's more effective than spot treatments.

But those in the golf course industry merely try to keep them away from golfers as much as is feasible. "We use two teaspoons of Orthene 75S per mound. It's more convenient to us to treat mounds individually when we are in the rough," says Cornelson. "From time to time we hear complaints, but most of the complaints come from employees as opposed to the golfers. They have to mow and work near the mounds."

