# GOLF COURSE

Focus on Financing
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THE NEWSPAPER FOR THE GOLF COURSE INDUSTRY

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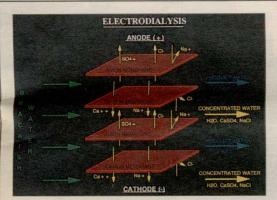
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This graphic illustrates the electrodialysis process for removing unwanted solids from reclaimed irrigation water. Confused? For answers, see our special section on irrigation and pumping stations, pages 21-24.

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PLAYING INTO THE SUNSET

The green of the 557-yard 4th hole at Uwharrie Point in Denton, N.C., site of the new project from Tom Fazio on Badin Lake. For story and more on golf course development, see page 17.

# **EPA** reviews reregistration procedures

By HAL PHILLIPS

The Environmental Protection Agency is reviewing its reregistration procedures after learning that approximately 30 percent of reregistration applications don't meet preliminary stan-

Three out of 10 applications submitted by chemical companies are sent back by the EPA - not because the pesticide is somehow suspect, but because the application data has been found inadequate by EPA scientists for making reasonable risk assessments. This is the single biggest factor contributing to the overall lethargy of the reregistration process, according to the EPA's Al Heier.

Consequently, the EPA has re-examined the guidelines it provides the pesticide industry for conducting reregistration studies.

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# Landmark out of appeals; RTC and AGC take over

By HAL PHILLIPS

The demise of Landmark Land Co. became official on Sept. 14, when agents of the Resolution Trust Co. assumed physical control of all Landmark prop-

"It's a done deal — they lost," explained the RTC's Anne Freeman. "As far as we're concerned we've taken over management."

Landmark employees will continue to handle the day-to-day operations at each club, while American Golf Corp. has agreed to manage Landmark assets on a contract basis. Hilton Hotel Corp. of Beverly Hills has been retained to oversee the real estate portions of the former Landmark holdings, which include PGA West, Kiawah Island and Carmel Valley Ranch.

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# **Finance** troubles? ... What troubles?

450-plus golf projects undertaken in 1992

By MARK LESLIE

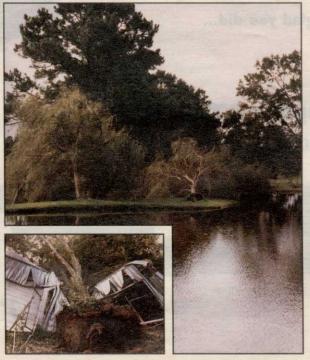
While scores of developers are scrambling to find financing for golf facilities that have been in planning for years, undeterred dozens of new development "players" are proceeding with projects, according to figures from Forecast Golf Marketing & Financial Systems, Inc.

The Richmond, Va., firm reported 451 golf course projects have taken one form or another in the United States since Jan. 1. That brings the total to 2,134 - projects that are in various stages of reality from merely planned, to on hold, to under construction.

Scott Marlowe of Forecast said about 200 golf projects are on hold for financial reasons.

But the financial climate doesn't seem to be deter-

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This was the post-Andrew scene at Oakbourne Country Club in Lafayette, La. The maintenance shed (inset) was totaled.

## Supers offer pointers on hurricane preparation

By PETER BLAIS

Preparing a golf course for a Hurricane Andrew is like getting the local Pop Warner football team ready to go against the Washington Redskins. There just isn't a heckuva lot you can do with the tools at your disposal.

South Florida facilities directly in the path of the storm - like the Links at Key Biscayne, Homestead Air Force Base and Kendall Golf Club — were basically defenseless against the storm's onslaught and suf-

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# Superintendents offer advice on reducing hurricane damage

Continued from page 1

fered mightily.

So we asked several superintendents who fared slightly better to do some Monday morning quarterbacking. What did they do right in preparation for the most violent hurricane of the century and what do they wish they'd done differently.

Here are a few of their answers.

Fred Granger, Miami Lakes Country Club, Miami, Fla.: Although north of the main storm track, Granger's course still lost 400 trees, 200 shrubs and many broken limbs that were piled up throughout the course, he said. Satellite boxes suffered some minor damage. Knowing the storm was on its way, Granger's crew spent the hours before its arrival pruning dead branches near homes and cutting dead trees. He raised computers off the floor, moved them away from windows, covered them in plastic and took all his records home.

"We only got five inches of rain," he reported. "But our maintenance building is in a low area. If we had gotten more, it would have flooded and the computers would have

There was one tree next to the maintenance building that we should have cut down. It got knocked over and put a big dent in the building. It was the one tree that could have reached the building, and it did.'

Nick Naccarato, Naples Beach Hotel and Golf Club, Naples, Fla. - Naples Beach was fortunate to escape with tree damage, 200 down and 200 tilting that will eventually come down, Naccarato said. The hotel and course have a standing hurricane plan followed whenever a warning occurs. Loose materials are stored, nursery plants brought inside and golf cars moved from their beach-side storage home to higher ground. When the tide swelled during Hurricane Donna in the early 1960s, one golf car ended up three blocks away.

'We know what to expect and prepare for the worst," Naccarato said.

However, Naccarato wishes he had topped off more of his trees, particularly the eucalyptus, well before the storm hit. Many were too top heavy and were more susceptible to the 100-mph winds.

"They are shallow-rooted and will fall over very easily if they aren't cut back," he said. "We'll do a lot more tree work, well before any storm hits this time.'

Jack Lawrence, Oakbourne Country Club, Lafayette, La.: Lawrence had his crew take in everything loose on the course - flags, benches, trash receptacles, tee signs — and shut off the power before he left. The 100mph winds knocked over a giant water oak that crushed the maintenance building. Approximately 75 ornamental trees were destroyed along with several pieces of maintenance equipment. Lawrence estimated the damage at \$80,000 to \$100,000. The course re-opened four days after the storm. This is his third hurricane in 20 years at Oakbourne.

"We did just about everything we could as far as taking the loose stuff in," Lawrence said. "We wouldn't have lost as many ornamental trees if we had staked them all down. But I don't think I would do that even if I knew another storm was coming. The man-hours to do them all would have been too great.

"I would definitely recommend cutting down water oaks near any building, though. They have very shallow root systems and will go over in a big wind. I've seen hundreds of them down the last few weeks."

Just before press time, Hurricane Iniki struck the Hawaiian island of Kauai. Information was sketchy regarding the worst-hit courses since phone lines were down in many places. Golf course architect Rodney Wright, who has an office in Honolulu and has designed many courses on the islands, offered these thoughts on hurricane preparation.

An ongoing tree program that thins out existing trees and keeps their mass down is the best policy, he said. The shallow-rooted kiawe tree dominates many Hawaiian courses. Supplementing them with deeper-rooted varieties, like banyans, and encouraging the roots to burrow deeper with root collars will help minimize tree loss, he added.

Coconut trees are another good option because they can usually be propped back and will grow again following a storm.

Keeping storm drains free of obstructions can stop water from backing up and flooding a course, Wright said.

# Do you know your fescues?

There are two major types of fescue grasses — fine and tall — and five varieties of fine fescues.

The fine fescues are:

- strong creeping fescue, which spreads and fills in well;
- slender creeping fescue, which creeps but not nearly as much as strong creeping;
- · chewings fescue, which has more bunch-type growth;
- · hard fescue, also with a bunch-type growth habit; and
- sheeps fescue, which is bluish-green. Hard and sheep fescues are more tolerant to heat, so they perform better in the transition zone.

Fine fescues are finer textured than tall fescue. They also tend to live long in heavy shade and have a more natural look.

Tall fescues are quite different. Less attractive, they nevertheless work best in transition areas and the South, performing well in the shade. Their main attribute is tolerance of heat and summer stress.

On the down side, it tends to have more top growth and thus needs to be mowed.

# Five leading hard fescue cultivars as ranked across the country

Name	AL1	IA1	ID2	IL1	IL2	IN1	KY1	MD1	MI1	MNI	NE1	NJ1	NJ2	NJ3	OR2	OR9	PA1	PA2	RII	SK1	UB1	WA1	Mean
Warwick		6.1		-			5.0	4.4				6.8	6.6	6.4	_	-5	_	_	3.1	_	6.6	6.4	5.7
SR 3100	5.5	6.6	4.6	3.9	4.6	5.1	4.5	5.0	6.2	5.7	6.1	6.8	6.7	7.8	5.4	4.9	6.1	5.2	3.8	4.6	7.7	7.0	5.6
PST-4HD	5.1	5.9	3.7	3.3	4.7	5.0	5.4	4.5	5.8	5.3	6.4	7.1	6.8	7.6	7.2	6.0	6.8	5.3	3.9	4.0	7.0	6.2	5.6
SR 3000	4.9	5.6	5.7	3.3	4.5	4.5	4.0	4.6	5.2	5.0	6.0	6.2	6.2	6.4	4.4	5.4	6.9	5.8	3.5	4.6	6.9	6.8	5.3
Aurora	4.8	6.3	4.2	3.0	4.3	4.6	5.1	4.3	5.7	5.7	5.1	6.1	6.0	6.3	5.4	5.4	7.1	6.2	3.3	4.4	6.5	6.3	5.3
LSD Value	0.6	1.4	1.6	1.3	1.6	0.6	0.9	0.9	1.2	1.1	1.7	1.0	0.7	0.7	1.7	0.8	0.6	1.1	0.7	0.9	1.2	0.6	0.2

# Seven leading slender creeping fescue cultivars after '91 evaluation

										_													
Name	AL1	IA1	ID2	IL1	IL2	IN1	KY1	MD1	MII	MN'	NE1	NII	NJ2	NJ3	OR2	OR9	PA1	PA2	RI1	SK1	UB1	WAI	Mean
FRT-30149	3.7	6.9	6.6	3.1	3.7	3.5	3.6	4.3	5.3	6.7	5.9	4.0	3.4	2.9	5.7	6.1	6.0	4.7	3.7	5.8	3.4	6.4	4.8
Barcrown	3.2	7.0	6.5	2.7	3.9	3.1	3.7	3.7	5.5	5.0	6.5	3.8	3.2	3.5	6.4	6.4	7.1	4.8	3.4	5.3	3.6	6.7	4.8
Marker	3.3	6.0	7.3	2.9	3.4	3.8	3.4	4.5	5.8	5.7	6.7	3.0	2.4	2.6	6.2	6.4	6.7	4.7	2.5	5.4	3.6	6.8	4.7
Smirna	3.7	6.8	6.9	2.8	3.6	3.7	3.5	5.2	5.7	5.0	6.3	3.0	2.8	2.3	5.4	6.5	6.3	N/A	2.5	5.0	4.0	6.4	4.6
HF 138	3.6	6.9	6.4	3.3	4.1	2.9	3.9	4.8	6.2	5.0	6.6	3.6	3.2	3.5	4.2	5.9	5.6	3.8	2.6	5.6	3.4	6.5	4.6
Barskol	3.0	7.1	7.4	2.7	3.7	3.7	3.3	4.5	5.5	5.7	6.2	3.2	2.6	2.9	5.3	6.6	5.9	5.0	3.0	5.0	2.7	6.2	4.6
Napoli	3.3	6.6	6.7	3.0	4.0	2.9	2.9	4.3	5.2	5.3	5.7	3.0	3.8	2.5	6.7	6.0	6.2	4.2	3.3	4.7	3.1	6.9	4.6
LSD Value	0.9	0.9	1.1	0.7	0.9	0.6	0.5	0.9	0.9	1.2	1.1	0.7	1.2	0.6	2.1	0.6	0.7	1.5	0.8	0.9	0.7	0.6	0.2
Here are th	e locati	ions of	the fie	ld test	e follo	wed hy		KY1: I	exing	ton Ky	silt le	nam ar	d silt	6 1-6 5	21-	0	DO. II.	. I. I	0	form!		(- L - )	-116.1

soil texture, soil pH, pounds of nitrogen applied per 1,000 square feet, mowing height in inches and irriga-

tion practiced.
ALI: Auburn University, sandy loam, 4.6-5.5, 2.1-3.0, N/A, N/A.
IAI: Ames, Iowa, sandy clay loam, 7.1-7.5, 2.1-3.0,

IA1: Ames, Jowa, sandy clay loam, 7.1-7.5, 2.1-3.0, 2.1-2.5, to prevent stress.
ID2: Post Falls, Idaho, silt loam and silt, 4.6-5.5, 2.1-3.0, 1.1-1.5, to prevent stress.
IL1: Carbondale, Ill. (low mowing), silty clay and clay, 6.1-6.5, 3.1-4.0, 1.1-1.5, to prevent dormancy.
IL2: Carbondale, Ill. (high mowing), silty clay and clay, 6.1-6.5, 3.1-4.0, 2.1-2.5, to prevent dormancy.
IN1: West Lafayette, Ind., silt loam and silt, 6.6-7.0, 0.0-1.0, 3.6-4.0, no irrigation.

KY1: Lexington, Ky., silt loam and silt, 6.1-6.5, 2.1-3.0, 1.6-2.0, no irrigation.
MD1: Silver Spring, Md., silt loam and silt, 6.6-7.0, 0.0-1.0, 2.6-3.0, only during severe stress.
M11: East Lansing, Mich., sandy loam, 7.6-8.5, 1.1-2.0, 1.6-2.0, to prevent stress.
MN1: Minnespolis, Minn., silt loam and silt, 5.6-6.0, 2.1-3.0, 1.1-1.5, to prevent dormancy.
NE1: Lincoln, Neb., sandy clay loam, 6.6-7.0, 3.1-4.0, 2.1-2.5, to prevent stress.
NJ1: North Brunswick, N.J., loam, 5.6-6.0, 1.1-2.0, 1.1-1.5, to prevent stress.

NJ: North Brunswick, N.J., loam, 5.6-6.0, 1.1-2.0, 1.1-1.5, to prevent stress.

NJ2: North Brunswick, N.J. (low maintenance), loam, 5.6-6.0, 0.0-1.0, 1.6-2.0, no irrigation.

NJ3: Adelphia, N.J., loam, 4.6-5.5, 3.1-4.0, 1.1-1.5, to prevent stress.

OR2: Hubbard, Ore. (uniform shade), silt loam and silt, 5.6-6.0, 4.1-5.0, 2.1-2.5, to prevent dor-

mancy.

OR9: Halsey and Hubbard combined, N/A.
PA1: University Park, Pa., silt loam and silt, 6.6-7.0,
0.0-1.0, 1.6-2.0, only during severe stress.
PA2: University Park (mowed 4 times/year), silt loam and silt, N/A, 0.0-1.0, 3.6-4.0, no irrigation.
RI1: Kingston, R.I., silt loam and silt, 6.6-7.0, N/A,
1.1-1.5, to prevent stress.
SK1: Saskatoon, Saskatchewan, Canada, silty clay and clay, N.A, 3.1-4.0, 1.6-2.0, no irrigation.
UB1: Beltsville, Md., sandy loam, 6.1-6.5, 1.1-2.0,
2.1-2.5, only during severe stress.
WA1: Pullman, Wash., silt loam and silt, 6.6-7.0,
3.1-4.0, 1.6-2.0, to prevent stress.

# Fescues more popular today

Continued from page 11

Ken Wright, superintendent at Devil's Pulpit and Devil's Paintbrush in Caledon, Ontario, high above Toronto, said fescues have grown in very well at both courses.

While only the extreme rough at Pulpit is fescues, the links-style Paintbrush has fescue tees, fairways and roughs.

Wright said Paintbrush's fairways and tees sport creeping red and chewings fine fescues, and its extreme rough has hard fes-

Noting that he heavily overseeded with chewings fescues on fairways and tees, Wright said: "It's only been seeded for a year, and it's taking quite awhile to get a dense turf. We expected that. It's looking like two or three years to get dense enough. It will never be dense like bentgrass. But it is 100-percent better now (September) than two months

Wright said he hasn't sprayed a fungicide for anything other than snow mold since Pulpit was built. He expects to use even less on Paintbrush because fescues are more disease-resistant than bentgrass.

Whelchel said fescue use is "becoming an accepted practice in areas you don't want to maintain. Also, people like to use fescues because it gives the Scottish or Irish look: long, tall grasses on the mounds."

Hurdzan chose chewings fescues for the Paintbrush fairways to create a real hard fairway, like Irish or Scottish courses, giving the ball a roll and allowing a bump-and-run game, Whelchel said.

Rees Jones has used it at his Atlantic Golf Club in Bridgehampton, N.Y., The Country Club in Brookline, Mass., Oxfordshire (England) Golf Club; Huntsville Golf Club in

Lehman Township, Pa.; and Cherry Valley Country Club in Skillman, N.J.

"It is spectacular looking at Atlantic," Jones said of the new track on Long Island.

Knott said fescue is "doing wonderfully in the fairways," where poa annua is a minor problem. The greens were seeded with a mixture of 80 percent fescue and 20 percent bentgrass by weight, or 50-50 by seed count. The grounds crew overseeded with bentgrass a year ago to add more bentgrass and speed up the greens.

Jones said in the rough areas he is calling for a mix of 80 percent hard fescue and 20 percent chewings fescue. The hard fescue gives the course the good look while the chewings holds it together, he said.

### TREAT FESCUES CORRECTLY

Wright said superintendents must keep nutrient levels down in maintaining fescue grasses. "They are more susceptible to cold and damp diseases," he said, "more in the spring than the summer."

Kevin Morris, national director of the National Turfgrass Federation, Inc., which oversees the National Turfgrass Evaluation Program, agreed.

Morris said disease problems with fine fescues "tend to be worse when fertilizer rates and irrigation are heavier. In more humid areas, people tend to over-manage fine fescues, and that encourages disease problems."

He added that some fine fescues develop "significant levels of thatch very quickly. That thatch encourages disease and insect prob-

Tall fescues, on the other hand, are flexible regarding nitrogen and water use. And while fine fescues don't survive well in the transition zone and South, tall fescues thrive in heat and humidity.

With continued improvements and new varieties, the future of fescues is as bright as it was in Scotland and Ireland.