

## Ice Storm of the Century cracks the back of Maine woods & fairways

By MARK LESLIE

UGUSTA, Maine - "War zone" was the operative description of Maine's landscape after "The Ice Storm of 1998." The January disaster was actually The Ice Storm of the Century, leaving golf courses as well as homeowners reeling from the damage. Never before in recorded annals had Mainers been under such an attack of nature as rain froze sometimes an inch thick on trees, causing even the thickest of them to snap like toothpicks.

It was as if an angry Paul Bunyan had taken a scythe and cut off the tops of trees in a swath across the state.

Electrical power was out for more than two weeks in some places, and in the aftermath people were left to clean up.

"I got crushed. The trees are destroyed," said superintendent Steve Hoisington of Martindale Country Club in Auburn.

"It looks like a jetliner or helicopter came down and took the top of the trees right off," said superintendent Tony Plant at Augusta Country Club.

"We had more tree damage this year than in the last 20 years combined," said owner and superintendent Joe Golden of Springbrook Golf Club in Leeds. "Off the course it looks like a war zone. The tops of all the tree are gone. They are sheared off."

In the wake of the storm, superintendents opened their checking accounts to purchase wood chippers and extra chain saws and to hire crews long before they normally would.

"We're expecting it will cost us between \$10,000 and \$15,000 just in extra labor," said Plant. "As soon as the storm hit, we hired eight guys who normally work for us in the summer, so we have a 12-man crew working on cleanup.'

Superintendent Jim Hodge at the mu-



Ice-laden limbs and entire trees crashed to the ground on the fairways of Springbrook Golf Club in Leeds,

nicipal Val Halla Golf & Recreation in Cumberland said cleanup will cost \$20,000, but FEMA (Federal Emergency Management Agency) and the state will pay \$18,000. FEMA pays based on cubic yards of material that must be removed, so Hodge needed to do a hole-by-hole estimate of trees and limbs that had to be removed.

Golden, who hired three extra employees, estimated his storm cost at \$7,000 to

He and Hoisington both bought chippers, while Plant rented one, and all three had to buy extra chain saws.

The major tasks facing the golf courses remain cleaning up the many tree tops and tree limbs littering their fairways, roughs and out-of-play areas; deciding which trees to leave standing and which to cut down; removing trees and hanging branches that pose a safety threat; and determining what kind of trees to plant as replacements, if any.

"The worst tree disaster I've ever seen was from an ice storm we had here in 1994," said Dr. R. Jay Stipes of Virginia Tech in Blacksburg, Va., a professor and author who is dubbed The Tree Doctor of Virginia. "The big factor is trees that are safety hazards. I've worked on litigation cases where trees fell on people. And the general legal standard is, if a property owner or someone superintending trees on a property knows about trees that might be hazardous or wind-thrown, they are liable if they do not report it or take action. The superintendent or arborist needs to report the situation and the management decides whether to take it down.

"They call me Dr. Kevorkian down here for that reason."

Hoisington confirmed this concern. We have a lot of broken branches that are still up in the trees, and it is a safety factor," he said. "We'll have to hire a tree company to remove those."

Since play won't begin in Maine until mid-April, that concern was not as immediate as it might have been. Good thing, too, since tree companies and arborists have their hands full in residential areas right now. Plant was one of the lucky few to hire on a tree-care company early, and has been able to keep it very busy.

Of more immediate concern is determining which trees to salvage from the devastation. The more difficult decisions are trees whose trunks have been snapped off at some height.

Those trees can send up new tops, but they will be weaker branches and more susceptible to this type of storm in the future," said Jim Skorulski, an agronomist and tree expert in the U.S. Golf Association Green Section's Northeastern Region. "They are narrower, thinner. You can save a tree, but perhaps you should take it down and plant another one instead.

"An arborist will give an objective opinion. But they're in high demand now.'

While pines and fir trees survived the storm relatively well, hardwoods did not. Ash seemed to get hit the hardest, along with maples, birches and poplars. Many not only lost a lot of branches but also had their trunks snapped off at 10, 20 or 30 feet high.

Many of those, Skorulski said, are probably not worth saving. "If it is deciduous, it will have a funky canopy when it's done and a lot of weak branches that come off the trunk will take over."

The larger a branch or the main trunk is when they are ruptured or fractured, the more likely rot is to develop," Stipes added. "The fungi move in and establish rot columns. Breakage is very, very bad. In fact, that kind of breakage is the worst that happens to forest trees.

'In those cases it's better to take the tree down. They will ultimately become hazardous and very likely could be windthrown trees.'

Trees with "V crotches" are less likely to survive than those with "U crotches," which have more mechanical strength to hold up weight, Stipes added.

Skorulski recommended that where crews have done "a lot of rough work," superintendents should inspect "any trees that are worth saving and check the pruning cuts to ensure they've been done correctly. It's not a flush cut but a close one. If you have an excess of stub, the tree won't be able to callous off the wound and decay fungi can get in.'

Hoisington expects cleanup to take three or four years. He anticipates that many of the trees he leaves untouched this year will fail to survive in the future.

To hasten recovery, Skorulski suggested superintendents "give them a shot of nitrogen in the early spring.

'Not a lot," he said. "Two pounds per 1,000 square feet is more than enough. Broadcast it under the trees, or root-feed it. All you want to do is make the tree vigorous this year. You want flush leaf growth and to start recovery.'

He also said wound compounds - like the long-time asphalt-based paints - generally do not speed up recovery.

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## Florida in long-term 'greyness'

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groomed to maintain high greens speeds," he said. "They had a lot of foot traffic and we had an outbreak of Pythium at the same time. Without good growing conditions, they just couldn't take it. Then the floodgates really opened up and high water levels up to 10 feet above normal kept the greens' sub-

drains full and the root zones under the greens saturated."

Preparing for major professional golf events in the area has been a difficult challenge for superintendents. Tom Alex of Grand Cypress Golf Club hosted the LPGA's Healthsouth Inaugural in January.

"First, the decision to host the tournament was made after we had begun our overseeding program for 1997-98. At that time we didn't know we'd be hosting the event," Alex said. "In the past we had been very successful with a 100-percent bentgrass overseeding and we decided to try it again this year, but this winter was decidedly different.

"Bentgrass doesn't like wet and humid conditions and that's what this winter has been. We were fortunate to get through the tournament just as the bentgrass was germinating, but the prolonged dark and damp conditions took their toll on several greens. We are in the process of rebuilding a couple of greens that didn't handle the wet weather very well."

Dwight Kummer at Bay Hill Club spent a nervous winter nursing thinner-than-normal greens through December and January. "Getting ready for this year's Bay Hill Invitational has been a battle of wills," he said. "Every time we put down seed, it would rain and wash it away. Consequently, we have had to seed more often than in the past to get the density we wanted for the tournament.

"Also, the weather didn't permit us to be as aggressive grooming our greens this winter. We kept the solid rollers on our mowers all the way through January. We began to see a break in the weather in early February with sunnier days. Fortunately, it's finally coming together."

The widespread decline of course conditions this winter prompted the Golf Course Superintendents Association of America, U.S. Golf Association Green Section and University of Florida to send out letters and information packets to Florida courses and superintendents to help explain and deal with the effects of El Niño's weather patterns on growing turf on Florida's courses this winter.

## effects of El Niño's weather patterns on growing turf on Florida's courses this winter. Maine 'iced' in Continued from page 30 trees, Skorulski suggested superintendents look for sugar and red maples, paks in more sandy

perintendents look for sugar and red maples, oaks in more sandy regions, and hickory. "Ash are getting hit by certain diseases, but I'd prefer them to the low-value trees like poplar, weeping willow and silver maple," he said.

Stipes was hopeful about New Harmony and Valley Forge — new elm trees from the U.S. National Arboretum in Washington, D.C., which are not on the market yet.

In the meantime, some superintendents might look at this example of nature's tree-thinning as "a blessing in disguise," said Skorulski. "If they've had some problems with trees out on the course, this is their chance to take care of them.'

"Nature has been trimming trees for years. It's one of the greatest tree maintenance methods," said turfgrass consultant Terry Buchen. "A lot of times it will only remove dead wood. But I realize there are extremes where it does severe damage."

"I suppose there are a few trees I would have liked to take down," said Hoisington. "On the 3rd tee we lost trees behind the tee that will increase sunlight and air circulation. But, overall, it's much better to go in and cut them than to have the damage we did."

Whatever course superintendents take, Skorulski said they can expect to see the effects of The Ice Storm of the Century for many, many years to come. "Five, six, eight years from now, you'll see misshaped forms out there," he said.



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