

WINTER COVERS

## Improving The Combat Zone

By MARK LESLIE

MONTREAL — It's The Combat Zone: Chinook winds, open winters, long-standing ice, heavy shade... all enhanced when a golf course's turfgrass is cold-sensitive poa annua. Winter in the North, superintendents here agreed, is a time when they can do little except pray they made the correct decisions in the fall.

Greens covers — some solid, some "breathable" — are becoming more a staple of winter protection, and three superintendents shared their techniques in using them during the Canadian International Turfgrass Conference & Show here in March.

While many superintendents, especially those whose courses are predominantly bentgrass, do not use greens covers at all, that is not the case with Dean Morrison, Blake Palmer and Hugh Kirkpatrick.

Kirkpatrick's 65-year-old Westmount Golf & Country Club in Kitchener, Ontario, has "a tremendous amount of shade" and is mostly poa annua. "We trust our bentgrass but not our poa," said Morrison, whose Calgary (Alberta) Golf & Country Club faces "a lot of Chinooks, open winters and related problems, especially desiccation." And Palmer sees very little snow and a lot of rain and freezing rain at Rockwood Park Golf Course in St. John, New Brunswick.

Greens covers or tarpaulins are integral for all three — regardless of the cost. As Morrison said: "It's not cheap, but how do you put a price on dead greens? It's the bread and butter on your table."

On the other hand, few superintendents can afford to cover all 18 greens. In addition to the covers themselves Morrison's cost per green were \$120 for straw, \$240 for labor, \$90 to dispose of the straw and \$50 for miscellaneous items.

Strong believers in the ability of bentgrass to survive winters, Morrison, Palmer and Kirkpatrick cover only greens they feel may be in jeopardy of winter injury.

The payoff can be a golf course with turf that survives the winter and that opens quicker in the spring. Palmer, a past president of the Canadian and Atlantic golf superintendents associations, said: "In 1973 we only had nine holes and May 15 was our target

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opening date. Last year, with 18 holes, we opened April 23 and we wouldn't be able to do that without covers."

Meanwhile, cultural practices also enhance winter survival.

"It's very important to 'harden off' the turfgrass going into the winter," said Kirkpatrick, 1996 Canadian Superintendent of the Year. "Don't let it go into the winter lush."

Kirkpatrick recommended

MAINITNANLE aerating late in the fall and leaving the cores, which he feels help desiccation and heat up the snow

to melt it in the spring. Since greens covers create good conditions for disease, especially snow mold, fungicide applications are important before the covers are laid down. Palmer said application rates must be cut far back on turf that will be under cover.

Morrison said he stopped us-

ing straw on greens in favor of covers because the straw drew water out of the grass.

Palmer also suggested applying 5 to 5-1/2 pounds of potassium per green.

Morrison uses the breathable Evergreen covers on his bentgrass greens. On his poa annua greens he lays down a solid tarp, then 8 to10 inches of straw on top of that, and a second solid tarp on the straw. A tarp will last three years on the top and another three years on the bottom, he said.

Morrison added that if water gets under the covers, they will fail. So battening down the covers and ensuring they do not leak are crucial.

When using Evergreen covers, he said he puts a lot of branches on them to hold them down and covers them with 8 to **Continued on page 25** 





## Optimize, DiPaola urges supers

Continued from previous page mize the benefits. That's helpful [to know] for those you are working for and those who are working with you to get the job done."

Calling superintendents to implement a turfgrass agronomic plan, he said: "We need the long-range look, and the interactive look, that we haven't quite put together in turf man-

## agement."

Such a plan, he said, identifies the turf areas of the course and the goals for each. "This is novel for some folks," DiPaola said. "What is it that you're trying to do with the greens, tees, roughs and fairways, and are you getting there? In this agronomic plan we have fixed constraints: schedules for major tournaments, club policies about when certain cultural practices can be done, and contractual constraints particularly for resort facilities where they're promising people that certain things won't happen while they're playing golf."

The goals will vary with each turf area.

Optimizing course conditions, he said, is not a good goal "unless you can measure your suc-

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cess." Maximizing the uniformity of greens and minimizing local dry spots, for instance, can be measured. So, also, can soilinfiltration rates, crown health, standard density and Stimpmeter speeds.

Contingency plans should also be established for cases when the winter is twice as cold as normal, or the summer is twice as hot, or the irrigation system goes down.



"Keep the plan useful," he said. "Refer to it regularly. Adjust to your successes and failures. Particularly keep good records of what you can't figure out. And measure the progress toward your goals.

"Let your employees know they helped you get there. And let the management of the club know that you've made the difference."

## Winter covers

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10 inches of straw.

"We use flax straw because there's no seed. It also won't blow away like wheats or barleys will," Morrison said.

Using large rolls of straw instead of bales, his crews can bed down a green in about four hours, he said. The covers are nailed down every two feet and tires are used as anchors.

Palmer uses wood-shaving mats and Astrofoam on top of the covers instead of straw. A 6foot-wide, 300-foot-long roll of Astrofoam costs \$125. The package costs 74 cents a square foot, he said. He complained, however, that the Astrofoam "tears easily and is difficult to put down."

In the spring the timing of removal of the covers is crucial, the three agreed. Thus they monitor the green temperatures. Palmer suggested putting the covers back onto the greens at night until mowing begins.

Morrison uses a Toro with a blade to clean off the greens, while Palmer's crews use leaf blowers.

Morrison's crews also Verti-Drain the greens around May 10-12, an action which he said "gains us about 12 days."

On the negative side, Palmer said: "I am disappointed that most times the covers seem to split at the seams. I feel if manufacturers could use a heavier material and, if possible, without seams, they could make a better product."

Kirkpatrick added that breathable covers "didn't do much for us against crown hydration."

Morrison said his experience shows that 6 inches of snow will give the same insulating factor as two tarps and straw.

With the heavy snow of this past winter, he said, "I may have wasted my money."

On the other hand, if there had been no snow and he had not covered his greens, the results could be deadly.

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