

Deeeeep Drains and Mini-Channels a Breakthrough on Spring Ice Removal?

Photos and Editorial by Scott Wandler,
Assistant Superintendent at Missoula Country Club, Mt.
Re-printed from *The Perfect Lie*, the Peaks and Prairie GCSA

As another winter approaches, we start planning how to deal with next year's formation of ice. We all know when ice melts that the problems for greens can be devastating if the water isn't removed from the surface, but instead allowed to go into a constant freeze/thaw period. But we also know removing ice by chipping can be tedious and exhausting for a maintenance crew, not to mention the marks left behind on the greens.

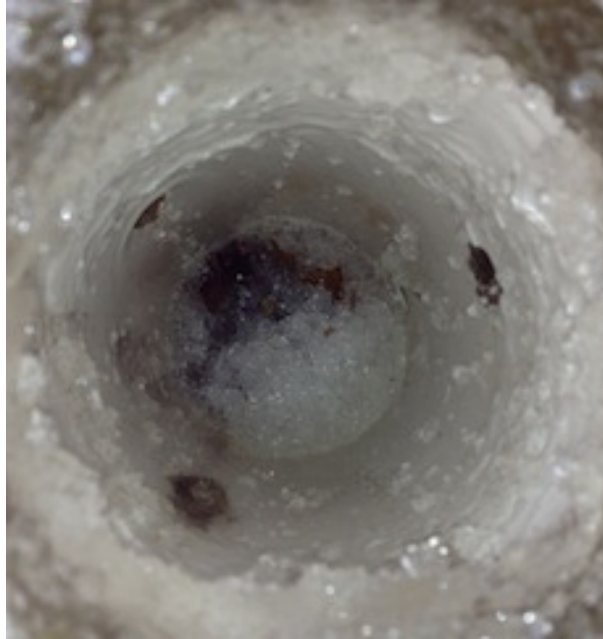
Over the last three years at The Missoula Country Club, we have tried to help the water run-

off the surface of the green with as little ice chipping manual labor as possible. We already have some problems with soil dams in front of our greens, and with the frost heaves that accompany winter, they create a dam two times higher than during the summer. Because of this, we see very little drainage off the green until that soil dam is breached. Unfortunately, by the time a strong melt starts, the sun goes down and the water comes to a standstill and freezes. To combat this problem, we started putting drain

holes in our greens to help evacuate the water off the green faster.

In the fall of 2009, we had a soaking rain that, with a little help from the irrigation system, showed the low spots and natural drainage perfectly. I

flagged each low spot with an irrigation flag and followed with a paint dot; the dots required some maintenance until the drains were put in. The number of drains varied from three to five drains per green.



Around the first of November, our crew cut the drains. We used a regular cup cutter, an old cup cutter that was modified into an auger, and four-inch drainpipe with a drain grate. The first guy cut a cup at every drain site. The second guy followed with the auger, which dug the rest of the drain hole and also collected the drain-hole material so it made almost no mess. Next, we took a stick of four-inch drainpipe and cut it just short of the surface so the drain grate could sit flush on the green. We also used a push type sod cutter, normally used to repair hydraulic leak accidents, to

cut a canal through our soil dam in the front collar. Both plugs and the sod strip were stored in our nursery and overwintered. As play fell off and the threat of snow came, we removed the drain grates and put

a flag next to the hole.

Around the middle of February, I went out with a broom handle and found the holes, which had been covered with snow, and exposed them. Most were already draining some water, and

the holes were not

iced over or filled with snow. I used the broom handle just to make sure the bottom of the hole wasn't frozen, either. The drains were working to eliminate water, and therefore ice, on the greens.

We have modified how we do things over the last three winters. We now use water to find the low spot instead of eyeing it, and we place green drain covers on the greens to finish out the year. Obviously snowfall has varied considerably these last three winters, but the results have been consistently fantastic. The drains worked so well this year that we

will probably go without the canal through the front collar in 2014. In 2013 we didn't have any solid ice in our low spots, and the ice that we did have contained an air layer, between it and the turf, that collapsed when you walked on it.

There is always going to be ice, but here at Missoula Country Club, we may have found a way to be ready whenever Mother Nature provides the unseasonal warm up.



Superior Tech Products
Leading Edge Turfgrass Solutions

952-546-3678
stp@stproots.com
www.stproots.com

 www.stproots.blogspot.com
 SuperiorTechProducts



**smooth
healthy
consistent
greens**

Vibratory Greens Roller
& Greens Care Collection

True-Surface®

MICHIGAN STATE
RESEARCH SUMMARY
3 Years in a Row



Floratine Nutrition



Low dose contact fungicides

= Superior Control

of **Crown Rot Anthracnose**
than other fungicides

GOLF COURSES | SPORTS FIELDS | PARKS



Turf Health
Liquid & Granular
Fertilizers

