

Oxygenation Of Green

By Dave Doherty

When there is weak turf on greens there is always a reason.

Previously, we've outlined how a friend in SE Florida had just taken on the challenge of rescuing two-year old greens that were struggling (*You Can Always Find Someone To Agree With You*, Boardroom Sept./Oct. 2014).

And explained how organic material is an asset when it is in proper proportion to air pores (*Why Is Organic, Our Best Friend, So Misunderstood*, Nov./Dec. 2014).

The greens at the southeast Florida location were struggling because of a very high concentration of organic material in the top one and a half to two inches of the root zone.

In the three and a half months my friend has spent resurrecting these greens they have shown a remarkable turnaround and are no longer an embarrassment to the members. The turf is much improved and the roots are now of good color (white) and pushing deeper into the root zone.

Is my friend a miracle worker with mystical powers??? Not hardly! However he does understand physical properties of root zones and his first order of business was to attack the killer layer of organic material that had built up over a short two-year period.

The first order of business was to find and understand the drainage system of each green. The second was to find and open each of the clean outs on the upside of each green along with the outfalls on the low side/sides of each green.

Once completed, he set about installing 'four-ways with slide valves' in each of the outfalls. Four-ways are there to intercept sewer gasses that can come from the greens and permeate up into the root zones. The slide valves allow for effective oxygenation and flushing of the root zones.



Four-way



Four-way with slide valve



**Four-way with slide valve installed
(do not glue) PVC Stem**



**Inserting camera snake into four-way
[PVC stem removed]**

After successfully installing the four-ways with slide valves, air / oxygen was injected into the root zones through the four-way portal. Once the turf started to respond to the oxygen treatments a weekly program was begun consisting of alternating weeks of the greens being needle-tined [.25" solids] with rolling. Other weeks the greens were top dressed lightly. This program is an ongoing that allows the plant to return to a healthier state while not interfering with golfers play. The nutritional program has been adjusted based on regular soil physical and chemical testing.

So to reiterate, when there is weak turf on greens there is always a reason. Understanding physical properties is the beginning of finding the cause and the solution is normally just common sense.

Dave Doherty is CEO and founder of the International Sports Turf Research Center, Inc. (ISTRC) and holds three patents regarding the testing of sand and soil-based greens. He can be reached at (913) 706-6635 or via email: daveistrc@hotmail.com www.davedohertyistrc.com

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