

# Aerification - A Necessary and Beneficial Golf Course Practice

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It's a perfect, sunny morning and you've just reached the first green in regulation. You feel great and you know you're within birdie range. Then, you see them, those little holes in the green. Arrggh! They've just aerified the course, and it's going to ruin your round, right? Well maybe not. Consider the fact that PGA Tour legend Tom Watson shot a sizzling record 58 at his then-home course, Kansas City Country Club, just days after the greens had been aerified. Consider also that aerification is merely a short-term disruption that has long term benefits for the course. When you see them, remember that without those little holes, the greens would eventually die. But a golfer needs to understand how important aerification is to producing healthy turf. Aerification achieves four important objectives. It relieves soil compaction, it provides a method to improve the soil mixture around the highest part of a green's roots, it reduces or prevents the accumulation of excess thatch and it allows us to flush the unwanted sodium from our water supply through the soil profile. Like so many things, the quality of a good putting green is more than skin deep. In fact, the condition of a green has a lot to do with what goes on below the surface. In order for grass to grow at 3.5mm, it must have deep healthy roots. Good roots demand oxygen. In good soil, they get oxygen from tiny pockets of air trapped between soil and sand particles. Over time, the traffic from golfer's feet as well as the mowing equipment tends to compact the soil under the putting green. When soil becomes compacted, the air pockets on which the roots depend are crushed, and the roots are essentially left gasping for air. Without oxygen, the grass plants become weaker and will eventually wither and die. Aerification is a mechanical process that creates more air space in the soil and promotes deeper rooting, thus helping the plant to stay healthy. In most cases, it's done by removing ½ inch cores from the compacted soil, allowing for an infusion of air and water that brings a resurgence of growth. The spaces are then filled with sand "topdressing" that helps the soil retain air space and makes it easier for roots to grow downward. Older greens often are constructed of soils with significant amounts of silt, clay and fine organic particles that are prone to compaction (10<sup>th</sup>, 11<sup>th</sup>, 12<sup>th</sup>, 15<sup>th</sup>). Filling aerification holes with sand improves drainage and resists compaction. The periodic introduction of sand to a green's top layer can over time, avoid or postpone expensive rebuilding or renovation of greens. Finally, growing of turf adds to a layer of organic matter on the surface. This layer, called thatch, is an accumulation of dead stems, leaves and roots. A little organic matter makes for a resilient green, but too much invites pests and diseases. Topdressing with sand can prevent thatch build-up, and aerification is one of the best ways to reduce an existing layer and prevent an excess of thatch from becoming established. The bottom line is that aerification is a necessary practice so, before you curse the superintendent for ruining your day, just think of Tom Watson.

Mark Crittenden - Superintendent