



Are There Alternatives To Core Aeration?

By Todd Lowe, agronomist, Southeast Region | December 1, 2017



Sand injection produces minimal surface disruption while incorporating sand through upper-rootzone organic layers.

Healthy soil is the foundation to healthy turf. As with any system, things can fail without a strong foundation. For this reason many golf course superintendents are apprehensive to try new techniques or programs that affect soil physical properties.

[Core aeration](#) is perhaps one of the most important cultivation practices implemented on putting greens. It performs several functions including removing thatch, diluting organic matter, reducing soil compaction and increasing percolation.

However, core aeration is perhaps the most criticized maintenance practice by golfers because it can take several weeks for aeration holes to heal and for surface firmness and smoothness to improve. Although large aeration holes help integrate topdressing sand, they can also make putting greens soft and prolong healing. Fortunately, some innovative procedures—e.g., [Double Aeration Doesn't Mean Double Trouble](#)—have been developed to reduce golfer inconvenience.

Soil compaction can be reduced with solid-tine venting, and verticutting can help control thatch. However, until recently, effective organic matter dilution still required incorporating sand into the rootzone following traditional core aeration. Newly developed

technology has been slow to catch on, but an increasing number of facilities are adopting sand-injection cultivation.

So far, it seems that this technology can help incorporate sand deep into putting green rootzones and help supplement traditional core aeration. It can even help improve surface firmness. Further, [recent research](#) has shown promising results when sand injection is used as a supplement to traditional core aeration, but time will tell whether sand injection is a sustainable practice for most facilities.

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