



Options for Summertime Soil Cultivations

By Todd Lowe, agronomist, Southeast Region

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The passing of Easter means that another winter golfing season is coming to a close for some golf courses in the Southeast Region. Soon, snowbirds will be returning to their northern homes and many golf course superintendents will be counting down the days until their first core aeration of the year.

Solid-tine “venting” occurs periodically during winter to reduce soil compaction, but core aeration with hollow tines is needed to dilute organic matter that rapidly accumulates on golf courses in southern regions. Core aeration is an aggressive practice that occurs on courses with warm-season turfgrasses during the summer months when increased soil temperatures and sunlight promote turf recovery.

Many southern golf courses aerate their greens with 5/8-inch diameter hollow tines three to four times each summer. Unfortunately, some golfers become frustrated with greens that seem to be in recovery mode for most of the summer. To address these concerns, some superintendents are using alternative aeration practices that help reduce golfer frustration without jeopardizing turf health. Some of the alternatives to traditional core-aeration programs include:



New aeration techniques could reduce the number of aeration events required to maintain healthy greens.

Double Aeration - Double aeration involves aerating putting greens twice during each aeration event. The Regional Update, [Double Aeration Doesn't Mean Double Trouble](#), explains double aeration in greater detail. While some of the aeration holes may be impacted twice, double aeration is much more effective than standard aeration procedures. Two double aerations using 5/8-inch or 3/4-inch tines can provide sufficient organic matter dilution for many facilities in the Southeast Region.

Extending the period of time the course is closed for aeration to 10–14 days to provide the putting greens with extra recovery time before play resumes is ideal when using double aeration. An extended closure also gives the maintenance staff an opportunity to complete other projects and maintenance practices – e.g., fairway and tee verticutting, rough scalping and sand topdressing – in the absence of play.

Sand Injection - Sand injection also can be used to dilute soil organic matter in putting greens. The process involves simultaneously creating holes and filling them with sand using a specialized machine. Sand injection creates minimal surface disruption and can be performed on its own or incorporated with standard core aeration as a double aeration practice. Sand injection should be seen as a supplement to standard core aeration, helping to integrate more sand into the upper root zone than core aeration alone. Typically, sand injection is performed by an independent contractor and is more costly than standard aeration.

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