

# CUTT

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## Core Cultivation: A Necessary Evil?

**T**here are few practices that turf managers feel are more vital and users of turfgrass areas feel are more disruptive to play than the process of core cultivation. In fact, a 1996 golfer survey conducted by the GCSAA indicated that 77% of respondents ranked “recently aerified greens” as the most bothersome aspect of golf turf management.

Core cultivation is a preferred term to aeration in that cultivation will often improve water movement, which is as or more important than aeration. The aeration concept actually is derived from one of the first mechanical cultivation devices developed by the late Tom Mascaro.

Regardless of semantics, a perennial discussion occurs each year on golf courses throughout the country, among golfers and turf managers, on the essential nature of cultivation. “Can it be after the Labor Day tournament?”, “Do we have to do it every spring?”, “The golf season is short and aeration disrupts the surface for a month.” Many superintendents hold firm, some are flexible, others stop altogether.

Kurt Theummel at Walnut Hills Country Club in East Lansing, MI has not aerified his greens for almost 20 years. “Why should I aerify if my greens are in good shape, I don’t have thatch accumulation, and I don’t have compaction?” All good questions that beg other questions regarding why as an industry we are so committed to core aerification?

### Why Cultivate?

Core cultivation has been the primary means of managing the inherent traffic a turf receives and the subsequent soil compaction that is typically confined to the upper few inches. Soil compaction is defined as the pressing together of soil particles into a more dense soil mass. The degree of compaction is often determined by measuring the soil bulk density.

Bulk density is simply the dry weight of the soil particles contained in a specific volume, reported as grams per cubic centimeter (g/cc). The more particles crammed into a specific volume, the less pore space, the higher the bulk density, and consequently the less air-filled porosity (aeration).

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