There are few maintenance activities that frustrate golfers more than our cultivation programs. Yet, we have learned over the years there are important benefits to conducting these operations.

For many the late season is when most of the cultivation practices are now relegated to as a result of continued golfer pressure to minimize disruption of play. Still, with the variety of implements now available, different grasses and of course different management leading to greater organic matter accumulation, it seems time to rethink our cultivation programs.

Poking a Hole

Studies conducted in Arkansas and Nebraska are investigating cultivation programs. First we must consider some differences from the classical research. Most importantly the latest research is conducted on sand based putting surfaces and designed to investigate organic matter management not compaction. Also, the studies now all include light frequent topdressing as well as heavy topdressing at the time of cultivation. Therefore, these studies are conducted under what would be considered standard practices.

The Arkansas study conducted by John Kaufman under the direction of Professor Roch Gaussoin compared hollow tine and solid tine cultivation with various types of less invasive cultivation methods (LIC) i.e., Hydroject, PlanetAir, quad needle tine, bayonet tine, or no LIC treatment. All treatments were light and frequently topdressed as well as topdressed at the time of aeration.

Data from the first year showed there is no difference in organic matter levels between hollow tine and solid tine aeration, but both treatments accumulated less OM than no aeration. No differences in OM accumulation were observed among LIC methods but the hydroject and needle tine treatments had higher infiltration rates compared to other LIC treatments regardless of the aeration treatments.

This study shows clearly that there appears to be little benefit from pulling a core in sand-based systems, rather there appears to a premium placed on making a hole. - Frank S. Rossi, Ph.D.