



*This machine creates continuous channels in the soil, effectively reducing compaction and causing less disruption than core aeration.*

## HOW LONG DO THE BENEFITS OF FAIRWAY AERATION LAST?

BY BRIAN WHITLARK | AGRONOMIST, WEST REGION

A typical golf course has 25 to 50 acres of fairway. Aerating such large acreage requires considerable time and labor, especially when pulling cores and cleaning up the debris. Being such a laborious and potentially disruptive task, it is not surprising for courses in the Southwest to aerate only once or twice per year. But is this enough aeration to yield benefits throughout the entire year?

According to a joint [study](#) between the USGA and the University of Arizona, the answer is no. This one-year study revealed that various forms of aeration including coring, large-diameter solid tine and deep, continuous channels all similarly reduced soil compaction, salinity and sodium in turf, but the benefits only lasted for about six weeks in various soil types. Therefore, to achieve sustained benefits from aeration, courses must routinely aerate – i.e., aerate approximately once every six weeks or more frequently.

If courses benefit from more frequent aeration, how can it be accomplished without busting the labor

budget or constantly disrupting playing surfaces? Given that the study did not demonstrate that one form of aeration was significantly better at reducing soil compaction, salinity or sodium than another, courses are encouraged to use less-disruptive practices such as solid-tine aeration or machines that cut continuous slits or channels in the soil. These practices are often much faster and less labor intensive than traditional core aeration. They also provide a clean surface upon which play can resume almost immediately.

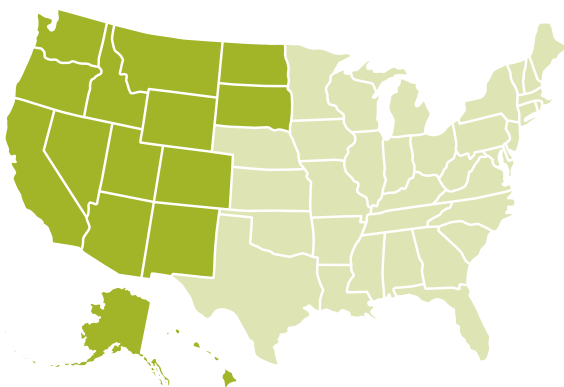
Frequent aeration is crucial in areas with high salinity. A golf course in Sun Lakes, Arizona, irrigates with water containing high salt levels – i.e., greater than 4 dS/m. The superintendent parks a solid-tine aeration machine outside his office so he can jump on it every morning and aerate one or two fairways or target compacted areas before play. Aeration at this course is constant and, when combined with sand topdressing, the results have been impressive. Golf courses planning an aeration program are encouraged to think differently and to routinely use a combination of core, solid-tine and channel aeration throughout the year to deliver sustained benefits.

For more information on improving soil water penetration in fairway soils, contact the a regional [USGA Agronomist](#).



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