

TURF TALK

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Q My Green's Committees Chairman heard of the GRADEN Verticutter and that by using it you can cut down or even eliminates the need for core aëriation. What are your thoughts on this?

A The new GRADEN verticutter is a machine from Australia consisting of 15 circular blades spaced 25mm apart with eight tungsten tips on each blade. These tips provide their unique grabbing power. It is a heavy duty machine with the capability of radically removing most if not all mat/thatch with one or two passes. The manufacturer is reportedly positioned to introduce thinner blades (1mm blades are now available) as the current thick blades (2mm) initially designed for clay-based athletic fields produce extensive grooves which take time to heal (it depends upon how deep you go). Top dressing and rolling help to produce good putting characteristics during this healing time.

There are rumours among club professionals and members that this machine will replace or even eliminate traditional core aëriation. No research to my knowledge has been conducted comparing these treatments so definitive information on long-term effects is lacking. However the GRADEN verticutters like others can provide good mat/thatch control since it can penetrate as much as 1.75 inches (45mm) and allow better water and air exchange in the turf soil surface. However many clubs will not like such radical verticutting especially during heavy play seasons which is when this type should be performed so the grass can recover quickest. Most clubs though core aëriate not to reduce mat/thatch but rather to reduce surface and subsurface soil compaction allow deep air and moisture exchange - allow introduction of better sand/soil mixes into the profile and secondarily to reduce mat/thatch by providing better growing conditions for the soil micro-organisms that naturally degrade these.

With this in mind the machine should not be viewed as a replacement for core aëriation, especially on older or push-up greens. These greens will continue to need deeper aëriation to reduce soil bulk density which in turn reduces problems associated with compacted soils. The GRADEN machine will however eliminate the excessive mat/thatch build-up characteristics associated with many of the new bentgrass varieties.