

USGA

A Balancing Act

By Bob Vavrek, Senior Agronomist, United States Golf Association, Green Section

The winter months are a good time to re-evaluate and fine tune the maintenance practices you tend to take for granted throughout the growing season. Nearly all courses purchase a considerable amount of sand topdressing throughout the season from local suppliers. Unfortunately, "local" can equate to a several hundred miles of trucking based on the availability of suitable materials. It's not unusual for the shipping costs to exceed the actual cost of the topdressing due to ever increasing fuel costs.

Considering the significant investment made for sand, it makes sense to choose the best material available within the limitations of your budget. However, most turf managers are creatures of habit when it comes to topdressing and typically use whatever sand was used in the past...*ad infinitum*. The most

common reply to a challenge about using a particular, sometimes unsuitable, sand is: "can't change because I'll get layers in the green."

What's worse, using poor quality sand on a consistent schedule or changing to a higher quality material and suffering the dire consequences of the dreaded *layer*? In my opinion, it's never too late to change to higher quality sand, though the subject of what constitutes "suitable" good quality sand can depend on the species and cultivar of turf on greens.

Research regarding green construction indicates that the best sand for green construction will have a majority of sand particles between 0.25 mm and 0.50 mm in diameter (medium sand). Medium sand should dominate the particle size distribution of the construction mix as well as the topdressing material used after establishment.

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So, what's so great about medium sand? In simplest terms, it generally has a pore space distribution that provides a good balance between moisture holding capacity and drainage. Use finer materials for topdressing and you increase the chances of clogging fine pores with organic matter and silt. Clog the air filled pore space and the green retains excessive moisture at the surface after irrigation or rainfall. Use coarse sand and the root zone may become droughty. Furthermore, coarse sand will wreak havoc with mowers.

Far too few turf managers make the effort to send a sample of topdressing sand to an independent accredited lab to determine the particle size distribution. They are resigned to the fact that they won't change materials regardless of the test results or base their decision to continue using a product on a supplier's sand spec sheet dated 1964 produced from the dark recesses of their filing cabinet.

Keep in mind that not all suppliers have the ability to wash and screen materials and that the particle size distribution of sand can often vary across a pit. Golf course sales can be a very small fraction of the total cash flow for small, local sand and gravel pits, so don't expect the same level of quality control as provided by suppliers that specialize in producing golf course construction materials. The following links provide a list of accredited soil testing labs and a procedure for sampling construction materials.

http://www.usga.org/turf/course_construction/physical_soil_testing.html

http://www.usga.org/turf/articles/construction/greens/quality_control_sampling.html

Test your topdressing, it's not difficult or expensive and it will provide some peace of mind. 🌱

Coming Events!

March 3

WGCSA Spring Business & Educational Meeting

Ramada Plaza Hotel, Fond du lac

Speakers- Dr. John Stier, UW Madison, Bob Vavrek, USGA Green Section

April 21

WGCSA Meeting

Geneva National Golf Club, Lake Geneva

Host- Kevin Knudtson

May 28

WPGA/WGCSA Super Pro

Northern Bay Resort, Arkdale

Hosts- Ryan Ranguette and Scott Anthes

June 9

WGCSA Meeting

Evergreen Golf Club, Elkhorn

Hosts- Bill Rogers and Mike Schmeiden