



LEE DIETER

We understand that Lee Dieter has suffered from an appendicitis attack. Lee was back on the job within a week, which goes to show you can't keep a good man down. Judging from this picture Lee seems to be doing well, but the lion has gastritis.

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We hope that all of you Superintendents and your ladies will make plans to attend the 50th anniversary celebration at Turf Valley Country Club. This is the 50th anniversary of MAAGCS and Ben Stagg assures me that this will be a great night.

Sand Topdressing

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Excessive nutrient leaching in the straight sand greens and sand-peat greens is consistently necessitating higher nitrogen and potassium fertilization levels except in those cases where undecomposed organic matter is used and nitrogen is released. Is building greens that require more nitrogen a move in the right direction, if we consider current and future fertilizer prices? The 1973-74 fertilizer-food shortage just gave us a "pre-shock" of things to come.

Lower microbial activity - Sand greens are likely to be less active microbiologically than mixtures containing soil. It's possible that urea formaldehyde products will be utilized with less efficiency on sand greens because of the requirement for microbiological breakdown of urea formaldehyde to plant utilizable nitrogen forms. Will thatch layers decompose slower with sand topdressing than with a mixture containing microbiologically active soil?

Hydrophobic drying has been a problem on some sand-peat greens. The formulation of water repelling organic layers on sand particles in sand-peat mixes that have been allowed to dry out have created considerable headaches. The rewetting of these hydrophobic areas is extremely difficult and has led to death of the bentgrass in some instances. Can we safely assume this won't happen in sand greens? It does not appear to be happening in conventional and sand-soil-peat greens.

A lack of moisture reservoir in sand and sand-peat greens is a serious concern. Water delivery systems, as advanced as they are, still leave a lot to be desired in a 3 to 5 MPH breeze. With a sand or sand-peat green one literally has no margin of error. The sand green requires constant "babysitting" to insure uniform distribution and continued replenishment of the small moisture reservoir held by the sand.

Susceptibility to layering - Two things are certain—no two golf course superintendents will run a golf course the same way and very few will stay at any one golf course more than 20 years. This creates a potential for changes in topdressing mixtures that could be lethal, especially if a sand topdressing program has been used. If a new superintendent feels the sand topdressed greens are too droughty and switches to any topdressing that holds moisture under a greater tension than the layer of topdressed sand, a false water table effect is created. The new topdressing that holds more water at a greater tension will not release it into the sand layer until enough pressure (water) is present to release the water into the larger pore spaces of the sand layer. This same problem could arise on sand-peat greens where topdressing containing soil is utilized. Percolation through this interface will likely get worse with time as the soil topdressing layer gets thicker because it will tend to retain more moisture and the false water table depth will increase. Once the layer is deeper than the aeration tines, the only sure solution is to rebuild the green.

Obviously there are a lot of unanswered questions with regard to the use of sand topdressing. Common sense tells us that if you currently have a topdressing mixture that works—don't change. Once you switch to sand topdressing, there is no turning back without considerable cost—agronomically and possibly financially.

Developing a topdressing mixture that has the right capillary and non-capillary pore space, infiltration rate, moisture retention, pH and bulk density is not an easy matter. It requires laboratory tests that are quite complicated. Commercially prepared topdressing mixtures meeting USGA specifications and complying with VPI&SU greens mixture recommendations are available. Yes, they do cost more than sand—but in the long run the cost of commercially prepared topdressing is inexpensive when compared with the costs associated with reconstructing a green or maintaining a green that has been abused with bad topdressing practices.

REFERENCES:

¹Madison, J. H. and Davis, William B., 1977. *Problems or Progress*. Tee 2 Green Corp., 1212 W. 8th Street, Kansas City, Missouri, pp. 16.