**Turf Twisters**

**Q:** We purchased very expensive sand for our bunkers. Any tips regarding how to keep the sand clean? (Wisconsin)

**A:** There are many sources of bunker sand contamination, such as erosion during washouts, deep tillage with motorized rakes, etc. Courses have had relatively good success using the new generation of bunker liners to prevent soil contamination from the base of the hazard. An often overlooked source of contamination is organic debris from grass clippings and leaves. Make an extra effort to blow clippings and leaves out of the bunkers before tilling the sand with rakes.

**Q:** I am looking for new ways to communicate with and educate the club’s membership. Signs, newsletters, and even e-mails seem to get lost in the shuffle when it comes to things like communicating the need for frost delays, aeration, and topdressing, etc. All are critical to the agronomic success of our course, but I feel like everyone has grown numb to hearing “superintendent talk,” as they now call it. Many think these agronomic issues are just my personal ideas. Can you offer any suggestions? (Kansas)

**A:** It sounds like you are doing more than many in regard to communication. Unfortunately, it is not uncommon for members to become numb to messages that are agronomic in nature. To help communicate these points, try using the new animations on the USGA’s web page. These brief video clips cover a variety of topics, including ball mark repair, course etiquette, bunker consistency, frost delays, hand watering, and putting green aeration. The animations are available free of charge. A CD, *An Animated Journey from Tee to Green*, also is available for purchase, and several clubs have had great success playing the animations in the clubhouse, pro shop, or wherever golfers congregate.

**Q:** I oversee the irrigation of several golf courses with recycled water. Can you offer guidance on the type of notification a golf course should post to inform the public that the course is irrigated with recycled water? Additionally, do you have any best management practices regarding watering times, nutrient considerations, ponding, and runoff control for the use of reclaimed water?

**A:** Alerting golfers and neighbors of recycled water use usually involves signs on the perimeter entrances and throughout the grounds, simply stating that recycled or non-potable water is used for irrigation. Typically, the individual heads, quick couplers, and valve boxes are marked or use purple components to make users aware that non-potable water is in these systems. All major irrigation manufacturers supply these components for their products. Best management practices are specific to each facility. Existing soils and the recycled water used must be continually tested to reassess the needs of the turf and soil. The nitrogen component in the water must be accounted for in the nutrient program. Also, bicarbonate levels typically are higher, and these and other salts may need to be leached periodically to move salts below the rootzone in the soil profile. Changes in cultural practices sometimes are required to help with the salt leaching. Each golf course superintendent must gather this information and then determine the proper water management and fertilizer and pest control plan for the golf course.

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