**Q:** What is the best way to water greens during the winter frost season? I tried to hold off as long as possible and stick to a deep and infrequent irrigation schedule, but this caused even more frost and a lengthy delay in tee times the next morning. Is light and frequent watering a better way to go in the winter? (Nevada)

**A:** Heavy watering at night can cause significant frost delays when freezing temperatures are expected. Since the turf tends to use less water during the cooler temperatures and shorter days of winter, hand water the greens as necessary in mid-afternoon when temperatures are warmer. This provides enough time for the water to move away from the surface and penetrate into the soil so there is less residual moisture at night when temperatures drop to below freezing. You can resume the deep and infrequent watering schedule once the danger of frost is past.

**Q:** Our bunker sand gets very firm if it is not loosened with cultivation techniques. Is there a way we can address this condition without incurring added expense by using labor-intensive preparation procedures? We cannot and do not want to spend more to prepare our bunkers! (Virginia)

**A:** Some superintendents use cultivator bars on their mechanical bunker rakes. Bolts can be attached to the cultivator bar and they can be set to achieve a specific depth. One adjustment you might want to make is to turn the head of the bolt to the sand. When the head wears off, it is time to change the bolts. The bolts can be set to a depth that loosens the sand, but does not dig too deep and come in contact with the floor of the bunker.

**Q:** Our golf course produces clumps of grass that become quite showy in the winter. Is this normal, and can we do anything about it? (Florida)

**A:** The phenomenon of “tufted” roughs is very common on Florida golf courses during the winter months. Bermudagrass produces a significant amount of above-ground stems that create a dense turf canopy when the grass is actively growing. Bermudagrass growth decreases substantially during the winter months and some clumps of grass stand out more as the temperature drops, especially when golf carts repeatedly run over the turf. Decreasing cart traffic makes the clumps less conspicuous, so it is important to continually disperse cart traffic over the peak play season. Scalping roughs at 0.75" to 1" for a two- to three-week period in the summer improves overall turf density and uniformity. Although scalping is an excellent practice to perform each summer, it cannot completely reduce the phenomenon of tufted roughs during the winter play season.