



Installing mist heads around bunkers can minimize excessive moisture in the bunkers while keeping surrounding turfgrass areas watered and healthy.

BUNKER SAND — TOO HARD, TOO SOFT, TOO WET, TOO DRY?

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Almost every golf course has sand bunkers. Some golf courses have many, some have few. Some bunkers are big, some are small. Some have steep sand faces, others grass banks. With the many differences among bunkers, one thing most have in common is that they are often a source of golfer complaints. In many cases, these comments focus on sand consistency. Golfers often perceive some areas to be too wet, while others might be too dry. What they don't realize is that many of these issues can be beyond a superintendent's control because they relate to design characteristics or various natural phenomena.

In the Southeast, dry sand faces and firm, moist bases can be common from late spring to early fall due to frequent, oftentimes heavy, rainfall events. Bunkers with steep sand faces are likely to have drier sand on the faces and wetter sand in the floors under these conditions. Even bunkers with durable liners, drainage systems and adequate sand depths can still experience these inconsistencies. Bunkers in low-lying areas

may experience slower drainage and delayed drying when compared to areas with higher elevations. This will translate into higher bunker sand moisture disparities. Irrigation design is another common factor that affects moisture levels in bunkers. Irrigation throw patterns that cross bunkers or wind that impacts irrigation coverage can impart greater moisture into these bunkers. Greens are irrigated more frequently than fairways, so greenside bunker sand can have more issues with moisture disparities.

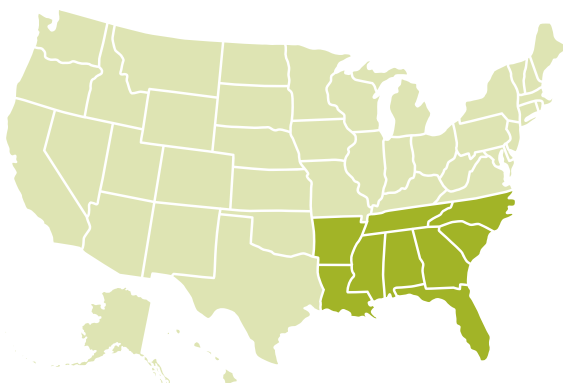
While issues with sand inconsistency are often impossible to fully address, there are ways that superintendents can help reduce disparities. Superintendents can help bunker sand to dry with increased mechanical or hand raking. Larger bunkers are more easily raked with a mechanical bunker rake, whereas smaller bunkers often require hand raking and more time per given area. Also, use of specific penetrant wetting agents has been reported to help improve moisture uniformity, drainage and drying in bunker sand. Some golf courses even have designated irrigation heads around bunkers to keep the sand from getting too dry and to more efficiently irrigate the grass surrounding bunkers.

As with any issue, there are ways to reduce bunker sand moisture inconsistencies. It's a question of priorities, time, labor and money. Even if a golf course has all the staff and labor it needs, how much is the facility prepared to spend to reduce bunker sand inconsistencies? As it stands, one of the things that makes golf an ever-challenging sport is that every golf course is different and every day can be different depending on weather, wind and course setup. Bunkers are a part of the game. As an experienced, well-respected architect was once overheard saying: "Bunkers are supposed to be a penalty, avoid going into them."



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