



Bunker Consistency – Can You Handle the Truth?

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One of the great advantages that golf has over tennis and bowling is that no two golf courses are the same. There are no rules defining the width or length of our playing surfaces. Surface contours, variation in the growth of the grass, shape and size of trees, moisture of the soil – they are all different from course to course. In fact, they are all different from day to day even on the same course. The truth is, there is no consistency in golf.

Not that we don't try.

Most of our efforts to achieve consistency take place on the greens. We use the Stimpmeter® to try to keep all the greens about the same speed. We use the TruFirm® to try to keep them about the same firmness. Superintendents use high tech moisture meters to try to keep the moisture in the greens uniform. But since greens are seldom perfectly flat golfers know that every approach shot and every putt is different and requires them to constantly adjust their game.

Most golfers agree that golf's great variability is important to making the game fun and interesting. So why is one of the most common complaints voiced by golfers about a lack of consistency? And, in all places - in a hazard? Amazingly, many courses spend more money and labor attempting to make bunkers consistent than they do on the greens. The bad news is that bunker consistency is a goal that is virtually impossible to attain. Here's why.

There are many factors that impact how bunkers play. Not the least of these includes bunker design, sand type, and daily maintenance. Generally speaking, flat bunkers with angular sand that are occasionally smoothed with fan rakes will play firmer than flashed bunkers with round sand that are aggressively raked. Many other conditions affect bunker sand moisture and overall bunker firmness including:



The truth is that the only inexpensive way to achieve bunker consistency is inconsistent with the Rules of Golf.

- **Sand depth** – Bunkers with more sand are generally drier–i.e., softer–while shallower bunkers are usually wetter–i.e., firmer. It may be possible to change the firmness of a bunker by simply adding or removing an inch or two of sand.
- **Weather** – Rainy periods keep the sand moist and firm, while dry weather can result in dry, soft sand–depending on the amount of irrigation.
- **Irrigation coverage** – Bunkers that receive additional water from sprinkler overlap may remain wetter and firmer than bunkers that receive less irrigation.
- **Shade** – Shaded bunkers dry out slower and remain firmer than bunkers in full sun.
- **Sun angle** – Bunkers on north-facing slopes receive less direct sun, dry out slower and are firmer than south-facing bunkers.
- **Topography** – Elevation affects moisture and firmness. Low-lying bunkers that are near the water table may remain saturated and firm, despite having a functional drainage system.

Golf course superintendents strive to provide consistent playing conditions on all playing surfaces. However, it should be easy to see that maintaining consistent bunker playability on any given golf course may be an impossible–or financially unsustainable–task. At the end of the day, bunkers are considered hazards and are areas that should be avoided. Have you ever complained that the water was too wet in a lake or pond?

To learn more about bunkers, please read the article [Managing Bunkers](#) by USGA Green Section agronomists Todd Lowe and Bob Vavrek.