

## Bunker Raking to Reduce Labor and Washouts

**Course No. 2 at the Pinehurst Resort**  
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### The Problem

During the restoration project at Pinehurst No. 2 in 2010 the appearance of the bunkers was intimately addressed. Every bunker was reshaped and carefully sculpted to fit the reclaimed sand and wiregrass areas that now surround many of the bunkers. Bunkers filled with bright, white sand and fan raked daily would have created an unnatural fit with the restoration of Pinehurst No. 2.

### The Solution

In search for a solution, Pinehurst staff noted the bunker presentation commonly used in the Sandbelt region of Australia. Termed the “Australian method,” only the bottom portion of each bunker is fan raked and the bunker faces and edges are smoothed with the rounded, back side of the on-course bunker rakes. Pinehurst No. 2 adopted the “Australian method” to prepare bunkers for daily play following the restoration. The staff also monitors sand levels in each bunker to ensure that there is 4 inches of sand on the bunker floors and no more than 1 inch of sand on the bunker faces. The proper sand level helps prevent “fried-egg” lies.

During the implementation of the new “Australian method,” Pinehurst tried several different tools to produce the desired result including small squeegees, brooms and even wetting agents. However, simply turning the on-course rakes over to their back side with the teeth pointing up produced the best results. This method was used to prepare the 117 bunkers at Pinehurst No. 2 for the back-to-back U.S. Open Championships in 2014.

### The Results

As a result of using the “Australian method,” the bunkers at Pinehurst are more playable and require less-frequent manicuring. Golfer response has been positive as well. Since adopting the “Australian method,” bunker sand has become crusted where smoothed with the back side of a rake – reducing the tendency for golf balls to plug on steep bunker faces.

Also, bunkers are simply spot raked to repair any unraked footprints or animal tracks on days where there are fewer than fifty golfers – reducing labor hours spent on bunkers by 75 percent. Not only does the “Australian method” fit the visual presentation of Pinehurst No. 2, it allows the staff to be much more efficient and attend to other details.

The maintenance team at Pinehurst No. 2 had to abandon the methods they were accustomed to and accept a different philosophy, but they adapted well to the new bunker presentation. Before the restoration, native plants growing inside the boundary of the hazard were not tolerated where now they are widely accepted.

On a side note, the elimination of turf from around the bunkers has eliminated the need to edge large portions of the bunkers – greatly reducing labor. Also, by not raking to the edge of each bunker, less sand is accumulating in lower areas; reducing the amount of labor required to redistribute sand throughout each bunker.



***Figure 1 - Using the back of a bunker rake to smooth bunker perimeters firms bunker sand over time – reducing washout severity and fried egg lies while resulting in better playing quality and more efficient use of labor.***