

# BUNKER PREPARATION: *It Takes More Than A Rake!*

*Sometimes bunkers need irrigation too.*

by KEITH A. HAPP

STEVE SCHRAW, the golf course superintendent at Hermitage Country Club, Manakin, Virginia, focuses his maintenance efforts on meeting the needs of the members on a regular and consistent basis. Providing an enjoyable, yet challenging experience is paramount, and attempting to deliver these conditions from hole to hole is as important as presenting these conditions from day to day. Steve's Turf Tip centers on bunker maintenance and, specifically, fairway bunker sand preparation. Steve uses an interesting irrigation technique to prepare fairway bunkers for daily play.

Bunker preparation begins well in advance of play. For example, the shape of a bunker greatly impacts playability, performance, and aesthetic appeal. However, the most important final feature that must exist is adequate internal drainage. This feature allows playable conditions to be offered on a consistent basis despite the weather patterns experienced. Sand selection also greatly impacts the short- and long-term performance of these important play features. However, many complaints regarding inconsistent bunker

performance are often a function of poor drainage.

To satisfy membership desires and upgrade the performance of the bunkers throughout the 36-hole facility, Steve began by ensuring that all bunkers had adequate drainage. Next, a sand was selected to provide the playability the membership desired. Finally, the sand was carefully positioned to a uniform depth of 6 inches on the base and 4-6 inches on the faces of the bunkers. To help ensure that sand depth was maintained as desired, a program of hand raking all bunkers was instituted. Mechanical bunker rakes are used only when absolutely necessary. In fact, monthly treatments with cultivator bars are all that is needed.

The hand-raking practices used in the bunkers are specific. Greenside bunkers are raked in the direction of play or toward the center of the green. Fairway bunkers are raked parallel to play or from tee to green. While greenside bunker performance improved significantly, fairway bunker performance, unfortunately, did not. In fact, fairway bunker playability remained a hot topic.

Specific questions were posed to members to pinpoint where corrective measures were needed. These efforts exposed concerns about fairway bunker sand performance. Specifically, during dry weather the sand would become soft and present a difficult playing condition. A cuppy, slightly buried lie would result in spite of the low trajectory of the golf ball when it entered the bunker. Examining the playability of all the bunkers revealed that one particular aspect of turf maintenance provided relief to the undesirable bunker condition. Where adequate irrigation coverage was available, sand performance could be maintained in the desired manner.

With this knowledge in hand, fairway irrigation was modified to provide a method by which to manage and improve fairway bunker sand performance. Irrigation heads were installed so fairway bunker sands could be irrigated on an as-needed basis. In fact, during the summer months, bunker irrigation is performed on a daily basis. A 20-minute cycle proved to be more than adequate while not negatively impacting playability. As an added benefit, the fairway bunkers can now be monitored regularly as to their ability to handle heavy precipitation. If drainage problems occur, corrective measures can be implemented and consistency is ensured.

Course maintenance goals in general and bunker maintenance goals in particular are directly related to the desires of the players. Steve's experience symbolizes the importance of utilizing strong communication strategies to meet the needs of the membership. Maintenance practices can be altered and in fact can evolve to produce effective results. When it comes to bunker preparation, experience speaks here: "It takes much more than a rake."



*During the summer months, fairway bunkers are irrigated regularly to help ensure consistent playing conditions. Twenty-minute watering cycles provide the desired effect.*

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