

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

Sometimes Bunkers Need Irrigation, Too

By **KEITH A. HAPP**
USGA Agronomist

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.

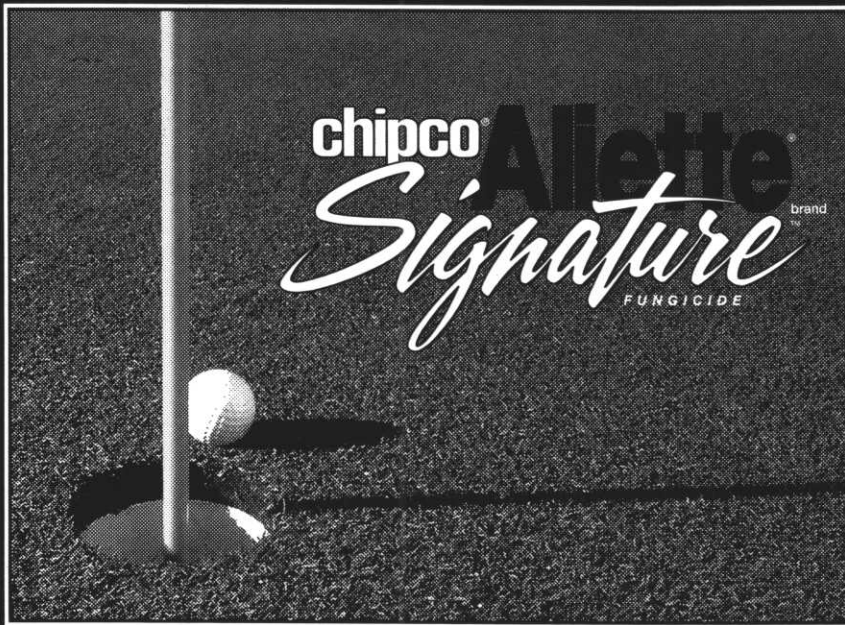
Bunker preparation begins well in advance of play. For example, the shape of a bunker greatly impacts playability, performance and aesthetic appeal. However, the most important final feature that must exist is adequate internal drainage. This feature allows playable conditions to be offered on a consistent 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 cultivar 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

(Continued on Page 32)

ANNOUNCING THE NEXT STANDARD IN TURF QUALITY AND TANKMIX FLEXIBILITY



SEE THE SIGNATURE DIFFERENCE
ON YOUR TURF.

RHONE-POULENC AG COMPANY
P.O. Box 12014, 2 T.W. Alexander Drive
Research Triangle Park, NC 27709
1-800-334-9745

Bunker Preparation—

(Continued from Page 28)

parallel to play 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.

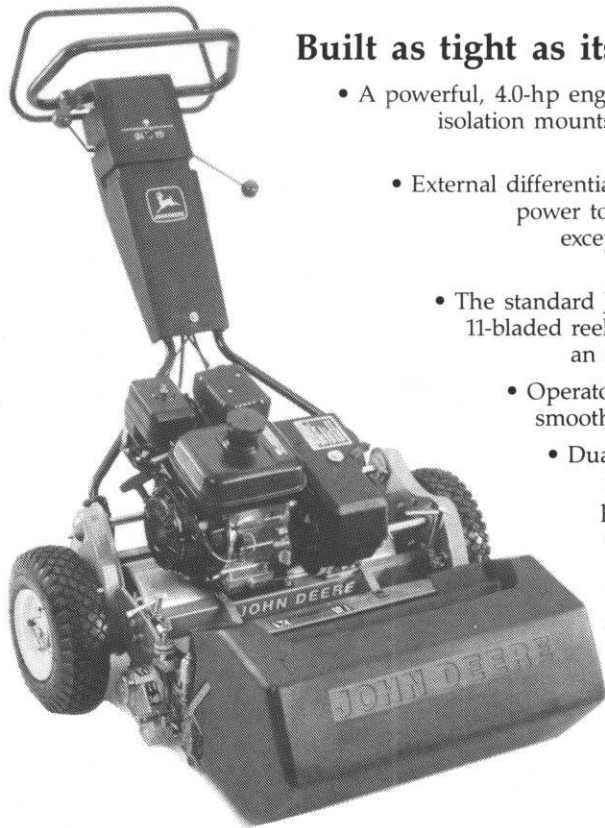
“Complaints regarding inconsistent bunker performance are often a function of poor drainage.”

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.”

(Editor's Note: Keith A. Happ is an agronomist in the Mid-Atlantic Region, visiting courses in Delaware, Maryland, Pennsylvania, Virginia and West Virginia. Keith joined the USGA Green Section Mid-Atlantic staff in 1993. This article was reprinted with permission from the USGA Green Section.)

John Deere

180 Walk-behind Greens Mower



Built as tight as its cutting width.

- A powerful, 4.0-hp engine powers the 180 while isolation mounts and lateral bracing help reduce vibration.
- External differential drive on the 1870 splits power to both traction rolls — for exceptionally straight tracking and easy turning.
- The standard John Deere-manufactured 11-bladed reel on the 180 helps deliver an exceptional quality-of-cut.
- Operator-presence safety bail fits smoothly against the handlebar.
- Dual aluminum traction rolls on the 180 are smooth to provide a more consistent surface. They combine to cover the entire length of the bedknife.
- Both the 180's machine-grooved and machine-smooth front rollers are cut from solid bar stock to deliver more strength and better mowing performance.
- Grass catcher designed to maximize clipping retention, stays securely in place and is easy to remove and install.



Polfus Golf & Turf

12040 Point Douglas Drive S.
Hastings, MN 55033

Phone: (612) 437-7747

Fax: (612) 437-3483