

THE BEST TURF TIPS OF 1994

BLOCKBUSTER AERIFICATION

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VERTI-DRAIN deep-tine aerification is a labor-intensive and disruptive maintenance operation for putting greens. However, a new block attachment for the Verti-Drain aerator may prove helpful in improving the efficiency of this operation so that fewer treatments are needed for even the poorest of soil conditions.

In 1987, the Verti-Drain was introduced into the United States from Holland. Johnny Burns, golf course superintendent at the Charlotte Country Club, Charlotte, N.C., purchased one of the first machines and made a few modifications aimed at improving the original unit. Last spring, the development of his new block attachment allowed for closer tine spacing.

This new block is steel reinforced and attaches to the existing tine holders of the Verti-Drain. Four bolts are used to secure them to the machine. The block allows the golf course superintendent to produce an alternative tine pattern with a 3" x 3" rectangular spacing, compared to the existing irregular pattern of 3" x 4½" with the original tines. This allows for a significant increase in the amount of root zone material that can be extracted during the aerification process.

With the use of a 1½" hollow tine and a normal penetration depth of 10" with the Verti-Drain, approximately 3.4 cubic yards of soil per 1,000 square feet can be extracted with the new attachment. The original block pattern using the same tines and depth penetration will extract 2.3 cubic yards of soil per 1,000 square feet. Based on these figures, about 66% additional root zone material is extracted with the new block attachment! On a 5,000-square-foot green, it is possible to extract up to 10% of the root zone material using this procedure, compared to 6% without the attachment.

It does take significantly more time and labor to aerify greens using this method. At Charlotte Country Club, using the original tines normally took the aerification crew 18 hours to complete their work, but using the new blocks doubled the time to 36 hours. By using a dry topdressing sand, the majority of the aerification holes were filled by working the sand into the holes with a Yankee lute



The steel block attaches to the existing tine holders of the Verti-Drain.

rake. With the increased number of holes made during the project, it took the bentgrass approximately three weeks to fully recover during pleasant spring weather.

The new block attachment has helped the Charlotte Country Club become more efficient with their Verti-Drain program. The membership has agreed to try this new pro-

gram for the next four to five years in the hope that it will delay the necessity for a green reconstruction project. For older golf courses with less than ideal soil conditions, using this idea to reduce the number of Verti-Drain treatments and to make more of an impact on changing the soil profile is worthy of consideration.