## Turf Twisters

Fairy rings were a serious problem on my greens last summer despite several drenches of fungicides labeled to control this disease. I made the extra effort to aerate the affected site first, and followed up the fungicide application with plenty of irrigation water to move the treatment well into the soil. Am I on the right track? (Michigan)

Dr. Joe Vargas, turfgrass pathologist at Michigan State University, suggests that many treatments for fairy ring control are being washed beyond the optimal zone for effective control by overly aggressive core cultivation and irrigation. This makes plenty of sense because the active zone of mycelial growth from fairy rings is often found in the upper half inch or so of the rootzone. A better option is to ensure that the fungicide treatments are moved through the turf canopy and only into the upper zone of organic matter accumulation that is found

on most greens. Spiking the green just before spraying is a good idea, but only apply enough additional irrigation to move the treatment off the foliage and into the upper inch of the rootzone.



To what depth should sand be installed in a bunker? Is there a way to determine an appropriate depth? (West Virginia)

A: Laboratory testing can eliminate much of the guesswork. An accredited lab can determine the level

We recently purchased a new sprayer to apply plant protectants and fertilizers on our course. Although the sprayer has functioned superbly, the length and effectiveness of fungicide control has decreased. Does our new sprayer have something to do with this? (Pennsylvania) of moisture retention by examining particle size distribution and saturated hydraulic conductivity. The degree to which moisture will be retained can affect



the firmness of the bunker sand and whether or not drainage-related problems will occur. If the depth of the sand is too shallow, anaerobic conditions could develop. The laboratory can help determine to what depth sand should be installed.

Yes and no. If the sprayer is functioning properly in term of pressure and volume output, it is not the problem. However, your new sprayer may have different nozzles that are not providing proper distribution of the materials you are applying. Nozzles used to apply fungicides can have a dramatic influence on efficacy. Nozzles that produce larger droplet sizes reduce drift, but they can compromise coverage. Consult with your sprayer or nozzle manufacturer to determine the best nozzle for your situation, preferably one that minimizes drift but still provides adequate coverage. A nozzle "turret" that allows different nozzles to be used for different applications also can help. In addition, check the sprayer's calibration. Spray volume of 1 to 2 gallons per 1,000 sq. ft. should be used for fungicide applications.

