Pumping and Coring

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THE CENTRAL THEME of the tips gathered from superintendents in the Mid-Continent region this year is one of cooperation. As the popularity of the game increases, so will the need for the golf course superintendent to make his maintenance operation more efficient. He will have to stay abreast of new technology, evaluate its value for his club, and then convince his membership of the need to acquire the "new and improved" version.

The same increase in play will bring about a corresponding decrease in the time available to the superintendent to maintain the course. This will occur despite the agronomic concern that as traffic increases, so too does the need to perform vital cultivation practices, such as aerification.

A little more than a year ago, Ed Huggins, the superintendent at Indian Hills Country Club, in Kansas City, Missouri, realized the pumping station on his course would have to be replaced. With both pressure and volume varying widely throughout the irrigation cycle, accurate irrigation was practically impossible. Like many conventional designs, the large electrical motors were either running at full capacity, or completely stopped regardless of the constantly changing demand of the irrigation system.

Ed and Jack Robinson, his green committee chairman, began their search for a replacement station. They chose a new technology in golf course pumping plants, the VFD or Variable Frequency Drive. Sometimes called a VSPS, or Variable Speed Pump Station, this type of design may well revolutionize golf course irrigation. The motors and pumps turn only as fast as needed to meet the demand of the irrigation heads. Computerized control allows for far more efficient use of electricity and stabilization of pressure.

Ed and Jack together convinced the membership it was time to replace the old station with the new and improved design. As a result of their combined effort, the VFD was installed. To meet the challenge of the severe drought of 1988, the new station pumped 53 percent more water than in 1987. At the same time, Indian Hills realized a 35 percent reduction in electrical usage. Most important, Ed can now supply water to his irrigation system in an accurate and efficient manner.

A second example of what can be accomplished through cooperation occurred in Denver, Colorado. Like most superintendents, Dan Pierson, of Cherry Hills Country Club, and Bill Shrum, at Denver Country Club, do not relish aerifying the course and inconveniencing their memberships. Being fully aware of the necessity of aerification, they combined their resources and accomplish the job in as little time as possible. By using six aerifiers at a time, each man was able to intensively aerify greens, tees, and fairways in two days, keeping the disruption to a minimum. Using just one of the same type of aerifier, the job would have taken approximately two weeks.

Ed Huggins and Jack Robinson looking at their new pump station. The newly installed VFD pump station at Indian Hills Country Club.

(Top) A job no one likes to do.

(Above) How to aerify the entire course in two days.

(Left) Working together, Superintendent Huggins and Green Chairman Jack Robinson research a new technology.