Take a byte out of costs

Computer allows a superintendent to control water and chemical applications and gives him more time to spend on the course

BY MACK BAUGH, CGCS

Everything in golf has gone up. Membership dues and initiation fees are at an all-time high, buying a new set of clubs requires a personal loan, the latest styles cost a fortune, tournament tickets are approaching Super Bowl levels and handicaps, well, we all know about handicaps.

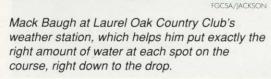
Golf course maintenance costs, while perhaps not as visible, are on the rise and indications are the trend will continue. These increases are eventually passed on to paying members who should be concerned with keeping their courses well maintained while keeping costs as low as possible. Course architects, developers, operators and superintendents need to be — and are — equally concerned with rising maintenance costs.

At Laurel Oak Country Club in Sarasota, we've taken important measures to conserve money while maintaining course quality. These steps also have taken us firmly into the computer age, a move that can be a bit scary for a former computer illiterate like myself.

The system we installed (in our case a Rain Bird MAXI V) helps us conserve electricity, water, and manpower and it provides a fast, accurate means of irrigating the entire course and all of Laurel Oak's public areas. Water conservation in each of these areas translates into significant money savings.

The system starts with a weather station which is centrally located on the first of our two courses. The station collects and measures rainfall, records temperature, wind speed and direction, solar radiation, and relative humidity.

This information is constantly fed into our computer which evaluates the data and processes it according to guidelines



HANDS ON

we've established for each part of the course and community.

For example, we may want our greens and tees to receive a quarter inch of water using a given period and our fairways onehalf inch.

From the information fed by the weather station, the computer knows exactly how much rain has fallen during a 24-hour period and how much has evaporated due to temperature, wind and solar radiation. The computer also knows how many of each type of sprinkler heads are in place at any given location and at how many gallons per minute they apply water.

With this information, the computer automatically decides which heads go on, when and for how long to apply the precise amount required. Once a fairway has received exactly what is needed right down to the drop, the computer turns its attention to the irrigation of the greens, then the tees, then the common areas, etc.

Under the old system (and "old" is only

as recent as five to eight years ago) still operating on many courses, watering was largely a manual control operation often done inaccurately.

A mechanical timer activated sprinklers on the No. 2 green, watering the surface for two minutes whether two minutes' worth of water was really needed or not. The pumps would then be turned off and the procedure would continue on through the day or night until the job was completed.

Often the result was the application of either too much water, which is a scarce and expensive commodity these days, or too little water, leaving the greens thirsty and in less than optimum condition.

It also meant repeatedly turning the water pumps on and off. Turning these huge pumps on uses tremendous amounts of electricity and creates a maximum mechanical strain that accelerates the need for downtime and maintenance.

The savings solely in terms of money are obvious.

But there are other considerations to keep in mind. Water usage is being increasingly restricted in Florida. This factor alone necessitates far more controlled use of this dwindling resource. A computer-controlled irrigation system is state-of-the-art in controlling water amounts used.

Computers are also allowing golf course superintendents to precisely control herbicide and insecticide application, an important factor during a time when the public's environmental awareness is at an all-time high, as it should be. Manhour need is also reduced, allowing for fewer yet better skilled employees on the payroll.

One of the effects I've personally felt as a golf course superintendent is that the computer allows me more time to be out on the course on a daily basis, both for checking conditions and for contact with members. Those of us who are in this business must always remember that the members are our ultimate employers but are also the course's — and our — best critics.

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Most of us probably got into this business because we love the game of golf. But, with all that must be done to keep a course in top condition, too few of us have the time to play as much as we would like (which goes back to my opening comment about rising handicaps). The members play the course every day and are perhaps the best barometer of what's right and what's wrong. Keeping in close contact with them is as important as any computer may be in maintaining a great course.

While a sophisticated computer irrigation system may not be able to help lower their scores, it can do wonders in providing the best course conditions available and saving valuable maintenance dollars.

Mack Baugh is superintendent at Laurel Oak CC in Sarasota. This article is reprinted from the January issue of Florida Golfer with permission of the publisher.



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