range from $100 to $300. Be careful, though. Some of the bargain-basement-brand modems are not completely compatible to the Hayes standard.

The computer and modem (the hardware) cannot get you into the TGIF by themselves. You must also have the program or software that makes the modem dial and connect to the computer at MSU, and allows you to search and download information from the turfgrass file. The program that accomplishes all this is called Vueport. Vueport was written specifically for the Turfgrass Information File, and is the only communications program that will perform properly when using the TGIF. It can be run from a floppy disk or hard disk, and is extremely easy to install on your machine.

Conclusion

As you can see, for a relatively small investment in hardware and software, the golf course superintendent can literally put this extremely powerful tool at his fingertips. Using the TGIF, his management decisions can be based on research and agronomic fact. In addition, a rapidly growing number of superintendents are using personal computers to help them schedule preventive maintenance of equipment, prepare and monitor budgets, and more accurately monitor their pesticide programs. Your club will find this new tool will pay for itself in a very short period of time.

The fee schedule for using the TGIF has not been determined, but it will be available shortly. It will be a nominal and reasonable charge, especially considering the size, power, and flexibility of the database. For additional information about the USGA Turfgrass Information File, contact one of the following:

1. Your regional USGA Green Section Agronomist (see the list on the inside cover of the GREEN SECTION RECORD).

2. The Turfgrass Information Center at Michigan State University: Phone (517) 353-7209.

3. The United States Golf Association, in Far Hills, New Jersey: Phone (201) 234-2300.

Impressions of a Summer's Tour with the Green Section

by SHERWOOD A. MOORE

WORK for the Green Section? What if I can't answer people's questions? How about the planes to catch, the miles to drive, and the reports to write, and what about finding all those golf courses and hotels? Can an old dog teach new tricks? Why would they want me?

These were just a few of my thoughts and apprehensions when I was approached by the USGA Green Section and asked if I would be interested in assisting them by calling on golf courses in 1987 as part of their Turf Advisory Service. After giving it some thought, though, I felt that my more than 50 years of experience in golf course management, along with having been the superintendent at three U.S. Open Championships, would be of value to somebody along the way. It would also be an exciting challenge and a great way to climax my career.

So began a four-month adventure that took me to 60 golf courses in Massachusetts, New York, Pennsylvania, Ohio, Nevada, Utah, and California. I must admit that I approached every club nervously, wondering if I would be accepted as a representative of the Green Section. These apprehensions were quickly put to rest, however, as soon as I met with the superintendent and officials at each club, and we began to share our experiences in turfgrass management.

My respect for golf course superintendents and the job they do was reaffirmed from the beginning. From Massachusetts to California, regardless of their ages or the budgets they worked with, the superintendents with whom I visited were eager to learn, enthusiastic about their work, and knowledgeable. The same could be said about many of the superintendents in my generation, but it was apparent from my travels that today's superintendents are taking good advantage of the many educational opportunities in turfgrass science and golf course management that weren't available when I was starting in the business. It was very gratifying to see how they're putting their knowledge to work, and how they've grown in stature at their clubs and in the game.

Golf itself appeared to be in good shape, based upon my observations. Many private clubs had full memberships and long waiting lists, and play was up at both private and public facilities. Correspondingly, the good financial health of the clubs was reflected in the steadily increasing budgets for the maintenance and upgrading of their golf courses. Despite this rosy appearance, though, I saw considerable rebuilding and remodeling of the clubhouse facilities at some clubs at the expense of much-needed golf course renovation work. I'll admit to a bias on the subject, but how can the board of directors at any club neglect golf course drainage, irrigation, and equipment in favor of mauve carpeting and designer lockers? Needless to say, in every such case I encountered, the urgent need to follow through with critical programs and

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(Top) Flowers add color to this tee at the Shawnee Country Club, in Lima, Ohio.

(Above) It's dry in July, but gabion work should stabilize the banks when water flow is heavy during winter and spring. Willow Creek Country Club, in Sandy, Utah.

projects was stressed in my written follow-up report. Operating, capital, and special project budgets cannot be ignored if a high-caliber course is to be maintained. Boards of directors should remember that the condition of the golf course has a direct impact on the success or failure of the clubhouse operation.

Despite the occasional difficult weather conditions, I was favorably impressed by the fine condition of the courses I visited. This is not to say that it was all a bed of roses, though. I saw disease, insect, drought, flood, and soil problems, and just as many concerns about *Poa annua* and what to do with it as ever. Something could always be changed, corrected, or improved upon. It seemed that my reports were just as long for the courses that were in immaculate condition as for those with a multitude of problems.

One problem that took me completely by surprise was the antiquated, inefficient irrigation systems at many courses — from the water source to the pumphouse to the lines and heads. True, there were instances of golf courses with

excellent systems, but a great many more were deficient in one or more of these categories. In many cases the water source was simply too small to provide adequate reserves for periods of dry weather. One club had only two feet of water remaining in its small irrigation pond, with the better part of the summer yet to endure. All fairway irrigation had been curtailed so that the greens could be kept alive, and all that could be done was to hope that the drought would end soon. A similar episode had occurred several years ago, but all thoughts of enlarging the pond at that time had been washed away with the next heavy rainfall. Expanding ponds or seeking other sources of water is a costly and unpopular expense, but how many near-disasters does it take to get some action? My report to the club was to the point.

Other facets of irrigation systems were not much better. I was amazed at the number of systems that are not pressurized, and at the number of pumps that should have been retired long ago. Equally poor was the layout of many systems, including inefficient line location and poor spacing of the sprinkler heads and quick-coupler valves. These deficiencies could be found throughout the country and at courses that use fully automatic, quick coupler, or primitive hose-and-sprinkler systems.

One of the key prerequisites for growing fine turf is an efficiently designed and installed irrigation system. It is difficult to maintain top-quality turf in the hot, humid, or droughty conditions of various parts of the country, and the problems multiply when they are coupled with the tremendous increase in play and golf cart use today. Add to this an inadequate, poorly designed irrigation system and you have the potential for some real difficulties. Thus, with demands for water for all purposes increasing each year, it is critical that golf courses place the modernizing of their irrigation systems high on their priority list.

Of course, a great irrigation system can't maintain good-quality turf all by itself. It takes the knowledge, judgement, and experience of a good superintendent to make the calls and push the right buttons. Though overwatering continues to be a major problem on many golf courses, I was happy to find that many superintendents are learning to refine their water management techniques.

The topic of budgets was a popular one during my travels, especially as it relates to some of the labor-intensive programs like triplex mowing of fairways and hand mowing of greens. One club official asked me what is going to happen to some of the modern superintendents accustomed to today's high maintenance operations if the economy dives and budgets are cut to the bone. My response was that they will adapt, the same way and perhaps even better than my generation did during the years of lean budgets. I was amazed at the excellent turf conditions produced by some superintendents who worked with small budgets and a dearth of equipment.

My travels reaffirmed my view that there is an important place for the Green Section Turf Advisory Service visits in the field of turf management. One of the greatest benefits I see is the exchange of ideas and experiences.

After a few weeks on the road, I found myself telling superintendents and club officials about the successful practices and programs I had seen at other courses in previous weeks. Examples included various adaptations developed for fairway triplex mowing, the use of plant growth regulators, the wide use of perennial ryegrasses, and contour mowing — not just for fairways but for greens and tees as well.

These practical ideas and experiences, along with finding out what is new in turfgrass research and equipment development, were eagerly sought out by superintendents and officials alike, and will be incorporated into their maintenance programs as soon as feasible.

Another great benefit of the TAS visit is to help tip the scale in favor of capital expenditures, such as a new maintenance building, the purchase of new equipment, the installation of cart paths or drainage systems, or upgrading irrigation systems.

The job of the superintendent of the future is not going to be any easier, especially with environmental issues of such great concern. Pesticide controls and regulations are bound to increase, requiring more restraint and professionalism than ever before. Water restrictions and good water management will be even more important, so the superintendent had better learn to use it efficiently. Learning how to recruit and handle labor will be an important part of his training, and he must learn how to take advantage of computers in this information age. The next few decades will be exciting and challenging, but I know that the golf course superintendent will meet the challenge, and the Green Section will be there to help.

I greatly enjoyed the opportunity to travel the country for the Green Section, visiting so many fine golf courses and meeting so many nice people. It was a rewarding and fulfilling experience, as well as an educational one, for me. Indeed, I found out that an old dog *can* teach new tricks, and learn a few along the way, too.

In contrast to the tree-lined fairways of the East, golf courses in parts of the West take advantage of the beauty of their terrain and native vegetation. Jeremy Ranch Country Club, in Park City, Utah.