ELECTRIC DREAMS

By Dennis Thorp

At the GCSAA Anaheim convention, I finally got to meet a number of people who, up to that time, had just been disembodied voices on the telephone. It was an exceptional and emotional experience. It was also disturbing in a lot of respects, but I'll get to that later. Peter Cookingham, Duane Patton, Dale Gadd and Jon Scott are of particular interest to those of us trying to promote the use of computers by golf course personnel.

Peter heads up the Turfgrass Information File (T.G.I.F.) at Michigan State University (MSU). TFIG is funded by the USGA and has been available "online" to any interested party since August of 1988. The USGA Green Section personnel had a booth at Anaheim right next to the TGIF booth and both had computer links back to MSU so interested convention goers could sample the data base in person. I had to physically drag some people over there. Some came reluctantly, became fascinated as Peter or one of the Green Section personnel found information in the file that was useful to them, and they left even more reluctantly than they came.

The whole process was disturbing to me for a couple of reasons. First, the USGA has put a lot of money into TGIF, getting it off the ground and on-line, for all of our benefit, but at this point, the number of subscribers isn't large enough to ever begin to make the service pay for itself. TGIF is funded at 1.5 positions (Peter is the half) and they haven't even begun to enter the potential mountains of information that could be in there. I saw one man get an answer to a question, in minutes, that he had been researching for months, and he had previous "free" access to the TGIF system (but never used it!). This man is an experienced computer user and telecommunications expert. If people like this haven't been utilizing TGIF, what use will the average superintendent make of it, and how long will the USGA continue to be able to afford to fund it?

The second thing that I found disturbing was the fact that there was only one account listed with TGIF for the whole state of Wisconsin, and that is an inactive one. When I talked with the holder of the account, I got a vague "someday" kind of answer, and this person is another experienced computer user. Personally, I would like the WTA and the WGCSA to take a closer look at this situation and possibly make the service available to the researchers at UW-Madison. Maybe we could get Peter to come over and make a special demonstration, because our people weren't able to get to Anaheim. And from what I have been reading in the papers, funding for the UW College of Agricultural and Life Sciences is not what it was a few years ago and valuable extension people are being lost because of that funding situation. By the way, Peter's background is in library science, rather than turf management.

I attended the Computer Special Interest Group meeting at Anaheim, along with 100 other people. Duane Patton, of Lawrence, Kansas, headed this meeting, along with Dale Gadd, of *Golf Course Management* magazine. Peter was there, as were USGA people and vendors of specialized software for golf course use, as well as interested superintendents.

Duane demonstrated "Turfbyte", the electronic bulletin board for golf course superintendents, by golf course superintendents. We had a spirited discussion about computer use on the golf course and the ability to share information with each other. About 20 of us signed up with "Turfbyte" on the spot. I met a number of people who have been following my articles with great interest and made friends in Texas and Georgia, as well as Kansas. Several vendors were giving away demonstration copies of programs they had written, and Duane made "shareware" copies of a communications program for all interested parties.

I cornered Dr. Joe Vargas during a recent meeting and asked him about the Envirocaster. He wrote the program for it and I asked him about the availability of that program in software. He said that the program is now in the public domain, as he published it in "Phytopathology" and offered to send me a copy of the article. As of now he said that one of the irrigation companies had expressed a little interest in the program, but not a lot was being done with it. I saw the Envirocaster demonstrated at Anaheim and was intrigued by the potential but not the machine, at least right now. Too expensive and not flexible enough, in my opinion. However, that is the typical evolution of computers, as I've seen it happen several times before.

The program is written on an EPROM (Erasable Programmable Read Only Memory) chip and the microcomputer that runs the system is "dedicated" to that one task. It won't run any other program, unless the EPROM is changed. Most superintendents would be unwilling to do this themselves, even though the average computer is easier to work on than the internal combustion engine, and service personnel would have to make a trip to the factory to replace the chip when and if the program is updated. Since this is very expensive, it doesn't happen very often. Also, the irrigation companies are primarily interested in software that makes their hardware run more efficiently, even though environmental monitoring is part of that process. Researching the many factors that go into disease development is not their specialty and they would naturally tend to be more interested in the irrigation and water usage work being done in California than in *Pythium* research in Wisconsin and Michigan.

What I would like to see happen, as I explained to Dr. Vargas, is someone take his program and get it to run on the MS-DOS IBM compatible machines and make it work either as a stand alone program or part of the irrigation management software. If the superintendent could either enter microclimate information manually or have it done automatically from remote sensors, it would then be a valuable tool for disease management and more accessible to the average superintendent. If the sensors could be put in at the same time as a new irrigation system, so much the better. But it also should be able to exist as a stand-alone system, with its own independent system of wires and sensors. Then, superintendents could send their results to Joe and he could refine the program from actual results in the field. With hundreds of field trials going on all over the country, updates and improved versions of the program would keep coming out and be sent to the users, who could simply update their software. My feeling is that the first company to field something like this is going to make a lot of money. In case it ever comes to the point where we have to justify every pesticide application to the EPA and/or the WDATCP, a computer program like that would go a long way toward satisfying any such regulatory requirement. "The computer told me to do it!"

There is an excellent article in the March issue of *Golf Course Management* on inexpensive alternatives in computer software. I highly recommend it to all of you who might be looking for software for your new computers. However, I want to add two comments on your consideration: The very reason Dale doesn't like the top-of-the-line software packages is the reason beginning users should get them — they come with extensive dealer and end-user support and beginners are going to need that support. He never says that they are any more difficult to learn than the inexpensive versions, because most of them aren't. Secretaries have been mastering them for years, and if they can handle them, I don't see why the average superintendent can't handle them. Also, Dale talks about "downloading" programs from electronic bulletin boards. I would contend that anyone who can do this qualifies as an experienced user, which most of his and my readers aren't.