By JOHN R. PIERSOL

We live in an amazing age, witnessing incessant advances in electronics, communication and biotechnology. The developments in the computer industry over the past 30 years have been matched by incessant advances in electronics, communication and biotechnology. The breakthroughs available to today’s superintendent, things that would have seemed like science fiction three decades ago:

- Satellite-driven global positioning systems that can locate everything on the course, from the overall layout down to trees and even irrigation heads;
- Infrared and satellite systems that can pinpoint hotspots for insects, disease, and fertilizer needs anywhere on the grounds;
- Radio and computer-controlled irrigation systems that are more convenient and efficient, and which can monitor for problems when they occur in the system anywhere from pump to head;
- More efficient, quieter and more user-friendly equipment – even experimental mowers that need no operator;
- Genetically engineered turfgrasses that can tolerate drought and salt water, which resist insects and disease, and which can survive on low levels of fertilizer and herbicides;
- Pesticides that are more target-specific and impose a lower impact on the environment;
- Computer technologies that enable the superintendent to keep track of material costs, inventories and labor faster and more efficiently, and Internet buying that can allow the superintendent to shop, compare and buy supplies at any time.

The list goes on, of course, and will continue to grow as new technologies emerge and as we learn to make better use of what is already available.

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**CHASING TECHNOLOGY**

So, what is a superintendent to do? Chasing all of the technologies that are currently available can be expensive and time-consuming, and there is always the risk that money and time will be spent on something that doesn’t pan out.

Budgets and circumstances always dictate if and when can try something new. Certainly computer use as a communication and management tool has been increasing and rapidly becoming the norm. However, new software and more powerful computers require frequent training to keep up to date.

With all this new technology, one could make a case for drastic changes in superintendent education, but changes are not really needed as much as enhancements. A good golf course superintendent still needs to know the basics of horticulture, agronomy, chemistry, soils and fertilizers and plant materials. That sometimes gets forgotten as superintendents advance in their careers and start spending considerably more time on personnel management, budgets, politics and public relations, and new technologies.

**BASIC SKILLS STILL MATTER MOST**

However, a good grasp of the basics affords the superintendent the opportunity to advance. Even in our K-12 school systems, the advent of calculators and computers seems to have brought decreased emphasis on memorizing multiplication tables, learning fractions and decimals, and doing drills on math logic – much to the demise of the mathematical skills of our youth. (I hear this all the time from my wife, who teaches eighth grade math.)

Technologies are not to be chased to keep up with the Joneses, but they are tools to be used to make one’s job more fact-driven, efficient and safer. There will always be a need for superintendents and other course staffers who have a command of the basics of the plant sciences and mechanics, but who also have a will to continually learn about new technologies and to determine what to use and when.

The golf industry is still very much a people business and new technologies should only be embraced to enhance the service that must be given to the players, if one wants them to return for another round.

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