

# For Good Golf and Good Turf — Use Less Water

---

by **JOHN A. ZOLLER**

Executive Director, Northern California Golf Association

*Cypress Point "suffered" through the Great Drought of 1977. But did golf or our golf courses really suffer?*



**I** GREW UP on a golf course located outside Hamilton, a small town in Ohio. My earliest recollection of going to the golf course was to tag along after my older brother, who had a summertime job of herding sheep on the course. I also have a second recollection. One day a passing motorist carelessly threw a cigarette out the car window, and a grass fire resulted that burned the entire golf course. Now, when you talk about not willingly wanting a brown golf course, I know what you mean!

Nevertheless, the game that we played in those days was significantly different from the game we play today. To be specific, the game then was played much more on the ground than in the air, while now the opposite is true. To illustrate this point, it was not unusual at

all for the stronger players to consistently drive the 350- to 400-yard holes, and, I assure you, the ball was not in the air this entire distance. I don't know if it still stands, but for a long time the record for the longest hole-in-one was something like 480 yards made by a baseball pitcher named Lou Kretlow, playing on a course in Oklahoma.

My first experience with a green golf course came when I went to school at Ohio State University and started playing on their magnificent Scarlet Course, which was designed by Alister MacKenzie. This was his last project; he passed away while the course was still under construction. Incidentally, up to this time I had never heard the words *Poa annua* or annual bluegrass, nor had I ever heard of a controversy on the "holding quality of a green." Now for me, the nature of the game changed. The Scarlet Course had a single-row, center-line irrigation system down the fairways and three or four quick coupler valves around the greens. The fairway valves were on 100-foot spacings with an enormous delivery capacity. I can tell you we could have put out the great Chicago Fire in about three minutes with this system. When the grass showed any stress or the greens became a little firm, out went the man with the sprinklers and on came the water. Now it was necessary to learn a completely new game. No longer did we land the ball 20 to 30 yards short of the green and bounce it in; the game became

Americanized. The good players learned to carry the ball a great distance in the air. Also, sad to say, we started hearing these new words in golf course maintenance: *Poa annua*, compaction, holding quality, and weed invasion.

The desire to create and maintain fence-to-fence, park-like conditions took over. More and more irrigation systems were designed to cover the entire acreage; and, in a way, the game became easier. Balls that were struck off-line would no longer roll to the water hazard or to the sand bunker or out-of-bounds but would hit the ground and stop.

As a personal opinion, I see nothing wrong with having areas of great contrast on a golf course. As a matter of fact, I think it gives a very striking effect. I adhere to the philosophy that the playing areas of the course, namely greens, tees and fairways, should be absolutely perfect, but the other areas should not be improved and should be very penal in nature.

At this point, I think the superintendent should understand that the way he maintains his golf course has a strong influence on how the game is played. There is no denying this responsibility; it is the reason why some clubs have a large percentage of low-handicap players while other clubs have very few. The quality and condition of the golf course produces good players.

The idea that a good fairway is one that is soft and covered with lush green



*The non-irrigated fairways of yesteryear. Strong players might drive 400 yards.*



grass is a misconception. Johnny Dawson is one of the finest amateur players this country has ever produced, and I have never forgotten a statement he made in addressing a meeting many years ago. He said that he could care less about the condition of the green he is hitting a shot to; what was more important was the condition of the fairway he is hitting the shot from. Give him a firm, tight, well-knit surface to hit from, and he can stop the ball on concrete. There is an excellent article entitled "Firm Greens: Best for You and Your Course," written by Robert Sommers, in the April, 1966, issue of GOLF JOURNAL. In this article, a number of prominent people in the game make some very good points. Henry Cotton, who won the British Open three times, said: "The influence of the unknowing member has become notorious in American golf. Unfortunately, there has been a tendency in recent years to produce softer conditions for play by encouraging more vigorous grass growth than is necessary. The production of fast-growing soft greens and fairways should be avoided. They result in unnecessary maintenance problems and are not really ideal for the game. The truly proficient golfer relies on backspin to stop his shot, not a hose."

William H. Bengueyfield is quoted as saying: "Too often the superintendent comes under heavy pressure to water the greens so that they will hold a shot. This unfortunate advice must frequently be followed. Wet greens are easily damaged by spikes, ball marks and mowing equipment. Shallow grass roots develop, annual bluegrass invades, and before long, all damaging consequences of poor water management catch up with the turf, the superintendent, and the membership."

I encourage everyone to get a copy of this article for his files — the comments are timeless.

**S**O FAR we have considered the effect of soft, lush playing conditions on how the game is played. Now let's look at the effect it has on maintenance. In some ways, the technology of the automatic irrigation system has been a major factor in the Americanization of golf. Rather than being certain as to how much water is required for greens, tees, or fairways each day, it becomes far too easy to push a pin or a button on an automatic controller and be assured that no part of the course will become too dry for another day. To make matters worse, the irrigation controllers have

the capabilities to be programmed for weeks in advance, so any superintendent who can do an effective job of irrigation for more than a day ahead of time has missed his calling. With ever-changing conditions and weather, daily monitoring of clocks and controllers is essential if we are to avoid becoming too heavily reliant on the automation of these systems.

It is safe to say that during the growing season, no single responsibility of the superintendent has a greater impact on maintenance budgets and practices than the amount of water he uses. At the basic level of this idea is the fact that in many areas, water and electrical power for pumping have become so expensive they can consume as much as 20 percent of a budget. Consider the amount of your maintenance budget that you could save by cutting back on the practices necessary to combat *Poa annua*, disease, weed encroachment, and compaction. Conservatively, your maintenance budget would be reduced by as much as 25 percent.

It's obvious that the ill effects of too much water can cost you a great deal in terms of money, but let's take a moment to look at this from the positive side: What are the desirable results of under-watering?

The best illustration of under-watering that I am aware of, since the courses like the one in Hamilton 40 or 50 years ago, were the courses in California during the drought we "suffered" through in 1977. I use quotation marks for the word "suffered" because, as you will understand in a moment, our golf courses didn't really suffer. How many of you have ever turned the water off on a fairway for an extended period during the warm months or have been unable to water your greens other than a small amount of hand watering? Obviously, if we made a radical move such as this with our Americanized country clubs and green committees, we wouldn't have a job for long. The point is that the best method of learning the advantages is by first-hand experience. Someone could speak to you all day about what occurs when the water is cut back, but until you actually see it happen, you probably wouldn't believe some of the positive things that take place.

What occurs first, when a fairway is put under stress, is that the *Poa annua* will disappear in a very short time. But what is most remarkable is how well the more drought-resistant strains hang on with practically no moisture at all. If this isn't enough incentive, other mois-

ture-loving weeds, such as daisies and clover, will be unable to survive, and no new seedlings will germinate under these conditions.

**T**HE SAME BASIC pattern follows when the greens receive a minimum of water. The *Poa* begins to suffer while the bent becomes more aggressive and begins to fill in the voids. Another welcome benefit comes in the way of a lesser susceptibility to spike marking and heel prints. Remember, as mentioned before, the greens will still hold a well-struck iron shot — the backspin makes the ball hold, not a guy with a hose or irrigation clock.

Because of the more favorable variety of grasses and the lower moisture levels, you may also notice far less incidence of disease throughout the course, and with the rising costs of fungicides, we all know how important this can be.

I can't think of a single routine mowing practice that isn't made easier by avoiding wet spots and an overall soft condition. Areas that are scarred or rutted by mowing equipment and golf carts are no longer a problem with prudent watering.

The most significant aspect of all that we noticed during the drought was that our golfers enjoyed the game as much as ever. Ladies and senior men were thrilled with the added yardage on their shots while the better players found the tight, firm fairway lies ideal for hitting their approach shots to the greens. With the amount of backspin they could put on the ball, they could stop it even on the firmest of greens.

After this discussion, many people would argue that a greener golf course is aesthetically much more pleasing, and I agree that a drought condition is an extreme. But green is a poor excuse for overwatering. With proper levels of well-timed fertilization, the grass will maintain a very attractive color and will be much more durable and vigorous than a grass that gets its color primarily from water.

Certainly we have come a long way from that first course I played on in Ohio. Our knowledge and technology have taken us great lengths from having a brown, dry golf course. There must also be a happy medium; the part of the game we have lost can easily be found again. No one could suggest that this brown, dry course would provide the best in playability or looks, but at the same time, with prudent management, we can provide an aesthetically beautiful course suitable for good golf.