

# A BIRD'S EYE VIEW

*Checking irrigation performance with aerial infrared photography to help illustrate irrigation system deficiencies.*

by **BRIAN MALOY**

**C**ONVINCING golfers or course owners to upgrade an irrigation system can be a challenging task, to say the least. During the summer months, players often make comments like "Is the irrigation system turned off?" or "Why are there so many dry spots on the course?" Most golfers are simply unaware of the irrigation system limitations at their courses. Displaying aerial photographs of the golf course may be just the ticket to help convince the skeptics.

At the heart of the issue is the fact that many older courses were built with limited irrigation coverage. Consequently, it is not uncommon to find only a single row of sprinklers down the middle of the fairway. Larger in-ground sprinklers have replaced quick couplers, but they are not capable of meeting the specific watering requirements of the terrain. For example, due to the slopes and contours it is impossible to water a mound without most of the water running down the hill into the lower-lying areas. Computerized syringe and soak cycles of modern-day irrigation systems can help mask this situation, but ultimately smaller appropriately spaced sprinklers that can be run independently are the best solution.

Many players simply don't realize that their irrigation system is technologically obsolete. Therefore, it is critical for superintendents to make the club leadership aware of irrigation limitations so that they can be addressed in the long-range plans. One strategy that superintendents can take advantage of is an annual USGA Turf Advisory Service visit to help increase players' awareness about crucial agronomic limitations, including irrigation system deficiencies. Unfortunately, a complete irrigation system renovation can easily exceed \$1 million. Just discussing the cost of such a system will likely raise a few eyebrows with players not familiar with irrigation costs. In addition, there is always concern about losing revenue while the improvement is underway. Overcoming these roadblocks is essential if the golf course is to continue to improve.

During periods of drought, the lackluster performance of any irrigation system becomes obvious. Yet, while course officials seem to understand the terrible conditions that often plague the agricultural industry, there seems to be little compassion for similar problems on the golf course. Chuck Gast, golf course superintendent of The Country

Club of Little Rock, in Little Rock, Arkansas, used common sense to help his players realize the limitations of their irrigation system. His intent was to encourage his course officials to include an irrigation system renovation in their long-range plan. Most superintendents only want to take pictures of their golf course when it looks its best, but Chuck suggests taking pictures when it looks its worst.

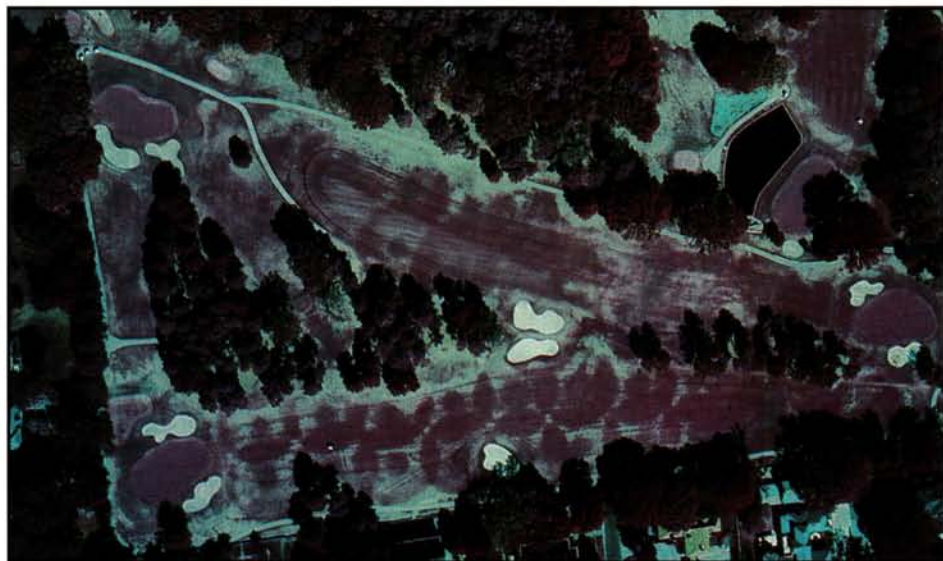
During the height of the 1999 drought, Chuck hired a professional aerial photographer to take infrared pictures of the golf course. Color infrared photography was chosen because the technology provides five times more contrast between stressed and healthy areas of turf. In most cases, the professional photo shoot can be accomplished for less than \$500. To obtain a price quote, check your local yellow pages under the heading "photographers – aerial."

The picture was blown up and displayed in the clubhouse to illustrate the shortcomings of the irrigation system. Now the picture is prominently displayed in the maintenance facility as a gentle reminder of the importance of an upcoming project within the long-range plan. It is said, "A picture is worth a thousand words." Sometimes that is just what is needed to make course officials aware of course deficiencies.

Chuck's ingenuity used the drought to his advantage. Taking aerial photographs of the property provided the players with a different perspective of the irrigation system. After reviewing the aerial photographs, the club leadership has decided to schedule an irrigation renovation as a key component of their long-range plans. So, if you are having difficulties convincing your players or course owner of the necessity to upgrade the irrigation system, consider looking at it from a bird's eye view.

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*Aerial photographs of the golf course give another perspective of the irrigation system's performance. Color infrared film provides five times more contrast between stressed and healthy turfgrass areas than standard film.*