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Know how water is moving in your soil to make the best irrigation plans.

some point in everyone's season or career. Having a large percentage of non-English speaking employees, I needed a way to train my staff in a way they would understand without butchering their native language in the process as I was unfortunately prone to do from time to time.

I grabbed a laser thermometer and a soil sensor. Showing the relationship of how too much soil moisture led to higher soil temperatures than surface temperatures was eye-opening to them. They learned the art of putting on the right moisture in the right place to achieve the desired goals. More importantly, they learned the duration of those effects knowing how much time they had before the practice was needed again. Even in warm-season environments where the grasses can tolerate high ambient conditions, the roots still cannot survive sweltering soil temperatures. So managing our soil moisture throughout the year is critical for achieving the finest conditions. Period.

We are all under the gun for irrigation conservation, as we should be. Those of you that drink bottled water pay more for that per gallon than we do for the highest gas prices – six times more. And those prices are translating onto golf courses more and more every day. Water regulators are learning from companies and individuals like me who have studied the relationship of soil and water to great depths. They are learning that we can manage our water better and the time was yesterday to do so.

We live in a world where the best irrigation managers can still do it better.

I'm happy that the technology of soil monitoring is advancing as we speak and becoming more affordable than ever. We are in a world now where we want solutions and guarantees.

While it is difficult to guarantee anyone's success or the outcome of any particular practice, one guarantee I can certainly make from experience is that the more you know about your soils and the presence of water in your profile, the more successful you will be at determining the best practices to meet the needs of the turf. Don't neglect to understand how water moves through your entire profile. A dry lower profile will lead to increased problems beneath the surface.

After designing a proprietary profile uniformity index that considered soil

**“We didn't get any snow, but we didn't get any rain, either.” — Brian Vinchesi**

type and the positioning of soil solution throughout the profile, I found statistical correlation between a high index (indicating soil moisture near the surface as compared to in the lower profile) and the incidence of root loss, turf thinning and disease outbreak.

Take the time to identify the conditions in your soil and the activity in your turf. Nobody knows your course better than you. Make the right decisions by understanding the needs. **GCI**

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