

A Superintendent in Disguise

By Bob Costa

It was late one Saturday afternoon when I decided to play a relaxing nine holes at the golf club where I'm employed. I'm the golf course superintendent and I try to play the course as frequently as possible, so I can get a feel of the conditions from a golfer's perspective. As I settled in on the first tee a group of golfers asked if they could join me. We exchanged the normal greetings and when asked what I did, I told them I was a horticulturist. The response was one I was used to; "a horti-what?"

A few minutes later we were all off the tee. As we putted out on the first hole one of the golfers in our group commented: "I was talking to the pro before we teed off. He said their aerifying greens next week. I'll never understand it. Every year in the spring and fall, when the greens are in the best shape, the maintenance staff has to punch and sand the greens. Why can't they just leave things alone?"

I replied, "From what I know, punching holes and sanding, referred to as aerifying and topdressing is scheduled to improve the condition of the root system. Healthy roots need oxygen, nutrients and water for growth. When soils become compacted, water and air movement are restricted, resulting in unhealthy, weak roots. Soil compaction, is the result of soil particles becoming squished in the soil, and occurs primarily because of excessive traffic. To help illustrate the effects of soil compaction, imagine a room filled with nerf balls. When weight is applied to the balls, the spaces between

each ball is eliminated. The spaces (pores) are the openings in the soil which allow water and air to move freely, providing oxygen, water and nutrients to the roots of plants. Without these pore spaces soils become waterlogged and movement of air into and out of the soil becomes difficult."

"Aerifying, which is the process of punching holes in the soil, and topdressing, provide temporary channels for air and water to enter a compacted soil. On a golf course green, the soil becomes compacted due to maintenance equipment and foot traffic. After the wet conditions associated with winter and the steady traffic of summer, the soil is sufficiently compacted, and aerification becomes necessary. Because weather conditions are ideal for rapid recovery, aerification is usually scheduled in the spring and fall."

"You sure seem to know a lot about aerification. What did you say you do again?"

"I read a lot," I responded.

Several holes later one of the golfers in our group sunk a thirty footer for a skin. As he threw his arms up in the air in jubilation, he yelled, "These greens are in great shape. The ball is rolling fast and true. I don't know why they can't always be like this."

I couldn't help it, I had to tell them. "Green speed and ball roll are directly related to the condition of the grass plant. Greens that are slow and bumpy are usually, grainy, lush, moist, spiked, thatchy, thin or mowed above 5/32 of an inch. Conversely, fast true greens are generally firm, dry, lean and mowed at 5/32 or below. The maintenance practices required to produce fast greens also create

significant stress on the plant, and therefore, cannot be implemented continuously, day after day. Factor in conditions that the superintendent has no control over, such as rainfall, foot traffic, heat, and cold and it becomes impossible to have perfect playing conditions year around. Generally, larger greens, constructed on a sand base are less prone to compaction and allow the superintendent to be more aggressive in his or her management practices. At least that's what I heard," I nervously said.

As we stood on the eighth tee, overlooking the front nine, one of the players commented, "This place is so green, it must be because of all the fertilizer and water they use."

"Not necessarily so," I said. "Golf course irrigation systems are some of the most sophisticated systems in the world and many are designed to replace only the water that has been used that day. This is accomplished with the aid of a weather station and computerized scheduling. Unless there is a malfunction of the system, water is applied evenly and uniformly with no runoff. New fertilizer technology, and organic products have provided superintendents with fertilizers that slowly release nutrients over an extended period of time, thereby minimizing the potential for nutrient leaching into off target areas. This approach to fertility, also results in more uniform growth, color and better playing conditions."

"You seem to know quite a bit about maintaining a golf course," they said. "Did you work on one before you

became a horti... I'm sorry, what are you again?"

"A horticulturist," I replied. "Yeah, I've spent some time around golf courses."

As we neared the ninth green, an errant shot placed one of the golfers in the extreme rough. Good sports that we are, we gathered in the area to help look for his ball. As we began our search, he shouted, in frustration I assume, "Why don't they mow this stuff. I'll never find my ball in this jungle."

"That's a native grass planting," I commented. "It serves several purposes. Native species use less water, require little if any fertilizer, no pesticides, rarely need mowing and provide great cover and habitat for wildlife. Natural plantings are part of the golf course setting and enhance the courses relationship with the surrounding environment."

"Golf courses good for the environment?" he said. "You know, I never really thought of it that way."

As we reached the clubhouse, I told the group I was through for the day. I thanked them for the round, the conversation, and paid my debt. As I turned to make my way to the parking lot one of them said, "You're a pretty sharp guy for a horticulturist, maybe you should consider being a golf course superintendent."

"I don't know," I said. "I hear its a pretty tough job."

"It's certainly more complicated than I thought," he said as he turned and walked away.

