



Brian Vinchesi, the 2009 EPA WaterSense Irrigation Partner of the Year, is president of Irrigation Consulting Inc., a golf course irrigation design and consulting firm headquartered in Pepperell, Mass., that designs irrigation systems throughout the world. He can be reached at bvinchesi@irrigationconsulting.com or 978/433-8972.

IRRIGATION THE HARD WAY

Last month I had the opportunity to travel down to South America to Bogota, Columbia, to teach a one day seminar on the basics of golf course irrigation systems. Each year the Columbia Federation of Golf (Federacion Colombiano de Golf) provides a two-day educational seminar on various aspects of golf course maintenance to the Columbian golf industry. There are about fifty golf courses in Columbia. The first day of the seminar was presented by Dr. Erik Ervin from Virginia Tech who discussed greens maintenance techniques. I had the second day. The seminar was well attended and very professional with instantaneous translation being provided through headphones, which made for an interesting way to teach.

Bogota is a large city with a population of around 6.7 million people. It is also high, at an elevation of

ing turf in Bogota is not too difficult as most of the grasses on the fairways and most of the tees is kikuyugrass and, as a result, does not necessarily need irrigation. Greens are *Poa annua* and bentgrass in Bogota and in other parts of the country where the climate is less mild, Bermuda is common.

As in the United States, golf is quite varied in Columbia, with some older and newer high end clubs, struggling private country clubs, public courses and newer resort courses. Dr. Ervin and I visited several courses while we were there. The first one was a very old course and had irrigation only on the greens, consisting of four Toro 2001 athletic field type sprinklers, a quick coupler, a 2-inch (50 mm) PVC ball valve and a filter all in a home-made valve box. The foreman for the course was complaining that the filters – one per green – clogged up within two or three minutes of use and hence he had stopped using the “system” and just hand watered the greens. The water source did not look too bad so we



300-micron (50-mesh) filter at the pump system would be more efficient than having one at each green, even if it had to be manually cleaned.

The second course was a mid-range private country club. Its irrigation system consisted of just a 1-inch (25-mm) ball or gate valve at each green and lots of hoses. At one time, the golf course had quick couplers in the fairways, but no one could remember when they had been used. During my visit the irrigation pump was out being serviced and had been gone for some time. The golf course looked great and had no real need for irrigation.

The third course visited was quite interesting. The course had been recently renovated and had a modern irrigation system. Greens were ins and outs and fairways were double and triple row valve-in-head on a 65-foot (20-meter) triangular spacing. The control system was decoder. To our surprise, the superintendent operated the entire system from his smart phone and iPad and was very proficient with them. Tee irrigation was an issue as they were all watered with residential type Rain Bird 5000 series sprinklers. The tees were sand

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about 8,660 feet (2,640 meters). The climate is very mild with average temperatures of 70-75 degrees Fahrenheit (21-24 Celsius), much like San Diego. As with most Latin American countries, there are lots of buses and diesel fumes and, like New York, what seems like thousands of taxis. Grow-

took apart the filter to see what kind of debris was in it. As it turned out, it was a 200-mesh (74-micron) disc filter, which is finer than even drip irrigation needs. There was a lot of debris as the filter was catching everything. Normally for golf you would use 300-micron or 50-mesh filtration. One

The first name in surfactants. The last you'll need to know.

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based and the block zoning of the small sprinklers watered the tees top and a great deal of surrounding tee area that was both sloped and a heavy soil all together. The tees were mostly elevated and therefore windy. The trees were very dry from a combination of poor sprinkler spacing and small nozzles that allows the water to be easily blown around.

Lastly, we visited a small practice facility operated by the Columbia Federation of Golf. This inexpensive public facility consisted of several practice putting greens, a driving range, a golf school and a par-3 course. The facility was also being used as an educational facility to teach several interns about golf course maintenance. The irrigation on this facility was very rudimentary, consisting of residential products with some automatic (not working) and manual irrigation. There was a small pump system and not enough water. But again with the kikuyugrass it was in pretty good shape.

Like most countries, golf in Columbia is very diverse with old established clubs and new resort courses. Qualified help is an issue and maintenance practices are behind the times. The use of chemicals and drainage and irrigation systems are rare due to availability and cost, but the golf course superintendents and foreman are eager to learn. During the seminars there were lots of questions both in the classroom and out in the field.

I have been to a lot of high end golf courses in the United States over the years and many private country clubs with lots of amenities. The Lagartus Club in Bogota where the seminar was held is very high end and with your typical country club services including: golf, swimming, tennis, squash, bowling, fitness center, practice area, short game area and several restaurants. However, Lagartus had an amenity I had never seen attached to a country club before. That was competitive water skiing on their irrigation lake, complete with a marked out course and a scoring building on the shore. Something to bring up as a possibility at your next board meeting? **GCI**



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from new path to the old, when the old section breaks up, so we try the next section... and sometimes the next section, etc.

Turf. On most renovations, we try to minimize turf destruction and replanting. This cuts cost, but leaves noticeable seams between old to new turf. Once seen, many prefer new turf be taken out to logical stopping points for consistency. Also, I can't recall a project where everyone didn't want more sod than was specified.

Most projects follow the proverbial desire for "champagne on a beer budget." Thirty six years of experience has taught me to be smart and plan on spending 10-20 percent more than the client really wants to get the product they really want and need. Very few projects get built exactly as per plan, and most changes increase costs over causing "pleasant" budget surprises.

Conscientious project teams continually balance between construction cost, project quality, and future maintenance or additional construction costs. They also realize that things just tend to come up and plan for the unplanned. **GCI**

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2013, according to the Census and Department of Commerce statistics.

Consider two additional important impacts on golf:

- Golf participation will increase in areas with a growing concentration of homebuyers above the age of 50.
- Market radials (the distance radius that feeds a facility) are shrinking due to over-supply of courses.

How should those of us in the golf business react to the changes in the housing market?

- Monitor housing trends that favor new construction and neighborhood resurgence in your area and market to new residents.
- Because of the shorter drive-time to the nearest course, loyalty programs that reward repeat business have new importance. Evaluate yours to make sure it's appealing to new customers and rewarding to your business.
- Research your close-in market to understand its demographics and see where your facility makes the strongest connection with residents. Identify your facility's strengths and most attractive features. Then focus your communications to take best advantage of your marketing budget.

The rising tide of a stronger housing economy may not lift all boats, but it can lift yours if you plan ahead. **GCI**