



Pairing Profile With Extreme Growing Conditions Proves a Good Match

Golf superintendent discovers Profile's ability to help overcome sandy soil and intense temperatures



Set Up

Taking a desert site with extreme climatic conditions and making grass grow to create a premier golf course is no simple task. Add a tight schedule and one may be left scrambling. But as part of a new development community called Laughlin Ranch in Bullhead City, Arizona, Laughlin Ranch Golf Club had a unique soil amendment suited for such a situation, supportive partnerships to see the project through to successful completion, and a seasoned professional in Golf Course Superintendent Bob Weekes to make it happen.

Site

Laughlin Ranch is a new development community in Bullhead City, Arizona. Considered to be the largest master planned community ever to be built in Mohave County, Laughlin Ranch's development began construction on January 5, 2004.

A favored feature of the development is the construction of the Laughlin Ranch Golf Club, which broke ground in February, 2004. The course was designed by Golf Course Architect David B. Druzisky and was constructed by Landscapes Unlimited, LLC, one of the world's top golf construction companies.

Situation

For Golf Course Superintendent Bob Weekes, one of the challenges in creating the course came in the conditions of the sandy soil, which he defined as having a rocky, gravelly consistency and not conducive to growing grass. With 15 years of golf course management experience under his belt, Weekes knew a solution would require creative thinking.

"It was obvious we would have to create some topsoil," Weekes said. "We looked into importing it from a local pit but they were going to charge us \$11 to \$12 a yard."

Extreme temperatures also posed a challenge for a course located in a climate that can reach daily temperatures over 100 degrees Fahrenheit.

"Bullhead City has one of the most extreme temperature climates in the country," said architect Druzisky. "We knew it would be important to take advantage of any product that would help withstand the heat."

Another obstacle was the course's completion schedule – Weekes needed to have the first nine holes completed and ready to play by mid-December, 2004. Given this difficulty, Weekes knew his original plan to sprig the entire course would need a lot of support to accommodate the aggressive schedule. Another creative solution was needed.



Over 90,000 tons of Profile™ Porous Ceramic-mixed topsoil was created from stockpiled native soil for fairway capping.



Solution

A solution was soon found when Weekes began working with Profile Products LLC to devise an optimal strategy that would create a premier golf course in a limited amount of time. In creating a solution with Profile product managers, Weekes elected to use Profile™ Porous Ceramic (PPC) for construction of the topsoil. Weekes considered PPC to be the ideal product to do the job based on each PPC particle's ability to hold water and oxygen in nearly perfect balance and to store vital nutrients that ensures healthy root growth. Weekes knew that because of these features, his water, fertilizer, labor costs and green maintenance would be reduced.

"Basically, we did the entire golf course with Profile," Weekes said. "With the extreme temperatures, low humidity and windy conditions in the Bullhead City area, I needed a product that does what PPC does, which is retain moisture and nutrients. At the same time, because of the high salinity of the effluent water source, I needed to be able to flush out the soil."

Weekes was also mindful of the course's \$15 million budget for the 7,000 yard course and made the decision to mine the topsoil on Laughlin Ranch's property. Instead of paying \$11 to \$12 a yard, Weekes was able to produce topsoil for \$3 a

yard. Being able to produce the topsoil for such a reduced cost involved not just removing the soil but also transporting the soil to a central site on the property where Greensmix, a Waupaca, Wisconsin company, could blend the PPC with the mined soil to create a topsoil that was 10 percent PPC and 90 percent sand.

In addition to producing and bringing in new topsoil, Weekes had to contend with an aggressive deadline in order to make the course playable by December. With this in mind, Weekes decided to sod the entire course. Knowing that the sod that is typically produced would compromise the nature of the PPC-mixed topsoil, Weekes contracted with Evergreen Turf out of Tempe to produce the sod that contained similar physical properties to his topsoil. Created with no PPC from compatible sand supplied by Ft. McDowell Materials, the sod was grown, cut in 18-inch and 30-inch widths and spread out over 100 acres.

Outcome

With Druzisky's assistance in coordinating the construction of the course and the application of the PPC, Weekes first started spreading over 90,000 tons of PPC-mixed topsoil to be spread four inches deep in August and laid the first specially grown sod in early October. Weekes said the

front nine holes were ready to play at the inaugural tee-off by its December 18, 2004 deadline and the final nine holes and practice facility were ready to play by mid-February. Weekes said the sod establishment had definitely been complemented and encouraged by the PPC-mixed topsoil to create beautiful greens, tees, fairways and roughs for golfers.

The interest in the course is not just limited to those setting foot on the greens. Druzisky said interest in the course and its use of PPC is spreading.

"Laughlin Ranch has such an extreme climate that it will be a good test for the effectiveness of PPC," Druzisky said. "Others from across the country will be interested in its effectiveness."

Conclusion

With five sets of tees and over 7,000 yards of challenging fairways in the beautiful Arizona hills, Laughlin Ranch Golf Course's green and lush beauty is a tribute to the creative thinking and ingenuity of its designers and builders. In working with Profile Products to showcase the realized potential of the Laughlin Ranch Golf Course, those integral to the construction of the course created an oasis in the desert that will be enjoyed by many for years to come.



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