



Ensuring Excellence at Desert Mountain

Director of Agronomy utilizes Profile Products to reconstruct 19 greens at top-ranking Jack Nicklaus Cochise Course



Keeping Performance Cool in a Hot Climate

Growing great greens is never easy, especially in the hot climate of the Arizona desert. Shawn Emerson, director of agronomy for Desert Mountain courses, faces this challenge everyday. The Cochise Course, located in Scottsdale, Ariz. and designed by legend Jack Nicklaus, is ranked by the Senior PGA® Tour as one of the “Best Maintained Golf Courses.” The course enjoys national television coverage and is played by some of the best golfers in the world.

Surrounded by the rugged Sonoran Desert, Emerson not only has to keep his greens alive in the harsh environment, the club’s members expect a fresh, and championship-play-worthy course at all times. Emerson applied more than 18 years of experience to this real-world challenge.

After 20 years of play, Poa annua and Bermuda grass began to encroach on the course. While dealing with the encroachment, Emerson determined it was the

ideal time to re-grass the 20-year-old greens and modify the root zone to achieve the best physical properties. Emerson knew he had one chance to improve the soil prior to re-grassing to prevent the soil conditions he had in his old greens. He needed to modify the soil to keep his greens in top condition during the brutal 100 degree temperatures and summer play.

Old Buildup Slowed Drainage

“The greens had built up from 20 years of frequent topdressing, said Emerson. “Infiltration had slowed and the cation exchange capacity (CEC) was too low. Removing the organic buildup in the top few inches and replacing the mix with a product that would increase the percolation rate as well as the CEC would help the greens.”

Profile™ Porous Ceramic (PPC) Greens Grade™ was the right choice to replace peat, dramatically improve the percolation rate and improve the nutrient-holding ability of the sand-based root zone. Emerson, who had injected PPC using the revolutionary DryJect® service in the past as well as other methods, was confident PPC would provide the right solution for his greens.



Testing and Consultation Leads to Success

Upon hearing about the upcoming Cochise Course project, Nick Lubich, director of golf relations for product distributor Fertizona, contacted long-time associate, John Maeder, Profile's golf business manager. "John Maeder and I have worked together for years," said Lubich. "I was confident we could modify the root zone to resolve the greens buildup issue at Desert Mountain."

As a part of a new greens mix or used in topdressing programs, PPC is more effective than peat or other inorganic amendments at increasing air- and water-pore space and enhancing nutrient uptake without breaking down.

Lubich and Maeder studied various root zone blend options including the addition of sand and PPC together at different ratios. Soil tests were taken and samples sent off to Hummell & Co. Lab to determine the correct analysis ratios of PPC in the mix. Through physical analysis testing, they determined using PPC alone in the soil would obtain the best results.

"Lubich and Maeder even showed me comparisons from other courses," said Emerson. They both compiled a great deal of information to make sure we selected the correct solution for our course."

Profile Porous Ceramic root zone mixes meet the USGA's

Recommendations for a Method of Putting Green Construction. Proven on thousands of greens and at major turfgrass universities across the country, PPC increases soil oxygen, resists compaction, helps eliminate localized dry spot and retains optimum moisture while enhancing drainage.

A PPC particle is 74 percent pore space with approximately 39 percent capillary pores and 35 percent non-capillary pores. It increases water-, air- and nutrient-holding capacity at the root zone—permanently improving most soils.

Ultimately on May 15, 2008, Emerson stripped off the top two inches of soil, rototilled the root zone mix to relieve compaction and provide consistency all the way through, and then added Profile Porous Ceramic to the mix. He followed by rototilling in two different directions creating a uniform soil profile.

High Heat No Match for New Greens

Just six weeks later, the Cochise Course greens reconstruction project was complete and ready for play. Emerson remarked he definitely noticed a difference in the condition of his greens. The percolation rate, which used to be at six to eight inches, was now at 10 to 12 inches.

"As soon as we completed the greens, we experienced extreme weather conditions," Emerson said.

"The greens are holding up well in the high heat and heavy traffic and we have not had any issues." By reconstructing the greens and adding PPC, Emerson ensures the Cochise Course continues to live up to championship standards.

"The Cochise Course at Desert Mountain is one of the most awe-inspiring golf properties and Shawn Emerson is a great resource in this industry," added Lubich. "The Desert Mountain community will notice the course drains and dries better because of the increased percolation."

Emerson had this to add about working with PROFILE Products LLC. "Working with Profile is not just about quality products. The knowledgeable Profile staff and the company itself made our reconstruction a great experience."

The Cochise Course remains one of the most premier golf courses in North America. Profile Porous Ceramic helps preserve the reputation of a Jack Nicklaus designed course, and ensures excellence lives on at Desert Mountain.



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