



The Root of the Matter

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If turfgrass growers have one thing in common, it is roots. The better their newly seeded turf establishes roots, the more quickly and efficiently they can harvest their crop. While most turf management is aimed at attaining a green, thick and dense canopy, turfgrass producers face the added task of needing to achieve thicker, denser root systems. How long this takes and the costs involved are among the challenges to running a profitable sod business.

Matt Holloway, production head, Quantico Creek Sod Farms, Hebron, MD, knows these challenges well. The

family-run business has supplied sod to hundreds of customers along the Eastern Seaboard for nearly a decade and counts the University of Maryland, Washington Monument and Capitol Building in D.C. among its clients. "Our main focus has always been customer satisfaction," says Holloway, "so we are always open to new technologies and products that support our commitment to delivering a quality product."

Maintaining a competitive edge was what led Holloway to try Crystal Green® fertilizer (5-28-0 +10% Mg) in fall 2010. Created from wastewater, the fertilizer can serve as a replacement for traditional phosphorus (P) in fertilizer blends. It does not tie up in the soil like more soluble forms of P and is thus available to

the roots on a steady basis over a much longer period of time. Two applications can provide nutrients for a full year. Its slow-release profile results in significantly less leaching and runoff compared to more soluble products.

Holloway tried Crystal Green at seeding time, starting with 150 of his 1,000 acres. Instead of using the high phosphorus-based blend normally used at seeding, he applied just three percent P in a 22-3-4 blend using Crystal Green as the source of P. This was 75 percent less P than he normally used, and the only application of P to the crop during the entire season, he said. After just a few weeks, he fertilized an additional 150 acres with Crystal Green and then another 150 acres after that.

Early Harvest

When Holloway tested his field a few months later, he found the root mass was thicker and deeper than it normally would have been by that time. "We were able to lift pieces of sod from one of our fields approximately three and one-half months after planting," he said. "We've never seen this before."

Holloway eventually harvested the entire 450 acres just five months after planting – four months earlier than usual. In addition to being able to harvest ahead of schedule, he was able to take a shallower cut without compromising the soil integrity. This was due to the denser root system. This reduced the amount of soil taken from the fields, and also allowed more pallets per truck to be shipped due to the reduced weight.

Because of the early harvest, Quantico Creek was able to rent the fields during the summer. If these results continue, Holloway is considering seeding in the spring for a fall harvest and then re-seeding in the fall for a spring harvest – in essence doubling his sod production in a 12-month time span.

"You need considerably less phosphorus volume with each application of Crystal Green because it takes up to nine months to dissolve compared to agricultural grade MAP or DAP," Holloway said. "Being able to use an environmentally-responsible form of phosphorus is important to both us and our customers in the Chesapeake Bay watershed."

