

Stand-Up Grass, Stand-Out Profits

GEORGIA DOT CONTRACTOR KEEPS SOIL AND PROFITS FROM SLIPPING AWAY

Tom C. Wedegaertner

Erosion control is a slippery issue for contractors performing road expansion projects. Without erosion control, rainfall can cause soil to slide onto the road, creating dangerous driving conditions. Steep slopes and rocky, infertile soil can exacerbate an already complex situation.

Today's erosion control protocol often calls for erosion control blankets. These blankets, typically made of straw, wood or coconut fiber, are placed over the area with the goal of protecting topsoil and grass seed from the effects of erosion. However, blankets do not always provide adequate soil runoff prevention in areas with steep, difficult terrain, according to the owner of one of the largest erosion control companies in the Southeast.

Wilson Borden of The Erosion Co., Woodstock, Ga., said that when erosion

control efforts fail—as in the case of a highway expansion project on Georgia's State Road 20 in November 2006, in which his company used the industry-standard blankets—contractor profits also can quickly erode.

"Georgia DOT [Department of Transportation] gives you one chance to guarantee a stand-up grass on an erosion control project," he said. "After that, it's on your dime."

"For steep slopes like the one on State Road 20, it's tough to get the soil to receive grass with blankets," Borden explained. "When blankets don't work, you have to tear them up and start again. Any time you have to repeat a job, labor and product costs add up and eat away at the bottom line."

So after the second trip back to the site to fix the failing erosion control

blankets, Borden said he switched to Cotton Fiber Matrix cotton hydromulch, the industry's first premium rain-ready hydromulch made from cotton.

Recently approved by the Georgia DOT, Cotton Fiber Matrix cotton hydromulch is available from Mulch & Seed Innovations, LLC. It was developed in cooperation with the U.S. Department of Agriculture (USDA) and Cotton, Inc. Applied with a spraying mechanism, the cotton hydromulch forms a honeycomb seal over the soil, protecting topsoil and seed. Cotton's porous, absorbent and biodegradable qualities provide an ideal environment for controlling erosion and establishing seed, even on steep 2:1- and 1:1-rated slopes.

Borden said application requires a crew as few as two and is three times faster than erosion control blankets,



Before:

The project site along Georgia State Road 20 featured a steep 1:1 slope and rocky, infertile soil. The cotton hydromulch created a honeycomb seal over the area, protecting the soil and seed from wind and heavy rain.



After:

Four weeks after applying the cotton hydromulch, stand-up grass survived a heavy rainstorm and completely resisted erosion.

making the cotton hydromulch a cost-effective erosion control method.

THE PERFECT STORM

The Erosion Co. was no stranger to roadside jobs, but the highway expansion project in Bartow and Cherokee counties proved a precipitous challenge. The area of concern was a steep 1:1 grade slope with rocky, poor-quality soil.

The Georgia DOT bid called for the development of a strong stand of grass to prevent erosion. Once selected, The Erosion Co. employed the standard technique of applying grass seed and laying erosion control blankets to support seed germination. When assessing the site after several weeks, it found that only 5 to 15% of the grass seed had germinated.

Without sufficient germination, the erosion control blankets failed to provide a stand of grass strong enough to prevent erosion of the slope. Consequently, The Erosion Co. pulled up the mats and repeated the procedure, trying for a second time to spur seed growth with blankets. The company returned several weeks later to find the same results, only 5 to 15% germination.

"After the blankets failed a second time, we were obviously hesitant to repeat the procedure again," Borden said. "So, we started searching for alternate means of erosion control, particularly a product that could hold up to the tough conditions of the slope."

That is how Borden discovered the new Cotton Fiber Matrix cotton hydromulch from Mulch & Seed Innovations, LLC. According to Wae Ellis, vice president of sales and marketing, Mulch & Seed Innovations, the cotton hydromulch was created specifically to establish grass on steeper slopes.

The Erosion Co. removed the blankets for the second time and applied the cotton hydromulch, a bright green mulch dispersed through a hose. Two weeks later, The Erosion Co. noted that there was 80 to 90% germination of grass seed and 90% coverage of grass. Three weeks after application, the company returned to find a complete stand-up growth of grass with a strong hold in the soil.

Then the storm hit. Just three to four

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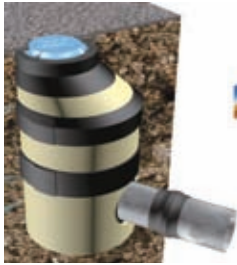
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weeks after applying the cotton hydromulch, the jobsite endured a strong storm with a substantial rainfall of 3 to 4 in. After the storm, The Erosion Co. nervously revisited the site.

"The dirt didn't move an inch," Borden said. "The new grass grown by Cotton Fiber Matrix continued to hold ground and completely prevented any erosion from occurring. We've been completely sold on this new cotton hydromulch ever since."

AGGRESSIVE ALTERNATIVE

Ellis explained that the patent-pending combination of cotton, straw, and a blend of performance-enhancing tackifiers and additives creates a seal over the soil.

In research conducted by the Department of Agronomy at Auburn University and the USDA Agricultural Research Station, the cotton hydromulch outperformed other erosion control products by as much as 255% in soil loss and 189% in grass growth. With its proven ability to establish seed and grow grass even in the toughest of conditions, cotton hydromulch has provided an aggressive alternative to blankets.

"There is no doubt that Cotton Fiber Matrix has saved us time and money," Borden said. "It requires less time and a smaller crew to apply, which results in lower labor costs compared to other erosion control products. And because it has a high rate of success in establishing grass with the first application, it helps us maintain profits while providing optimum results for our clients. With cotton hydromulch in our toolbox, we can keep the soil and profits from slipping away." **SWS**

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