

Summarized From: Faucette, L. Britt, Carl F. Jordan, L. Mark Risse, Miguel L. Cabrera, David C. Coleman, and Larry T. West. 2006. *Vegetation and soil quality effects from hydroseed and compost blankets used for erosion control in construction activities. Journal of Soil and Water Conservation. 61:6:355-362.*

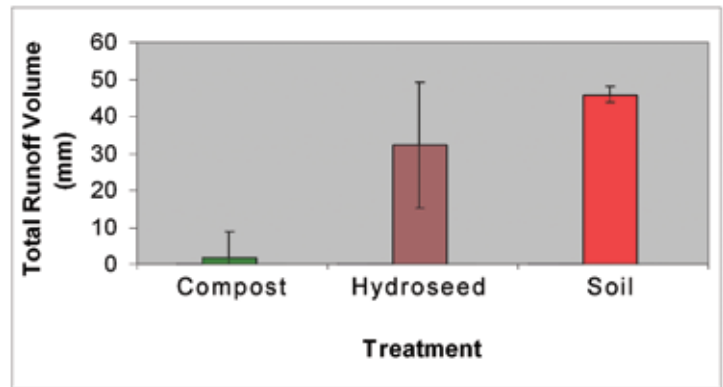
**Storm Water Runoff, Infiltration, and Erosion**

The objective of this study was to evaluate the storm water characteristics and soil loss from Filtrex<sup>®</sup> Slope protection and hydroseed applications to soils disturbed by construction activities. The soil was classified as an eroded Pacolet Sandy Clay Loam. The testing area was cleared of vegetation and uniformly graded to a 10% slope with a grading blade mounted skid steer, exposing a semi-compacted (from the skid steer) subsoil (Bt horizon) to simulate construction site conditions on 48 m<sup>2</sup> test plots. Each treatment, excluding the control, was seeded during treatment application with a 1:1 mix of hulled and unhulled Common Bermuda (Cynodon dactylon) grass seed as specified for erosion control by the Georgia Department of Transportation. Three simulated storm events were conducted over 1 yr. A Norton Rainfall Simulator with 4 variable speed V-jet oscillating nozzles was used to simulate rain events within an intensity of 7.75 cm (3.1 in) h<sup>-1</sup> for 1 hr duration - equivalent to a 50-year return.



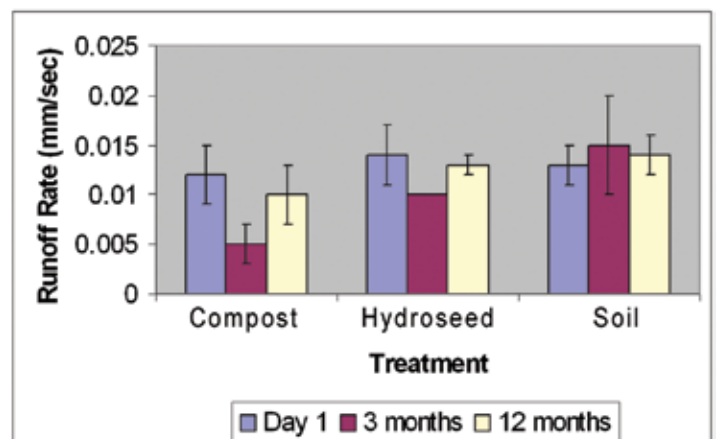
Under a rainfall simulation of 3.1 inches/hr for one hour duration, hydroseed produced over 16x more stormwater runoff than the compost blanket after 3 months. More runoff often means more soil erosion.

**Total Runoff Volume - 3 Months**



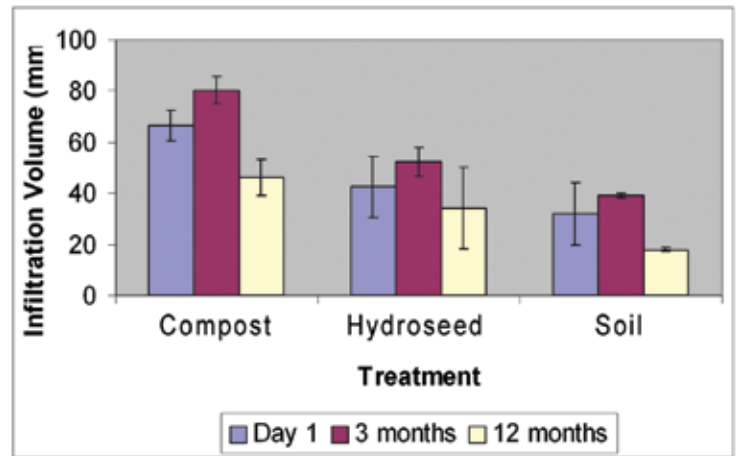
Under the same rainfall intensity and duration throughout a 12 month period, the compost blanket showed reduced runoff rates compared to hydroseed for all storm events. Lower runoff rates are less erosive to soil surfaces.

**Peak Runoff Rate**

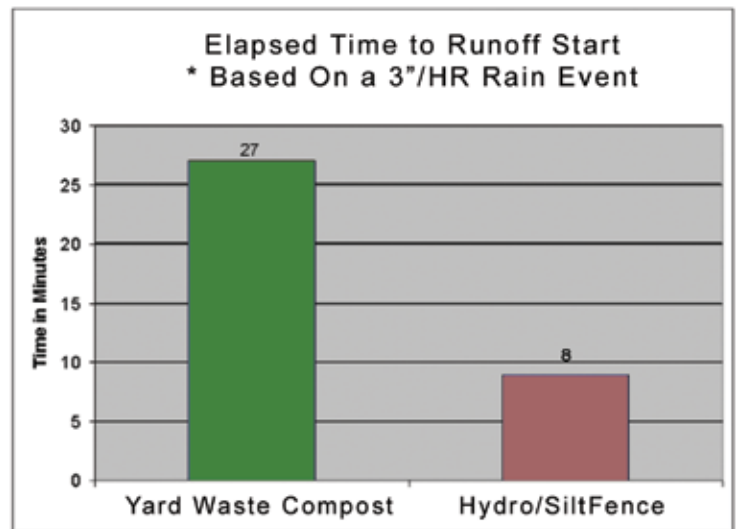


Under the same rainfall intensity and duration averaged over a 12 month period, the compost blanket infiltrated 33% more rainwater than hydroseeding. Greater infiltration means less runoff.

### Infiltration Volume



Compost Performs 3x Better than Hydroseed



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