



USDA-CSREES 2006 National Water Quality Conference

How should we evaluate Erosion BMP's? A case study comparing silt fence materials

Currently, Georgia does not have well defined procedures for approving erosion control BMP's for field use. In this presentation, we will present the process and results obtained for evaluation of SiltSaver belted strand retention fence and traditional type C silt fence. ASTM standard methods were used to evaluate flow through and filtering efficiency. These standard methods were determined to be of little use in actual evaluation of the fences under field conditions. Further test procedures were used to determine how each product would perform after being exposed to sediment and under more realistic flow conditions. In addition, structural analysis and load testing was used to assess the adequacy of the design. Results indicated that the belted strand retention fence provided improved filtering efficiency and lower turbidity than standard type C silt fence. While the flow rate through the material was lower under the ASTM testing standard method with clean fence materials, the belted strand retention fiber fences had higher flow rates under conditions more representative of field conditions.

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