Capturing P in surface runoff using industruial by-products. (S08-stout090032-Poster)

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Abstract:

Phosphorus export from high P agricultural lands is a major cause of eutrophication in fresh waters of the northeast US. Recent work has shown that the solubility of P in high P soils can be reduced with applications of coal combustion by-products (CCBs) to croplands, thereby decreasing the potential for non-point export of dissolved P(DP) from these soils. However, surface runoff from croplands and animal feeding areas is often concentrated at specific sites (i.e. depressions, ditches, etc.). P absorbing agents such a CCBs may capture DP in runoff at these sites through direct absorption. We tested a CCB and other by-products contained in drain fabric to determine their ability to reduce P from simulated runoff. The P absorbing agents reduce DP in the simulated runoff by 40 to 60%.

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