



USDA-CSREES 2006 National Water Quality Conference

The Rock Creek (Ohio) Conservation Effects Assessment Project: Plans and Preliminary Results

Rock Creek is an 89.6 km² (34.6 mi², 22,000 acre) agricultural watershed within the Sandusky River watershed in north-central Ohio. Soils are developed on Wisconsin glacial deposits, mostly end moraine. The terrain is moderately hilly and soils are moderately well-drained. Major crops are soybeans and corn, with lesser amounts of wheat and hay. Rock Creek enters the Sandusky River at Tiffin, Ohio. The goals of the Rock Creek CEAP project are two: 1) to determine trends in water quality (sediment and nutrients) revealed by daily and more-frequent samples taken near the mouth of the creek since 1982, and relate them to trends in agricultural practices including fertilizer and manure application and conservation tillage, and 2) to develop input datasets for an AnnAGNPS model of the watershed, calibrate and validate the model, and use it to examine a range of management issues related to the placement, timing, and relative effectiveness of various Best Management Practices, individually and in interaction. This poster will present details of the Rock Creek watershed and the CEAP project there, as well as techniques for and preliminary results from the empirical trend analysis. It will also explore possible causes for the observed trends, including weather patterns and changes in agricultural management.

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