ISSUE: The Clean Water Act imposes mandatory discharge limitations on point sources of pollution but explicitly excludes many agricultural nonpoint sources from such requirements. As a result, the share of water quality impairment attributable to agricultural production is rising, while efforts to reduce the extent of impairment have not been tremendously successful. Thus, there is increased pressure to reduce nonpoint source emissions associated with agricultural production. The primary tool for achieving these reductions is government cost-share programs that incentivize the voluntary adoption of best management practices by agricultural producers. Similarly, current efforts to reduce greenhouse gas emissions from agricultural production also rely on voluntary producer participation in market or other programs promoting the adoption of best management practices.

WHAT HAS BEEN DONE: We collected and analyzed data from surveys of agricultural producers to estimate the factors influencing their willingness to adopt a variety of best management practices. These projects determine how monetary incentives, perceptions, and beliefs about practices or conservation might influence adoption or identify barriers to adoption. We are also making efforts to link our behavioral analyses with biophysical modeling to better understand the impacts of the adoption of best management practices on the natural environment.

IMPACT: Findings from these studies provide informative policy analysis of current and potential policies to encourage the adoption of best management practices on natural resources. This research can be used by policymakers and agencies to adapt current best management practices to enhance effectiveness or to achieve the goals of the policymakers. Finally, results relieve the complex trade-offs that farmers have between adopting these best management practices, risk management, and maximizing profits. This information can assist in developing best management practices and incentive programs that help the farmer manage risk and profits while conserving soil and improving water quality.

PUBLICATIONS:


