USDA-CSREES 2006 National Water Quality Conference

Barriers to Adoption of Nutrient Management Strategies by AFOs

Addressing the problem of water pollution from livestock operations will require voluntary adoption of nutrient management strategies by firms that do not meet the definition of a concentrated animal feeding operation. The economics and sociology literatures indicate that characteristics of farms, farmers and innovations may affect adoption of productivity-enhancing, profitable innovations. Less research has been conducted on factors affecting adoption of technologies with environmental benefits. This information can be used to improve the design of policies as well as the design of technologies, practices and educational programs in order to promote voluntary adoption of environmentally sound practices.

The overall objective of this project is to determine the factors affecting adoption of manure nutrient management practices. Specific objectives are to: 1) determine how off-farm income affects adoption of nutrient management practices, 2) examine how land rental arrangements and the relationships between the parties affect adoption, 3) examine the functioning of manure markets, 4) determine what types of incentives are most likely to increase adoption, 5) train a new researcher in adoption theory and survey techniques, 6) disseminate the research findings via in-service training for extension personnel and CNMP writers, as well as informing field days and demonstration plot design, and 7) disseminate the results to government agencies and the academic community via presentations and publications.

A mail survey of animal feeding operations (AFO's) in Iowa and Missouri will be conducted in order to determine factors affecting the adoption of nutrient management practices. The final list of nutrient management practices will represent a subset of practices that would be included in a CNMP. In addition, several practices widely seen as profitable will be included for comparison purposes. By the time of the Water Quality Conference, the results of the pretest will be available.

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