



USDA-CSREES 2007 National Water Quality Conference

Adoption of Nutrient Management Strategies by Animal Feeding Operations

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 CAFO. Knowing the factors that affect adoption of environmental practices could be used to improve the design of technologies, educational programs, and policies. A survey of livestock producers in Iowa and Missouri was conducted in the spring of 2006 following the Dillman method. The sample was random but stratified within livestock type and by gross farm sales. The effective response rate, once individuals with incorrect addresses, or who no longer had livestock were subtracted, was 37.2%. This resulted in 1030 usable surveys. Several practices were included in the survey, including some practices that are generally considered to be profitable, rather than having an environmental goal. They included: using Roundup-Ready soybeans, using phytase in feed rations, testing soil, testing manure, implementing setbacks near streams and lakes, injecting manure, calibrating spreaders, keeping records of manure application, having grass buffers, and having an underground pipe system for moving manure to fields. The livestock types included dairy, beef cattle, beef cow, swine, broiler and turkey farms. Summary statistics as well as probit regression results will be presented at the Water Quality Conference. Soil testing ranged from 66% for turkey producers to 76% for swine producers. Record keeping ranged from 33% for turkey producers to 47% for broiler producers. Less than 3% of swine farmers surveyed had an underground pipe system. Over 81% of turkey producers supplied manure to others, while less than 6% of beef cattle feeding operations did. Broiler and turkey operations were also paid the most for their manure. Probit regression results show that farmers who provide manure to others are more likely to test manure, holding other variables constant.

Author: Laura McCann

University Affiliation: University of Missouri

Co-Author(s): Haluk Gedikoglu, Bob Broz, John Lory, and Ray Massey