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**Personality Characteristics and Conservation Tillage: Understanding Farmers to Improve Surface Water Quality in Tuttle Creek Lake, KS**

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Abstract:

Farmers choose to use conservation tillage for a number of reasons. There are many proposed models of pro-environmental behaviors that incorporate personal, physical, economic, and institutional factors. However, most models that include personal factors only examine farmers' education level and years farming.

This study examined three personal variables in relation to farmers' tillage behaviors; environmental attitude, work motivation, and moral reasoning about the environment. Surveys were sent to farmers in four counties in Nebraska and Kansas in the Big Blue Watershed. Significant positive relationships were found between conservation tillage and instrumental motivation, internal self-concept, and goal internalization, as well as education, farm sales, and percent of income derived from farming. Significant negative relationships were found between conservation tillage and an external self-concept, age, and years farming.

Impact Statement:

The proximate goal of this NIWQP is to provide a greater understanding of why farmers choose to engage in tillage practices that benefit the environment. This data will aid researchers and policy makers in conservation management decisions. The information gained will be used in creating an educational program for farmers in the Big Blue Watershed in four counties in the states of Nebraska and Kansas. Through education and communication, the project ultimately seeks to facilitate a reduction in the levels of toxic chemicals and sediment in Tuttle Creek Lake, KS, a major source of drinking water for Kansas citizens.

Published papers have been generated from this research and more will be submitted in 2009. Additionally, communication with farmers in the Big Blue Watershed will begin in the fall of 2008. Partnerships have been formed between the University of Nebraska-Lincoln and the University of Kansas. One major lesson learned in regards to farmers' behavior that benefit surface water quality is that tillage and use of physical barriers correlate strongly with personal characteristics of the farmer. However, chemical application practices do not. This implies that to change chemical application practices, entities other than the farmer need to be contacted. Co-ops, chemical dealers, or government officials and policies may have greater control over this behavior than the individual farmer.

Category: Human Dimensions

Type of Presentation: Poster Presentation