



## USDA-CSREES 2005 National Water Quality Conference

### Water Quality concerns Affecting Adoption of Best Management Practices in Colorado

*Abstract: Situation: Many resources have been used to develop and extend best management practices (BMPs) for properly managing inputs in irrigated crop production. We attempted to quantify producer adoption of BMPs to generate information for more effective and focused research and outreach programs.*

*Objectives: Determine the affect that concerns over water quality and quantity have on adoption of BMPs by Colorado irrigating farmers.*

*Methods: We conducted a mailed survey to obtain information on BMP adoption, information sources producers used in making decisions, and concerns about water on producers' farms or in their counties. The USDA National Agricultural Statistics Service (NASS) drew a representative sample of all Colorado irrigators from their crop production database. We mailed 3,240 surveys to irrigating producers who had at least 40 acres of cropland. The confidential surveys asked producers approximately 50 questions about irrigation, nutrient, and pest BMPs utilized on their farms.*

*Partnerships: Colorado State University, Departments of Soil and Crop Sciences and Agriculture and Natural Resource Economics worked with the Colorado Department of Agriculture and NASS to accomplish this survey.*

*Resources: Funded through the Colorado Agricultural Chemicals and Groundwater Protection Program.*

*Integration of Research, Teaching, and Extension: This was a research project explicitly designed to improve the extension of water quality BMPs.*

*Undergraduate and graduate students participated in many aspects of this project, resulting in an M.S. Thesis and undergraduate experience.*

*Results: Producers returned approximately 40% of the surveys. Results suggest that BMP adoption varied widely by region of the state, farm characteristics and irrigation water source. Respondents' water quality concerns did not always reflect actual water quality problems identified by monitoring in their area or factors influencing sensitivity of ground water to contamination. Likewise, these concerns did not influence the adoption of BMPs as much as the variables mentioned above.*

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