

# Agricultural Water Management and Water Quality

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Although subsurface drainage is essential for crop production, it transports the nonpoint-source pollution of phosphorus to downstream water bodies. The excess phosphorus causes environmental issues such as eutrophication of waterways or lakes, thereby causing economic, environmental, and health concerns. My work is at the field scale. I focus on water management practices to improve nutrient retention, boost crop yield, and protect water quality. I also evaluate the impact of climate change on water quality and quantity. I also develop decision-support tools to increase profitability and water-use efficiency of agricultural water management systems along with improving environmental sustainability.