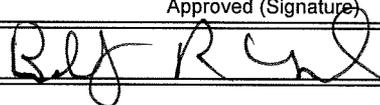


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U.S. Department of Agriculture <b>Accomplishments Report AD-421</b> U.S. Dept. of Agriculture, State Agricultural Experiment Stations and Other Institutions			Date (Month, Day, Year) 03/22/2012
1. Accession 0225114	Agency Identification No. 2. NIFA 3. LA.B	5. Work Unit/Project No. LAB94087	6. Status Annual Report
7. Title Use of a GIS Based Optimization Model and Mechanism Designs to Identify Optimum Best Management Practices (BMPs) Suites to Improve Water Quality			
12. Investigator Name(s) (Last Name and Initials) Paudel, K. P.			
20. Termination Date 12/31/2015		40. Period Covered (mo/da/year): 01/01/2011 TO 12/31/2011	
Outputs: The project generated three outputs in the form of presentations and abstracts at the Agricultural and Applied Economics Association and Southern Agricultural Economics Association meetings.			
Outcomes/Impacts: Farmers provided cost, time constraint, and satisfaction with current practices as reasons for not adopting precision farming technology. Results from a multinomial logit regression model indicated that manure application on fields, more formal education, larger farm size, and participation in conservation easement or agricultural easement generally decreases the probability of non-adoption of precision agriculture. Similarly, results from a conditional frailty model indicated that large farms adopt a (BMPs) earlier. Farmers who have a long history of broiler farming are late to adopt broiler BMPs. More informed farmers, through extension agents and education, are early adopters of best management practices (BMPs).			
Publications: Paudel, K., Pandit, M., Mishra, A. and Segarra, E. 2011. Why Don't Farmers Adopt Precision Farming Technologies in Cotton Production? Paper presented in the Agricultural and Applied Economics Association (AAEA) meeting, Paper is available in the internet at <a href="http://ageconsearch.umn.edu/bitstream/104828/2/why%20do%20not%20farmer%20adopt%20precision%20farming%20technology_final.pdf">http://ageconsearch.umn.edu/bitstream/104828/2/why%20do%20not%20farmer%20adopt%20precision%20farming%20technology_final.pdf</a> .  Pandit, M., Mishra, A. K., Paudel, K. P., Larkin, S. L., Rejesus, R. M., Lambert, D. M., English, B. C., Larson, J. A., Velandia, M. M., Roberts, R. K., and Kostiri, S. 2011. Reasons for Adopting Precision Farming: A Case Study of U.S. Cotton Farmers. Paper presented at the SAEA meeting, Paper is available in the internet at <a href="http://ageconsearch.umn.edu/bitstream/98575/2/SAEA_2011_final_updated.pdf">http://ageconsearch.umn.edu/bitstream/98575/2/SAEA_2011_final_updated.pdf</a> .  Pandit, M., Paudel, K. P., Mishra, A.K. and Segarra, E. 2011. Precision Farming Technology Adoption in Cotton Farming: Duration Analysis. Selected presentation delivered at the AAEA meeting, presentation available at <a href="http://ageconsearch.umn.edu/bitstream/103849/2/aaea%20poster%202011%20duration%20_final%20poster.pdf">http://ageconsearch.umn.edu/bitstream/103849/2/aaea%20poster%202011%20duration%20_final%20poster.pdf</a> .			
Participants: K.P. Paudel (PI), LSU AgCenter.			
Target Audiences: Livestock and crop producers, and policy makers in Louisiana.			
Project Modifications: Nothing significant to report during this reporting period.			
Approved (Signature) 		Title	Date