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U.S. Department of Agriculture Accomplishments Report AD-421 U.S. Dept. of Agriculture, State Agricultural Experiment Stations and Other Institutions			Date (Month, Day, Year) 03/20/2012	
1. Accession 0217000		Agency Identification No. 2. CSREES 3. LA.B		5. Work Unit/Project No. LAB93956
				6. Status Annual Report
7. Title Weed Management in Rice				
12. Investigator Name(s) (Last Name and Initials) Webster, E. P.				
20. Termination Date 09/30/2013			40. Period Covered (mo/da/year): 01/01/2011 TO 12/31/2011	
Outputs: Research involving herbicide interactions resulted in one technical paper, two scientific presentations, and two abstracts. These publications were targeted to the scientific and lay communities. Results were extended to producers, consultants, and county agents through 10 grower meetings and field days. Herbicide drift research in this project resulted in two abstracts from presentations at professional meetings and one extension publication. Cooperative research with an agricultural economist resulted in four technical papers on the economics of Clearfield rice. Three publications revolved around herbicide activity and timing and rice weed management and rice tolerance to herbicides.				
Outcomes/Impacts: Several studies evaluated the interaction between Newpath or Beyond plus Stam or RiceBeaux. Red rice control increased by 10% with Newpath and Beyond when mixed with Stam at 3 to 4 qt/A or RiceBeaux at 4 pt/A. Similar results were observed for barnyardgrass control with Newpath tank-mixed, but not with Beyond. A mixture of herbicides can be beneficial when broad spectrum control is needed. A multiple year study was established in 2011 to evaluate the competitiveness of hemp sesbania and Indian jointvetch with rice. Densities of 0.25 to 8 plants/yd² were established. These densities indicated that 2 to 8 plants/yd² may be impacting yield with both species. Visual observations indicated disease pressure is higher under the higher weed densities. This higher disease pressure may be due to preventing the fungicide from contacting the rice plants. Four studies evaluated control of hemp sesbania and Indian jointvetch with four application timings (early postemergence, mid-postemergence, late postemergence and salvage). Halomax and Permit Plus provided the most consistent control and yields for the early timing. Halomax Permit Plus, Regiment, Strata, and Grasp were the most effective at the mid timing, and the same herbicides plus League for the late timing. All products provided control and improved yields when applied at the salvage timing. Yields decreased as initial timing was delayed and indicates that control measures should be initiated as early as possible. A study was established in 2010 evaluated problems that have been observed with hybrid rice dormancy. CL 151 and CLXL 745 were maintained weed free throughout the growing season. Seed dormancy was observed in samples of CL 151 and CLXL 745. In 2011, 2.5 acre blocks were planted to a rotation, including 1.25 acres of soybean and a non-rotation of 1.25 acres of Clearfield 131 and CLXL 745. A small level of infestation occurred from the dormant hybrid but was very limited, approximately 5 plants observed in the hybrid area. No dormancy issues were observed in the CL151/CL 131 area. A study was also established three years ago at a common location, and results indicated a one year rotation is not enough to eliminate a seed dormancy issue.				
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Hensley, J.B., E.P. Webster, and B. Schultz. 2011. Creating a photographic guide to identify herbicide drift in rice. Weed Sci. Soc. Am. Abstr. 51:72.

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Webster E. P. and J.B. Hensley. 2011. Herbicide-mixtures that synergize imazethapyr. Weed Sci. Soc. Am. Abstr. 51:308.

Webster, E. P., J.B. Hensley, J.C. Fish, and N.D. Fickett. 2011. ALS herbicides on Clearfield rice. Proc. South. Weed Sci. Soc. 64:55.

Participants:

Eric P. Webster (PI), Steve D. Linscombe, Dustin L. Harrell, David C. Blouin, Ronald J. Levy, Jr., Justin B. Hensley, Tyler Carlson, Caleb Fish, Jason L. Bond, and Nathanael D. Fickett, LSU AgCenter; Timothy W. Walker, Mississippi State University Delta Research and Extension Center.

Target Audiences:

Producers, county agents, consultants, graduate students and scientists not only in Louisiana but around the world.

Project Modifications:

Nothing significant to report during this reporting period.

Approved (Signature)	Title	Date
		