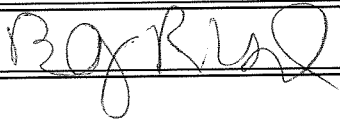


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| U.S. Department of Agriculture<br><b>Accomplishments Report AD-421</b><br>U.S. Dept. of Agriculture, State Agricultural Experiment Stations and Other Institutions                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                               |                                                           | Date (Month, Day, Year)<br>01/17/2013 |
| 1. Accession<br>0219170                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Agency Identification No.<br>2. CSREES 3. LAB | 5. Work Unit/Project No.<br>LAB03994                      | 6. Status<br>Final Report             |
| 7. Title<br>Revising Management Programs for the Rice Stink Bug in Southern Rice                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                               |                                                           |                                       |
| 12. Investigator Name(s) (Last Name and Initials)<br>Stout, M. J.; Hummel, N. A.; Tindall, K.; Way, M.; Bernhardt, J.; Machtmes, K.; Groth, D.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                               |                                                           |                                       |
| 20. Termination Date 08/31/2012                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                               | 40. Period Covered (mo/da/year): 09/01/2009 TO 08/31/2012 |                                       |
| Outputs:<br><p>A graduate student was recruited to complete the objectives of the project, and work on extension-related objectives of the grant was carried out during the 2010, 2011, and 2012 growing seasons. Updates on research progress and modifications of recommendations for rice stink bug management were disseminated in educational materials via newsletter articles, blog postings, popular press, grower's meetings, and extension publications. Revised management guidelines will be developed and disseminated widely via all of the avenues described above during 2013. A survey of management practices used by growers against rice stink bug and other pests given at grower's meetings in 2010 and 2011. Results were distributed by blog posting and presentation at consultant's meetings and grower's meetings. Analysis of a 2013 follow-up survey will provide much-needed information on practices currently used by growers. Data suggesting incipient resistance in rice stocking to pyrethroids helped justify a Section 18 registration for the neonicotinoid, Tenchu, in multiple states in 2011 and 2012. Commercial-scale demonstration trials of Tenchu and registered pyrethroids were conducted during 2011 growing season and growers were apprised of results via blog postings and talks. Multiple talks to growers about stink bug management were presented annually, and advanced training on stink bugs and their management was provided to county agents 2011. A video detailing proper methods for scouting rice stink bugs was developed and is on the LSU AgCenter website.</p> |                                               |                                                           |                                       |
| Outcomes/Impacts:<br><p>The goal of this research-extension project was to improve rice stink bug management programs in southern rice-producing states by updating the thresholds that guide applications of insecticides, by facilitating the anticipated adoption of neonicotinoid insecticides, and by educating stakeholders with respect to these changes. Extension-related outcomes include the following. The survey data in 2010 and 2011 provided baseline data on management practices used against the rice stink bug in the southern U.S and will allow us to measure impact of revised recommendations and educational programs in 2013 and beyond. Survey data as well as results of acute toxicity testing were used in the justification for Tenchu Section 18s. Results from on-farm demonstration trials showed that both pyrethroids and the neonicotinoid Tenchu provided adequate control of rice stink bugs and reduced peck induced below 1%. In cases of severe stink bug infestations, Tenchu appeared to provide superior control. Dissemination of results in extension publications, blog postings, and grower's meetings led to increased dialogue with farmers about stink bug management, and issuance of revised guidelines in 2013 is expected to result in changes in grower practices.</p>                                                                                                                                                                                                                                                                                                        |                                               |                                                           |                                       |
| Publications:<br><p>B. Blackman, N. Hummel, M. Stout, A. Meszaros, J. Beuzelin, K. Collins, B. Courville, T. Erwin, R. Ferguson, M. Frey, N. Huff, and L. White. 2012. RICE STINK BUG MANAGEMENT DEMONSTRATION IN COMMERCIAL RICE FIELDS IN LOUISIANA, 2011 Ann. Res. Rpt., Rice Res. Stn., LSU Agricultural Center 103, 333-335.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                               |                                                           |                                       |
| Participants:<br><p>Michael Stout (PI), Natalie Hummel, K. Machtmes, B. Blackman, LSU AgCenter (Hummel resigned AgCenter in 2012); M.O. Way, Texas A&amp;M; J. Bernhardt, Univ. of Arkansas (retired 2011); K. Tindall, University of Missouri (resigned in 2011).</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                               |                                                           |                                       |
| Target Audiences:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                               |                                                           |                                       |

Rice growers and consultants

Project Modifications:

Departure of several of the project Co-PIs necessitated re-focusing efforts on Louisiana; Stout and Blackman assumed greater extension-related duties

| Approved (Signature)                                                              | Title | Date |
|-----------------------------------------------------------------------------------|-------|------|
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