

Sugar

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 0226121	Agency Identification No. 2. SAES 3. LA.B	5. Work Unit/Project No. LAB04085	6. Status Annual Report
7. Title The LSU AgCenter Sugarcane Variety Development Program: Early Stage Selection through Infield Trials			
12. Investigator Name(s) (Last Name and Initials) Pontif, M. J.			
20. Termination Date 12/31/2015		40. Period Covered (mo/da/year): 01/01/2011 TO 12/31/2011	
Outputs: Progress was made in all phases of the LSU AgCenter's sugarcane breeding program. For early stage selection, a total of 338,275 seed were produced from 611 crosses. A total of 90,294 seedlings from 211 crosses of the 2010 crossing series were planted in the field during April. In the fall, single stool selection was practiced on 41,581 seedlings from the 2009 crossing series. Superior phenotypes (1,888) were selected and advanced to First Line Trials. Selection was done in First Line Trials, which represented the 2008 crossing series. Superior phenotypes (552) were advanced to the Second Line Trials. Selection was done in Second Line Trials, which represented the 2007 crossing series. Superior phenotypes (151) were advanced to the Increase Stage. The best 25 clones from the 2006 crossing series were assigned permanent variety identification and were planted in three nursery variety trials. HoCP 04-838, sugarcane variety in Louisiana, was released on May 9, 2011, by the LSU AgCenter in cooperation with the U. S. Department of Agriculture's Agriculture Research Service Sugarcane Research Laboratory and the American Sugar Cane League. A new commercial variety release is the culmination of a multi-agency effort governed by the Three-Way Agreement, a document first signed in 1926 establishing a cooperative program among LSU, USDA and the American Sugar Cane League.			
Outcomes/Impacts: This project serves as the foundation for the variety testing phase of the sugarcane breeding program. The early stages of the variety program select experimental varieties for further testing in replicated yield trials. Without a successful crossing and selection program little progress could occur during the 12 year process to develop a commercial variety. Sugarcane is produced on over 420,000 acres in 23 Louisiana Parishes. Production exceeds thirteen million tons of cane with an economic impact of \$2.2 billion. New and improved sugarcane varieties are the lifeblood of the sugar industry in Louisiana.			
Publications: No Publications Reported			
Participants: M.J. Pontif (PI), LSU AgCenter; USDA-ARS; American Sugar Cane League. Sugarcane growers also participated by providing land to conduct sugarcane variety trials.			
Target Audiences: Sugarcane growers and processors directly benefit from new sugarcane varieties.			
Project Modifications: Nothing significant to report during this reporting period.			
Approved (Signature)		Title	Date
			