

Food

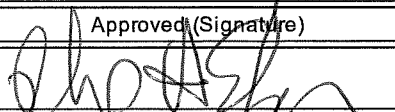
U.S. Department of Agriculture Accomplishments Report AD-421 U.S. Dept. of Agriculture, State Agricultural Experiment Stations and Other Institutions			Date (Month, Day, Year) 01/09/2013		
1. Accession	Agency Identification No.		5. Work Unit/Project No.		6. Status
0216770	2. CSREES 3. LAB		LAB93949		Final Report
7. Title					
Ethanol Fermentation of Louisiana Sweet Potatoes					
12. Investigator Name(s) (Last Name and Initials)					
Wilson, P. W.; Villordon, A. Q.; Pyle, T.; Labonte, D.; Losso, J. N.; McClure, G. B.; Sathivel, S.; Janes, M. E.; Picha, D. H.; Johnson, C. E.; Boudreaux, C.; Motsenbocker, C.					
20. Termination Date 06/30/2012			40. Period Covered (mo/da/year): 10/01/2008 TO 06/30/2012		
Outputs:					
<p>Data was shared among LSU Agcenter researchers and nationally through annual staff meetings and the National Sweetpotato Collaborators Group Annual Conference. Information from the research has been included into the curricula of four courses taught in the past year at LSU. Data and conclusions were also presented at a state wide meeting of LSHS members, master gardeners and the public. The information has also been shared with industry personnel through personal contacts.</p>					
Outcomes/Impacts:					
<p>The research produced a change in the informational knowledge base of fermentation - particularly of root crops and of sweetpotato specifically. The information provides a framework of how different cultivars respond to fermentation including response to enzyme treatment and alcohol yield. Six sweetpotato cultivars were processed for ethanol yield. 'Beauregard', 01-29W, 04-6W, 04-85W, 05-102W, and 05-112W were enzymatically treated to convert starch to soluble sugars and fermented using standard practices. Of the six, 'Beauregard' produced the lowest fermentable sugars from enzyme treatments (8.68% total sugars) while selection 04-85W produced the highest (14.36%). Selections 04-6W and 05-112W were nearly as good as 04-85W. Predominant sugar was glucose in all cases. Selection 05-112W produced the highest alcohol per initial root weight (0.68 kg/kg), while Beauregard produced the lowest (0.47 kg/kg).</p>					
Publications:					
No Publications Reported					
Participants:					
P. Wilson (PI), LSU AgCenter.					
Target Audiences:					
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Project Modifications:

Not relevant to this project.

Approved (Signature)	Title	Date
		1-15-2013