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1. Accession	Agency Identification No.	5. Work Unit/Project No.	6. Status
0218956	2. SAES 3. LA.B	**LAB03987**	**Annual Report**

7. Title

Productivity of Forage Germplasm for Livestock and Biomass in Louisiana

12. Investigator Name(s) (Last Name and Initials)

Alison, M. W.; Pitman, W. D.; Han, K. J.; Viator, H. P.

20. Termination Date 12/31/2013

40. Period Covered (mo/da/year): 01/01/2011 TO 12/31/2011

Outputs:

An article describing study results was included in the newsletter of a national professional organization. Presentations were made at field days, including on-farm and research station field days, and at a consultant's meeting concerning pasture management. Data from studies was included in five LSU Agricultural Center research publications. Experimental genetic material was also evaluated and results were provided to plant breeders for use in determining feasibility of cultivar release. Data was included in the release information for two clover cultivars.

Outcomes/Impacts:

Inclusion of clovers (Trifolium spp.) is considered to provide substantial benefits in pasture systems, and publications resulting from these studies document the need for utilizing the appropriate clover in varying environmental situations. Annual grasses can be highly nutritious forage crops, and information concerning establishment and agronomic management for successful utilization in a perennial grass base pasture was generated from conducted studies. Results documented the impacts of sod preparation, planting date, seeding rate and fertilization on productivity of annual grasses. Studies evaluating planting date and harvest management of sweet sorghum for potential use in the emerging biofuels industry were continued. It is evident from results that ratoon cropping of sweet sorghum is not a viable production plan under dry land conditions but utilizing varied planting dates could extend the harvest season such that material would be available to mill over a longer period of time. This information will certainly benefit industrial planners and potential producers in developing biofuel resources. Information from these studies provides a basis for development of recommendations to producers and industry personnel concerning forage crop utilization in livestock and biofuel systems.

Publications:

Alison, M.W. 2011. Utilizing cool-season annual grasses in pasture systems. Am. Forage & Grassland Council, Berea, KY, The Forage Leader, Fall 2011.

Twidwell, E. K, D. Pollet, M. W. Alison, M. Sistrunck and R. L. Frazier. 2011. Fire and control demonstration. LSU AgCenter Beef and Forage Report 36: 18-20.

Han, K.J., W.D. Pitman, M. E. McCormick and M.W. Alison. 2011. Utilization of sweet sorghum bagasse for livestock feed. LSU AgCenter Beef and Forage Report 36: 74-76.

Han, K.J. and M.W. Alison. 2011. Evaluation of Austrian winter pea as a cool-season legume option in north and south Louisiana. LSU AgCenter Beef and Forage Report 36: 77-79.

Alison, M.W., Kun Jun Han, W. D. Pitman, J. L. Ashley, Tara Doughty Martin, Ashley Noce, Jerry Simmons, E. K. Twidwell, H.P. Viator and Greg Williams. 2011. Performance of cool-season annual forage crops in Louisiana, 2010-2011. LAES Research Summary No. 189. LSU Agricultural Center, Baton Rouge, LA.

Twidwell, E.K., M.W. Alison, W.D. Pitman, K. J. Han, T. Doughty, G. Williams and J.L. Ashley. 2011. Cool-season pasture and forage varieties. LSU Agricultural Center Publication 2334.

Participants:

M. W. Alison (PI), W. D. Pitman, K. J. Han, H. P. Viator, LSU Agricultural Center; Evaluated genetic material for

plant breeders associated with LSU Agricultural Center, Auburn University, Texas A&M University, University of Florida, the Noble Foundation and private entities.

Target Audiences:

The target audiences for this project are cooperative extension personnel, research personnel, forage crop producers, agricultural consultants, agricultural industry personnel and forage plant breeders.

Project Modifications:

Nothing significant to report during this reporting period.

Approved (Signature)	Title	Date
[signature]		3-23-12