

U.S. Department of Agriculture Work Unit Description AD-416 U.S. Dept. of Agriculture, State Agricultural Experiment Stations and Other Institutions			Date (Month/Day/Year) 01/02/2013	
1. Accession No.	Agency Identifiers		5. Work Unit/Project No.	6. Status
	2. NIFA	3. LAB	LAB94180	A = New Project
7. Title Evaluation and Improvement of Production Methods for Louisiana Crawfish, Alligator and Turtle Aquaculture				Integrated Activity
8. Performing Organization 1679 - 2010 Aquaculture Research Station Agricultural Experiment Sta, Louisiana State Univ			9. Cooperating Departments within State Performing Institution a. Rice Research Station b. Agri Economics & Agribusiness	
10. Multistate Project No.			11. Cooperating States	
12. Investigator Name(s) Last Name and Intials)				sent via BITNET/INTERNET electronic mail systems Date: <u>1/3/13</u>
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14. Project Type Hatch	15. Contract/Grant/Agreement No.		16. Amount	17. FY
18. Award Date (Month/Day/Year)	19. Start Date (Month/Day/Year)		20. Termination Date (Month/Day/Year)	
	01/01/2013		12/31/2016	
Goals/Objectives/Expected Outputs				
<p>This project will focus on analyses of relationships between biological and economic factors impacting profitability and competitiveness for farm raised crawfish and alligators, along with domesticated turtles, to provide information that will allow more informed decision-making by producers and foster continued industry growth. Specific goals are 1)to conduct research on these traditional Louisiana aquaculture species with an emphasis on the relationship between biological and economic factors, and 2)to generate data that will identify economic and marketing opportunities associated with culture of red swamp crawfish, American alligator, various freshwater turtles and other aquatic species.</p>				
Methods				
<p>Typical variation in crawfish population structure and associated growth patterns will be characterized, with emphasis on temporal patterns in availability for harvest, and corresponding market prices. The key question in this component involves establishing biologically and economically valid profiles of typical population structures and grow-out patterns in commercial crawfish production in Louisiana. Historical data from experimental ponds will be analyzed in an effort to discern relationships between population structure and catch per unit effort (CPUE) over the course of each production season. This will require a detailed analysis of seasonal trends, not only in CPUE but also in average size at harvest. The level of understanding these data may provide is unclear at this point. A number of outdoor tanks will be utilized as needed as mesocosms to support specific research inquiries, and six 2.0 to 2.5 ha crawfish ponds will also be used in this research. Combined graphic and statistical methods will be applied in an effort to more clearly interpret relationships described above. Climatic and marketing factors will also be included in analyses to the extent that data are available. Effects of alligator production management, especially nutrition, density and water quality, on growth, survival and hide quality will be examined in collaboration with other ongoing research in a new alligator research facility with a total of 28 alligator grow-out tanks, each 1.2 by 2.4 m. Particular emphasis will be on establishing basic statistical relationships between production parameters and an index describing hide quality and value. A number of research questions involving turtle hatchling production, such as transport methods, maturation patterns and variation in fecundity will be investigated, as prioritized and funded by the industry.</p>				

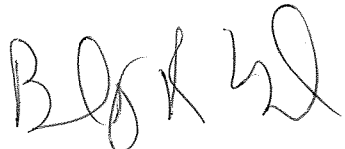
23. Non-Technical Summary

In recent years, crawfish and alligators have become the most valuable species within Louisianas aquaculture industry, with estimated farm gate values of \$196 million and \$39 million, respectively. Although both species are cultured to some extent in other states, the vast majority of domestic crawfish and alligator production occurs within Louisiana. Both species have been cited as too olocalizado or oregonalo to warrant significant federal research funding. As a result, virtually all practical research to support these industries has been conducted within Louisiana, much of it is funded by industry associations, and this situation is not anticipated to change in the near future. The outputs generated from the proposed research will allow for more informed decision making by producers in order to maximize their profitability and competitive positions, both individually and collectively.

24. Keywords

crawfish; alligator; turtle; economic analyses; Louisiana aquaculture

**** The Original signed document is on file at this institution. ****

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