

Progress Report 3/4/05

Department of Applied Economics and Statistics (Barkley, Hammig, Henry)

A. Management assistance for increased profitability

1. The economic feasibility of establishing a new shrimp processing plant or expanding existing operations was examined. A reporting of this analysis is available at http://cherokee.agecon.clemson.edu/redrl_rpt14.pdf.

Mark S. Henry, David L. Barkley, Ferdinand Vinuya, and Brian Gantt. 2005. *Options For Processing Shrimp Landed In South Carolina*. Department of Applied Economics and Statistics Clemson University Regional Economic Development Research Laboratory Report 01-2005-02.

Abstract. Many participants in the South Carolina shrimp industry believe that capturing more of the value added in processing locally landed shrimp can add to the economic viability of the industry. In this report, the options for added processing activity in SC are reviewed and the economic feasibility of each option is discussed. These options include expanding existing processing and storage at current sites in the state, adding processing and storage facilities in new sites, contracting with out of state processors and business as usual. Detailed financial analysis of establishing a new processing plant or expanding existing facilities suggests that these operations are viable with reasonable assumptions regarding sales prices. Two scenarios are constructed. One assumes that Fall 2004 ex-vessel prices are paid to trawler owner-operators for shrimp landed in South Carolina, while the second adds a premium to those prices to reflect quality control benefits

2. A Rural Business Value-Added Development Grant was written to USDA. It was funded for \$49,000 and awarded to Carolina Seafoods for analysis of the potential for shrimp processing in McClellanville or proximate areas. This analysis will be completed by Dec. 31, 2005.
3. A spreadsheet analysis of costs and returns for individual trawler owner/operators was revised, and a document on its use completed. This spreadsheet has been used for Trade Adjustment Act (TAA) training for shrimpers in South Carolina. Dan Smith, Department of Applied Economics And Statistics Clemson University and Jack Whetstone, Clemson University Extension have led these training sessions. This document and spreadsheet will be available in early March at <http://cherokee.agecon.clemson.edu/redrl>

See Mark S. Henry, Wilder Ferreira, and David L. Barkley, *Costs and Returns Analysis for South Carolina Shrimp Trawlers*. REDRL Report 03-2005-01.

Abstract. This document provides an explanation on how shrimp trawler owners/operators can analyze the effects of changing costs and ex-vessel prices on the

profitability of operating a shrimp trawler. An Excel spreadsheet is provided with sample boat costs and revenues. The spreadsheet allows the trawler owner/operator to enter costs and revenues data for their own vessel. This can be used to estimate average costs of landing a pound of shrimp by the vessel owner/operator and the profit (loss) per pound of landed shrimp. As input costs vary for key items like fuel, ice, BRDS, etc, the trawler owner can estimate the impact of these input costs on the total average cost of landing a pound of shrimp. Similarly, as the ex-vessel (landed) price for a pound of shrimp changes, the vessel owner/operator can estimate the impact of these price changes on the profitability of operating the trawler.

B. Shrimp Industry Conditions and Trade.

1. Within the past six months, the following industry inventory tasks were accomplished: Site visits to Pt. Royal Seafood and the Georgia Shrimp Company, LLC operations in Brunswick were completed. Information on dock activities, business profiles and marketing channels were obtained for a draft report.
2. Remaining tasks include documenting the potential for shrimp processing to maintain the trawler fleet in South Carolina, completing the overall infrastructure document, and assessing the impact that tariffs imposed on certain countries will have on the viability of the industry. Abstracts of papers in progress:

F. Vinuya and M. Hammig, 2005. *Technical Efficiency of South Carolina Shrimp Fishery and its Implications for the Local Industry*. This paper examines the technical efficiency of South Carolina shrimp trawlers using the results of a survey of shrimp boat operators. We apply a stochastic frontier method to get estimates of production efficiency and assess its correlates to various factors important in shrimp fishery. Initial estimates point to production inefficiency. Further results from the analysis would inform policy makers and industry participants on what directions to take to improve the economic viability of the local shrimp industry.

F. Vinuya and M. Hammig, 2005. *Exchange Rate Pass-through and Competition in the US Imported Shrimp Market*. The decline in U.S. shrimp prices has prompted domestic producers to lobby for antidumping duties against the main shrimp exporters to the U.S. The last fifteen years show a change in import sources as Asian countries took over the Latin American share in the U.S. market. In this paper, we examine the role of exchange rate fluctuations in price setting by the shrimp exporters. Employing a detailed shrimp import dataset we use cointegration techniques to investigate how prices by foreign producers interact and investigate their ability to pass-through the effects of exchange rate fluctuations for each specific shrimp product type.

C. Marketing Research

1. A report on marketing wild caught shrimp was completed. Complete report is available at http://cherokee.agecon.clemson.edu/redrl_rpt13.pdf.

Joseph A. Fuduric, David L. Barkley and Mark S. Henry, *Marketing Wild Caught South Carolina Shrimp: Lessons Learned From Agricultural Niche Marketing Programs*. Department of Applied Economics & Statistics, Clemson University, Clemson, SC. January 12, 2005.

Abstract. The purpose of this research is to provide an overview of a sample of marketing programs for agricultural commodities. The programs discussed are grouped into three categories: generic marketing to promote the consumption of a general commodity, brand marketing to promote a specific type of an agricultural commodity, and local marketing to encourage the development of local markets for a good. Of particular interest for each marketing program are the organizational structure, sources and uses of funding, and examples of marketing and promotion activities. This overview of past programs enables South Carolina shrimpers to identify the “best practices” from earlier marketing efforts and to develop a niche marketing program that best meets their needs.

The objectives of a wild-caught shrimp marketing program, as with any niche marketing programs, are to convince consumers that the product has special characteristics and that those characteristics warrant a higher price. The previous case studies of niche marketing programs indicate that the successful niche programs shared characteristics with respect to maintaining product quality, intra-industry cooperation, and providing a sustained marketing effort. The availability of shrimp processing/packaging facilities in South Carolina would facilitate the establishment of a local brand and resulting market program. A niche marketing program offers much promise for increasing the demand for and value of wild caught South Carolina shrimp. To provide the greatest benefits to the state’s trawlers and dock owners, the program should promote product quality through a sustained marketing campaign financed and administered by the industry.