

Illinois-Indiana Sea Grant Program

Final Report, 1998

Market Research for Yellow Perch Aquaculture

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Objective: To establish the current marketing status and potential for yellow perch products with wholesale and retail businesses in the seafood marketing channels in the North Central Region of the United States.

Summary of Progress

The project objective has been achieved.

Accomplishments:

The survey data on yellow perch markets will undoubtedly be a great asset to the development of the yellow perch aquaculture industry. The publication provides profiles of restaurants, supermarkets, and wholesalers that are, in contrast to those that are not, selling yellow perch currently. Specifics on purchases and sales by restaurants and wholesalers are included. The study determined the preferred product forms purchased and sold, average prices paid for products in 1996, selling intervals and frequencies, typical delivery schedules for various product forms, and the seasonal patterns for price, supply, and demand for yellow perch. This information is needed for current and potential aquaculturists to determine if they can produce and market the products that are desired in restaurant and wholesale markets. Additional information provided which are necessary for conducting realistic business planning included: familiarity with farm-raised fish, strategies for dealing with supply or price problems for yellow perch, suppliers of yellow perch products, customers of yellow perch products, and projections for increased purchases if aquaculture were to alleviate supply/price problems.

Benefits:

Riepe has received numerous inquiries about the survey results. Some calls were from other university or state government personnel. Most callers are active in the aquaculture industry. Several have indicated that this market information is crucial to their business planning or for persuading potential investors. Thus, already, people in different arenas of aquaculture are using the survey results in their research, extension programming, and business planning. This should result in more focused and profitable yellow perch operations, more realistic research and business planning, greater access to venture capital, and more realistic advice in extension presentations and publications. All of this will contribute to the steady progress toward maturity of the yellow perch aquaculture industry.

#### Media Coverage:

To-date, the only place any of the survey results have been reported outside of the technical publication is the aquaculture newsletter of the Minnesota Department of Agriculture (Vol VII, Number 1, August, 1997)

#### Partnerships:

Contact was made with various individuals knowledgeable about the Great Lakes yellow perch fishery or about the market for yellow perch. This helped the researcher to comprehend adequately the existing market dynamics for yellow perch.

#### Publications and Presentations:

(Note: Funds awarded in this project were pooled with funds awarded from a NCRAC project to survey the same firm types but for a different species, walleye. Hence, one survey was conducted rather than two to obtain the necessary data since many of the questions were overlapping. All reports generated through the larger survey project are reported here.)

Riepe, Jean. 1997. *Revisiting Retail and Wholesale Markets (Yellow Perch and Walleye)*. Presentation made at the North Central Regional Aquaculture Conference, Feb 6-7, Indianapolis, Indiana.

Riepe, Jean. 1997. "Revisiting Retail and Wholesale Markets (Yellow Perch and Walleye)" pp. 34-44 in *Proceedings of the 1997 North Central Regional Aquaculture Conference*, LaDon Swann ed. CES-305, Cooperative Extension Service, University of Illinois at Urbana-Champaign and Purdue University, West Lafayette, Indiana.

Riepe, Jean Rosscup. 1998. *Yellow Perch Markets in the North Central Region: Results of a 1996/97 Survey*. B-756, Department of Agricultural Economics, Office of Agricultural Research Programs, Purdue University, West Lafayette, Indiana. Sea Grant Number IL-IN-SG-97-27, Illinois-Indiana Sea Grant Program.

Riepe, Jean Rosscup. (In press). *Walleye Markets in the North Central Region: Results of a 1996/97 Survey*. Technical Bulletin Series #XXX. North Central Regional Aquaculture Center.

Riepe, Jean Rosscup. (In review). *Marketing Seafood to Supermarkets in the North Central Region*. Fact Sheet Series #xxx, North Central Regional Aquaculture Center.

Riepe, Jean Rosscup. (In review). *Marketing Seafood to Restaurants in the North Central Region*. Fact Sheet Series #xxx, North Central Regional Aquaculture Center.

Keywords: yellow perch, yellow perch aquaculture, aquaculture marketing, seafood marketing, North Central Region

#### Narrative Report

The first phase of this project ended July 31, 1996. Accomplishments encompassed the project design and conceptualization and development of the survey instruments. Activities included: reviewing the trade literature for the retail and wholesale businesses to be surveyed, determining which firms to survey, mailing list acquisition, review of the literature on earlier seafood market surveys, and survey

instrument development. This phase of any survey project is critical to the success of acquiring useful market information.

A literature search was conducted, in conjunction with telephone contacts, to determine what surveys of fish/seafood marketing had been published or completed in the last few years. Where possible, copies of published reports and survey instruments used were obtained.

Types of firms (based on SIC codes) that would be likely to handle fish at either the retail or wholesale level were identified. This activity was performed in conjunction with obtaining a mailing list and reviewing the trade literature of possible firm types. Information from all three of these activities was used to decide which types of firms would be surveyed and how they would be defined for purposes of the survey. The basic groups chosen to be surveyed included seven types: restaurants (defined for the purposes of this survey as non-chain, non-pizza, food establishments offering table service), supermarkets (defined by the grocery trade as grocery stores with at least \$2 million in annual gross sales), seafood wholesalers, seafood retailers, grocery wholesalers, foodservice distributors, and fish brokers.

A mailing list was obtained from a business lists company based on background research for appropriate firm types. As a result of being able to buy a mailing list, the PI's were able to: 1) survey firms in all geographical locations rather than being limited to firms in large population centers; and 2) obtain a random, representative sample of all firms within a given firm type for the entire North Central Region.

A review of the trade literature for the different types of firms was undertaken to help in two different decision-making areas: 1) defining restaurants and retail grocers for purposes of this survey; and 2) choosing which types of firm characteristic questions to include in the survey instruments along with appropriate wording for the questions and meaningful response options.

A few larger questions of project design were settled during the project's first period. These were easier to resolve once actual survey questions were under development. Drafting the survey for restaurants, combined with the literature review, revealed several things: 1) too much information was being asked for; and 2) each firm type or firm grouping would need a different set of questions on firm characteristics. Decisions were made on project design after further work on the survey instrument draft, feedback from other agricultural economists, and discussion with a survey consultant. First, the original plan to do one blanket mailing with follow-up was scrapped. Second, separate surveys were designed for three groups; restaurants, supermarkets, and all others (seafood specific wholesale and/or retail firms plus nonspecific wholesalers). The needs for firm characteristic information drove this decision. Third, the restaurant and supermarket surveys each would be divided into two separate surveys. This was done for two reasons. One was that there were too many questions to ask in a single survey. Second, there was no way to know, *a priori*, which firms would be selling yellow perch and/or walleye and which would not. It was hypothesized that less than 50% of retail-level firms would be selling these species. As a result, the Phase I surveys asked all the firm characteristic questions and general fish/seafood purchasing behavior questions. Data from these questions were used to correctly interpret the responses to species-specific questions. Also included in the Phase I surveys were questions to determine which firms did in fact sell yellow perch and/or walleye. The Phase II surveys were sent only to firms that sold yellow perch and walleye to ascertain their purchase/sales behavior for these specific species.

The development of all five mail survey instruments was completed during the first phase of the project period. An effort was made to keep overlapping questions across firm type as similar as possible. Appropriate firm characteristic questions were developed for each firm grouping surveyed. General fish/seafood purchase/sales behavior questions were generated. Questions specific to the purchase/sale of yellow perch and walleye were developed after discussion with selected wholesalers and retailers to determine general market terminology and practices. Both the general fish/seafood questions and the species-specific questions were designed to more specifically track "fish" through the

marketing channels. One shortcoming of many fish marketing studies is that they ask survey questions about "fish" marketing behavior as if "fish" were homogenous. However, "fish" are not homogenous. There are hundreds of species, and each can be marketed in multiple product forms. Therefore, an attempt was made in this study to identify the marketing channels for different types of "fish".

Identical questions were developed for walleye and yellow perch. Some questions related to the seasonality of supply and demand. Other questions dealt with actual purchase/sales behavior. These were geared toward specific product forms rather than the species in general. Each draft of the survey instruments was submitted to several survey experts for reaction/feedback. This procedure was used in lieu of a pre-survey of potential respondents because of mailing list and time constraints.

The second year of the project was primarily used to print and mail the survey instruments, to enter data from completed survey instruments, conduct data analysis, and draft the publications. All of these activities took much longer than anticipated because the researcher ended up conducting most of these activities by herself, and because the survey ended up being larger and more complicated than originally envisioned.

With five survey instruments, it took some time to get them formatted correctly for printing and printed. Mailing was an extended process. The initial mailings of the restaurant and supermarket Phase I surveys were completed in August, 1996. The initial mailing of the Wholesaler survey was sent in early November, 1996. After the first mailings, much effort was expended tracking the completed and otherwise returned survey instruments (also through telephone calls) to determine which firms had or had not responded. Also, for the Phase I surveys, Phase II surveys had to be mailed to respondents who reported selling yellow perch and/or walleye during 1996. Follow-up postcards were mailed to non-responding restaurants. Response to the supermarket Phase I survey was so low, that 6-7 months after the initial mailing, a second run of Phase I surveys was printed and mailed along with an explanatory letter. Mailing out Phase-II surveys to supermarkets was abandoned. Non-responding wholesalers were sent survey instruments up to two more times rather than reminder cards since the population was so small.

Data entry began in December, 1996. Riepe was scheduled to give a presentation of initial survey findings in February, 1997, so some initial data analysis was completed for that presentation and corresponding paper. Riepe presented her preliminary findings at the North Central Regional Aquaculture Conference in Indianapolis, Indiana in February, 1997. Interest in this research ran high among the attendees. A proceedings publication, which included a paper by Riepe (which formed the basis for her presentation), was printed and available at the conference.

By June, 1997, all survey mailings had been completed, responses received, and data entered. During June and July, 1997, Riepe analyzed all the survey data related to yellow perch, and drafted a technical publication. During August through October, the manuscript was reviewed and edited into final form for publication. It was delivered to the printer for final layout and printing at the end of October, 1997. The publication was finalized and printed in March, 1998.

Other data collected through the survey were also analyzed and drafted into reports that currently are either in press or under review. This data analysis and report writing was begun while the yellow perch markets publication was being reviewed and printed. Other reports in various stages of publication and review include one on walleye markets in the NCR, one on marketing seafood to restaurants in the NCR, and one on marketing seafood to supermarkets in the NCR.