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Technical Report



MASGP-02-019

Mississippi-Alabama Sea Grant Consortium

Project Number: GMO-99-24

Program Year: 2002

Grant Number: NA86RG0039





This publication was supported by the National Sea Grant College Program of the U.S. Department of Commerce's National Oceanic and Atmospheric Administration under NOAA Grant #NA86RG0039, the Mississippi-Alabama Sea Grant Consortium, Mississippi State University, and University of Florida. The views expressed herein do not necessarily reflect the views of any of those organizations.

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Introduction

While the overall per capita shellfish consumption in the United States has increased during the past twenty years, consumption of oysters during the same period has decreased. Food safety is a factor often thought to be a principal reason for the decrease in consumption of oysters; however, other factors are also involved. Regional and national oyster consumption can be affected by determinants that may vary across geographical region, ethnicity, income levels, and perceptions of nutrition.

The focus of this marketing plan will be on how oyster consumption can be increased and will be focused upon those who already consume and enjoy them. Focus groups found non-consumers of oysters had strong negative reactions toward oyster's taste, texture, and smell. Changing these perceptions would be likely much more difficult than increasing current consumers frequency or abundance of consumption under the right set of circumstances. Thus, this plan does not focus on changing the perceptions and attitudes of people who do not currently consume oysters, but rather on present oyster consumers.

Seafood Market Analysis

The U.S. wholesale value of seafood increased approximately 2.5 % in 2000, with wholesale sales totaling \$25.5 billion. However, retail sales actually fell for the first time since 1995, totaling \$12.1 billion while foodservice sales were \$13.4 billion. Consumer seafood purchases totaled \$54.1 billion with the foodservice sector accounting for 70 % of the total. Consumer purchases at retail fell by \$314 million to \$16.1 billion. The drop in retail sales may

be due to fewer seafood counters in grocery stores (Johnson, 2002). In 2000, the U.S. seafood industry had landing sales of \$3.65 billion with shellfish sales accounting for one-third of total sales of \$1.2 billion. Shrimp sales accounted for \$775 million or 64% of the total shellfish market in 2000. Sales by species during the same period were: lobsters, \$336 million (28%); oysters, \$94 million (7.7%); clams, \$4.5 million (0.37%); and crabs, \$4.2 million (0.35%) (USDOC/National Marine Fisheries Service, 2001).

Consumer Trends

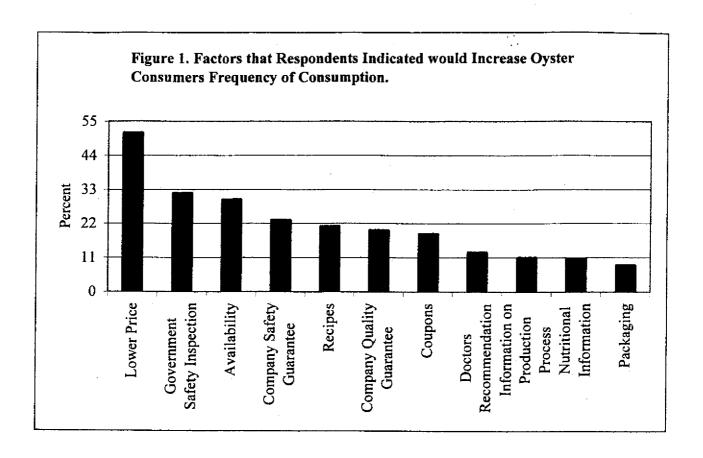
The consumption of seafood has become an important part of the diet for consumers in the U.S. Although the average quantity of seafood consumed in the U.S. is not as high as beef and chicken, the consumption of seafood has generally been constant during the 1990's to present. Per capita seafood consumption in the U.S. rose from 11.8 pounds in 1970 to a high of 16.2 pounds in 1987. Per capita seafood consumption in 2000 was 15.6 pounds and dropped to 14.8 lb/person in 2001 (USDOC/NMFS, 2001). This recent decline in consumption has been attributed to recession fears and a drop in restaurant dining following the events of September 11th, 2001 (NFI, 2002). Fresh and frozen seafood products currently account for 67% of all seafood consumed in the U.S., compared to 57-60% in the 1970's (USDA). Per capita oyster consumption decreased from an average of 0.35 pounds per year (average of 1980-1989) to 0.25 pounds in 1990 to 0.20 pounds in 1999 (Hanson, et al., 2002).

A recent study, by a global marketing information company (NPD Group) measuring product movement and consumer behavior across all industries, on the eating patterns of Americans revealed that half of the food dollars spent by U.S. consumers went to the foodservice sector, but most meals were still eaten at home (80%) (Norwegian Trade Council, 2000). The

trend toward more "take-out" food really means more "take-home" food, increasing the importance of home meal replacement (HMR) dishes. This poses an opportunity for seafood to gain a share of this growing market, as long as the end product continues to make dinnertime easier for the consumer.

In the MSU study, over 1,300 consumers responded to questions regarding oyster consumption and their attitudes toward oyster products and seafood safety. Of these respondents, 43% consumed oysters at least once per year. Of those that consumed oysters, 74% ate oysters at-home and 88% ate oysters away-from-home. Oysters were most frequently consumed for dinner away from home (83% of oyster consumers ate oysters for dinner away from home less than once a month), followed by dinner at-home consumption (63% of oyster consumers ate oysters for dinner at home less than once a month). Sixty-six percent ate oysters for lunch (more frequently away from home than at home) and 19% of consumers ate oysters for dinner at home less than once a month for breakfast.

The top five reasons for not consuming oysters more frequently were high prices (56%), product safety concerns (29%), lack of fresh oyster availability (24%), lack of preparation knowledge (15%), and texture (13%) (Hanson et al., 2002). They also responded that the top five reasons for consuming oysters were flavor (80%), variety in diet (37%), and the availability of fresh oysters (27%), health and nutrition (20%) and tradition/habit (19%). Figure 1 presents consumers' perceptions of what it would take to increase their frequency of oyster consumption.



Industry Trends

Supermarket: Fresh seafood departments have historically been one of the lower returning areas in grocery stores. Self-service seafood items may be seen as an effective cost-cutting measure. Consequences of this may be less variety due to a smaller space devoted to seafood but perhaps a greater opportunity for branding, packaging and consumer education (Johnson and Associates, 2002).

Restaurant Trends: In recent years, growth in the restaurant industry has been strongest in regions of the country having the fastest-growing economies—namely the South and West regions of the U.S., which also account for the top five regions experiencing growth (National Restaurant Association, 2002). On a state level, the top twelve states in terms of eating-place

sales growth are also located in either the South or West. (See Table 1 for a listing of states included in each region referred to in this discussion).

Although the Mountain region is expected to lead the nation in sales growth of 6.4% in 2002, the East South Central and West South Central regions are projected to finish second and third with expected sales gains of 4.7% and 4.5%, respectively. Sales in dollar terms for these regions are forecast for 2002 in the Mountain region to be \$20 billion, East South Central region sales of \$15.5 billion and West South Central region sales of \$31.8 billion. (National Restaurant Association, 2002).

In terms of sales volume, the South Atlantic region is expected to lead the nation with eating-place sales of \$61.8 billion in 2002, followed by the Pacific region with sales of \$56.1 billion. Full-service and limited-service (fast food) restaurants are projected to grow by 4.5% and 3.7%, respectively, while growth in social caterers is expected to grow 4.5% in 2002.

Consumer Profile and Target Market

MSU survey results indicated that the geographical area where the most oysters were consumed was the East South Central region, followed by the West South Central region and the South Atlantic region. Demographic information for the average oyster consumer was found to be mostly middle-aged Caucasian males between the ages of 35 and 50 with some college or with college degrees, and having income levels between \$30,000-\$99,999. On average, oyster consumers ate oysters 2.6 times per month with the majority of consumption taking place away from home during the lunch and dinner meals and dinner at home.

Table 1. Region of Residence of Survey Respondents.

Region of Residence	States Included in Region
	Maine, Rhode Island, New Hampshire, Massachusetts, Vermont,
New England	Connecticut
Mid-Atlantic	Pennsylvania, New York, New Jersey
	Florida, Georgia, North Carolina, South Carolina, West Virginia,
Southeast Atlantic	Virginia, Maryland, Delaware, Washington D.C.
East North Central	Ohio, Indiana, Illinois, Michigan, Wisconsin
East South Central	Kentucky, Mississippi, Tennessee, Alabama
West North Central	Iowa, Minnesota, South Dakota, North Dakota, Missouri, Kansas, Nebraska
West South Central	Texas, Oklahoma, Arkansas, Louisiana
	Nevada, New Mexico, Arizona, Utah, Wyoming, Colorado,
Mountain	Montana, Idaho
Pacific	Alaska, Hawaii, California, Oregon, Washington

Action Plan

<u>Product positioning</u>: Oysters should be positioned as a safe, fresh, healthy, flavorful alternative to other forms of seafood, shellfish and other meat products.

Price: MSU survey results indicated a segment of consumers who currently do not eat oysters and are not likely to change. There is a second segment of oyster consumers who do not consume as frequently as they would like, but may increase consumption if safety issues are addressed. If a treatment were used to kill harmful bacteria and viruses that might be present in raw oysters this group indicated they would eat more oysters. When presented with four different methods of post-harvest treatments (depuration, ozonation, irradiation, and pressurization), consumers were most supportive of depuration; with 43.6% of all oyster consumers and 53.5% of oyster consumers who indicated safety was a concern responding that depuration would increase their consumption of oysters. Amounts consumers were willing to pay are shown in Table 2. While 34% of consumers were not willing to pay anything above the current price to ensure a

guaranteed safe oyster product, 29% were willing to pay \$0.25 or more per oyster (above raw oyster price) for a guaranteed safe oyster product.

Table 2. Wi	llingness to Pay (WTP) f	or Pre	ferred	Oyster	Safety	Treatme	nt Program
Treatment	Number who Preferred Plan	Mean WTP	\$0.00	\$0.10 or Less	\$0.11- \$0.25	\$0.26- \$0.50	\$ 0.50- \$ 1.00	>\$1.00
Depuration	391	\$0.34	34%	23%	15%	12%	13%	4%

Place: Research indicated that people living within 50 miles of a coastal region were more likely to increase their consumption of oysters if a fresh supply were readily available. Oysters that are grown in the Gulf of Mexico coastal waters of Mississippi and Alabama could be shipped as a fresh product to full-service and specialty restaurants, grocery stores and specialty stores or to wholesalers for these entities along the Gulf Coast in those two states along with Texas, Louisiana and Florida. By utilizing overnight transportation, fresh oysters could also be sent to the inland areas of the East South Central, the West South Central and the South Atlantic regions. Consumption of oysters would also most likely increase if fresh oysters could be sent overnight to the West North Central and New England regions as well.

Promotion: Oysters could be promoted through in-store taste testing near the seafood section along with in-restaurant taste testing. In either case, consumers would be able to taste oysters made with different recipes while learning information on freshness, preparation, and techniques being used to ensure a safe oyster product through the use of an informational brochure.

Providing a recipe book to current consumers will not only give them a reason to buy oysters while at the store or in the restaurant, but will also raise awareness of safety standards of the

oyster industry. Sending information on harvest dates to in-store seafood departments may help inform consumers about the freshness of the product, thus reducing some product safety concerns. A "harvest date" will also efficiently supply the consumers with a freshness guarantee. Oysters can also be promoted through a website with recipes and information regarding the safety standards of Gulf Coast Oysters.

Contingency Plan

Research indicates that consumption would increase if fresh oysters were more readily available; and that HRM's (home replacement meals) are a growing trend as the busy consumer is looking for quick alternatives to cooking dinner at home. Fresh cooked oysters in some form or on the half-shell with the appropriate accompaniments may be an alternative to other seafood items sold as take-out meals in supermarkets and restaurants, as research also indicates that people consume oysters to add variety to their diets.

Conclusion

Results from the MSU consumer survey have helped identify characteristics about oyster consumers and non-consumers that can by used to develop marketing segments and better understand U.S. consumer attitudes towards oysters. Of a sample of 1,376 respondents to a nationwide mail survey on seafood consumption, 43% consumed oysters at least occasionally. The average oyster consumer indicated they are oysters 2.6 times per month. Targeting existing consumers for increased sales is called market penetration. Targeting non-consumers for consumption is termed market development. This study gives some indication as to the challenges the oyster industry faces pursuing both market penetration and development, and the

marketing plan presented focuses on market penetration, i.e., increasing sales to existing oyster consumers. This groups reasons for eating oysters included enjoyment of the flavor of oysters (80% of consumers) and the addition of variety to their diet (37%). Oyster consumers identified the main reasons for not consuming oysters more often as price (56%), product safety concerns (29%), and lack of fresh product availability (24%). It is likely people indicating product safety and lack of fresh product are concerned about the same underlying reason, i.e. the safety of the oyster product. Product safety appears to be an issue where the oyster industry can continue to improve their image among oyster consumers as approximately 44 percent of oyster consumers rated oysters as the least safe of all seafood products when given the choice of four shellfish and eight finfish products.

Forty-three percent of oyster consumers and nearly 54% of oyster consumers concerned about product safety indicated they would increase consumption of oysters if depuration was used to increase the safety of oysters for human consumption. When further questioned, respondents indicated whether or not they would be willing to pay for a safety treatment program. Sixty-one percent preferred the depuration cleansing process and indicated a mean willingness to pay of an additional \$0.34 per oyster (above the raw oyster price). This indicates the oyster industry may be able to increase the perception of oyster safety through implementation of a program of depuration and pay for the program through higher selling prices. This would be profitable if the depuration costs do not exceed the consumer willingness to pay.

Consumers did not indicate a preference or non-preference for farm-raised (cultivated) oysters, nor did they indicate having a cultured oyster product as a reason to consume oysters or consume oysters less frequently. Further research could be conducted to see if consumers would

perceive cultured oysters to be safer with certain advertising messages. If depuration efforts were associated with cultured oysters, consumers could possibly be educated to view cultured oysters as a safer oyster product.

Finally, consumers were asked what would increase their consumption of oysters.

Respondents who indicated price, product safety and lack of availability of fresh products were most likely to indicate that there were factors that could increase their consumption of oysters.

Consumers indicated a lower price would increase their frequency of consumption, but other factors, such as government safety inspection, availability of fresh products, and company safety and quality guarantees also were indicated as factors that might increase consumption for at least 20% of consumers. Again, the importance of perception of a fresh, safe product was emphasized.

Non-consumers had different reasons for not consuming oysters, mainly taste, texture and smell, followed by product safety concerns. As flavor was the most important reason consumers ate oysters, it appears to be the biggest reason why non-consumers do not eat oysters. Although product safety is again important, it is less likely the industry would persuade non-consumers to eat oysters through the same methods as they might use to convince oyster consumers to increase consumption.

Changing non-consumer perceptions of taste, smell and texture is likely more difficult to turnaround than factors of safety or price. In focus groups, non-consumers who focused on taste, texture, and smell generally had very strong negative reactions to discussing oysters. It would appear from those results that the industry should focus expansion activities on those that currently eat oysters. Additionally, identifying characteristics about the demographics of oyster consumers might provide insight into what regions of the country and types of people would

most likely become future oyster consumers. For instance, there were larger percentages of consumers in the South East Atlantic, East South Central and West South Central regions than in other regions, indicating that these regions may be fertile grounds for targeted advertising (particularly for post-harvest cleansing treatments, i.e., depuration, that produce a safe oyster product). Oyster consumption also increased with education and in males compared to females and these demographic groups could be targeted in a promotional campaign.

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