
North Central Regional Aquaculture Center



In cooperation with USDA

Marketing Seafood to Restaurants in the North Central Region

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Need for Market Information

A marketing plan is an essential part of a business plan. This is especially true for products that must be niche marketed. Niche marketing involves time and effort to develop and service markets. A host of factors must be considered including choosing a product line, targeting a market segment, identifying individual prospective buyers, pricing products, estimating storage requirements, evaluating alternative production methods and schedules, examining processing capabilities, and planning promotional strategies. Market information of various types is needed. Consumer trends at all levels need to be examined. Market expectations and trends within the targeted market segment need to be explored. Competing products need to be understood. Accurate, reliable market information is essential to devising a useful marketing plan.

One of the largest markets for seafood in the U.S. is restaurants. Seafood Business reported that, in 1993, consumers spent about two-thirds of their seafood dollars in

foodservice outlets (primarily restaurants). Therefore, marketing behavior and trends exhibited by restaurants deserve close attention from the aquaculture community. Little is currently known about the restaurant market for seafood in the North Central Region (NCR). This report is designed to fill the gap in market information.

Description of Restaurants in the North Central Region

A restaurant survey, using mail questionnaires, was conducted in the fall of 1996 and winter of 1997. Questions were asked to determine

firms' purchase/sales behavior regarding fish/seafood in general and yellow perch and walleye in particular. (Details about the restaurant survey including the questionnaires used can be found in Riepe 1998a or Riepe 1998b). Chain restaurants were excluded from the survey, as were restaurants that serve primarily fast food or pizza. A mailing list was obtained from a private company. With chain restaurants excluded, there were 65,571 NCR restaurants in this firm's database in June, 1996. A representative sample (12%) was chosen to receive survey mailings, and 643 restaurants returned usable surveys.

Seafood purchase behavior by a restaurant may vary depending upon firm characteristics (e.g., annual sales, geographic location, formality, etc.). Some firm characteristics seem to affect purchase behavior while others do not. Survey data on the characteristics of the NCR restaurants are given below.

Population Density of Location

Almost two-thirds of the respond-



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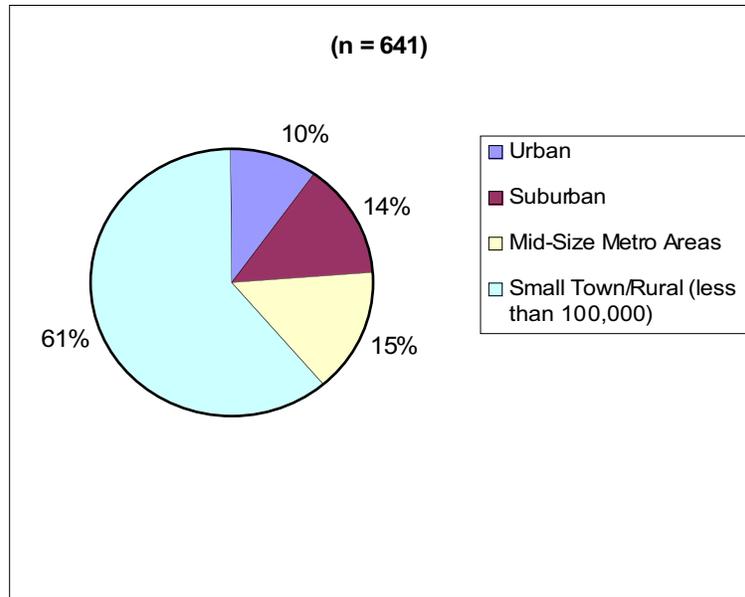


Figure 1. Population density of location for restaurants in the North Central Region.

ing NCR restaurants are located in small towns or rural population centers of fewer than 100,000 people (Figure 1). Only 10% of the respondents are located in major urban centers. In stark contrast, about 60% of East Coast restaurants are located in urban centers, while less than 10% are located in rural areas (Gall and O'Dierno 1995). These large differences in surrounding population density may cause differences in seafood purchasing behavior between regions. Thus, market information from national surveys or from surveys for other regions could be misleading for aquaculture in the NCR.

Seafood Popularity

Seafood is universally popular in NCR restaurants. Over 90% of the survey respondents reported having fish or seafood as a menu entree. Responding restaurants reported over 50 different species as

best sellers (each was asked to list up to five species). On average, about 22% of a typical NCR restaurant's total food sales is from seafood. Weekly seafood sales during the summer of 1996 averaged about \$2,800.

Menu Theme

American food is the most popular type of restaurant food in the NCR. Almost two-thirds of the responding restaurants reported serving primarily American food. Ethnic food ranked a distant second (20%). Just over 10% primarily serve a combination of steak and seafood. Very few restaurants primarily serve only steak or only seafood.

Formality: Restaurant Atmosphere

The average dinner check per person reveals how much a restaurant's meals typically cost. It also provides some insight into how

casual or how formal a restaurant tends to be. Typically, the less spent per evening meal, the more casual the restaurant's atmosphere. More restaurants in the NCR tend to be casual than formal. Over 80% of the responding restaurants reported that an average check per person for an evening meal is less than \$15 (Figure 2).

Annual Gross Sales Volume

Restaurants in the NCR tend to have slightly lower sales volumes per establishment than all U.S. restaurants. Just over one-third (37%) of NCR restaurants have sales of \$250,000 or less (Figure 3), while the 1992 national figure is 40% (Restaurants USA June/July 1995). Also, 25% of restaurants nationally have \$1 million or more in sales, while the NCR percentage is only 15%.

Seafood Product Preferences

Information on seafood product preferences is vital to aquaculturists for accurately planning production systems, designing marketing strategies, and developing business plans and enterprise budgets. Market information on product preferences tells aquaculturists what is currently offered for sale in the marketplace. Aquaculturists who are not prepared to produce and market seafood products according to common market preferences will have to spend extraordinary amounts of time marketing their products on their terms to willing restaurants or other firm types.

Best Selling Species

“Know thy competition” is a timeless component of any marketing strategy. Aquaculturists need to understand which seafood species

they must compete with in the NCR restaurant market (as well as competing non-seafood food products such as poultry, beef, pizza, etc.). To this end, restaurant managers responding to the NCR seafood marketing survey were asked to list the top five best selling species in their restaurants. The best selling seafood species in NCR restaurants are about the same as the best sellers in restaurants and retail stores nationwide. Shrimp dominates the NCR’s best seller list, followed by cod and salmon (Table 1). Tuna tops the list of nationwide best sellers, primarily because of canned tuna sales in retail stores (National Fisheries Institute 1998). However, fresh and frozen tuna are also popular in restaurants in the NCR as well as nationwide (Seafood Business May/June 1994). The only freshwater fish on the national list is catfish, while the NCR list also includes three regional, freshwater

favorites; yellow perch, walleye, and lake whitefish. Catfish is more widely consumed in NCR restaurants than are the regional favorites.

Best selling species were determined based on alternative groupings of restaurants for selected firm characteristics. This was done to discover whether these characteristics resulted in a different mix of popular species. While shrimp, cod, and salmon dominate the best selling lists, there are some differences in popular species based on firm characteristics (Table 2). Cod is widely consumed, even to the point of rivaling shrimp in popularity, in restaurants that are located in more rural areas, that have a low percentage of seafood sales, or that have a casual atmosphere. Catfish and pollock are popular in the more rural, more casual restaurants, while scallops, lobster, and swordfish are more popular in the urban,

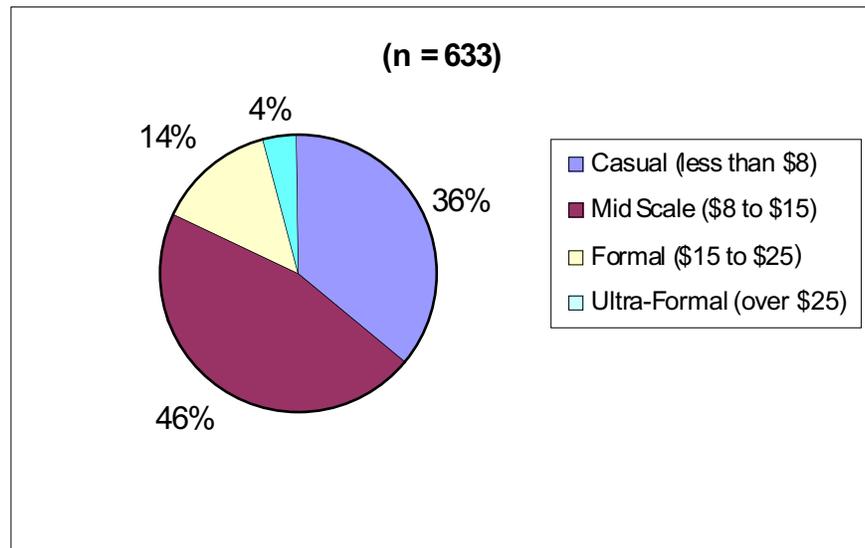


Figure 2. Formality (based on average dinner check per person) of restaurants in the North Central Region.

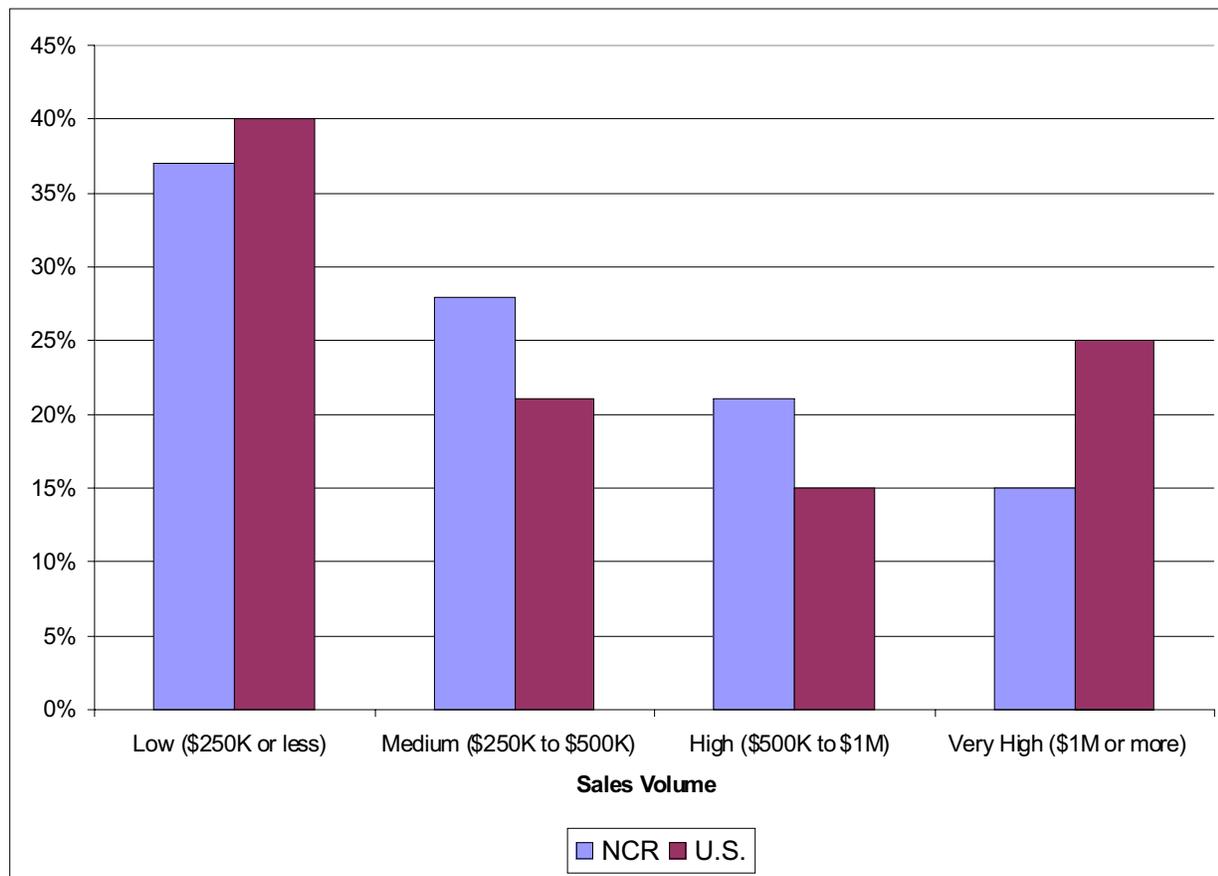


Figure 3. Volume of annual gross sales in restaurants: U.S. versus North Central Region (NCR) [n=634].

more formal restaurants. Regional freshwater species such as walleye, yellow perch, and lake whitefish are the most popular in restaurants having a high percentage of seafood sales.

Best selling seafood species also vary somewhat among states. The top five species in the three upper-tier Great Lakes states of Michigan, Minnesota, and Wisconsin each include one or more of the three regional, freshwater species (Table 3). The best selling species in the three lower-tier Great Lakes states of Illinois, Indiana, and Ohio generally follow the pattern for all

NCR restaurants. The biggest exception to this is the popularity of catfish in Indiana, which rivals the popularity of cod.

A wide array of seafood species are popular in restaurants in the relatively land-locked NCR. When all NCR restaurants are considered together, over 50 different species were listed as best sellers. Even when smaller groupings of restaurants are considered, such as only those located in rural areas or only those having a casual atmosphere, there were typically 35-45 different species listed by one or more restaurants as best sellers.

Product Form: Fresh Versus Frozen
Restaurants in the NCR typically purchase frozen rather than fresh seafood products. Frozen seafood products typically account for 80% of NCR restaurants' seafood purchases. In contrast, 75% of East Coast restaurants reported their preference for purchasing fresh seafood (Gall and O'Dierno 1995).

Survey results show that NCR restaurants are not all the same in their preferences for purchasing fresh or frozen seafood. Firm characteristics leading to higher than average purchases of fresh

Table 1. Best selling seafood species: North Central Region (restaurants) versus U.S. (foodservice and retail).

NCR (n=585)		U.S.	
75%	Shrimp ^a	26.5%	Tuna ^b
50%	Cod	20.7%	Shrimp
28%	Salmon	13.4%	Salmon
21%	Pollock	11.9%	Cod
19%	Catfish	7.6%	Pollock
19%	Scallops	7.4%	Catfish
17%	Tuna	4.3%	Clams
14%	Orange Roughy	3.2%	Flatfish
13%	Lobster	2.8%	Crab
13%	Yellow Perch	2.2%	Scallops
13%	Walleye		
12%	Crab		
10%	Lake Whitefish		
10%	Halibut		

^aPercentages do not sum to 100 because each responding restaurant was able to list five species as best sellers.

^bPercentages sum to 100 based on 1996 U.S. per capita consumption data by species. Data were obtained from the website of the National Fisheries Institute.

seafood products include higher population density, more formal atmosphere, higher gross sales, and a higher proportion of seafood sales (Table 4).

While some NCR restaurants are more likely to purchase a higher proportion of fresh seafood products, frozen seafood products appear to be acceptable to many restaurants in the NCR. The acceptability of both fresh and frozen seafood products gives aquaculturists a wider range of opportunities

and greater flexibility. Decisions on production location, timing of production, market location, storage needs, and investment in freezing technologies are all affected by market acceptance of frozen as well as fresh aquaculture products.

Product Form: Size, and Processed Versus Unprocessed
Market information on acceptable product forms (round, fillet, etc.) and product sizes must be specific to species. Survey data show that NCR restaurants overwhelmingly

choose fillets when purchasing walleye and yellow perch. Nevertheless, there are differences in how these species' products are marketed. Yellow perch fillets are all basically similar, with perhaps slight differences in size. Fresh fillets appear to be marketed slightly larger in size than frozen fillets. The data for walleye are different, mainly due to the wider range of alternative fillet products. For instance, walleye fillets are sold both skin-on and skinless. The skin-on fillets are widely preferred,

whether fresh or frozen. Since walleye is a bigger fish than yellow perch, several fillet sizes are marketed. There are definite preferences in the restaurant market for specific walleye fillet sizes. Preferred sizes vary depending upon whether fresh or frozen fillets are purchased. (See

Riepe 1998b for detailed data on walleye purchases by restaurants and by wholesale firms.)

Important generalizations about preferred fish product forms can be gleaned from various survey responses. One is that NCR restau-

rants prefer to buy fish in the product form they intend to put on the plate. For example, if fillets will be served, then fillets are purchased and not round fish. NCR restaurants do not appear to be interested in processing fish. If their most preferred product form is not

Table 2. Best selling seafood species in restaurants in the North Central Region, by firm characteristic.

Urban (n=61)		Small town/rural (n=350)	
69%	Shrimp	78%	Shrimp
46%	Salmon	59%	Cod
31%	Scallops	28%	Pollock
26%	Cod	21%	Catfish
23%	Tuna	21%	Salmon

High % Seafood Sales (n=103)		Low % Seafood Sales (n=127)	
74%	Shrimp	68%	Shrimp
36%	Salmon	61%	Cod
34%	Cod	27%	Salmon
27%	Scallops	23%	Pollock
25%	Walleye		
25%	Lobster		
21%	Yellow perch		
20%	Lake whitefish		

Formal Atmosphere (n=111)		Casual Atmosphere (n=188)	
77%	Shrimp	70%	Cod
61%	Salmon	70%	Shrimp
27%	Swordfish	33%	Pollock
26%	Cod	20%	Catfish
25%	Scallops	20%	Tuna
24%	Tuna		
20%	Lobster		

^aPercentages based on each responding restaurant being able to list five species as best sellers. This specific case would rightly be interpreted to mean that, of those responding restaurants located in urban centers, 69% listed shrimp as one of their five best selling species. Only those species which were reported as best sellers by 20% or more of respondents are included in the table.

Table 3. Best selling species in restaurants in the North Central Region: Top five by state.

Upper Great Lakes States		
MI (n=85)	MN (n=49)	WI (n=89)
67% Shrimp ^a	90% Shrimp	79% Shrimp
54% Cod	51% Cod	65% Cod
36% Lake whitefish	43% Walleye	33% Yellow perch
31% Salmon	33% Pollock	33% Scallops
28% Yellow perch	24 % Salmon	26 % Walleye

Lower Great Lakes States		
IL (n=80)	IN (n=59)	OH (n=88)
74% Shrimp	68% Shrimp	65% Shrimp
40% Cod	44% Catfish	47% Cod
24% Salmon	44% Cod	33% Salmon
23% Orange roughy	36% Salmon	27% Tuna
21% Catfish	24% Pollock	23% Scallops, Pollock

Western/Southern States			
IA (n=34)	MO (n=30)	KS (n=25)	NE (n=23)
82% Shrimp	87% Shrimp	4% Shrimp	91% Shrimp
53% Cod	60% Catfish	44% Catfish	48% Cod
29% Catfish	40% Cod	40% Cod	48% Halibut
26% Salmon	37% Salmon	24% Salmon	26% Catfish
24% Orange roughy	20% Tuna	24% Tuna	26% Pollock, Salmon

^aPercentages based on each responding restaurant being able to list five species as best sellers. This specific case would rightly be interpreted to mean that, of the responding restaurants located in the state of Michigan, 67% listed shrimp as one of their five best selling species.

available, restaurants are not willing to go to a totally different product form (e.g., from fillet to round). Restaurants would rather take other measures, such as switching suppliers, switching to a less preferred fillet size, switching from fresh to frozen (or vice versa), or dropping the species temporarily

from the menu, than process fish in-house.

Aquaculturists wanting to serve the restaurant market directly, therefore, will have to market the processed product forms desired. Processing equipment and technology will have to be bought or

leased. Aquaculturists will have to contract for or develop their own processing expertise, quality assurance, and sanitation procedures. As the aquaculture industry develops in the NCR, it may be able to sustain a processing plant, especially for a species such as yellow perch which is more reliably

processed by hand than by machine.

Product Price

Restaurants expect to pay prevailing market prices for their seafood based on current and expected supply and demand conditions. All things being equal, cheaper is better. But with seafood, all things are often not equal, and so price is not necessarily the most important factor.

First, consider the situation where a restaurant faces the decision of which vendor to use for purchasing a pre-selected species. The restaurant is not merely purchasing a product, but is actually purchasing a “package” including such things as a vendor relationship, service, and convenience (as in one-stop shopping). If all these factors are virtually identical across vendors, then price will certainly be the

determining factor. However, the “packages” offered may not always be identical, nor will the value that individual restaurants place on different parts of the “package.”. The restaurant will have to evaluate and compare all competing “packages” in order to select the vendor that best fits their needs. On the other hand, aquaculturists need to be effective listeners and questioners in investigating prospective restaurant customers in order to determine whether they can provide the desired products, services, etc. at expected prices.

Second, consider the situation where a restaurant faces the decision of which species to include on its menu. The restaurant does not merely look at the latest seafood price list from a seafood wholesaler and choose the six lowest priced species! There are many considerations involved in choosing species.

Survey data show that firm characteristics, among other things, affect which species are chosen. Aquaculturists may be able to use various marketing size, skinless or skin-on fillets, and fresh or frozen fillets. Aquaculturists need to work at discovering what the pricing patterns are in their targeted restaurant market segments for their species, in all its forms and sizes.

Product Delivery

Restaurants in the NCR typically prefer weekly deliveries of seafood, even when purchasing frozen products. There is some interest in monthly deliveries of frozen products, but this is usually by those who purchase smaller quantities. Aquaculturists need to gear production, processing, storage, and transportation toward servicing weekly markets. Alternatively, they need to find customers who will

Table 4. Percentage of seafood purchased as fresh by restaurants in the North Central Region, by firm characteristics.

Average Fresh Purchases: 17% of All Seafood Purchases	
Population Density	Menu Theme
36% Urban	12% American
23% Suburban	24% Ethnic
12% Small town/rural	27% Steak/seafood combination
Atmosphere	Annual Sales Volume
4% Casual	9% Low
16% Midscale	14% Medium
38% Formal	22% High
68% Ultra-formal	33% Very high
Seafood Sales as % of Food Sales	
6% less than 10%	
29% 30% or more	
37% 40% or more	

accept monthly deliveries and organize their businesses accordingly.

Selling Duration and Frequency

Restaurants in the NCR generally serve seafood year around. Even yellow perch, a species which can only be caught commercially during selected months of the year, is served year-round and on a daily basis by about two-thirds of the restaurants currently serving perch. The same is true of restaurants serving walleye.

Seasonality

While NCR restaurants do sell seafood year around, this does not necessarily mean that customer demand, availability of supplies, and prices paid are the same throughout the year. Nor should they be expected to be the same for every species or species grouping. Aquaculturists should do their homework and become familiar with any seasonal cycles associated with the species they want to produce.

Survey responses show definite cycles in the availability of yellow perch and walleye. Patterns of availability are likely to be different among categories of seafood such as ocean-caught fish, shellfish, lake fish, farm-raised fish, etc., and among species within these categories as well.

Customer demand in restaurants for seafood also tends to be cyclical. Survey responses from NCR restaurants concerning customer demand for yellow perch or walleye show that customer interest is highest in the summer months (June, July, August), next highest in the spring (March, April, May), and typically low during the fall and

winter months, with the possible exception of September.

Since supplies and customer demand can be cyclical in nature, aquaculturists also must prepare for cycles in prices paid for seafood products. The survey data indicate definite fluctuations in the pricing of yellow perch and walleye products from one month to the next.

Familiarity with Farm-Raised Fish

Educational efforts directed toward helping restaurant decisionmakers understand aquaculture and an aquaculturist's specific products will likely be needed. Even though restaurants are already buying other aquacultured species such as Atlantic salmon, shrimp, and catfish, the level of knowledge and understanding about aquaculture seems to be rather low. Large proportions of survey respondents were not sure whether or not they were purchasing any farm-raised yellow perch or walleye or whether they wanted to purchase any. In contrast, the responses of seafood wholesalers and retailers show virtually no uncertainty. This lack of familiarity with aquaculture by restaurants has been noted before. Riepe surveyed Indiana restaurants in 1991 and found a high level of unfamiliarity with aquaculture and its implications for seafood quality, cost, and availability (Riepe et al. 1993).

Seafood Suppliers

Understanding the flow of seafood products through marketing channels is important for understanding where and how to market aquacultured products. Restaurants don't buy "fish" or "seafood," they buy specific products. While some

restaurants purchase all their "fish" in one place, others may customize their suppliers based on their individual needs for species, fresh or frozen products, or other product distinctions. Accordingly, questions in the survey were worded to discover the differences in how various seafood products typically are supplied to the restaurant market. The results show that NCR restaurants do indeed buy different types of seafood products from different sources. Restaurant characteristics influence the use of supplier types. There also are differences between sources of fresh versus frozen products and between sources of larger species categories such as ocean fish versus lake fish.

In the NCR, foodservice distributors are the largest source of seafood for restaurants, followed by seafood wholesalers and grocery wholesalers (Figure 4). In contrast, East Coast restaurants typically buy the vast majority of their seafood products from seafood-specific firms (Gall and O'Dierno 1995). Forty percent of the respondents also listed a secondary supplier type. There were many more types of firms listed as secondary suppliers. Foodservice distributors, seafood wholesalers, and grocery wholesalers again topped the list. However, other firm types also were listed, including commercial and tribal fishermen, supermarkets, and seafood specialty retailers.

Which supplier type is primarily used and the percentage of restaurants utilizing that source, differ when restaurants are grouped according to characteristics (Table 5). The one constant is that foodservice distributors and seafood wholesalers always account for 75-90 percent of seafood purchases. A

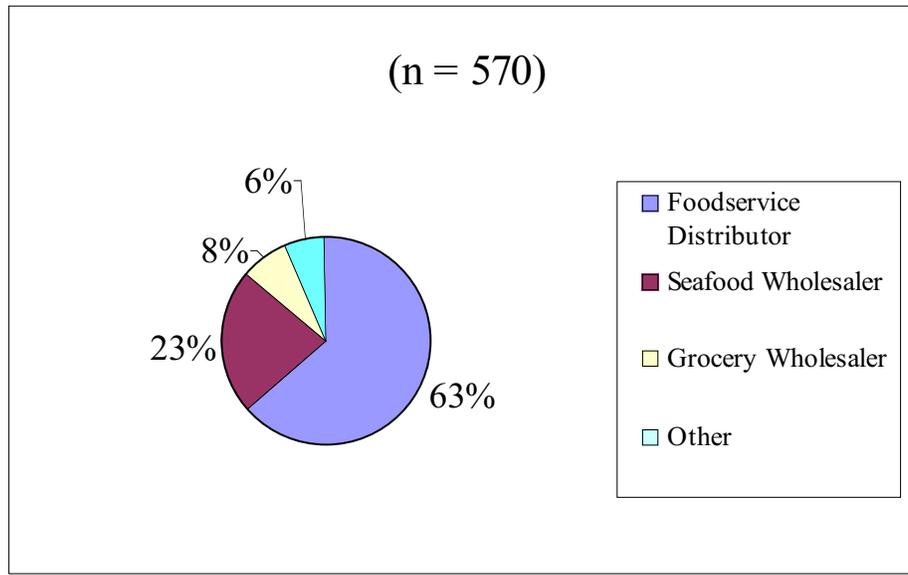


Figure 4. Primary source of seafood purchased by restaurants in the North Central Region

restaurant is more likely to use seafood wholesalers as its primary source of seafood, at the expense of foodservice distributors, if the restaurant: 1) is located in a more densely populated area; 2) has a more formal atmosphere; 3) has a higher annual gross sales volume; and/or 4) purchases a higher proportion of seafood in fresh form.

What types of seafood products (fresh or frozen) are NCR restaurants purchasing from their seafood suppliers? Survey data show that restaurant seafood purchases from seafood wholesalers and seafood retailers are evenly split between fresh and frozen products (Figure 5). From all other supplier types, purchases are almost exclusively either fresh or frozen. When restaurants buy seafood from foodservice distributors or grocery wholesalers, they typically buy only frozen products. Commercial fishermen,

on the other hand, usually supply only fresh seafood products to restaurants.

The general patterns related to purchasing fresh versus frozen seafood products hold true when restaurants responding to the survey reported the sources of their yellow perch or walleye products. Fresh yellow perch or walleye fillets are purchased primarily from seafood wholesalers and secondarily from foodservice distributors (Figure 6). The roles of seafood wholesalers and foodservice distributors are reversed for frozen fillet purchases, with foodservice distributors supplying the largest share of frozen fillets to restaurants.

Summary

Aquaculture in the North Central Region is a new, developing indus-

try. As a result, aquaculturists must develop their own niche markets for their products. Niche marketing is a time-intensive activity, but it is vital to business success. Because 67% of consumers' seafood dollars are spent in foodservice outlets, restaurants are a primary market for aquaculture products. Market information on restaurants in the NCR is needed to help aquaculturists make realistic business plans and decisions.

A 1996/97 marketing survey provided data and ideas on marketing aquaculture products to NCR restaurants for this publication. Characteristics of NCR restaurants are disclosed in terms of numbers, location in various types of population centers, seafood popularity, menu themes, formality of atmosphere, and sales volume. Market preferences for seafood products and marketing arrangements are

identified. Examined are data and ideas regarding restaurant preferences for various species, fresh or frozen products, fillets versus round products, product sizes, product price versus non-price factors, delivery schedules, restaurant selling duration and frequency, seasonality of demand, supply, and price, and familiarity with farm-raised fish. A discussion is offered of typical suppliers of seafood products to restaurants and which products they are providing.

This publication provides aquaculturists with factual data on the NCR restaurant market for seafood. This information can be used to gain a better understanding of the workings of the seafood aspect of the restaurant market. A sound grasp of market realities provides a solid foundation for business planning by aquaculturists and for decisionmaking by university and government staff. A second use of this information is for securing

outside capital for investment in the aquaculture operation. The data also can be used as a springboard for further, more individualized, market research. Planning is crucial to business success. Without accurate, realistic market information, effective market planning cannot be accomplished.

Table 5. Primary source of seafood purchased by restaurants in the North Central Region, by restaurant characteristic.

	Food Service Distributors	Seafood Wholesalers
Average for All Respondents	63%	23%
Population Density		
Urban	34% ^a	51%
Suburban	49%	39%
Rural	72%	12%
Formality		
Casual	75%	10%
Midscale	68%	20%
Formal and Ultra Formal	33%	50%
Sales Volume		
Low	72%	10%
Medium	70%	17%
High	51%	35%
Very High	47%	41%
Seafood Purchases		
Less than 20% fresh	63%	23%
50% or more fresh	20%	58%
75% or more fresh	17%	65%

^aPercentage indicates what proportion of restaurants having the same characteristic (urban location in this case) reported this firm type as their primary source of seafood.

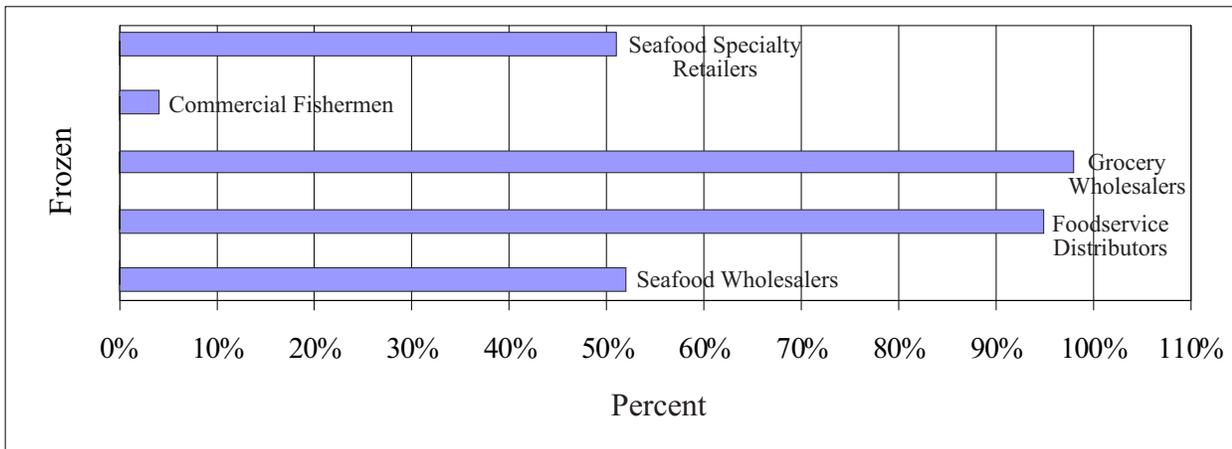
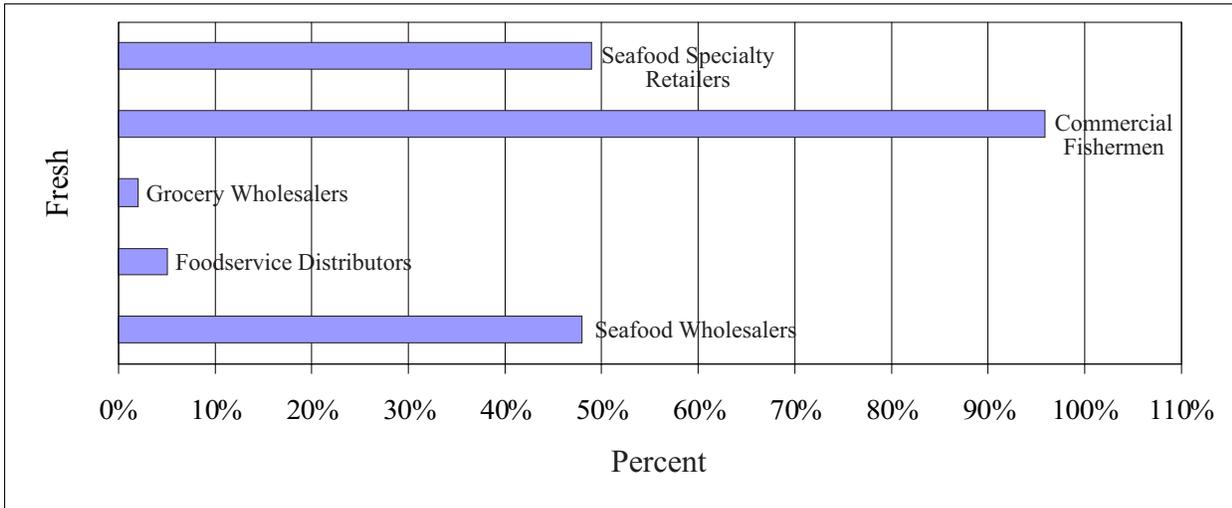


Figure 5. Seafood purchases from various seafood supplier types by restaurants in the North Central Region: Comparison of fresh versus frozen purchases as a percentage of total purchases.

YELLOW PERCH FILLETS



WALLEYE FILLETS

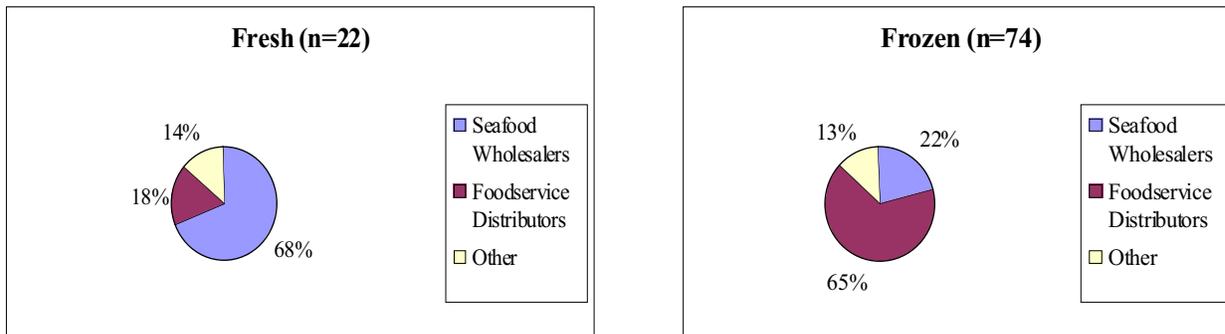


Figure 6. Sources of yellow perch and walleye fillets purchased by restaurants in the North Central Regions: Fresh versus frozen.

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