

Northern Markets for Southern Seafoods

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THERE ARE PRODUCED ANNUALLY in the South Atlantic and Gulf area fifty to sixty million pounds of fish (mullet, grouper, mackerel and snapper), a large portion of which is entitled to a better market opportunity. Only a small part of the present catch is finding its way north and then primarily because people who have moved from the South to the North seek out these native home-known varieties in the retail markets.

Wholesale and retail markets in the north and midwest, anxious to supply seafood demands of their customers, and at the same time serve shippers, are struggling against great odds because of the manner in which quantities of southern seafoods are prepared and transported to market. The fresh fish that are now shipped in cumbersome barrels with ice as a refrigerant frequently arrive in deplorable condition, causing leading fish merchants to avoid fresh fish from the South.

Mr. Harry Botts of the Warren Fish Company at Pensacola, mentions some of the marketing problems of southern fisheries in a personal communication. Mr. Botts says, "Grouper is a good fish. It is fully the equal of most other varieties, except red snapper and a few others. Yet it is salable only in the southeastern states. I venture to say that 75 per cent of the red snapper served in Pensacola and the Miami areas is actually grouper. In Memphis, grouper is 'tenderloin trout.' In Nashville it is 'gray snapper.' Since grouper is good enough intrinsically to pass as snapper with the uninitiated, there is no reason why it should not command a market in its own right. Spanish mackerel is another fish which definitely needs promoting. For some reason mackerel has lost much of its popularity during the past five or six years.

"While the shape of both snapper and grouper is such that they cannot be filleted without excessive loss in weight, this is not true of mackerel, which fillet very economically. Yet, despite the increasing acceptance of north Atlantic fillets, we have never been able to move any worthwhile amount of mackerel fillets."

Mr. Botts further states, "We are particularly interested in the results of a survey in trends of merchandising fresh versus frozen seafoods, as well as the attitudes of various types of store managements towards handling seafoods—especially fresh seafoods."

The above questions, raised by Mr. Botts, are perhaps typical of those of many seafood houses in the South. Moreover, it was found after making the rounds of seafood markets (wholesale and retail) in Detroit and Cincinnati, that there are answers to these questions.

First, the extent to which each of the several varieties is sold in 200 large supermarkets in Detroit should be noted. The percentage of the total volume, in pounds, accounted for by each variety is given in Table I. It will be seen that five varieties (cod, haddock, rosefish, smelt and shrimp) account for 67 per cent of the total sales. Shrimp, with 9.6 per cent of the total, is the only item from the South among the first five.

It is not known exactly where the fish represented in Table I come from, but aside from shrimp, some lobster and possibly mackerel, it is evident that very little comes from the South.

*Contribution No. 70 from the Marine Laboratory, University of Miami.

Next, let us see what the men who make the buying decisions have to say about southern seafoods. No opinion is offered as to whether they are right or wrong, but this is an accurate interpretation of their forthright and

TABLE I

PERCENTAGE DISTRIBUTION OF SEAFOOD SALES BY A REPRESENTATIVE CHAIN RETAIL ORGANIZATION—1951

<i>Variety</i>	<i>Per Cent of Total Weight</i>
Cod Fillets	18.1%
Haddock	15.1
Ocean Perch or Rosefish	13.0
Smelt	11.1
Shrimp	9.6
Halibut	5.8
Whiting	3.2
Yellow Pike	3.1
Herring	2.7
Perch	2.4
Mackerel	1.75
Northern Pike	1.6
Squid	1.6
Whitefish	1.6
Salmon	1.2
Flounder	1.0
White bass	0.9
Sheepshead	0.8
Lobster Tails	0.8
Frog Legs	0.8
Cherry Clams	0.6
Scallops	0.5
Catfish	0.5
Bullhead	0.5
Blue Pike	0.5
Lake Trout	0.25
Lobster	0.1
Miscellaneous	1.0
Total	100.0%

well-considered judgments which surely influence their buying decisions.

Frank Clatworthy, head of fish buying in the Great Atlantic and Pacific Tea Company's North Central region, with a long and successful career in the business, gave the following appraisal of the situation:

"Southern varieties of fish have good acceptance as far north as Louisville. Beyond this point there is no real demand except among the negro population and persons who have migrated from the South. The main reason for this is that southern producers have packed fish the easy way and they have not packed it well enough to get it as far north as Detroit in good condition. There is a lot of barrel packing, with barrels containing 150 to 200 pounds of fish and not nearly enough pre-chilling. Barrel packing results in too many disastrous shipments. With three layers of ice, and fish in between, there simply is not enough refrigerant to hold them at a low temperature. This is especially true in warm weather. Also the heavy weight in barrel packing means that the fish in the bottom are badly crushed. If the southern fisheries insist upon

shipping their fish in this kind of a pack, then we can't hope to get them beyond Louisville in good condition. It's simply a matter of too much fish, too little refrigerant."

Continued Clatworthy, "There is a lot of good southern shrimp available, yet some dealers are still shipping shrimp of very poor quality. The careless practices of these shippers lessens our confidence in southern fish in general. Spanish mackerel is an example. This is a good item because the fish are small and can be sold whole. It has a beautiful silver color which is attractive in the case. It should, therefore, sell well. But its salability is adversely affected because of the inferior way in which it is packed, together with the long period of time it is in transit.

"King mackerel is not such a good item for us to handle because it is large and has to be cut up. When it is cut the flesh shows blue, which detracts from its sale.

"It has been our experience that southern oysters do not ship well because they come out of warm water. If this is not true, then there is need for re-education on this point. But there is one item, lobster tails, on which they are doing an outstanding job in the South. Our business on this item is on the increase.

"But frankly," said Clatworthy, "I do not believe that southern fishermen take the trouble to pre-chill the fish as soon as they catch them. Thus much of the damage is done before they are packed. If they would thoroughly pre-chill the fish on the boats as soon as they catch them, and if the dealers would keep them in a chilled room as 32° F. and then ship them North in refrigerated cars or trucks, the fish would arrive in good condition."

Fresh Versus Frozen Seafoods

Except for locally caught varieties most of the fish coming into the Detroit market are now being frozen. Prominent food chains in Detroit, such as the Kroger Company and Wrigley's, are firm in the belief that they fare better by merchandising exclusively frozen seafoods of high quality. Rad B. Scott, Kroger's Detroit meat merchandiser stated:

"Regardless of the size of our stores we are limited as to space. At the present time 102 of our 146 markets in Detroit area have only low temperature cases. There are *no* fresh fish being sold in any of these markets. During the past year we have opened twenty new supermarkets. In only one of these markets have we installed a fresh fish case. A few years ago when Kroger opened a new supermarket it would install three to five low-temperature cases for all frozen goods in the store. Today we install 10 to 20 such cases, depending upon the size of the store.

"The trend in Kroger's fish merchandising operation is toward reducing handling and processing costs by buying seafoods in a form that is easy and automatic to handle—as far as possible on a self-service basis. This eliminates tables, electric scaling machines and other specialized equipment, and allows us to make better use of space. Then, too, we want to present a clean-looking operation to our customers and one that is agreeable to our employees. Store managers, regardless of whether or not the fresh fish operation is successful, talk it down and present a good case for de-emphasizing fresh fish in our plan of store operation. Finally, shipments to outlying stores, especially during warm weather, present a problem of temperature control.

"The fact is that while we are changing our equipment to a frozen seafood basis and playing down fresh fish advertising, but still doing as much seafood advertising as ever, our seafood sales are higher now than they have ever been."

Wrigley Markets, now the third chain in size in Detroit, sells only frozen seafoods. This aggressive chain recently purchased the Packer Outlet chain of supermarkets, and this is becoming an increasingly important factor in food retailing in Detroit.

The Great Atlantic and Pacific Tea Company is pursuing a slightly different policy, but is nevertheless moving in the same direction as other retail outlets in the area. Strictly fresh fish are now on about a fifty-fifty basis with frozen fish in the northern central region of A & P Food stores, with the trend noticeably toward the frozen product. Most of the fish that is being sold fresh comes from the nearby lakes.

Store managers in the A & P organization prefer the frozen product because it eliminates the headaches from "policing" quality, especially when fresh fish fail to move promptly. Also the frozen product simplifies housekeeping problems by eliminating objectionable odors and unsightly conditions incident to cleaning fresh fish. Although A & P Food stores do not like to handle fresh fish, it appears, nevertheless, that this food chain is moving more slowly than other retail outlets in the area toward a complete frozen seafood program. Some of their customers definitely prefer the fresh product. Besides, A & P is particularly well set up to obtain fresh fish supplies from nearby sources.

Before leaving the subject of fresh versus frozen fish, it may be of interest to note the proportion of each kind of fish being sold in the afore-mentioned 200 supermarkets. This is shown in Table II. A glance at the first five (cod, haddock, rosefish, smelt and shrimp) again suggests the heavy trend to frozen seafoods, except for local varieties.

Mr. James Bay, General Fish Merchandiser for the Kroger Company at Cincinnati, sees definite obstacles in the way of marketing certain varieties of southern fish. Fatty varieties, he points out, are not well suited to freezing, and certain other varieties cannot be supplied in quantity on a regular basis. Kroger likes to have a constant flow of supply.

Fisheries in the South, in the judgment of Mr. Bay, will have to make the following adjustments if certain varieties of their fish are to find a market in the North: (1) Build a modern all-weather fishing fleet (2) Develop proper filleting and consumer packages appropriate to southern varieties. A package of frozen fish should contain one pound, and suggest a sanitary high-quality type of product. The package need not look gaudy and picture windows are not necessary (3) Provide adequate flash-freezing facilities and cold storage space. (4) Develop containers and other shipping facilities that properly protect the product in transit.

The Way Out

There is only one way for the industry to win out in the fish marketing business—produce *quality*, and the fishery that succeeds on any other basis does it at the expense of the industry. As A & P's Frank Clatworthy recently remarked, "The fishery that places on the market, day in and day out, fish of high quality is always oversold."

An intriguing method of processing an unusually high quality of shrimp in the South is being applauded by northern distributors and their customers. This high-quality seafood, now getting into volume production by Seapak Corporation, St. Simons Island, Georgia, grew out of Wayne University's study "Markets for Airborne Seafoods." The process consists of de-heading and quickly pre-cooling the shrimp on the boat. Upon landing they are peeled, de-veined, washed and then individually suspended by the tail and flash-frozen. The result is a package that looks like a box of waxen lilies. The appearance

TABLE II

PERCENTAGE OF RETAIL SALES BY A REPRESENTATIVE CHAIN OF STORES
OF FRESH AND FROZEN FISH—1951

Variety	PER CENT BY WEIGHT	
	Fresh	Frozen
Cod Fillets	16.6%	83.4%
Haddock	21.	79.
*Ocean Perch or Rosefish	...	100.
Smelt	28.6	71.4
*Shrimp	...	100.
*Halibut	...	100.
*Whiting	...	100.
Yellow Pike	74.5	25.5
Herring	100.	...
Perch	67.1	32.9
Mackerel	81.9	18.1
Northern Pike	100.	...
*Squid	...	100.
Whitefish	100.	...
*Salmon	...	100.
Flounder	69.7	30.3
Sheepshead	100.	...
*White bass	40.	60.
*Lobster Tails	...	100.
*Frog Legs	...	100.
*Cherry Clams	100.	...
*Scallops	33-1/3	66-2/3
Catfish	100.	...
Bullhead	100.	...
Blue Pike	56.6	43.4
Lake Trout	100.	...
Lobster	100.	...

*Note: Varieties of fish starred in the above table are all brought into the store in frozen form but may be sold either frozen or unfrozen. There was no way of determining how much of each variety was sold frozen or unfrozen.

and eating quality are excellent. These shrimp, both plain and breaded, are now being distributed in major cities over the country, principally for institutional and restaurant accounts, in three pound packages. Daisy Valley Foods Company is at present the one Detroit wholesale outlet. The product, sold under "Aero" brand, is sold at a current price of 97 cents per pound (15-20 size) for both the peeled, plain de-veined shrimp and the breaded version. This price may seem out of line for the wholesale price of shrimp, but not one of the several users questioned had any complaint on price or any other aspect of the product.

The Howard Johnson restaurants in Detroit have been using this brand of shrimp during the past three months and openly praise it. They state that it is the cleanest, most convenient type of shrimp they are able to buy and that their cost experience is most satisfactory. They know exactly where they stand on cost because they know that each shrimp is costing them four cents. Thus, if they serve four shrimps, the cost is sixteen cents, and if they serve five their cost is twenty cents per serving.

Typical of other accounts in Detroit now using this shrimp are the Ford Motor Company and Greenfield's restaurants. In general these accounts think very highly of this product because it saves them time, labor and mess in the kitchen. Remarkd Ford's food buyer, "The product must be good or I'd be getting kicks from the kitchen."

The head dietitian of Greenfield's restaurants in Detroit was emphatic in her observations. She remarked that while the price may seem high, actually when the labor saved was taken into account, the price is reasonable. This restaurant is thoroughly satisfied and intends to use the shrimp in increasing quantities. Greenfield's now have their supplies trucked directly to their freezer.

More specific evidence of the market acceptability of the product is found in the actual sales of Daisy Valley Foods, a small but progressive wholesale house that took on distribution of this product three months ago. During the first month they offered it for sale, the total volume was 7,000 pounds; the second month, 12,000 pounds; and the third month, just closed, 16,000 pounds. Volume on these products has now increased to the point where this Detroit wholesaler is able to order in truck load quantities of 20,000 pounds.

During the past few years the industry has become increasingly conscious of the need and opportunities to improve methods of packaging, materials handling and distribution. And nowhere, perhaps, are there such wide-open opportunities for increased efficiency in packing, handling, storage and transportation as in the fishing industry. Farms, mines and factories are rapidly adopting new and more efficient ways of handling and moving materials. Products of these industries are bulky and heavy and, like the products of the fishing industry, run into millions of pounds annually. It seems safe to predict that just as machines have made obsolete old methods and tools for making things by hand, so will modern improved technologies for moving and handling fishery products render obsolete a vast amount of investment in plants, warehouses, packaging and transportation equipment.

Obviously, modern materials handling equipment cannot be used in conjunction with existing plants and facilities in the fishing industry. While many will think it an extremely rash statement, nonetheless, the only hope seen for adapting many of these old dilapidated buildings to modern methods of materials handling is to tear them down and start all over again.

Moreover, it does not seem wise for the fishing industry to tie itself too closely to the railroads if this mode of transportation persists in transporting products in the same old ways that they have done since the horse and buggy days. Railroads were, of course, built long before engineers began to think of the best ways to move materials. If they were to take full advantage of the new low cost techniques they would have to scrap a large part of their equipment and redesign it.

For certain products it is not apparent how railroads can hope to compete with the motor truck and airplane which are far more flexible in their operation, and which are being constantly redesigned for more efficient handling, scheduling and temperature control. While cargo planes still have their problems, nevertheless, for many hauls they travel the shortest and most direct route and can pick up merchandise at the point of production and lay it down in a fraction of the time at the point of consumption, often at lower net cost than for rail express.

Large quantities of Great Lakes fish that once went to New York via rail express, have in recent years moved by airfreight or truck which has saved

time as well as handling and packaging costs. The handwriting is on the wall so far as the railroads and certain types of traffic are concerned.

Detroit is taking these packaging and materials handling functions seriously —so much so, in fact, that in them is seen the keys to future industrial success.

Del S. Harder, Vice President in Charge of Manufacturing at the Ford Motor Company, in cooperation with executives from General Motors, Chrysler, and other leading industrial concerns, is assisting Wayne University investigators in the establishment of a research and training center which plans to explore these new frontiers. Over \$300,000 is to be spent on a research and training program during the next five years.

If Detroit industry, one of the most efficient production centers in the world, feels the need of improving its methods of packaging, materials handling, warehousing and transportation, then what about the fishing industry? To be sure, the tonnage handled by this industry is spread over a great many more firms. Nevertheless, it is in much the same category as some of the heavy industries that are now tremendously concerned over the opportunities to reduce costs further through improvement of these functions of physical supply.

The statement was made recently by Mr. Harder: "Materials handling is in its infancy. Before we started our materials handling program at Ford's we handled our scrap at the foundry by using men, wheelbarrows and overhead cranes. It took 112 men, 100 wheelbarrows and 12 cranes. Now, by using industrial power trucks and special hoppers we do the same work with 36 men. We saved enough in 80 days to pay for the equipment, and these new methods are saving the company on this one operation alone over a quarter of a million dollars annually!"

There are numerous other examples to prove dramatically that industry in this country is on the march toward lower costs of operation through improved methods of packaging, handling, storage and transportation. The fishing industry must also ride this swelling tide.

By way of conclusion, it may be said that increased market opportunity for southern varieties of seafoods depends upon a steady supply of top-quality flash-frozen seafoods, attractively put up in packages of appropriate size for institutional and retail trades, properly refrigerated, efficiently handled and transported with modern low cost equipment. When it is realized that a high-quality product will command a premium price in the market that will give southern fisheries millions of dollars of added financial return for their efforts, then and only then will the industry invest a portion of this prospective revenue in new equipment for processing, packaging, materials handling and refrigeration so as to safeguard the quality of the product all the way from the water to the consumer.