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FRESH SEAFOOD MARKETING PROGRAM:

MANAGEMENT, QUALITY MAINTENANCE AND SANITATION, MERCHANDISING, AND PROFITABILITY ANALYSIS

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Extension Division • Sea Grant
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SECTION 1

Workshop Information

**A FRESH SEAFOOD MARKETING WORKSHOP: MANAGEMENT, QUALITY
MAINTENANCE, MERCHANDISING, AND PROFITABILITY ANALYSIS**

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FOR FUTURE

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Fresh Seafood Marketing Program

Virginia Tech Sea Grant
Mid-Atlantic Fisheries Development Foundation, Inc.
National Marine Fisheries Service

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Program

8:30 - 9:00 a.m.	Changes in the Trends of Seafood Marketing and Consumption in the U.S.A.
9:00 - 10:00	Philosophy of Operating a Fresh Seafood Marketing Department (Purpose, Objectives, and Action Plan)
10:00 - 10:15	Coffee
10:15 - 11:30	Developing a Management System for the Seafood Department -- Defining the Duties, Authority, Controls, and the Training Needs of the Seafood Department Manager
11:30 - 12:00 N	Maintaining Quality and Sanitation Standards in a Seafood Department
12:00 - 1:00 p.m.	Lunch
1:30 - 2:30	(Continue) Maintaining Quality and Sanitation Standards in a Seafood Department
2:30 - 3:00	Effectively Merchandising a Seafood Department
3:00 - 3:15	Coffee
3:15 - 4:45	(Continue) Effectively Merchandising a Seafood Department
4:45	Summary of Workshop

Overall Objective of the Fresh Seafood Workshop

The major seminar objective is to train seafood department managers in buying, processing, packaging, merchandising, and in performing other managerial duties in a retail store seafood department to maximize consumer satisfaction leading to increases in sales, in-store traffic, and profit. Owners, corporate staff, and store managers can benefit by utilizing the information presented in such management decisions as 1) determining the advisability of establishing a retail seafood department, 2) expanding an existing seafood department, and 3) assisting in establishing departmental operating standards for a seafood department.

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The Purpose of a Fresh Seafood Marketing Workshop for Retail Grocers

The purpose of this fresh seafood program is to educate retailers and their staff relative to the management skills needed to profitably market fresh seafood in a retail store. This workshop is designed as a one day course and encourages learning through participation. Participants work together in small group sessions during almost one-half of the time of the workshop.

Our seafood marketing program development was supported through the leadership of an industry oriented planning and advisory committee of seafood marketers and food retailers. Retail food store managers located in Virginia, Pennsylvania, Maryland, and West Virginia contributed information, data, and suggestions for the workshop.

The program content and materials focus on a systems approach to managing a seafood department. The workshop is taught in three segments: management, quality maintenance and sanitation, and merchandising. The notion of profitability is woven into each section with a major stress put on the seafood marketing manager as the key to success. These materials are created and presented in workshop form to show a retailer where fresh seafood marketing fits into his retail store and the planning and implementation needed by top management to make the system work.

These fresh seafood marketing workshops are available upon request. Each program should be conducted in cooperation with a food industry trade association. For best results, a three month planning horizon should be established prior to the workshop.

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FRESH SEAFOOD WORKSHOP STAFF

Charles W. Coale, Jr., Professor of Agricultural Economics, Virginia Polytechnic Institute and State University. Charlie's areas of interest include management development and operations analysis related to food processing and marketing firms. He is the coordinator of the Fresh Seafood Workshop and has worked with the Virginia Tech Advisory Committee and the Pennsylvania Food Dealers during the preparation of this workshop notebook.

Laurie M. Dean, Formally Home Economist/Research Associate with the Food Science and Technology Department, Virginia Tech. Her interests are in marketing of seafood from the consumer's perspective, and marketing of "non-traditional" or "under-appreciated" species of fish and shellfish. Laurie has served as seafood manager for Lou Smith's Supermarkets, Newport News, Virginia.

George J. Flick, Professor of Food Science, Virginia Polytechnic Institute and State University. George's specific field is in chemistry, technology, and micro-biology of seafood products. His extension and research interests focus on the utilization of marine food resources. He collected data supporting the development of this merchandising notebook.

Michael G. Haby, Extension Seafood Marketing Specialist, Texas A & M University. Michael has worked with the seafood industry on Long Island with the New York Sea Grant Extension Program. His major interests in seafood marketing are developing alternative marketing channels for fresh seafood and retailing underutilized fishery products.

Don L. Long, Professor of Agricultural Economics, Virginia Polytechnic Institute and State University. Don has authored and co-authored several extensively recognized management workbooks and materials and has conducted numerous workshops with managers of agribusiness and food distribution firms including seafood. He is the author of the handout, The Job Analysis -- A Management Tool, and the architect of the Job Analysis Chart.

James H. Wallace, Executive Director, Virginia Marine Products Commission, serves as liaison between the Virginia seafood industry and the retail and institutional seafood markets. Mr. Wallace presents the industry supply prospective during the Fresh Seafood Marketing Program. Jim has about 14 years experience with the seafood industry serving as a staff member for the Virginia Marine Resources and Product Commissions.

Donn K. Ward, Assistant Professor, Virginia Polytechnic Institute and State University. Donn is associated with the Food Science and Technology Department's Seafood Processing and Research and Extension Unit in Hampton, Virginia. His extension and research interests have focused on seafood quality maintenance and quality determination, as well as utilization of marine food resources.

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E. N. Boyd, Director, Virginia Tech Sea Grant. Dr. Boyd is the Administrator of the Virginia Tech Program. He is University Representative to the Office of Sea Grant. His academic training centers in food science and technology.

George H. Harrison, Seafood Distributor. Mr. Harrison is the industry advisor to this seafood marketing project and a member of the Virginia Tech Marine Advisory and Educational Council. He is President of Harrison Seafoods, Inc., Newport News, Virginia.

Lewis F. Norwood, Food Industry Consultant. Mr. Norwood has served the Food Distribution Industry for thirty years with his service with National Association of Grocers of the United States (NARGUS), Extension Service, USDA, and the Food Distribution Research Society.

Charles R. Perkins, District Chairman, Southeast Extension District, Virginia. Dr. Perkins gives administration and program leadership to the Extension program in the Southeast District. He has served as an Extension Agent and Program Leader, Community Resource Development, in the Southeast District.

Hank Sitko, Executive Vice-President, Washington State Food Dealers Association. Mr. Sitko served as an advisor during the development of the Fresh Seafood Marketing Program. His previous position was Director of Public and Governmental Relations, Pennsylvania Food Merchants Association.

Clinton V. Turner, District Chairman, Northeast Extension District, Virginia. Mr. Turner gives administration and program leadership to the Extension program in the Northeast District. He has served as a Housing Specialist for Virginia State College, Petersburg, Virginia.

Evaluation of the Seafood Marketing Workshop

Sponsored by

Virginia Tech Sea Grant Program,

Virginia Marine Products Commission,

and

Mid-Atlantic Fisheries Development Foundation, Inc.

Workshop Location _____

1. For knowledge gained from this workshop, would you rate it:
Very Good _____ Good _____ Fair _____ Poor _____
2. What session(s) contributed to your needs and how?
3. What subject matter areas do you believe should be expanded in this workshop?
4. What subject matter areas would you eliminate from this workshop?
5. How do you plan to utilize the information gained from this workshop upon returning to your job?

Section 2

**TRENDS IN THE CONSUMPTION, DISTRIBUTION,
PROCESSING, AND HARVESTING OF SEAFOOD**

The material in this section was prepared by Nancy Heining, senior at Virginia Tech and Dr. Charles Coale, Professor of Agricultural Economics at Virginia Tech.

ACKNOWLEDGEMENTS

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Grocers' Spotlight, "Seafood Industry Continued to Grow During 1981",
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TRENDS IN THE CONSUMPTION, DISTRIBUTION,
PROCESSING, AND HARVESTING OF SEAFOOD

Nancy Heininger

In recent years, there has been an increase in the consumption of seafood, and supply has not kept pace with demand. There is little doubt that, into the foreseeable future, demand will continue to outstrip supply. Therefore, it is important that fishermen, processors, wholesalers, and retailers be aware of the trends in consumption, distribution, processing, and harvesting, that will influence their enterprises.

Trends in Consumption:

More people are discovering the nutritional value of seafood. Seafood is high in protein and low in saturated fats and calories. Consequently, health conscious consumers have created an increase in the consumption of seafood. Also, more people are discovering the flavor value of seafood. The public has been made aware of the pleasures of a varied diet of foods that have been well prepared. Seafood has been, and will continue to be, promoted as a palatable alternative to commonplace dishes. Consequently, there has been an increase in consumer demand for seafood dishes in restaurants and for seafood products for home preparation.

For preparation at home, consumers are looking for a wide variety of fresh seafood of consistent quality. They want to know about the various seafoods and how to prepare them. They also want seafood packaged in convenient forms. Mr. Jim Wallace, a seafood marketing specialist, has stated that "Consumers would like to be better educated in preparation techniques . . ." Retailers must be sensitive to these trends and provide

consumers with the seafood products and services they desire, and the seafood processing industry must support the retail industry by providing quality products packaged in convenient forms.

Mr. Jim Wallace has also said, "Consumers would like to be better educated [about] the substitutability of specie types." But, one of the problems being encountered by retailers promoting underutilized species is the resistance by consumers to accept fish with strange names. As the Seafood Selection Guide by Catch America pointed out, names such as "fresh hogchoker" or "poached coag" are not very enticing. As an approach to this problem, the National Marine Fisheries Service has developed Edibility Profiles that group fish according to their edibility characteristics. Edibility Profiles can be used as educational and promotional tools and can help the industry better manage its product mix. Retailers can use the Edibility Profiles to educate consumers about the substitutability of species. Edibility Profiles aid the total industry in managing the seafood mix at all levels.

Traditionally, consumers have enjoyed personalized retail service and have patronized those establishments that provided it. But, because of consumer demand for quick and convenient shopping, personalized service seafood departments may be replaced in the future by self service seafood departments, but conflicting opinions have arisen concerning this. Mr. Lewis Norwood, a food industry consultant, and Mr. Jim Wallace have indicated they feel self-service will replace service due to the economies of size of seafood processing operations compared to similar operations in the supermarket. On the other hand, Ms. Susan Mayo, a consumer affairs specialist for Farm Fresh Supermarkets, believes service departments will remain in the supermarkets for some time to come because consumers need and enjoy personalized service.

Mr. Ozzie Petri, Director of Meat Operations, Giant Food Stores, Inc., has successfully implemented self service in his stores for years and believes self service is the trend for the future. Many people interviewed believed that the industry will move to self service operations. Even though some felt this may hurt their business because of the lack of personalized service, others felt that with proper packaging, displays, and promotion--accompanied by readily available information on specie types and cooking methods--self service would satisfy consumers needs and desires.

Trends in Distribution:

Although supermarkets are responsible for a large percentage of the increase in seafood consumption, there are two problems that they need to overcome to strengthen the seafood distribution process. First, since seafoods are different than red meats and poultry, employees should be trained both in consumer information and product handling. To resolve the problem of inconsistent employee knowledge, a greater cooperative effort between retail outlets and the seafood industry could result in employee education that would build confidence in the consumer. Second, since time and temperature are the two most critical factors in maintaining product quality, employees need proper training in all phases of quality maintenance at the retail level. The higher the quality maintenance standard in the retail store, the larger the shelf life and the more wholesome the product.

Specialty shops that provide seafood canned, preserved, frozen, and fresh with readily available recipes, information, and advice are convenient for the consumer. However, as more supermarkets provide similar products and services in seafood departments, they are also providing the consumer with a one-stop supermarket convenience. This will put specialty shops at a competitive disadvantage.

The fast-food industry deals primarily with breaded or fried seafood products. Seafood is bought frozen and stored until use. Trends within the fast-food industry have a minimal affect on the retail industry. This is due to the limited variety of seafood served by fast-food restaurants versus the broad product mix at the retail level and in the different marketing sectors. However, the fast-food industry does compete for supply.

Trends in Processing:

The most significant trends in the seafood processing industry are the development of processing technology, packaging technology, and joint ventures and the consolidation of facilities such as in seafood industrial parks.

Examples of the developments in processing technology include automatic scaling equipment, filleting equipment, and continuous conveyers to move the product through the processing plant. In addition, processing rooms within seafood plants are air conditioned to maintain proper temperatures during processing operations. These new methods tend to make the workers in the seafood processing plant more productive. Consequently, processing labor costs are being reduced.

The most significant trend in packaging is that the processing industry markets less whole fish in 50-pound boxes, and packages more fish in quantities and forms convenient to the consumer. The trends currently show a market preference for seafood in a chill pack (fish iced and chilled to 28-32 degrees Fahrenheit). These chill packs are available in 20-pound consumer packs or in individual tray rack portions.

There are promising packaging materials on the horizon. One provides a sterile package in which seafood would have a shelf life of up to one year. Another is a modified-atmosphere package--seafood would be wrapped in various

materials, then flushed with inert gases. These packaging methods are not yet accepted by the industry regulatory agencies, but they offer considerable economic advantages to the total industry. Sterile packaging extends the shelf life of seafood and allows it to be stored at room temperature, thus reducing the energy costs associated with quality maintenance.

Over time, the seafood industry will move toward centralized harvesting and processing facilities in seafood industrial parks. These industrial parks have the advantage of being located on the waterfront, and they have the ability to process large volumes of seafood. However, the large capital expenditure can act as a barrier to entry. Other problems involved the availability of labor at the plant site and whether producers would be willing to support a centralized facility within their area. As it was pointed out by Mr. Cranston Morgan, a Virginia seafood processor, the plant being built in Newport News was predicated on too few producers stating they would use the facility. For the most part, producers felt centralized facilities in the state of Virginia would not be feasible in the next ten to twenty years. Although many feel the centralized facilities could be the key to the control of seafood quality, which consumers question at this time.

Trends in Harvesting:

There are several positive trends and one negative trend in the harvesting of seafood. The first positive trend is the increasing of the territorial fishing grounds (200 miles) of the United States to provide more control over the domestic fisheries. Another issue is the economic incentive provided fishermen to expand their fishing fleets through the tax incentives for capital construction funds. These tax laws have encouraged the additional domestic production of fishing vessels, and fishermen have enlarged their fleets.

The negative trend is the interruption in the continuous supply of fish. Problems include the seasonality of various species, quota systems and interruptions due to weather. Each interruption forces management at all levels to manage the existing product mix more efficiently.

Trends in seafood consumption, distribution, processing, and harvesting can be used by the management personnel of the various seafood industries to formulate guidelines for future progress and profit.

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June 1982.
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5. F.M.I.

Overall, this consumer attitude study suggests there is an opportunity for increasing in-home consumption of seafood by taking advantage of the inherent benefits of fish. Consumers have a very favorable overall attitude toward seafood and regard it as offering variety, nutrition and novelty to their household menu planning.

- Consumers' awareness, attitudes and behavior relative to seafood consumption, are greatly influenced by their childhood, ethnic and religious backgrounds, and by the part of the country in which they were raised

- One's taste for seafood appears to be acquired at an early age; a greater positive exposure to, and experience with fish early in life, may foster increased consumption in future generations.

- ... This suggests the importance of creating interest in seafood consumption among today's young people.

- People expressed a strong preference for fresh fish in contrast to frozen fish. Fresh seafood was strongly and consistently viewed as offering superior taste and texture to both the frozen ("fresh frozen") and canned varieties.

- In fact, the most outstanding characteristic and quality consumers demanded in seafood was "good" fish was synonymous with fresh fish.

- People believed that good, fresh seafood was not readily available and accessible to them except in outlets such as fish markets, that specialize in fish.

- As a result of these beliefs and the inconvenient aspects related to shopping at fish markets, over 60 percent of all seafood consumption occurs outside of the home ... in restaurants.*

- Frozen prepared seafood products were basically perceived as lacking in quality and described as unappealing. Many consumers complained that this form of fish product was comprised of a small proportion of actual fish with a relatively high proportion of breading.

- Compared with those of other food sources, consumers' self-described perceptions of and behavioral patterns in relation to seafood purchase and consumption differed in a variety of ways.

- Many men and women believed that fish was the most fragile of all foods, and therefore, people were much more likely to demand that fish be "guaranteed" fresh at the point of purchase. (The guarantee is psychological rather than literal.)

*Source: U.S. Department of Agriculture, 1979.

—Seafood was viewed as being extremely perishable, and consumers expressed serious concerns about the possibility of food poisoning.

—As a result, panelists explained that unlike other foods, fish must be purchased and consumed on the same day. Consumers were additionally more concerned about seafood's capacity to be refrigerated or frozen at home than they were with other foods or protein sources.

- Factors which seemed to inhibit greater in-home consumption of seafood involved those both practical and psychological in nature.

—From a practical standpoint, with the exception of Boston, consumers reported a general lack of availability of fresh fish.

—In addition, seafood was commonly perceived to be a very expensive household menu item, whereas in years past it had formed the basis of a comparatively economical meal. Therefore, home fish consumption tends to be limited and irregular in occurrence, with shellfish being served only on very special occasions.

—Psychologically, people felt a greater lack of familiarity and competence in selecting, preparing and cooking seafood than they experienced with other foods. Therefore, consumers expressed a reluctance to purchase fresh seafood for in-home consumption more frequently. At the same time, they perceived the alternative, frozen seafood, to be inferior in quality as well as unappetizing.

—Home storage and retention concerns further served to restrict and limit consumers' in-home usage of this food product.

- The supermarket was not considered a primary source of quality seafood. Consumers expressed a lack of awareness of the location, or in some cases, even the existence of a fish department in their supermarkets.
- In general, there was dissatisfaction with the supermarkets' presentation of both the fresh and frozen seafood departments.
- In comparison to the vast size of and selection available in the meat and poultry sections, the very small sized fish departments in supermarkets generated negative impressions among would-be seafood shoppers.

—Consumers reported they feel the supermarkets' seafood is not fresh. There appears to be little product turnover, and people are not buying fish at the supermarket because they have the impression that the stores are not interested in selling seafood.

... This seems to perpetuate a vicious circle in which the supermarkets' negative cues create unfavorable impressions among the shoppers who then do not purchase the seafood product which reinforces the consumers' impressions that the supermarket is not interested in the sale of fish.

- It is evident that many opportunities exist for the seafood and supermarket industries to increase in-home consumption of seafood in the United States.
- Consumers exhibited a very strong receptivity to the option of purchasing seafood in the supermarket, provided that the supermarket offers them the qualities they seek in the seafood category. It is readily apparent that the supermarket industry is faced with a great business opportunity to merchandise and sell fish, making purchase of this food category more a part of the consumers' regular supermarket shopping experience.

—Perhaps these opportunities might be realized through implementation of efforts addressing the consumer as well as the supermarket operator, such as:

- ... Providing the American public with educational and informational materials emphasizing the values, benefits and characteristics of various types of seafood, and helping consumers develop a greater familiarity with the seafood category overall;

- ... Generating awareness among consumers and informing them about the benefits and virtues of the frozen fish variety.

—The research suggests that a synergistic multistage program undertaken by supermarkets interested in expanding their share of seafood sales could have positive results. Such a program might be comprised of the following aspects:

- ... Redefining and establishing the supermarket as a more viable outlet for seafood purchasing. Taking steps to transform the image of its fish departments by providing both the physical and psychological cues currently present in fish markets;

- ... Increasing fish department traffic by promoting a “fish store” image in the seafood section of the supermarket;

- ... Developing an educational and promotional campaign directed to supermarket managers which would show them how to increase their profits by more attractively presenting seafood to consumers;

- ... Creating and utilizing educational materials for behind-the-counter personnel to help them become expert seafood merchandisers.

—The research also suggests a need to address the current decline in consumer interest in the frozen seafood category by:

- ... Improving the quality of the frozen seafood product;

- ... Enhancing the image of frozen and “fresh-frozen” seafood products;

- ... Creating more eye-appealing and purchase-motivating packages for the various forms of frozen seafood products.

- As the above mentioned objectives are being addressed and achieved, a final program phase might be initiated to develop and implement an image-building, advertising and promotional campaign for seafood, both fresh and frozen. The intent would be to both increase consumption among current users and to attract new users to the category.

—Similar to the efforts made by the American Dairy Association for milk, and the raisin and orange industries, advertising might present seafood consumption as both a healthful and fun experience.

SECTION 3

Managing a Fresh Seafood Department

The material in this section was prepared by Dr. Charles W. Coale, Jr., Professor of Agricultural Economics; Dr. Don L. Long, Professor of Agricultural Economics, Virginia Tech; Mr. Lewis F. Norwood, Food Industry Consultant, Fairfax, Virginia; and Mr. Michael G. Haby, Extension Seafood Specialist, Texas A & M University, College Station, Texas.

The Role of Management in Marketing Seafood at Retail

Charles W. Coale and Don L. Long

Top management in independent retail food stores have developed a keen interest in marketing fresh seafood in their stores. However, there are many barriers which they must overcome in order to be successful. Typically, fresh seafood has been limited in supply, fluctuates in price and quality, and is a high cost item when small volumes are handled in the retail store. These problems were too much for most retailers to easily overcome and most independent retailers preferred not to get involved with fresh seafood.

Times have changed. U.S. policy decisions have influenced the supply situation in the coastal states: 1) the off-shore fishery has become more regulated; 2) territorial limits have been moved 200 miles from the boundaries of the U.S., and 3) a quota system prevents overfishing of species. Also, favorable conditions exist for boat financing, and tax incentives further stimulate interest in the off-shore fishery. Chain stores have developed an aggressive attitude toward marketing fresh seafood and their sophisticated merchandising methods divert customer traffic from stores not marketing fresh seafood.

The first step in developing a successful fresh seafood marketing program is commitment by top management. They must be willing to support a fresh seafood program through the assignment of qualified people, the allocation of funds, and facilities. A fresh seafood department must be integrated into the total store and be viewed as a sales and profit generator. Management must make the commitment that fresh seafood is a vital part of the store.

The second step by management in supporting a fresh seafood department is assigning qualified people to manage the department. Our VPI&SU seafood program focuses on the seafood manager as an important resource in the success

of a seafood department. Fresh seafood marketing does not just happen in a retail store but is the result of a carefully planned and organized effort on behalf of management. Top management with their commitment to a seafood department works hand-in-hand with the manager of the fresh seafood department to ensure a positive contribution to store overhead. The seafood manager must accept the responsibility of operating the department profitably, be given sufficient authority to accomplish his duties, and be held accountable for the results. The success or the failure of the fresh seafood department rests on the shoulders of the seafood manager.

The third step management must take in supporting a successful seafood department is the endorsement of a marketing plan -- sales, procurement, merchandising, inventory, etc., unit plans -- and tie these plans to an operational budget. Written plans must be flexible and accurate, and supporting funds be made available by management for operating the department. The written plans and the budget must be realistic and fair when compared to other departments in the store.

The final step expected of management in supporting a seafood department is providing adequate auxiliary and support facilities. Store management must assign the total space necessary to support the financial and non-financial objectives set for the seafood department.

In summary, there are four contributions expected from management to ensure a profitable operation from its seafood department. These contributions are: a commitment from top management, staffing with qualified personnel, formulating a written marketing plan and operating budget, and allocating adequate facilities for in-store merchandising and auxiliary support for product handling and storage. These contributions support another profit opportunity in the retail store.

Effective Management
of the
Seafood Department

Charles W. Coale, Jr.

and

Lewis F. Norwood, Jr.

Introduction

Seafood and seafood products are gaining popularity with many segments of society in America. Americans want a wholesome diet and a reasonable cost. Seafoods contribute to that objective. This new found interest by consumers in a variety of seafood requested at the seafood department tends to baffle some seafood managers. The principles, procedures, and practices of management contained in this workbook show why seafood is different from other foods. Seafood department managers utilizing this knowledge can more effectively think through the seafood needs of their customers and determine how to serve these needs profitably.

Top management plays an important role in the success of the seafood department. To create a successful department as noted, management must make a commitment to support the seafood department. This overall support is demonstrated by assigning qualified and trained personnel, an adequate budget and facilities. A management plan containing the seafood department purpose, objectives, and action plans insures the success of the department. You will

work through several case study exercises in this book that will help you better understand your role in support of the department.

The Purpose of the Seafood Department

A retail food store and its seafood department, if it is to be profitable, must meet the needs of its customers in the local trade area. In turn, to meet the needs of customers, retail food store management must know who their customers are, and what are their unique food needs, see results of instore surveys page 3-56.

Management Principle - "The needs of customers in a trade area must be met if a seafood department is to be profitable."

The first step toward accomplishing this principle is projecting an image of your store that fits the customers in the local trade area. Customers needs can be determined by retailers knowing a shopper's income, employment status, ethnic background, age, or by instore surveys concerning likes and dislikes for seafood and seafood products and services. Customer seafood needs stated in the form of a purpose statement for the seafood department guides management to an effective marketing program and results in customer satisfaction through value for the food dollar.

The purpose statement of a seafood department should take into account the needs of consumers based on their incomes, employment, tastes and preferences for seafood. For example, if a retail store is located in a trade area where customers have high incomes, a seafood manager might market an abundance of items such as crab meat, lobster and high valued fin fish. In trade areas where incomes might be lower, under utilized fish species such as

blue fish might be offered to customers. In all cases, customer needs for seafood must be met for the department to be successful and profitable.

The purpose statement for a seafood department consists of about six categories (components). A purpose statement for the case study store "Landover Supermarket" might read as follows:

Purpose of the Landover Seafood Department - "To increase store traffic and sales by providing customers with a wide selection of fresh and wholesome seafood products and services at prices that reflect a value while contributing adequate returns to the food store for the resources used and providing self satisfaction to the employees involved in the department."

WHAT IS THE SIGNIFICANCE OF EACH PART OF THE PURPOSE STATEMENT?

"To increase store traffic and sales . . . "

This statement creates an agreement among store management that greater emphasis will be given to the seafood department. At the same time, the seafood manager will need additional resources (personnel, finances, space, etc.) and operational plans to make this phase of the purpose statement a reality.

" . . . by providing customers with a wide selection of fresh and wholesome seafood products and services . . . "

This segment of the purpose statement implies that management should provide about 12 to 20 seafood items for customers to choose among in the seafood department. It may also imply that customers shopping at Landover have relatively high incomes. It also indicates that management is committed to merchandising a high quality product mix. The wording "wholesome" means that added care in handling and inventory control will be expected from employees. Adequate "services" in the department will be provided to support the quality of seafood and seafood products until the purchase is completed.

" . . . at prices that reflect value . . . "

Landover customers will be given products that represent value for their food dollar. A related que - "wide selection" - will provide customers with an opportunity to do comparison shopping. This enhances the choices available to the value seeker. It provides further customer satisfaction available from the seafood department.

" . . . while contributing adequate returns to the food store for the resources used . . . "

Prices should be set competitively in the seafood department to realize an adequate gross margin. The gross margin dollars supports the expenses incurred plus a contribution to overhead in the department. Management should set a contribution to overhead objective expected from the seafood department. Accordingly, departmental prices, gross margins, should be competitively set and costs controlled to realize the financial objectives expected by management.

" . . . while providing self satisfaction to the employees involved . . . "

Key personnel in the seafood department will determine its success or failure. Those employees must realize the opportunity to work for themselves as well as the company. Seafood marketing is a new venture for many retail stores, consequently, additional training and employee orientation will be necessary to develop and maintain seafood department employees on the competitive edge.

The value of the purpose statement is to define the product and service mix for the seafood department so that the needs of their customers are met. A well thought out purpose statement will ensure a profitable department. In general, the "purpose statement" of the department sets the philosophical standard for the department. The "statement" recognizes the "key factors" in the seafood game--the customer, the store image, the seafood products and services, and the employees of the department. The "purpose statement" of the department is the cornerstone of the management philosophy of the seafood department.

Setting Objectives for the Seafood Department

Retail food dealers operate their stores with certain objectives in mind to ensure their competitive position in the trade area. These store objectives are broadly stated relative to total sales, gross margins and expenses. These store objectives can be accomplished only if each department contributes to the overall results of the store operations.

The seafood department has not always been viewed as a potential profit making department by many food retailers. There were many external and internal problems associated with a seafood department both of which created a negative image for many retailers. For years, a simple solution to seafood marketing for many food retailers was to stay out of the seafood business. Today, many of the operational problems associated with the seafood department are being eliminated, making the handling of seafood more profitable for food retailers.

Management Principle Two - "A successful seafood department should have objectives set for total sales, gross margins, and expenses."

John Troke said, "Objectives are like mile markers on a highway." They keep you on the path and identify your progress toward your destination. Objectives serve that same value for a seafood department manager. A seafood department "purpose statement" sets the broad boundaries of the department--objectives further refine the purpose of the department.

Seafood department objectives deal with personnel, preparation, products, and profit (the 4 p's). Stated objectives enable a manager to compare actual operational results with stated benchmarks. They provide information to a manager to guide the department to meet customer needs profitably. The seafood department may have many objectives that relate to its operation. In keeping with the last stated management principle, it is suggested that at least the following objectives be set for a seafood department: sales, gross margin, shrinkage, direct costs, sales per employee, instore traffic, and contribution to overhead.

Specifying Objectives and Action Plans for a Seafood Department

Objectives for the department should be written simply so that they are easily understood by those persons using them. They will be used by top management, seafood department managers, and all personnel working in the department. Objectives should be measurable, have a time limit assigned, and expressed in either absolute or percentage terms. Suppose Landover Food markets sold \$2,000 of fresh seafood each week but wanted to increase that amount. A sales objective might be stated as follows:

"To increase sales of fresh seafood by three percent by June 30,
198_.

This implies many things to the seafood department management and staff when it comes to accomplishing this objective. Each implication (concern) should be handled in an action plan supporting a sales objective. These implications might mean more customer traffic in the store and department, higher product prices, more departmental service and support activities, and allocation of more merchandising space. It may or it may not mean all of the changes result from making an objective statement, but some changes should result. The impact of the changes can be compared by measuring desired with actual results.

What are some of the implications from the sales objective cited above? Assuming the department has a specified period to work toward a stated objective, three percent more seafood will be sold through the department. This means sources of supply and additional display area may be needed. The department may be relocated in the store or a new departmental image created.

An action plan should be developed to support each stated departmental objective. For example--to increase seafood department sales three percent. How will this objective be realized? Information from other sections in this paper will become part of the action plan for the sales objective.

Action Plan -- How to increase seafood department sales by three percent?

1. Expand the number of products offered in the department.
 - a. Who are your customers and what are their preferences for seafood?

- b. What species are available and how do they match customer preferences?
2. Promote new items.
- a. Have available seafood recipes.
 - b. Conduct seafood cooking demonstrations.
 - c. Coordinate newspaper and instore advertising.
 - d. Utilize plan-o-grams in seafood department.

There are many other action plans supporting the sales objective but the two subprograms illustrate the coordination needed to meet the stated sales objective.

Gross Margin Objective

The gross margin dollars provide operating funds for the department. Gross margin dollars minus operating expenses provide contribution to store overhead (contribution from seafood department to store). Components of a gross margin objective result from product mix, product prices and volume in the sales plan. The overall gross margin percentage is a weighted average of the seafood department products sold. A gross margin set at 20 percent on crab meat and at 50 percent on blue fish gives an overall gross margin range between 21 and 49 percent depending on the volume of products sold. Setting an overall gross margin gives a seafood manager great latitude in meeting competition by adjusting the prices on each seafood product merchandised. Attaining the overall gross margin objective will be accomplished when seafood supplies are plentiful and the most difficult during product scarcity.

Action Plan for Accomplishing Gross Margin Objective

1. Better signage in the department.
 - a. Permit customers better comparison shopping.
 - b. Show the value in the department.
2. Merchandise more whole fish.
 - a. Weigh and price the whole fish before filleting.
 - b. Buy the specie in plentiful supply.
 - c. Increase the number of specie marketed.

Expense Objectives

Three categories of departmental expenses are important to the seafood manager. They are shrinkage, direct costs, and sales per employee. Shrinkage is defined as any seafood items not sold but thrown away (spoilage) or walked away because of security voids. Shrinkage will have a direct affect on gross margins.

There will be some shrinkage in a perishable department such as seafood. Suppose the seafood manager set an objective of "3 percent for the shrinkage expense." What is his/her action plan?

1. Reduce spoilage of seafood products by 3 percent.
 - a. Use ice to cover inventory while on display.
 - b. Clean utensils properly to prevent contamination.
 - c. Rotate stock to retain shelf life of products.
2. Account for all incoming product.
 - a. Check weight and specie against invoice.
 - b. Make sure price charges are for specified products, i.e., if price marked for haddock--it should be haddock and not a substitute specie.

c. Make sure fish is a proper temperature when received.

The direct costs incurred in the seafood department are those costs allocated directly to the operation of the seafood department. A few examples of direct costs are labor, wrapping paper, and receipts. These costs are charged against gross margin dollars generated in the department. Efforts to control these expenditures will direct more of the sales dollars to the contribution to overhead.

Action Plan for Controlling Direct Costs Objective

- To maintain labor costs at \$5.00 per hour including fringes.

1. Be more selective in hiring of personnel.
2. Schedule work on a priority basis in the department.
3. Devote 20 minutes to employee training per day.
4. Pay on performance.

- Direct Cost Objective

1. Study alternative packaging materials for merchandising value and costs.
2. Reduce waste by utilizing proper wrapping methods.

- "To hold receipt costs to present levels."

1. Focus on general receipts that apply to several similar species.
2. Print receipts in larger quantities to realize cost savings.
3. Provide exclusive receipts and writing paper for customer to copy them.

Productivity standards, set by the seafood manager, are important in controlling costs in the seafood department. The seafood department has

similar operating procedures and practices as the meat department. If these work standards are realistic, labor costs should be controlled. Sales per employee is measured in dollars (includes inflation) and is not expressed in physical units. Still, sales per employee should be a valid comparison to other departments in the retail store.

Sales per employee can be improved by an effective labor management program. Tasks in the department should be defined and written down. These tasks are summarized into duties and assigned on a priority basis. These duties are related to the work measured in the performance of the tasks to maintain a viable department. Specific details of a seafood department labor management plan, "Job Analysis-A Management Tool," illustrate the procedures a seafood manager has available to control labor costs in his/her department.

Management of The Seafood Product Line

Michael G. Haby

Introduction

Seafood retailing operations must simultaneously accomplish two objectives. On the one hand, sales from the seafood marketing effort should generate enough gross margin dollars to offset the direct departmental expenses and make some contribution to the store's overhead. On the other hand, the seafood effort should assemble, price, and present a mix of seafoods which, week in and week out, provides the trade area with a selection of affordable, acceptable products. Assuming that the average seafood line in a retail store contains ten to fifteen items, the merchandiser responsible for seafood must select the product mix from hundreds of fishery products¹. While selecting this mix seems easy superficially, interruptions in the seafood marketing system may continually plague the seafood merchandiser. These interruptions occur in both the supply of and demand for seafood products. Unless the seafood line is managed, interruptions in the marketing system can prevent the seafood retailing effort from attaining the two objectives critical to a seafood effort.

As logical as this may seem, management of the seafood product line at retail is one of the most neglected aspects of the seafood merchandising function. The objective of this paper is to provide background information about the seafood marketing system and sketch a strategy which will allow merchandisers to provide a profitable, competitively priced and acceptable mix of products to their customers. The requirement for success is a rethinking of why people buy certain seafood products to

1. The seafood line includes an array of finfish, crabs, clams, oysters, shrimps, mussels, and other items. Each species may be sold in a more or less processed state. For example, finfish are sold in many market forms ranging from whole fish to deep skinned fillets. Oysters are sold live or shucked. Shrimp price is based on size with at least 10 sizes on the market today. Many varieties of shucked and picked shellfish meat can be packed to the buyer's specifications with the price based on the quality of the pack.

he exclusion of others and a slight reorientation in the various functions of merchandising: product procurement, display, and communication with trade areas.

Seafood Supply

Seafood production is hunting. Vessels scour the waters in search of seafood. One of the most evident supply interruptions is seasonality. Natural fluctuations in climate and water conditions create variations in the presence and abundance of seafood varieties. This cyclical variation at least creates fluctuations in prices, and in extreme cases may affect the availability of products. Seasonality used to mean that at times of the year certain products were unavailable while during the "run" these varieties were quite abundant. This idea of "Feast or Famine" has changed, in part because of a more sophisticated harvesting effort and a more updated communications network among dockside buyers and seafood marketing intermediaries. Today seasonality implies price fluctuations based on the level of production. Basically when certain fish are scarce, the price paid to harvesters goes up and when fish are plentiful the ex-vessel price drops. With very little forward contracting done between fishermen and dockside buyers to even out price variations, seasonality implies price fluctuations based on the fishing year. Additional supply-side interruptions include the short term, irregular production variations created by weather, fish behavior and ocean conditions.

Seafood Demand

Demand is another factor which exerts quite an influence on the price for seafoods. From an overall industry perspective, demand for seafoods has been determined by historic use patterns. Therefore, products such as cod, haddock, flounder, shrimp, salmon, and tuna are traditional favorites and annually are good selling products. These var-

eties are in high demand almost perpetually and prices for these seafoods are generally high. There is another group of seafood items: the under-used, non-traditional, or seldom-seen varieties. This category encompasses everything else that does not get classified as "traditional". This product category makes up a tremendous resource capable of providing delicious meals. Examples of these non-traditional products include certain species of shark, whiting, cusk, hake, and many more. This category does not experience the more intense nationwide demand as do the traditional favorites. Therefore, without the intense demand for these seldom-seen species, the price is generally lower than for the traditionally-used varieties.

At the retail level the seafood department is often confronted with a customer who knows very little about seafoods. Research into consumers' attitudes has indicated that seafood shoppers are, for the most part, familiar with only a few of the many varieties available. Because of this unfamiliarity, shoppers perceive a genuine purchase risk and therefore do not buy unfamiliar items. This purchase risk has typically translated into low levels of demand and slow movement for all but a few of the traditional seafood varieties.

The idea of traditional and under-used species has a major demand implication for the retail seafood operation. Effective demand in a seafood department is influenced by a number of factors, all of which are interrelated. Certainly customers' familiarity with the product influences how intensively they will consume it, but concern for staying within budgets may force patrons to purchase other items in the meat department which are more reasonably priced. Therefore, seafood programs which incorporate a variety of traditional and seldom-seen products may find that profitability is enhanced because certain species, while still competitively priced, carry higher gross margins than some of the more traditional favorites.

From the standpoint of profitability, one of the best reasons for carrying a mix of traditional and under-used products is the way that price changes in a variety affect the consumption of seafood products. According to a study conducted at Virginia Tech, the factors which most affected the consumption of meat and seafood

products are changes in the prices for the product, changes in income, and changes in family size ². While price changes are only one factor which influences consumer demand, variation in seafood prices is the norm in the seafood industry. The effect of price changes in certain seafood items generally places the retailer in a no-win situation for that one item. As an example of how price changes affect the sales of seafood, researchers at Virginia Tech found that if the price of an item increases by 1%, the expected reduction in demand is reduced by more than the 1% increase ³. Multiplying out the prices and quantities demanded before and after the price change, total sales would be higher before the price increase.

For example, if the price of cod fillets increases from \$2.89 to \$3.49, it is reasonable to expect a reduction in the consumption of cod. Consumption may be increased through an aggressive, intense promotion and advertising effort, but is this a realistic alternative? Alternatively, the retailer may decide to maintain the same retail price after the price increase. Here the market manager would be trading off reduced gross margin dollars for constant turnover. In essence the department is carrying cod fillets to please customers, not management. As Tables 1 and 2 indicate, holding the retail price constant when the delivered cost increases will reduce the dollars available to cover store overhead expenses.

If price variation is a silent partner in the seafood marketing effort, how can a seafood department ever adjust itself so that a profit can be earned? The only way to achieve the dual objectives of profitably providing a competitively priced, acceptable product is to aggressively manage the seafood line.

2. Secondary factors include location of residence, the availability of complementary items, and substitute goods (Capps and Havlicek, 1981).

3. While the study was conducted on a national scale using historic data, it is logical to expect demand to decrease because of the price change since the meat mix at retail contains several alternative animal protein sources: beef, pork, poultry, and perhaps veal.

Table 1

Gross Margin Calculations Before Price Increase

SALES MIX	%SALES	COST	SELLING PRICE ¹	GM/#	#SOLD ²	TOTAL GROSS MARGIN
Cod	35%	\$2.60	\$3.88	\$1.14	215	\$ 245.10
Trout	45%	1.80	2.60	.89	412	366.68
Crab Meat	20%	4.50	6.71	2.21	71	<u>156.91</u>
						\$ 768.69 = 31%

1. Selling price calculated assuming 5% shrink, goal of 30% ending margin

a. Margin = $\frac{\% \text{ GM Desired} + \% \text{ Shrink}}{100\% + \% \text{ Shrink}}$

= $\frac{30\% + 5\%}{105\%}$

= 33% GM "going in"

b. Selling Price = $\frac{\text{Cost}}{100 - \text{GM Desired}}$

2. # sold take into account shrink and other fixed expenses

Direct Dept Cost = \$600.00/week

Contribution to Overhead = 100.00/week

Variable Costs = 2% Sales

30% Sales = \$700 + 2% Sales

Sales = \$2,500.00

	SALES	X	% SALES = ALLOCATION	+ S. PRICE =	#ORDERED	X .95 = #'s SOLD	
Cod	2500		35%	875	\$3.88	226	215
Trout	2500		45%	1125	2.60	433	412
Crab Meat	2500		20%	<u>500</u>	6.71	<u>75</u>	<u>71</u>
				2500		734	698#

Table 2

Gross Margin Calculations After Price Increase

SALES MIX	%SALES	COST	SELLING PRICE ¹	GM/#	#SOLD ²	TOTAL GROSS MARGIN
Cod	35%	\$3.20	\$3.88	.68	215	\$146.20
Trout	45%	1.80	2.60	.89	412	366.68
Crab Meat	<u>20%</u>	4.50	6.71	2.21	71	<u>156.91</u>
	100%					\$669.79 ³ = 26.8%

1. Selling Price

$$a. \text{ Margin} = \frac{33\% + 5\%}{100 + 5\%}$$

$$= 33\%$$

$$b. \text{ Selling Price} = \frac{\text{Cost}}{100 - \text{GM Desired}}$$

2. Sales K at \$2500.00/week

$$3. \text{ Cost} = \$600.00 + 2\% \text{ Sales} = \$650.00$$

Gross Margin - Costs = Contribution to Overhead

$$\$667.79 - \$650.00 = \$17.79$$

A Beginning Strategy for Management of The Product Line

One of the first steps in becoming more proficient at managing the product line is becoming more familiar with why people consume a certain species and not another. As an example, why do people eat cod? Familiarity with the species is important, but beyond "familiarity" there are other reasons: the flavor, color, texture, etc. Essentially, people eat cod because they enjoy the edibility traits which cod exhibits.

The typical manner of marketing seafood products does very little to help consumers become familiar with non-traditional varieties. Marketing seafood products is first done by species, and then by market form, and in some cases by size as in shellfish. Therefore "cod fillets", "swordfish steaks", and "select oysters" typify the retail identification for seafoods. Seafood is the only animal protein source that is retailed by species and market form. Retail identification for beef is based solely on the location of the cut. Poultry identification at retail is based on anatomical features such as legs, thighs, backs, etc. The typical industry practice of marketing seafood on a species basis creates an artificial sense of exclusiveness among species. This creates real barriers for consumers who are somewhat adventurous and willing to try other species because cod fillets sound nothing like ocean whitefish although the meat similarities are striking. Fortunately a remedy exists, but the trade has not adopted it.

Some years ago the National Marine Fisheries Service set out to describe the commercially harvestable finfish varieties in terms of meat edibility. The factors used to categorize each species were flavor intensity, fat content, odor, color after cooking, flakiness, firmness, coarseness, and moisture content after cooking. For each "edibility trait" a five point rating scale is used. When a particular species is rated on the bases of these eight edibility factors, a "fish taste" curve is the result. As indicated in Figure 1, the edibility profile for spotted seatrout and whiting or silver hake are essentially the same, with each species having a moderately mild

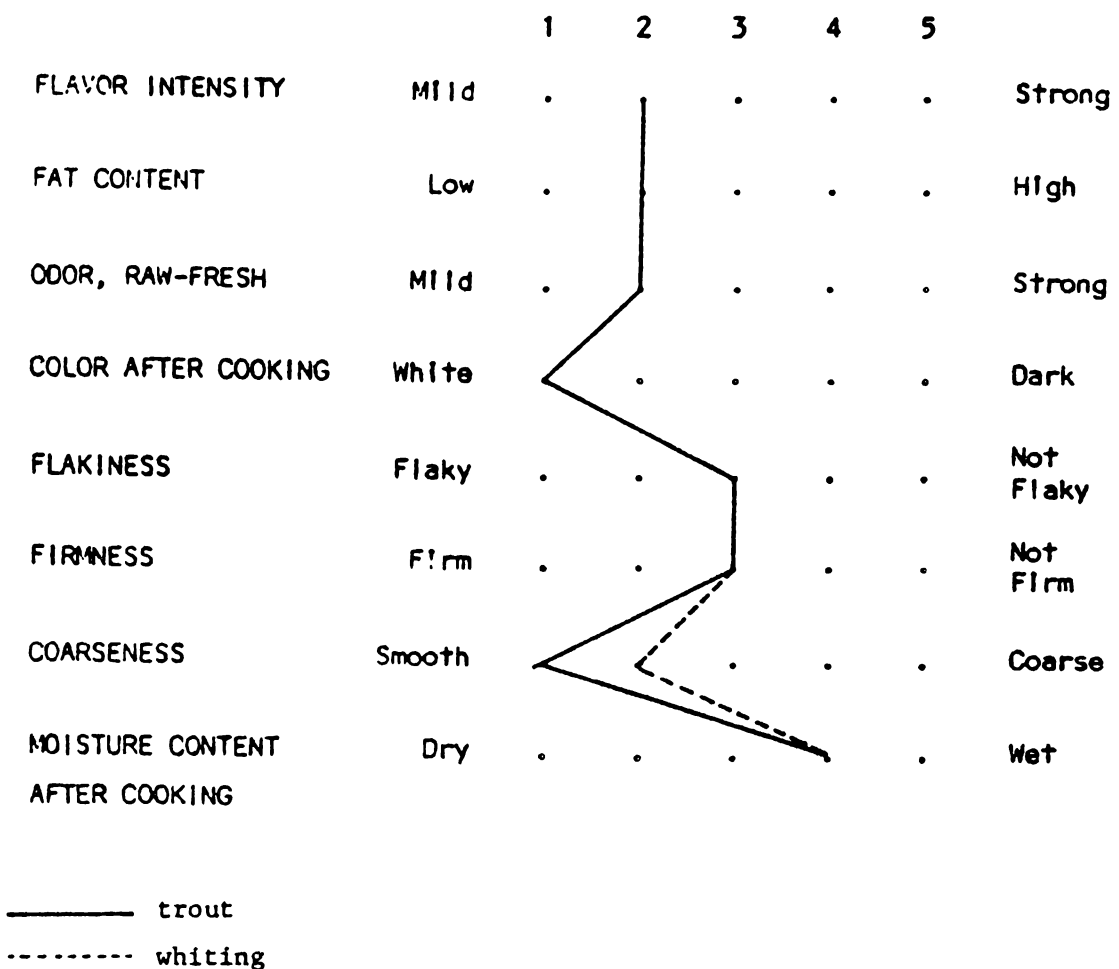


Figure 1
Edibility Profiles for Spotted Trout and Whiting

flavor, low fat content, average flakiness, and so on. These "fish taste" curves have been developed for about 130 varieties of fresh and salt water fish.

Once this data bank was developed, the next step in the retail identification proces was to develop some technique for categorizing groups of similar-tasting species. From the standpoint of consumer awareness, it was determined that two of the edibility factors were more important than the others. These two factors were flavor intensity and flakiness. As illustrated in Table 3, categorizing finfish meat by flavor and flakiness provides an objective means of 1) describing the edibility traits most important to consumers and 2) understanding the idea of substitutions among similar tasting varieties.

Table 3 provides an interesting perspective on the fish business.

Table 3

List of Commercially-produced Finfish Categorized
by Flavor Intensity and Flakiness

Mild & Flaky

Common name	Usual market form	Scientific name
Atlantic Cod	F ¹ , S ²	<i>Gadus mohura</i>
Cusk	F, PR ³	<i>Brosme brosme</i>
Haddock	F	<i>Melanogrammus aeglefinus</i>
Ocean Whitefish	F, S	<i>Caulolatilus princeps</i>
Pacific Halibut	S	<i>Hippoglossus stenolepis</i>

Mild & Moderately Flaky

Alaska Pollock	F	<i>Theragra chalcogramma</i>
Southern Flounder	F	<i>Paralichthys lethostigma</i>
Rainbow Trout	PR	<i>Salmo gairdneri</i>
Brook Trout	PR	<i>Salvelinus fontinalis</i>
Lake or Common Whitefish	F, S	<i>Coregonus clupeaformis</i>

Mild & Average Flakiness

Yellowtail Flounder	F	<i>Limanda ferruginea</i>
Petrale Sole/Brill	F	<i>Eopsetta jordani</i>
Rex Sole	F	<i>Glyptocephalus zachirus</i>
Summer Flounder/Fluke	F	<i>Paralichthys dentatus</i>
Dover Sole	F	<i>Microstomus pacificus</i>
Rainbow Smelt	PR	<i>Osmerus mordax</i>
Pacific Sanddab	PR	<i>Citharichthys sordidus</i>

Moderately Mild & Flaky

Red Snapper	F	<i>Lutjanus campechanus</i>
Atlantic Halibut	S	<i>Hippoglossus hippoglossus</i>
Spotted Grouper	F	<i>Epinephelus itajara</i>
Yellowfin tuna	S	<i>Thunnus albacares</i>
Black Sea Bass	F	<i>Centropristis striatus</i>
Sheepshead	F	<i>Archosargus probatocephalus</i>

Moderately Mild & Moderately Flaky

Winter or Blackback Fldr.	F	<i>Pseudopleuronectes americanus</i>
Lingcod	F, S	<i>Ophiodon elongatus</i>
Sand/Ground Shark	F, S	<i>Odontaspis taurus</i>
Striped Bass	F	<i>Morone saxatilis</i>
Amer. Plaice	F	<i>Hippoglossoides platessoides</i>
Turbot	F	<i>Psetta maxima</i>
Fla. Pompano	F	<i>Trachinotus carolinus</i>
Atlantic Croaker	PR	<i>Micropogon undulatus</i>

1. Fillets
2. Steaks
3. Pan-ready: headed, drawn, possibly finned depending on the species.

Table 3, cont.

List of Commercially-produced Finfish Categorized
by Flavor Intensity and Flakiness

Common name	Usual market form	Scientific name
<u>Moderately Mild & Average Flakiness</u>		
Ocean Pout	F	Macrozoarces americanus
Arrowtooth Fldr.	F	Atheresthes stomias
Sptd./Spkd. Seatrout	F, PR	Cynoscion nebulosus
Silver Hake	PR	Merluccius bilinearis
Pacific Pollock	F	Pollachius virens
Red Hake	PR	Urophycis chuss
Spot	PR	Leiostomus xanthurus
Greenland Turbot	F	Reinhardtius hippoglossoides
<u>Moderately Mild & Slightly Flaky</u>		
Butterfish	PR	Porontus triacanthus
<u>Moderately Mild & Not Flaky</u>		
Spiny Dogfish	F	Squalus acanthias
<u>Average Flavor & Flaky</u>		
Atlantic Pollock	F	Pollachius pollachius
Rockfish	F	Sebastes species
Swordfish	S	Xiphias gladius
Black Drum	F	Pogonias cromis
Sockeye Salmon	F, S	Oncorhynchus nerka
<u>Average Flavor & Moderately Flaky</u>		
Common Dolphin	F	Coryphaena hippurus
Ocean Perch	F	Sebastes marinus
Scup/Porgy	PR	Stenotomus chrysops
<u>Average Flavor & Slightly Flaky</u>		
White or Sand Seatrout	PR	Cynoscion arenarius
<u>Average Flavor & Not Flaky</u>		
Monkfish	F	Lophius americanus
<u>Moderately Strong & Moderately Flaky</u>		
King Mackerel/Kingfish	S, F	Scomberomorus cavalla
Atlantic Mackerel	F	Scomber scombrus
<u>Moderately Strong & Slightly Flaky</u>		
Spanish/Spotted Mackerel	PR, F	Scomberomorus maculatus

Table 3, cont.

List of Commercially-produced Finfish Categorized
by Flavor Intensity and Flakiness

Common name	Usual market form	Scientific name
<u>Strong & Average Flakiness</u>		
Bluefish	F, S, PR	Pomatomus saltatrix

Notice that in the category "Moderately mild and Flaky", red snapper - long the prize of Gulf waters has the same characteristics as the humble sheepshead. In the Texas market red snapper retails for about \$4.50 per pound while sheepshead carries a price of \$2.00 - \$2.25.

The category labelled "Moderately Mild with Average Flakiness" contains some interesting species. The silver hake, or whiting is a traditional favorite in the Northeast, appearing off the coast of Long Island in late October. Whiting are usually sold pan ready, with a retail price of about \$2.00. The whiting fishery lasts until March, and for the winter months represents a good value to shoppers. Spring and Summer is the season for seatrout. The size of the trout varies from 1 pound to 10. The typical market form for the smaller animals is pan ready, and the price per pound is roughly \$2.00. Therefore for those trade areas which prefer a lower priced fish, the trout/whiting combination can perpetually be carried, thereby dramatically reducing the effect of seasonality.

In the bolder flavored group labelled "Average Flavor and Flaky" the black drum and sockeye salmon are basically the same tasting product although the salmon has a brighter color. The price differential on these two products can be substantial with the black drum retailing for less.

Table 3 provides the introduction to an understanding of the substitutability between species of finfish. Based on some of the examples outlined above, it is clear that several typical supply-side interruptions can be managed by using the concept of

edibility. For instance, in a case when consumers' palates are adjusted to a particular tasting item which goes out of season, a similar tasting product can be substituted. So it is with seatrout and the silver hake, or whiting as it is known on the East coast.

As another example assume a trade area comprised of both middle and lower income households. By handling both the red snapper and sheepshead, each different income level can be satisfied with a good tasting product which fits into their budget constraint. The essence of Table 3 is similarity among species. Because so many species have such close similarities, seafood varieties can be substituted without sacrificing the more important edibility traits⁴. Using this tool adds extra skill in managing the seafood line. Product line management skill is enhanced for several reasons. First, a more analytical, systematic substitution process exists. Therefore, if the delivered price of a trade area favorite gets too high, a similar-tasting less expensive product of the same market form can be added to the mix. With proper promotional follow through the gross margin dollars generated by seafood sales need not change. Second, if displayed properly, the seafood effort can provide shoppers with the ability to comparison shop. Interestingly, retail foodsmen have found that positioning the mix so that consumers can actually comparison shop has increased the sale of private labels and generic brands, both of which carry higher gross margin percentages than do some of the national brands. A similar situation can occur for a fresh fish effort. Within the hypothetical category, fish with average flavor and a flaky texture, the following products may be found: pollock fillets, black drum, sockeye salmon. Black drum would be the lowest priced item while salmon would be the most expensive. Consumers would have a choice of three differently priced items, all of which cook up basically the same tasting entree.

Managing the seafood line to achieve the dual objectives of profit and satisfied customers requires that merchandisers and department managers factor out as many of

4. The two factors which consumers judged to be the most important elements in developing easy to use edibility profiles were flavor intensity and flakiness.

the artificial differences among finfish species as possible. These "contrived" differences baffle the customer, and in fact may intensify their sense of purchase risk. Imagine how intimidating a thirty five item seafood mix can be when the shopper may be familiar with only five items. Imagine how difficult it is for the infrequent seafood user to make a purchase decision strictly by species name alone.

The first and most difficult "difference" which can be factored out is taste similarities among species. Referring back to Table 3, it is clear that a host of seafood varieties have similar edibility traits. Understanding and using the idea of tested taste similarities is difficult. But, this concept can be the most important aspect of managing the product week in and week out. Favorite seafood varieties which are either unavailable or priced beyond comparable alternatives represent a lost sale. By more systematically selecting similar tasting varieties that are available and competitively priced, a better opportunity is provided for meeting sales and gross margin goals.

The second and more obvious difference that can be controlled is market form of the product. An example best describes this variable. A thick fillet of spotted seatrout would probably be prepared differently than a small pan ready whiting, even though the two species are practically indistinguishable in terms of taste. Therefore, categorize by market form as well as by taste similarity.

The last variable cannot be factored out: the cost of the item. Consumers can make intelligent decisions about cost when the differences in taste and market form are alleviated. Returning to the example of red snapper fillets and sheepshead fillets, when customers understand that edibility wise the two varieties cook basically the same tasting entree, then their individual budgets help make the purchase decision. Conversely, if shoppers are not aware of the taste similarities, then price does not play as major a role in making the decision as does familiarity with the variety. To return to the original objective, will red snapper move at the retail price needed to generate gross margin dollars? If not, then appropriate selections in Table 3 may.

Procurement is but one function in the merchandising process. Simply adopting the concept of substitutability among species is no guarantee of greater sales and profits. This concept must be subjected to the rigorous retail follow through that the retail food industry has made so famous. Specifically, sales and margin goals will only be achieved when the display techniques, point of purchase information and personal selling/service practices are consistent with procurement strategies.

A consistent display technique would be to segregate the case based on two variables: market form and taste. Within each market form category, seafoods of similar tastes could be arranged. Therefore when a patron views the "fillet" portion of the case she may see a variety of red snapper, black sea bass, sheepshead, and Atlantic halibut. Each of these varieties is categorized as being moderately mild and flaky, so by comparing the costs of each item a purchase decision can be facilitated.

Also, the varieties of point of purchase information should complement the idea of substitution among species. Generic recipe information makes sense because 1) it provides consumers with the idea that most any product will work in a recipe and 2) in printing, the cost will be reduced due to longer print runs. Annette Reddell Hegen, the Consumer Education Specialist with Texas A&M University has been developing seafood recipes for years. Annette has found that a generic requirement for "fish fillets" or whatever market form is appropriate, can provide delicious meals.

The training of counter people is extremely important. They should be well versed in the similarities among species and be prepared to assist shoppers.

Summary

Today we find an increasing interest in preparing seafoods in the home. While shoppers sense the value derived from greater seafood consumption, actually comparing and selecting seafood products is a difficult undertaking, in part because the consumer has very little "seafood sense". Customers rely on meat department employees

for information which reduces their purchase risk. The idea of substitutability among species is a way for the retail food industry to build customer confidence in the commodity and simultaneously realize the gross margin dollars necessary to keep seafood departments operating.

References

- The Brand Group, Inc. 1978. A Retail Identification Plan for Seafood Species: A Description of The Project and Recommended Principles of Identification. Chicago.
- Capps, O. and J. Havelicek Jr. 1981. Meat and Seafood Demand Patterns: A Comparison of the S_1 -Branch Demand System and the Constant Elasticity of Demand System. Virginia Agricultural Experiment Station, VPI&SU, Blacksburg, Va.

Job Analysis - A Management Tool
Don L. Long*

One thing that workers, at any level of employment, want is a definite knowledge of just what their employer expects from them. Few things are more demoralizing than to work hard on something or to produce something only to find that your boss really wanted something else. Frustration, unhappiness, and reduced output are the almost inevitable result, for both employees and employers.

A management tool that helps alleviate this problem is job analysis, accomplished by use of the Job Analysis Outline (Figure 1).

Figure I

Job Analysis Outline

Person _____
Job _____

Duties	Authorities	Controls	Resources Needed

Let's take this form apart, examine the parts, put it back together and reexamine it. The parts are: Duties, Authorities, Controls, and Resources Needed.

Duties

As mentioned above, people want to know just what their duties are. They want the boundaries of that duty to be well defined. One duty you might assign a produce department manager would be to generate at least \$12,000 of sales each week. He now knows exactly what you expect. You will be happy if he gets more than \$12,000 of sales, but you will be satisfied with that.

Yet, \$12,000 of sales gets at only part of that produce department manager's duties. You want them to be profitable sales. So, you may say he has a duty

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to get a 28 percent gross margin from that \$12,000 of sales. You may specify that you expect between 48 and 52 turns a year. You may specify that he should obtain those sales with not more than 8.5 percent labor expense. You may specify that the department's contribution to overhead be at least \$1,750. You might specify that the department be dressed by 9:30 each morning. You might specify that out-of-stocks should not exceed 5 percent. You could specify that the floor be cleaned once a day by 8:30 a.m. except Friday and Saturday when it would be cleaned twice, by 8:30 a.m. and between 2:00 p.m. and 3:00 p.m. The duties column now looks like this.

Figure II

Job Analysis Outline

Person Jake Parsons

Job Produce Manager

Duties

- | | |
|--|--|
| <ol style="list-style-type: none"> 1) \$12,000 sales/week 2) 28% gross margin 3) \$1,750 contribution to overhead 4) 48-52 inventory turns/year 5) Less than 5% out-of-stocks 6) Less than 8.5% labor expense 7) Floor cleaned by 8:30 a.m. each morning - also between 2:00 - 3:00 p.m. on Friday and Saturday | |
|--|--|

8) Department dressed

by 9:30 a.m.

These are not all the duties you would expect a produce department manager to perform. You would have others to add to this list.

Authority

It's difficult for most people to give up authority. Yet it is a necessity if you expect a duty to be performed satisfactorily. If you are going to expect your produce department manager to fulfill these duties, you have to give (delegate) enough authority to him that will permit him to accomplish it.

This means you look at each duty separately and ask yourself, "How far must this man be able to go if he is to get the job done? If I limit him too much, he will be hamstrung." In general, it's better to let him make too many decisions (exercise authority) than it is to let him make too few. If he's a good man, this helps build ego (and so morale) and he works harder to use his authority wisely.

Let's look at some possible authorities you might have to give or delegate so he can perform the duties already listed. Notice that each specific duty has one or more specific corresponding duty. Our Job Analysis Outline now looks like this. (Figure III)

Figure III

Job Analysis Outline

Person Jake Parsons

Job Produce Manager

Duties	Authorities
1) \$12,000 sales/week	To order sufficient produce to generate these sales. To set prices on items. To price items.

2) 28% gross margin	To set prices to obtain 28% for department. To vary mix to obtain 28% for department.
3) \$1,750 contribution to overhead	Freedom to price
4) 48-52 inventory turns/year	To price so will move. To cut prices on slow moving items. To vary orders as inventory dictates.
5) Less than 5% out-of-stocks	To order sufficient amounts to keep inventory at adequate levels.
6) Less than 8.5% labor expense	To schedule labor (include that assigned to work with several departments). To supervise labor assigned to department.
7) Floor cleaned by 8:30 a.m. each morning - also between 2:00 - 3:00 p.m. on Friday and Saturday	To schedule own and other department labor to accomplish duty.
8) Department dressed by 9:30 a.m. each morning	To schedule own and other department labor to accomplish duty.

Controls

These are the evaluation tools you use to determine how well your produce department manager has performed his duties and how well he has exercised the authority you gave (delegated) to him. They may be formal reports, informal reports, planned observations, spot checks. There are many types of controls you use. One thing to keep in mind is that these controls are evaluation tools rather than disciplinary. As such, they stress what the

produce department manager has done well just as much as what he may have done poorly. They provide the basis for column 4 (resources needed).

Another thing specified controls accomplish is that the worker knows how he is being evaluated. He already knows what is expected of him and how much authority he has. Now he knows the way in which you are judging him. He can use the same means for both self-evaluation and as a check to determine whether your evaluation is correct. There should be few surprises in store for him.

When we include possible specific controls in our Job Analysis Outline it now looks like this. (Figure IV)

Figure IV

Job Analysis Outline

Person Jake Parsons

Job Produce Manager

Duties	Authorities	Controls
1) \$12,000 sales/week	To order sufficient produce to generate these sales. To set prices on items. To price items.	Cash register tapes
2) 28% gross margin	To set prices to obtain 28% for department. To vary mix to obtain 28% for department.	Sales Purchases
3) \$1,750 contribution to overhead	Freedom to price.	Gross margin -- allocatable expenses (labor, supplies, etc.)
4) 48-52 inventory turns/year	To price so will move. To cut prices on slow moving items. To vary orders as inventory dictates.	Sales - Exp. + purchases
5) Less than 5% out-of-stocks	To order sufficient amounts to keep inventory at adequate levels.	Spot checks

6) Less than 8.5% labor expense	To schedule labor (include that assigned to work with several departments). To supervise labor assigned to department.	Labor reports
7) Floor cleaned by 8:30 a.m. each morning - also between 2:00 - 3:00 p.m. on Friday and Saturday	To schedule own and other department labor to accomplish duty.	Spot checks
8) Department dressed by 9:30 a.m. each morning	To schedule own and other department labor to accomplish duty.	Spot checks

Resources Needed

Now, let's turn to the last column of the Job Analysis Outline "Resources Needed." This has two applications. First, you need to look at what resources (training, equipment, funds, labor, etc.) your manager really needs to perform each duty you have assigned him. It's hard to hold a man accountable for digging a post hole in five minutes if he doesn't have a post hole digger or even a shovel. Just so it's hard to hold a manager accountable for \$12,000 in sales if he has never before worked in a produce department or if you don't give him a well equipped preparation area.

The second application comes from the controls column. If your control tells you inventory turns are only 45/year, and you expect at least 48, you look for the reason why. The manager may need training in inventory control. In this case, it tells you what you need to do to help a manager, who isn't performing duties well, to do better. The space allocated to produce might be too large (it takes too much inventory to fill the space). Too much might be going out the back door (better security methods need installing). Whatever the reason for the low inventory turns, you let him know that you will

help him solve the problem so he can perform the duty (45-52 turns/year).

Your Job Analysis Outline now looks something like this. (Figure V)

•

Figure V
Job Analysis Outline

Person Jake Parsons
Job Produce Manager

Duties	Authorities	Controls	Resources Needed
1) \$12,000 sales/week	To order sufficient produce to generate these sales. To set prices on items. To price items.	Cash register tapes	Cutting, trimming, packing skills. Techniques of display. Advertisement & promotion skills. Attractive equipment.
2) 28% gross margin	To set prices to obtain 28% for department. To vary mix to obtain 28% for department.	Sales Purchases	Ability to figure gross margin.
3) \$1,750 contribution	Freedom to price.	Gross margin -- allocatable expenses (labor, supplies, etc.)	Ability to figure gross margin.
4) 48-52 inventory turns/year	To price so will move. To cut prices so slow moving items. To vary orders as inventory dictates.	Sales - Exp. ÷ by purchases	Inventory management training. Security training.
5) Less than 5% out-of-stocks	To order sufficient amount to keep inventory at adequate levels.	Spot checks	Inventory management training.
6) Less than 8.5% labor expense	To schedule labor (include that assigned to work with several departments). To supervise labor assigned to department.	Labor reports	Supervision training, Adequate preparation areas.

Duties	Authorities	Controls	Resources Needed
7) Floor cleaned by 8:30 am each morning - also between 2:00-3:00 pm on Friday and Saturday	To schedule own and other department labor to accomplish duty.	Spot checks	Check list for department inspection. Adequate labor.
8) Department dressed by 9:30 am each morning	To schedule own and other department labor to accomplish duty.	Spot checks	Check list for department inspection. Adequate labor.

SUMMARY

A job analysis outline or form is a very versatile tool. It is a communications tool -- it clearly states what is expected of employers and what authority has been delegated. It is an evaluation tool -- it establishes the controls by which a manager can maintain his knowledge about employee performance. It is a motivation tool -- the employee knows exactly what is expected of him. There are fewer misunderstandings. It is a training tool -- it helps develop a training program tailored to specific duties and for individual employees. Managers interested in improving their supervisory practices should consider incorporating it into their system.

JOB ANALYSIS CHART

Position _____	Date _____			
Person _____	Store _____			
<u>Duties</u>	<u>Authorities</u>	<u>Controls</u>	<u>Resources and Training Needed</u>	

JOB ANALYSIS CHART

<u>Position</u>	<u>Date</u>
<u>Person</u>	<u>Store</u>
<u>Duties</u>	<u>Authorities</u>
<u>Controls</u>	<u>Resources and Training Needed</u>

JOB ANALYSIS CHART

Position	Date	
Person	Store	
<u>Duties</u>	<u>Controls</u>	<u>Resources and Training Needed</u>
<u>Authorities</u>		

JOB ANALYSIS CHART

Position	Date				
Person	Store				
		<u>Controls</u>	<u>Authorities</u>	<u>Duties</u>	<u>Resources and Training Needed</u>

MANAGER'S TIME USE ANALYSIS

Manager _____

Thinking	Management	Operational	Productive Labor	Non-Productive

MANAGER'S TIME USE ANALYSIS

Manager _____

Thinking	Management	Operational	Productive Labor	Non-Productive

**LANDOVER FOOD MARKET
CAST STUDY INSTRUCTIONS**

- Step 1. Read Case Study - Landover Market (page 3-49)**
Discuss Landover Trade Area
- Step 2. Develop a Purpose Statement for Landover Seafood Department
(Page 3-64)**
- Step 3. Set Seafood Department Objectives and Outline an Action
Plan for Landover Seafood Department (Pages 3-66)**
- a. Specify a Sales Plan (page 3-68)
 - Identify a product mix
 - Outline a promotional plan
 - b. Specify a Labor Management Plan
 - Make a task list
 - Develop Job Analysis Chart(s) (Page 3-45)
 - Schedule and assign Personnel (Page 3-50)
 - c. Specify a Merchandising Plan
 - Study Customer Needs Survey
 - Analyze Customer Traffic Flow
- Step 4. List the Major Highlights from Discussions of Landover**
- Step 5. Report Case Study Findings to the Class**

The Landover Retail Store Case Study

Jim Landover operates Landover Food Market. He and his brother, John, own the majority of Landover stock. They and their lawyer make up the Board of Directors of Landover Market.

Landover Market is one of several privately owned food markets in a trade area of 45,000 households. The store serves a community where 30 percent of personal income is derived from government services agencies and 70 percent from service related industries. The average income from government is \$13,400 per capita, and \$16,000 per capita from the service industry. The service industries predominately provide educational, financial, and other retail services in the trade area. The community has been growing at the rate of 1.25 percent per year.

Landover Store Data

Weekly Sales in Dollars	200,000.00
Inventory Turns	20.00
Gross Profit (Store - grocery, meat, produce)	21.10
Meat Department	
Sales	46,000.00
% of total sales	23.20
Gross Profit % (meat)	19.00
Labor Expense %	7.96
Supply Expense %	0.47
Sales Per Person Hour \$	67.61
Average Hourly Wage	5.00
Turnover Per Year	32.10
Seafood (Accounted for Within the Meat Department)	
Sales	2,500.00
% of total sales	1.25
Gross Margin %	25.00
Labor Expense %	10.00
Shrinkage %	3.00
Supplies %	1.00
Promotion %	1.00

Seafood Department
Labor Management Plan

Date _____

Time	Duties	Priority (High-Low)	Personnel Assigned
7:30 - 8:00 am			
8:00 - 8:30			
8:30 - 9:00			
9:00 - 9:30			
9:30 - 10:00			
10:00 - 10:30			
10:30 - 11:00			
11:00 - 11:30			

11:30 - 12:00 N

12:00 - 12:30 pm

12:30 - 1:00

1:00 - 1:30

1:30 - 2:00

2:00 - 2:30

2:30 - 3:00

3:00 - 3:30

3:30 - 4:00

4:00 - 4:30

4:30 - 5:00

5:00 - 5:30

5:30 - 6:00

6:00 - 6:30

6:30 - 7:00

7:00 - 7:30

7:30 - 8:00

8:00 - 8:30

8:30 - 9:00

JOB ANALYSIS CHART

Position Seafood Department Manager

Date September 1982

Person John Lawrence

Store Landover Market - \$200,000 sales/wk.

<u>Duties</u>	<u>Authorities</u>	<u>Controls</u>	<u>Resources and Training Needed</u>
1. Set sales and expense targets			
A. \$2,500 sales/week	1A. To order sufficient seafood to generate sales goal	1A-F. Sales Plan ** Projected ** Realized	1. Store manager assistance
B. 30% gross margin	To set prices on items	Register tapes Audit reports Time cards Labor schedules Supply invoices	
C. Less than 7.5% labor expense	1B. To set prices to realize 30% gross for department To vary product mix		
D. Less than 2.0% of fresh seafood discarded due to spoilage	1C. To schedule labor for seafood department To supervise labor assigned to department		
E. Less than 1.0% supply expense	1D. To return all seafood not meeting quality standard to distributor or supplier To control "new" inventory by adjusting orders		
	1E. To order appropriate packaging materials as required by seafood inventory policy To have priority use of ice at one machine location		

JOB ANALYSIS CHART

Position Seafood Department Manager Date September 1982
 Person John Lawrence Store Landover Market - \$200,000 sales/wk.

<u>Duties</u>	<u>Authorities</u>	<u>Controls</u>	<u>Resources and Training Needed</u>
F. \$502.50 contribution to overhead -- 502.50 =	1F. To have flexibility to set price of seafood To control inputs -- labor, supplies, markdowns	2. Sales plan Inventory plan Procurement plan Quality control plan Traffic flow analysis	2. Merchandising principles Traffic analysis
G. 46-48 inventory turns/year	1G. To price seafood to move items To promote certain items To vary orders based on inventory		
H. \$400 of tie-in sales			
2. To design a monthly merchandising plan	2A. To specify the product mix To set prices of seafood To specify advertising and promotion plan To control one store front pane for promotional purposes To design and place aisle walkers throughout store To display seafood according to good merchandising principles		

JOB ANALYSIS CHART

Position Seafood Department Manager

Date September 1982

Person John Lawrence

Store Landover Market - \$200,000 sales/wk.

<u>Duties</u>	<u>Authorities</u>	<u>Controls</u>	<u>Resources and Training Needed</u>
3. To order weekly supply of seafood from wholesaler	3. To designate seafood items to purchase To negotiate price for each seafood item To specify quantities to be purchased To negotiate cooperative advertising with supplier	3. Procurement plan Promotion plan	3. Budget or credit authorization
4. To complete preparations of seafood display by 8:00 a.m. and recheck case at 1:00 p.m. daily	4. To physically be located in store at 6:30 a.m. To supervise setting of case To specify order of seafood in case	4. Sales plan Merchandising plan Visual observation	4. Merchandising principles
5. To train workers assigned to seafood department to sell and service case in manager's absence	5. To allocate one hour per week of employee's time for training To specify subjects for employee training	5. Verbal and written quizzes Visual observations	5. Training aids
6. To meet specified federal and state health regulations and sanitation standards for seafood departments	6. To post regulations and standards To enforce regulations and standards To discipline workers violating rules	6. Micro-biological tests Visual observations	6. Testing equipment

JOB ANALYSIS CHART

Position Seafood Department Manager Date September 1982
 Person John Lawrence Store Landover Market - \$200,000 sales/wk.

<u>Duties</u>	<u>Authorities</u>	<u>Controls</u>	<u>Resources and Training Needed</u>
7. To inspect all incoming products to ensure store quality standards are met	7. To establish store quality standards To return seafood not meeting quality standards	7. Customer complaints Return invoices Feedback from suppliers	7. Training in quality standards Experience
8. To keep records of seafood department performance	8. To have access to data from controller and other sources to compile report To utilize store labor for record keeping	8. Department financial report	8. Accounting methods

Participants Exercise

What are the benefits (advantages) and costs (disadvantages) of the Landover Food Market establishing a Fresh Seafood Department?

Benefits

Costs

Management

Customers

Employees

Suppliers

(10 minutes)

Participants Exercise

Jim Landover has marketed limited quantities of fresh seafood through his meat department. His supply of fresh seafood has come through one vendor who delivers to the store door weekly.

Jim has observed an increased interest in fresh seafood by many of his customers. At the food dealers convention, he listened to several food dealers exchange their views on the profit potential of a seafood department.

1. What information should Jim obtain about a seafood department before he determines that it is feasible?

Participants Exercise

Jim Landover has decided to operate a fresh seafood department in his Landover Retail Store. He must determine the benefits/costs of operating the seafood department as a service or self-service profit center.

List and discuss benefits/costs of both a service and self-service fresh seafood department!

	<u>Benefits</u>	<u>Costs</u>
<u>Service Department</u>		

Self-Service
Department

(10 minutes)

What is the purpose of the Landover Seafood Market? (Write out a comprehensive statement.)

What Objectives Should Landover Management Set for
Its Fresh Seafood Department?

(These objectives should be measurable, a time limit assigned, and expresses in either absolute or percentage figures.)

OBJECTIVES

1. Sales Objective -

How to accomplish it?

2. Gross Margin Objective -

How to accomplish it?

3. Product Mix Objective (arrangement) -

How to accomplish it?

4. Shrinkage Objective -

How to accomplish it?

5. Labor Cost Objective -

How to accomplish it?

6. Sales Per Employee Hour Objective -

How to accomplish it?

7. Contribution to Overhead Objective -

How to accomplish it?

8. In-Store Traffic Objective -

How to accomplish it?

WEEKLY SALES PLAN

1. Objectives:

Retail Sales: \$ _____; Department Gross Margin: \$ _____; % Gross Margin: _____%; Direct Department Costs: Shrink _____, Labor _____, O/H _____; Contribution to O/H: \$ _____, _____%.

2. Mix Management

Seafood Item Ordered	1 Quantity	X	(2 - 3) [Sales Price - Delivered Cost]	=	4 Gross Margin
_____	_____		_____		_____
_____	_____		_____		_____
_____	_____		_____		_____
_____	_____		_____		_____
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_____	_____		_____		_____
_____	_____		_____		_____

ORDER FORM

<u>Seafood Item</u>	<u>Delivered Price Per Pound</u>
Bluefish	\$1.05
Butterfish	\$1.10
Clams	
Pint	\$1.98
Cod	\$2.75
Crabmeat	
Backfin	\$5.20
Special	\$4.70
Claw	\$4.10
Croaker	\$1.80
Flounder	\$3.10
Haddock	\$2.94
Monkfish	\$2.10
Oysters	\$2.20
Scallops	\$4.50
Shrimp	\$4.20
Sea Trout	\$1.30
Spot	\$1.25
Swordfish	\$3.90
Whiting	\$1.75

Merchandising Plan

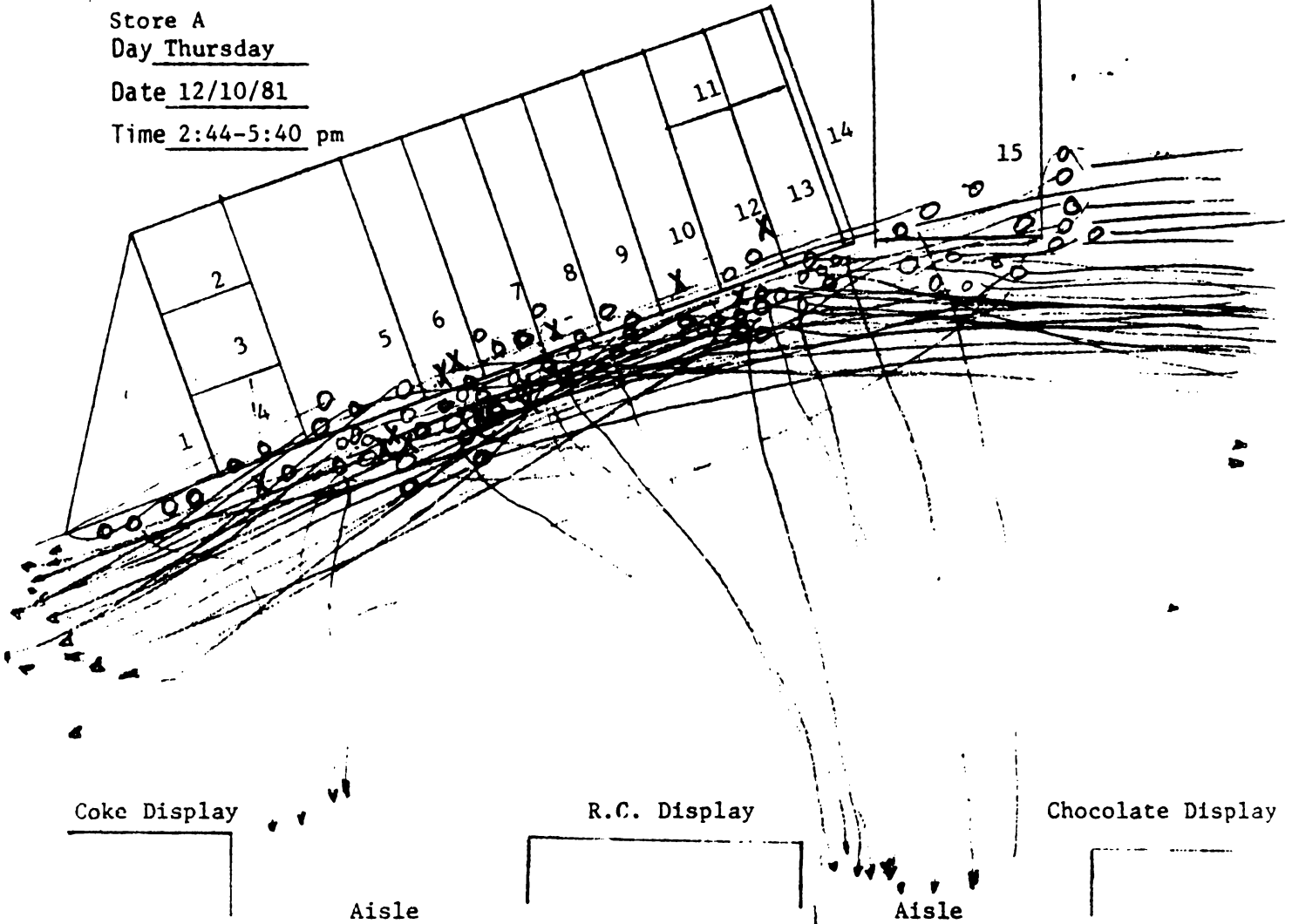
In the space provided, prepare a merchandising plan which will enable the seafood department to reach stated sales objectives. Two objectives which you should give consideration to are: 1) provide your seafood customers with a comparison shopping experience, and 2) display a mix of products which will appeal to several segments in your trade area.

Specifically:

- 1) Develop a merchandising strategy which provides a mix of seafood products for the trade area.
- 2) Prepare a weekly sales plan to implement this strategy.
- 3) Outline your promotion and display strategy (remember that comparison shopping and market segmentation are objectives in your store; also recall that alot of fish taste similar).

Back of Store ↗

Store A
Day Thursday
Date 12/10/81
Time 2:44-5:40 pm



Coke Display

R.C. Display

Chocolate Display

Aisle

Aisle

1. Pasteurized Crabmeat
2. Scallops
3. Shrimp
4. King Crab
5. Crabmeat
6. Shrimp
7. Turbot
8. Shrimp
9. Flound Fillet
10. Dress Porgy
11. Trout Fillet
12. Monk Fish
13. Whole Trout
14. Fresh Oysters
15. Lobsters

Customer Traffic Flow Analysis

Key X = Purchase
O = Comparison Shopping
But No Purchase

48 X + O

350 Total Customers in Store

1' = 1/2"

CUSTOMER QUESTIONNAIRE
DECEMBER 10, 1981
STORE A

1. How often do you purchase seafood here?*

<u>FREQUENCY</u>	<u>PERCENT OF SHOPPERS</u>
A. Twice a Week	4
B. Once a Week	10
C. Every Two Weeks	13
D. Monthly	21
E. Seasonally	19
F. Never	29
G. No Response	4
	100.0

*48 customers were interviewed--the shoppers either looked into the seafood case or purchased seafood items. Many more shoppers walked past the department without stopping.

2. A) Why did you purchase seafood here?

<u>REASON</u>	<u>PERCENT OF SHOPPERS</u>
1) Looked Fresh	6
2) Special Occassion	6
3) Wanted a Specific Seafood Product	6
4) Good Price/Value Relationship	6
5) Easy to Fix	3
	27

B) Why didn't you purchase seafood here?

<u>REASON</u>	<u>PERCENT OF SHOPPERS</u>
1) Buy From Fish Market Only	19
2) Short Shelf Life	4
3) Prefer Fresh Fish to Frozen	2
4) Seafood was not on Shopping List	19
5) Price/Value Relationship	9
6) Lack of Variety to Choose From	6
7) Does not Like Seafood	2
8) Pay Day Tomorrow	4
9) Buy Seafood on Fridays Only	4
10) No Specific Reason	4
	73

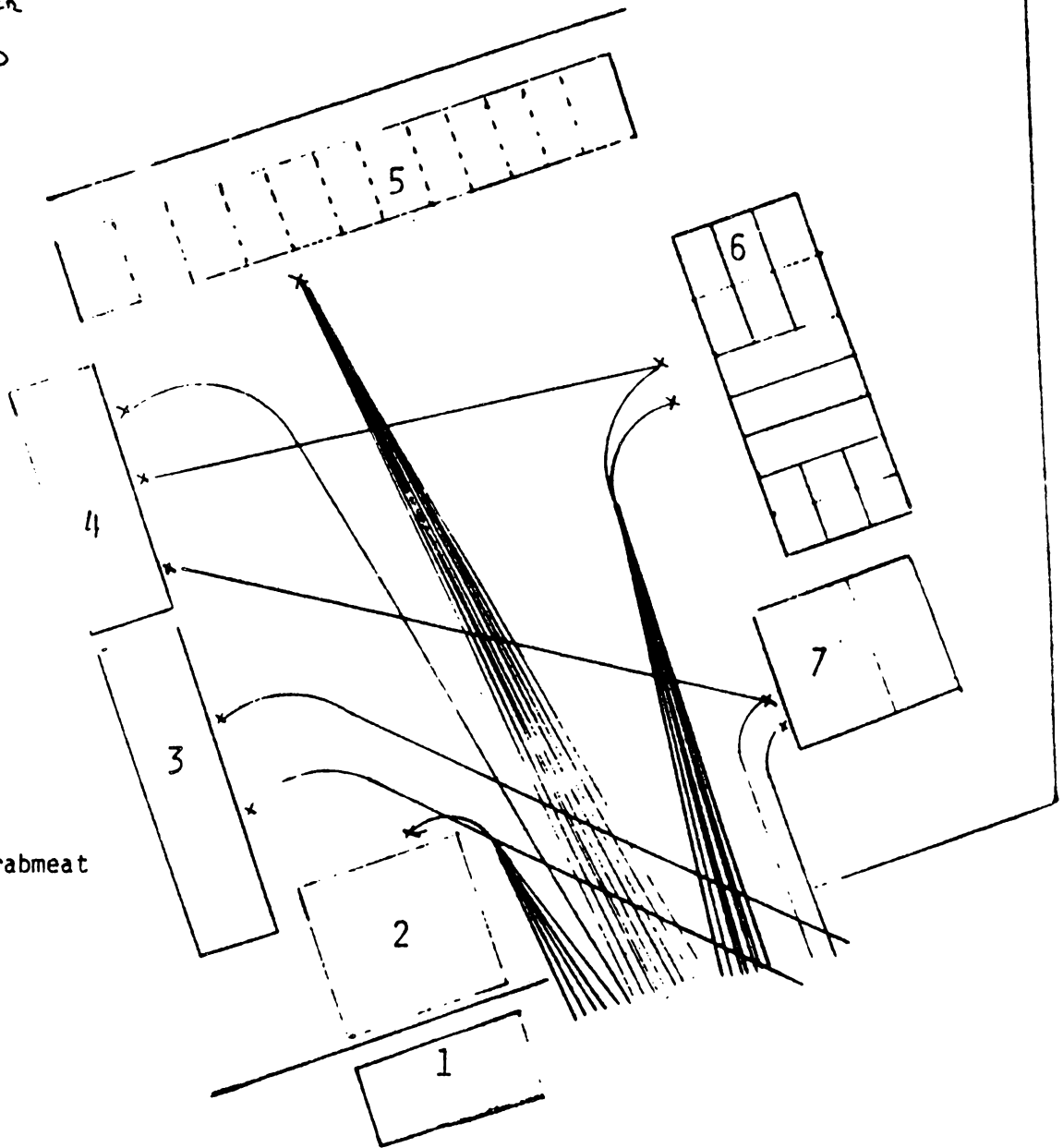
3. How can Store A improve their seafood department?

<u>REASON</u>	<u>PERCENT OF SHOPPERS</u>
A. It's OK As It Is	36
B. Sell Wider Variety & Different Market Forms	14
C. Assure Freshness	6
D. Be More Competitive in Price	2
E. Oysters Contain Too Much Water	2
F. No Response	40
	100.0

Day ~~Thursday~~

Date ~~10 December~~

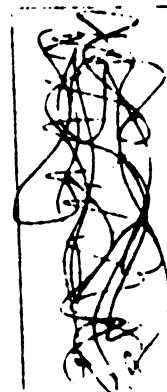
Time ~~2:45-4:30~~



Detail of Sales

- 9 Purchases
- 9 Whole Fish
- 3 Cut Display
- 7 Oyster/Clam/Crabmeat
- 3 Tie Ins
- 2 Frozen

- 1-Live Lobsters
- 2-Crabmeat, Oysters, Clams
- 3-Frozen Foods
- 4-Tie Ins
- 5-Whole Fish Case
- 6-Cut Fish/Shrimp
- 7-Crabmeat, Oysters, Clams



1' = 1/4"

**RESULTS OF TRAFFIC FLOW STUDY
SEAFOOD BOUTIQUE**

Conducted Thursday, 10 December 1981
from 2:45 p.m. - 4:30 p.m.
by Virginia Tech Sea Grant Staff

1. How often do you purchase seafood here:

<u>11</u> Once a week	22.9%
<u>1</u> twice a week	2.0%
<u>4</u> every other week	8.3%
<u>5</u> monthly	10.4%
<u>2</u> seasonally	4.2%
<u>3</u> infrequently	6.25%
<u> </u> Other comments	
<u>2</u> . too far away	4.2%
<u>1</u> . once every 3 months	2.0%
<u>2</u> . first time in store	4.2%
<u>1</u> . just browsing	2.0%
<u>1</u> . never purchased before	2.0%
<u>3</u> . never	6.25%
<u>11</u> . no comment*	22.9%
<u>1</u> . first seafood purchase, first time in store	2.0%
48 .	

*The no comment category represents shoppers who either could not be contacted verbally or who did not want to take the time for an interview.

2. Why did/didn't you purchase seafood here:

I wanted fish
I like flounder and I don't like bones
Suggestions by clerk
I like crabmeat
You wanted it four days ago - couldn't get it then
I had a taste for shrimp
Just killing time
I like the seafood here - it's fresh
Too high
Prices too high for what she wanted

2. Why did/didn't you purchase seafood here (cont'd):

Get it off boat - prices are outrageous
Usually purchase preprocessed portions
Not ready for seafood - just pricing
When I buy it, I'm going to cook it that night
Didn't have large rockfish or trout
Prefer to buy seafood in summer months - especially in grocery store
I was just looking to see what was available - currently have a stock at home
Generally cook seafoods the day they are purchased
If whiting were bigger, I'd have gotten them
Holiday shopping and needed a condiment
Regular shopping trip - shrimp on special
First time at store
Good product
Don't live nearby
Fillets are convenient and good
I now buy other items in this store - convenience
It's fresh
Convention - I eat fish every Friday
Selection is good; they have what I want
I get it from a local fisherman
It's fresh, delicious, cheaper
I shop around

3. How can Farm Fresh improve their seafood department:

Price of crab legs is too high
Fish is reasonably priced
Staff is courteous
I like the store but the carts are too big
Service is good; clerks are polite and helpful
More help behind the counter - sometimes the wait is too long
Nothing - it's great
Not enough tie-ins, like sauces
No improvements
Prices are better than at Nags Head, product is as fresh as we can get it from Nags Head
I think it's very nice - it's excellent
You've got a good market, but crab legs are cheaper other places
Nice place, but prices are high for person on limited income
Fish looks old, shrimp looks bad, everything looks bad - prices are outrageous
NO
No improvements - I'm really not familiar with fish markets
No thoughts
Good variety - custom cutting
Prices are high, therefore, fish isn't as fresh as it could be

3. How can Farm Fresh improve their seafood department (cont'd):

Prices seem high

Looks good, if I needed it, I'd buy it. Prices seem a little high - especially shrimp

What are the plastic flaps for out front

It's very nice, but I go to a regular seafood retail market for everything because I feel it's fresher

No - shrimp is the only seafood I buy and it's always good
OK

Too many baskets - cramped

Nothing

More room in department

Keep up the good work

The service sometimes means waiting in line

No problems

I would like to buy unwashed oysters here

Would rather see fish wrapped in plastic than butcher paper since I have to rewrap it

Would like to see a different horseradish in department

Lower price

Seems fine

RECOMMENDATIONS

There is a need for supermarkets to transform the image of their seafood departments in order to more closely provide those physical and psychological cues present in fish markets. Consumers must be convinced that supermarkets do have quality seafood products. Supermarkets must demonstrate to shoppers that these food outlets are interested in selling seafood.

To accomplish this, supermarkets wishing to expand their seafood sales should consider the following options in the context of their own marketing objectives:

- Increase the size of the seafood department, and offer a greater selection of fresh fish;
- Assure product freshness by means such as labeling, dating or putting up signs (example: sign saying "air-shipped today"). Offer a money-back guarantee if the product is found not fresh;
- Provide information on how long to keep fish, i.e., use within a specific time frame;
- Provide personalized counter service with seafood expertise. Consumers expressed a desire for a separate service person who is knowledgeable about seafood (similar to the butcher), interested in the product and one who cares about the consumer. They do not want the same person handling the fish and the meat;
- Create attractive, decorative displays, possibly employing sea imagery such as nets and shells;
- Utilize quantities of fresh, clean ice. In addition, lemon, parsley and popular seafood accompaniments like sauces seem to enhance the seafood display case, presenting an appealing touch for the seafood shopper;

Carry out in-store promotions such as "Catch of the Day" or "Catch of the Week" -promote different species of fish each day or week, familiarize customers with new types of fish, or spotlight certain kinds of fish as they come into season;

Provide in-store samples to taste, recipe preparation cards and suggestions on serving or menu planning;

Make in-store announcements promoting and encouraging visits to the fish department;

Run newspaper ads in food sections or supplements with seafood recipes and coupons;

Display a seafood map describing various fish and seafood products and where they come from;

Run a barbeque campaign during the summer months informing consumers about how to cook seafood on a grill. Emphasize the fun as well as convenience aspects of cooking fish outdoors;

Suggest economical seafood meals;

Have attractive pictures displayed depicting what the fish would look like in a meal context, after it has been prepared (with accompanying recipe and instructions);

Consider the display of fresh fish. Consumers prefer to see fresh fish displayed on ice without packaging. People complained that when seafood is pre-packaged in cellophane, they cannot adequately see the bottom or sides of the fish. The product appears fresher when it is not packaged.

Provide in-store educational and informational materials to customers in order to help answer their many questions such as; what is the taste?, texture?, how much is required per serving?, is it white or dark meat?, how is it prepared and cooked? and what other fish is it most similar to?

SECTION 4

Quality Maintenance and Sanitation

The material in this section was prepared by Dr. Donn Ward, Assistant Professor Food Science and Mr. James Daniels, former Extension Agent, Virginia Tech, and Quality Control Manager, Fass Brothers, Hampton, Virginia.

. ATTITUDES AND CONCERNS OF FOOD MARKET MANAGERS REGARDING
SANITATION AND SAFE FOOD HANDLING PROCEDURES*

1. Bacteria need specific conditions to grow and multiply.
Agree _____ Disagree _____
2. All bacteria are harmful.
Agree _____ Disagree _____
3. Frozen food should be held at 0°F or below.
Agree _____ Disagree _____
4. Bacteria can go from place to place without help.
Agree _____ Disagree _____
5. Bacteria do not grow rapidly at refrigerated temperatures.
Agree _____ Disagree _____
6. Food products containing food poisoning organisms will smell spoiled.
Agree _____ Disagree _____
7. Safe temperatures for potentially hazardous foods are 45°F or below, and 140°F or above.
Agree _____ Disagree _____
8. Seafoods are more perishable than other meat items.
Agree _____ Disagree _____
9. Seafoods (fresh) should be kept at 40°F or below.
Agree _____ Disagree _____
10. Food contact surfaces cannot be adequately cleaned without the use of a chemical sanitizer.
Agree _____ Disagree _____
11. As long as equipment and utensils (scales, knives, trays, etc.) used to process seafoods are kept clean, it is not necessary to sanitize them during a day's processing.
Agree _____ Disagree _____

12. All sanitizing agents (chlorine, iodophers, and quaternary ammonium compounds) are equally effective.

Agree _____

Disagree _____

For the next series of questions place a number (1-10) next to the question to indicate the degree of public health risk. You can use the same number as often as you feel necessary.

One (1) indicates High risk

Ten (10) indicates Low risk

1. Sick employees _____
2. Food stored at 120°F _____
3. Storing fish, poultry, and meat in the same cooler _____
4. Smoking and eating by employees in food preparation areas _____
5. Cracks in floors or walls _____
6. Meat processing room temperature of 55°F _____
7. Discolored meats _____
8. Product on display past pull date _____
9. Cooked crabs on display next to raw fish _____
10. Storing raw seafood at 45°F _____
11. Temperatures above freezing in frozen food case _____
12. Service seafood department and Deli using same scales _____
13. Oysters, fresh or frozen, which are leaching a red color _____

*Most of the questions for this exercise are from the paper "Concerns, Experiences, Attitudes, and Practices of Food Market Managers Regarding Sanitation and Safe Food Handling Procedures," by C. Jane Wyatt, which appeared in the Journal of Food Protection, Vol. 42, No. 7, 1979.

PERISHABILITY OF SEAFOOD

Factors which affect quality are many and varied. They may include: species, area of catch, method of catch, handling on board the fishing vessel, and processing techniques. These are factors over which you, as seafood merchandisers, have no control. Our purpose, in this discussion, will be to look at factors over which you do exercise control.

The spoilage of fish can be related to a complex process of inter-related factors. As soon as a fish dies, a whole series of changes begin in the flesh:

1. Bacterial Growth
 2. Chemical Changes
 3. Oxidation
 4. Dehydration
1. Bacterial Growth

The loss of quality due to the action of bacteria is probably the most well known from a consumer perspective, and has the most obnoxious effects.

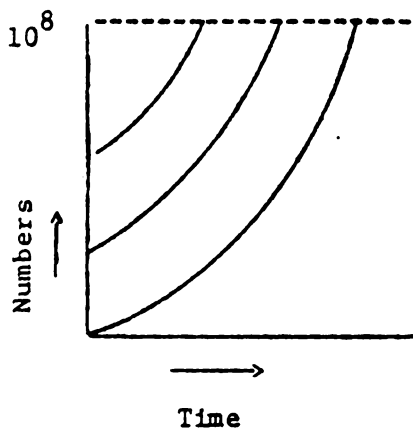
Bacteria are found on live fish in the surface slime, intestines, and gills. Once the fish dies, it loses its defenses against those bacteria which are capable of decomposing tissues. Therefore, what follows is a breakdown of the tissues by enzymes released by bacteria thus producing what is characteristically seen as spoilage.

Many seafood merchandisers do not handle whole fish, instead they may handle dressed fish, steaks, or fillets. With the latter three market forms, the naturally present source of bacteria are absent.

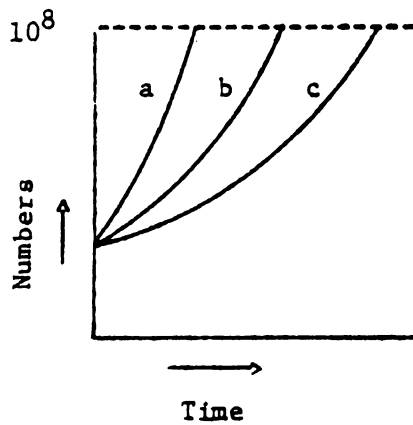
Be assured, however, that bacteria are present in significant numbers on the surfaces of these products as a result of contamination during processing and handling.

Factors that affect the rate of bacteria spoilage:

A. Initial Number of Bacteria



B. Temperature of Product



product/ice

a - 2/1

b - 1/1

c - 1/2

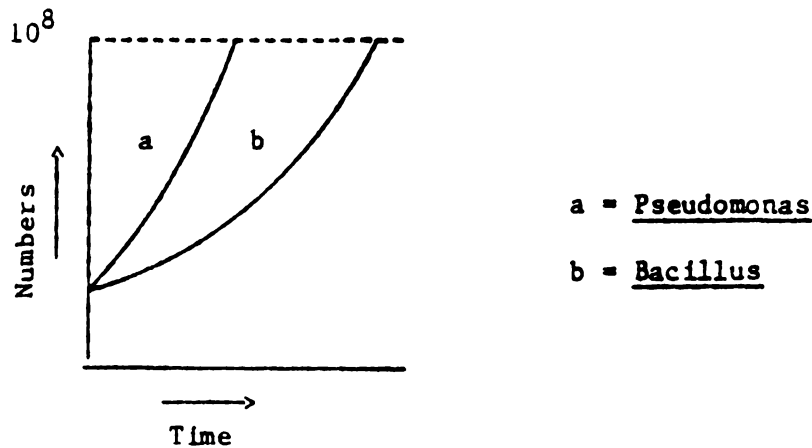
Table 1. The approximate shelf-life of cod fillets (Ronsivalli et al. 1973)

<u>Temperature °F</u>	<u>Approximate shelf-life (days)</u>
32	14
34	11
37	8
39	7
41	6
44	5
49	4
56	3

Table 2. Shelf-life of various processed and unprocessed fish vs. temperature of storage (Keay and Hardy, 1978)

Type of fish	Storage Temperature		
	50°F to 68°F	32°F to 36°F	-22°F
Ungutted small fatty fish, e.g. sprats and herring	1 day	5-7 days	9 months to 2 years
Ungutted small white fish, e.g. blue whiting, argentinines	1 day	5-7 days	2 years
Gutted fatty fish, e.g. herring, mackerel	1 day	7-10 days	9 months to 2 years
Gutted white fish, e.g. cod, haddock	1 day	10-16 days	2 years +

C. Types of Bacteria



A question that is often asked is "why are fish so perishable?" Marine fish, that is to say salt water fish, have within their tissues small molecular weight nitrogenous compounds referred to as osmoregulators. The function of these osmoregulators in the live animal is to counter the osmotic pressure created by the salt concentration in ocean water. Most of you have eaten a marine fish at one time or another and, as you recall, the meat did not taste salty; in fact, doctors often recommend seafoods to individuals who are on low sodium diets. If these osmoregulators were not present, salts from the ocean environment would readily diffuse into the animals tissues and, assuming the animal could live, the meat from the fish would be salty.

What do osmoregulators have to do with perishability? The best analogy is that bacteria are a lot like people; that is to say that bacteria, like people, tend to do what is easiest first. On other foods, that lack these low molecular weight osmoregulators, bacteria must first break down large protein molecules into smaller units before they can use the protein as food. Consequently, it

takes time before these proteins are degraded and there is not a large pool of readily useable food to support rapid growth. On the other hand, marine fish with the small molecular weight osmoregulators already present, provide an immediately useable food source for bacteria which allows them to multiply rapidly, therefore, rendering marine fish very perishable.

Tropical vs. Cold Water Species

Occasionally, you may have an opportunity to merchandise tropical or subtropical species from areas such as the Gulf of Mexico; therefore, we want to briefly mention iced shelf-life differences between tropical fish and temperate or cold water species. Contrary to what you might think, fish that are caught in warm tropical waters then iced will have a much longer shelf-life than fish caught in temperate or cold waters. One study compared the acceptable shelf-life of 10 cold water species with 12 tropical species. The cold water fish remained acceptable for 5 to 15 days depending upon the species but the tropical fish kept for 7 to 45 days. This extended shelf-life is thought to be related to the temperature tolerance of the bacterial flora of tropical fish. The mesophilic bacteria (bacteria that grow at temperatures between 68°F to 113°F, but have an optimum growth at 86°F to 104°F) are adapted to high ambient temperatures and the large drop in temperature has a more pronounced effect. This effect is reflected in the lower level of total viable counts reported for tropical fish.

2. Chemical Changes

Chemical changes in the tissues of dead fish may contribute significantly to product deterioration. The chemical changes

are brought about by enzymes which are naturally present in fish and which remain active after the death of the animal. When a fish dies, it loses its defenses against its own enzymes. These enzymes, which include the digestive enzymes of the stomach and intestines and autolytic enzymes of the tissues, may be active at sub-freezing temperatures, although the activity is greatly reduced.

An example of enzymatic deterioration may be seen in improperly preserved whole fish, particularly fish which had been feeding just prior to capture, in which the active digestive enzymes actually break down the tissues of the digestive tract and start digesting the edible body tissues. This phenomenon is often referred to as "belly burn."

As you would expect, it would be possible to have spoilage in a completely sterile fish (bacteria free) due to breakdown of muscle tissue by these endogenous enzymes. However, from a more practical perspective, the effect enzymes have on fish products are primarily flavor changes, and these changes occur during the first few days of iced storage, before bacterial spoilage has supervened.

3. Oxidative Changes

How many of you have ever tasted rancid fat? The bad taste and aroma experienced is the result of oxidative rancidity. Oxidative rancidity results from the reaction of oxygen (from the atmosphere) with unsaturated fatty acids. This reaction produces a variety of end products which result in the disagreeable odors and flavors. One of the unfortunate aspects of this problem is that these unsaturated fats are what make seafoods

so attractive to many individuals who wish to limit their saturated fat intake; however, if unsaturated fats are not properly handled, they will cause the product to go rancid.

There are tremendous variations in the fat content of various fish species. Even within a single fish itself, there is a difference in the ease with which different portions undergo rancidity. Seasonal variations in susceptibility to rancidity have also been demonstrated.

Fish can go rancid even at sub-freezing temperatures unless adequate precautions are taken to prevent oxygen from coming in contact with the product, for instance by use of an appropriate packaging material.

4. Dehydration

Everyone is aware of the problem of dehydration of frozen meat or seafood products. When a product has been severely dehydrated, it alters the appearance, texture, and flavor of the product. The problem seems to have become more acute in recent years with the advent of the frost free refrigerators. The problem is, however, preventable with proper attention being given the product prior to freezing.

REFERENCES

- Keay, J. N. and Hardy, R. 1978. Fish as food. *Process Biochemistry* 13:2.
- Ronsivalli, L. J., Gorga, C., Kaylor, J. D., and Carver, J. H. 1978. A Concept for Assuring the Quality of Seafoods to Consumers. *Marine Fish. Rev.* 40:(1), 1.

PROCUREMENT PRACTICES AND QUALITY IDENTIFICATION

1. Know Your Distributor

It is extremely important for the seafood manager to have a good working relationship with the wholesale seafood distributor. The distributor must know of your commitment to marketing a quality product and he must be an actively participating partner in this effort. One sure way of showing your commitment to quality is by rejecting incoming product which is of poor or marginal quality.

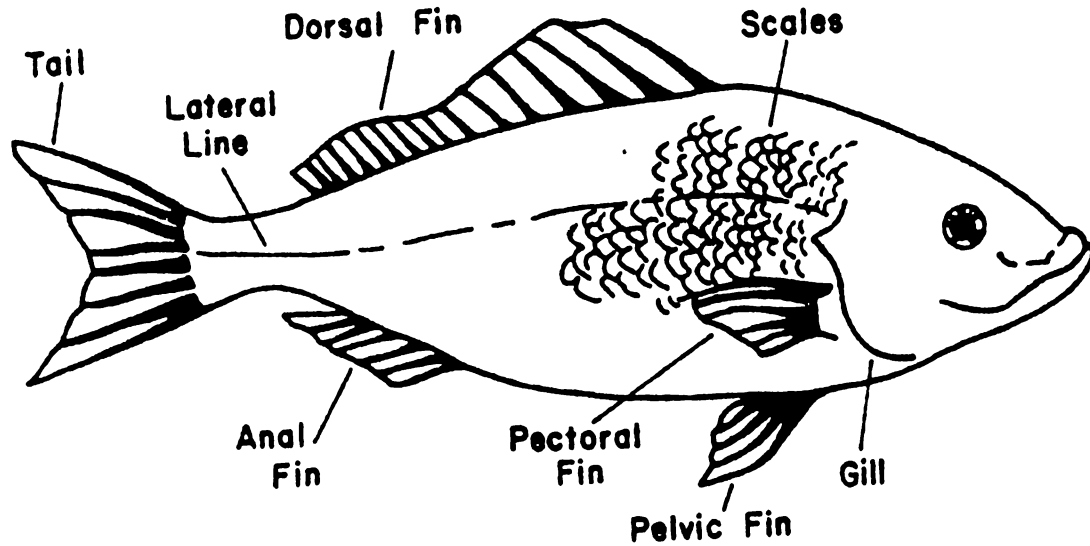
2. Check Incoming Product for Quality

During the interviews we conducted in preparing this manual, it became apparent that the vast majority of stores rely solely on the distributor to deliver "Quality Product." In other words, no one at the store level was responsible for inspecting the product for quality. Admittedly, it is extremely important to deal with a reputable supplier; however, it is equally important for each store to inspect incoming product against universally known and accepted quality standards.

3. Market Forms

When processing seafoods, particularly finfish, a variety of market forms may be available; therefore, what you purchase depends on the amount of variety and convenience you feel your particular operation should provide.

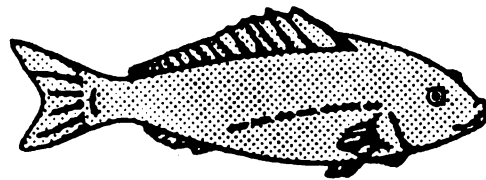
Whole



Fish as they come from the water. Before cooking the fish must be scaled and eviscerated — usually the head, tail, and fins are removed. The fish may then be cooked, filleted, or cut into steaks or chunks.

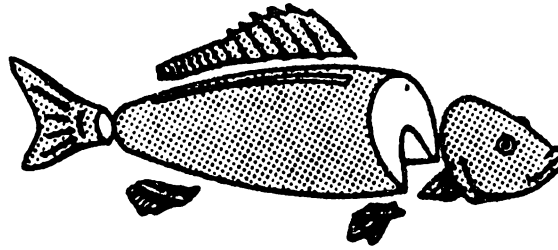
From a retailing viewpoint, whole fish may be sold as such, or they may be custom processed at a service counter.

Drawn



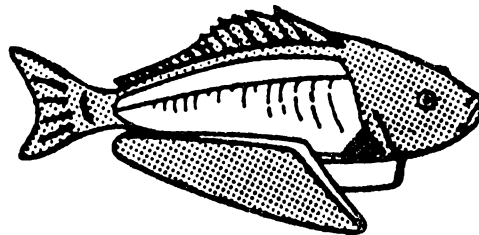
Whole fish with entrails removed. Generally scaled before cooking, and usually the head, tail, and fins removed.

Dressed

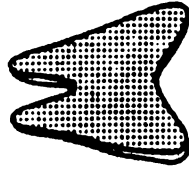


Fish with scales and entrails removed, usually the head, tail, and fins are also removed. The fish may then be cooked, filleted, or cut into steaks or chunks. Small dressed fish are often called pan-dressed and are ready to cook as purchased

Fillets

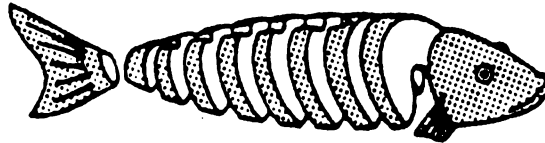


Fillets are the sides of fish cut length-wise away from the backbone. They are ready to cook as purchased. A fillet cut from one side of a fish is called a single fillet, and is the type most generally available on the market. The fillets may or may not include the skin.



The two sides of the fish cut length-wise away from the backbone and held together by the uncut flesh and skin of the belly are called butterfly fillets.

Steaks



Steaks are cross section slices from large dressed fish cut $\frac{5}{8}$ to one inch thick. A cross section of the backbone is the only bone in a steak. They are ready to cook as purchased.

4. Quality Criteria

A. Fresh Whole Fish

		Fresh	Reject
General Appearance: (lustre and bleaching)		Bright, with metallic lustre. Very little, if any, bleaching.	Bloom completely gone. Color faded or bleached.
Eyes		Bright, translucent, usually full but in some cases may be slightly sunken and somewhat dull.	Dull and sunken. May be cloudy, pink, white or opaque.
Gills	a. Color	Bright red to slightly pinkish red.	Brownish red to brown or gray. Frequently covered with thick, bacterial mucus.
	b. Odor	Fresh odor character- istic of species to faint sour odor.	Medium to strong sour odor.
Odor	a. Pike End	Fresh to very faint sour odor.	Medium to strong sour odor.
	b. At neck when de- heading	No odor to very slight odor.	Sour or putrid.
Consistency of fish		Firm and elastic to the touch. Occasion- ally may be slightly soft.	Generally soft and flabby, separating from bones.
Belly Cavity		Flesh adheres firmly to rib bones.	Rib bones free or almost free from flesh.
Vent		Normal in shape and color.	Protruding and may be discolored.

B. Fillets and Steaks

Often people indicate they have a problem in determining the quality of fillets or steaks since the usual indicators (i.e. eyes, gills, etc.) are missing. While it may be true that it is a little more difficult to judge quality of steaks and fillets, the following guidelines should be useful.

Odor	Fresh and mild	Medium to strong, sour, or putrid
------	----------------	-----------------------------------

Consistency	Firm and elastic	Soft and mushy
	Skinless fillets may not be quite as elastic as fillets with skin on	

Color	Color will vary according to species, experience with each specie will help you spot discoloration which you want to avoid	
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C. Live Shellfish

- 1) Crabs and lobsters: Must show leg movement, also live lobsters curl their tail under the body when held, a dead lobster's tail hangs down.
- 2) Oysters and clams: Shells must be tightly closed, any shell which does not close when lightly tapped indicates the animal is dead and should no longer be considered as edible.

D. Shucked Shellfish

1) Oysters:

Fresh oysters should be plump and have a natural creamy color, although some oysters have a natural tan, brown, or black film over the mantle. The liquid should be clear or slightly opalescent, free of shell particles, with no sour smell.

Eastern oysters are generally packed and graded according to the numbers of meats to the gallon.

<u>Grade</u>	<u>Meats per Gallon</u>
Very Small	over 500
Small or Standard	301 to 500
Select or Medium	211 to 300
Extra Select or Large	160 to 210
Counts or Extra Large	under 160

Color variations: The normal color of fresh raw shucked oysters is variously described as creamy, gray, brownish, pale yellow, or some combination of these. However, other colors may not indicate spoilage. Other colors may include: green, red, brown spots, and pink.

2) Clams:

Fresh clams should be plump, with clear liquor, free of shell particles, and a mild color. Clam color may vary depending on species.

5. Methods of Determining Quality

The criteria which we have mentioned for the evaluation of quality are actually sensory perceptions -- sight, smell, and feel. Consequently, evaluation is not purely objective but very subjective -- what smells mild to one individual may smell strong to another.

There are numerous methods for the objective measurement of fish quality. The problem with most of them are that they don't work for all species of fish, are too time consuming or too costly, and not everyone agrees with the value of some of the tests. These methods are often useful to scientists who try to correlate events in marine products as they spoil to certain microbiological and chemical parameters in an attempt to discover methods of extending product shelf-life. Unfortunately, none of these methods are currently useful for on-site evaluation of quality.

INVENTORY CONTROL

Look at product as it enters the store and at the conditions in which it should be maintained.

1. Delivery

- a. Have a man in charge of opening incoming containers of seafood and check for the quality attributes we have already mentioned. This inspection should also include checking the product temperature. Reject any product that shows signs of spoilage, no matter how slight. Also, I would recommend rejection of any product with a temperature above 40°F. Actually, you should insist that the temperature of the product be that of 32°F -- which is the temperature the product would be if cooled by sufficient quantities of ice.
- b. Be careful in accepting cooked or ready to eat seafood which has been shipped on trucks with live or uncooked seafood.

2. Storage

- a. Fish that will not be immediately processed and displayed should be packed in a clean container with generous quantities of crushed ice, and quickly placed in a cooler held at below 35°F. Mechanical refrigeration draws moisture from seafoods; ice helps prevent this dehydration and rinses the fish as it melts. Fish which have been overwrapped and are ready for display should be stored in coolers with temperatures between 28°F to 32°F.

- b. Some people recommend that fillets and steaks be surrounded by ice, but not in direct contact with the ice, this prevents loss of soluble food elements. They suggest that this separation can be accomplished by placing butcher wrap or similar material between layers of fillets.
- c. Coolers and other equipment used in storing uncooked fish or fish products should not be used for other purposes.
- d. Ice will be made from drinking water and will be handled and stored in covered containers to prevent contamination.
- e. Ice will not be used after it has been in contact with fish or fish products or with contaminated surfaces.
- f. Containers used for storing or transporting ice will be cleaned and sanitized daily.
- g. (FIFO) first-in-first-out rotation procedures will be followed in the seafood cooler.

3. Display

- a. Rinse each whole fish, fillets, or steaks with ice water before placing them on display. Fish which are to be displayed on ice should be covered with the ice and not merely sitting on top of the ice. Furthermore, the temperature of the case should be just above freezing to allow for the gradual melting of the ice.
- b. Store dressed fish to allow for drainage of the belly cavity at all times. If moisture collects in the belly cavity, rapid deterioration of the fish could result due to high numbers of bacteria in the belly cavity.
- c. Overwrapped fish should be displayed at temperatures between 28°F to 32°F.

d. FIFO applies to the display case as well as the cooler.

4. Loss Prevention

In order to reduce loss of products due to quality deterioration, and/or the loss of customer satisfaction due to purchase of poor quality product, the following alternatives are suggested:

- a. Products which have been in a refrigerated display case for 48 hours without being sold can be overwrapped and frozen and merchandised as a fresh frozen product.
- b. Those stores which have Delis may elect to make these fish into fish salads or other cooked products.

Irrespective of which alternative is selected, either one is preferable to marketing products of marginal quality.

SETTING UP AND MAINTAINING ON-SITE RECORDS

Useful record keeping is beneficial, however, record keeping merely for the sake of record keeping is not necessary and is not what is intended.

Suggested elements to include on a product record sheet:

1. Temperature of Product on Arrival

This is an extremely valuable piece of information to have; furthermore, if the temperature is in excess of 40°F you may consider this a basis for rejection of the shipment.

2. Condition of Product on Arrival

For whole fish, you may wish to check the various quality parameters we discussed earlier. These parameters were: general appearance, eyes, gills, odor, consistency of flesh, belly cavity, and vent.

For fillets and steaks, the list may include: odor, consistency of flesh, and color.

3. Product Code

First-in-first-out is the rule for any fresh food item; however, unless you have a system established to assist you in keeping track of incoming product, from the time it enters the store until it is sold, you run the risk of handling product longer than is desirable.

Many people may ask "why should I go to the trouble of recording the temperature and condition of incoming product?" The answer to this might be considered in two parts:

1. If the temperature is higher than 40°F, you have no way of knowing how long this condition has persisted, perhaps 2 hours or maybe 2 days. If the temperature has been above 40°F for only 2 hours, then you may not have a problem; but, if the temperature has been elevated for 2 days, then the product may be rendered unacceptable before it is sold.
2. The phrase "experience is the best teacher" is very true for merchandisers of fresh seafoods. By documenting the condition of the incoming product, you may be able to relate customer satisfaction and possibly shelf life expectation with initial product quality. This experience may help you initiate or revise internal quality standards for raw product.

Date _____

Product _____

Amount Ordered _____

Amount Received _____

Distributor _____

Temperature of Product _____

Condition of Containers _____

A. Whole Fish

Appearance: _____

Eyes: _____

Gills:

a) Color: _____

b) Odor: _____

Odor: _____

Consistency of Flesh: _____

Belly Cavity: _____

Vent: _____

B. Fillets or Steaks

Odor: _____

Consistency: _____

Color: _____

C. Shellfish

1. Clams and Oysters

Number of Live Animals out of random sample of 20 _____

2. Lobsters and Crabs

Number of Live Animals out of random sample of 20 _____

D. Shucked Clams and Oysters

Color of Liquor: _____

Odor: _____

FACTORS AFFECTING SHELF-LIFE

In our discussion thus far, we have already mentioned many of the pertinent points regarding the factors which affect shelf-life. At this point, however, it may be good to introduce a couple of new concepts and expand on a few of those previously discussed.

Initial Product Quality: When you, as a retailer, purchase a product, it is for all intents and purposes of the highest quality it will ever attain. If the product you purchase is of poor or marginal quality, it at best, will have a very limited shelf-life.

Time-Temperature Relationship: As we have mentioned earlier, unless the product is frozen the number of bacteria on seafoods will increase, but the rate of increase will be slowed as the temperature is reduced. Thus a product at 32°F may keep twice as long as a product at 42°F.

Bacterial numbers can increase astronomically in just a few hours. Depending on the type of bacteria, some organisms under optimum conditions double their numbers every 10 to 20 minutes. Fresh caught fish and crustaceans typically carry populations of 100 to 1,000 bacteria per square centimeter of skin surface or per gram of gill tissue (1 square inch equals about 2.54 square centimeter). If we assume that we have 500 bacteria per square centimeter and the product is mishandled due to neglect for 4 hours, and the bacteria double every 15 minutes, how many bacteria are now present on the square centimeter? (32,768,000). A simple rule to remember is -- if you can't keep the product cold, you can't keep the product.

Contamination: You realize that we were probably being very presumptuous in assuming that only 500 bacteria per square centimeter were initially present in the calculation we just made. As you recall, I said between 100 to 1,000

bacteria per square centimeter occurs on freshly caught fish. Thus we were basically assuming no contamination of the product from the time it was caught until you received it. This is not a good assumption.

Contamination can result from many sources, from the very obvious such as a sneeze or cough, to the subtle such as unseen dust being blown about. Contamination can occur from water, soiled clothing, unwashed hands or utensils, and many other sources. Irrespective of the source of contamination, the point is that 500 bacteria per square centimeter can become 5,000, or more, with just the touch of an unwashed hand or dirty knife.

Cross-Contamination: When speaking of cross-contamination and foods, one generally is referring to the contamination of one food product with bacteria which originated from another food source. The means of contamination could be direct such as two products coming into contact or indirect as in the case of using inadequately cleaned and sanitized equipment to process two or more different products.

Cross-contamination also refers to the direct or indirect contamination of cooked product from raw products. All too often, I have seen cooked, ready-to-eat product stored and/or displayed right next to raw product forms. This is not an ideal situation from a public health point of view. It is not too difficult to imagine situations which could occur and result in cross-contaminating cooked product with raw product. If you feel you must merchandise cooked products in the same case with raw products, be sure the two are separated by a full-length, plastic partition. Also, it would be wise to merchandise cooked products (such as cooked crabs) behind fresh product. Thus, when customers pick the cooked crabs up they must carry them over the raw products. The reverse situation, whereby the raw product is carried over the cooked, is a potentially dangerous situation.

SANITATION

Our philosophy on sanitation is that it is two separate and distinct operations, which we have traditionally grouped under the heading sanitation. The two operations are: cleaning and sanitizing.

According to the Gillespie and Schwartz (Seafood Retailing, 1977), to sanitize means the adequate bactericidal treatment of cleaned surfaces by a process that is effective in destroying bacteria. Notice the two word phrase "cleaned surfaces," that is important since many bactericidal agents are ineffective in the presence of grease, soil, or food debris. An effective sanitation program is about 95% soap and water applied with liberal amounts of elbow grease. Generally, the function of cleaning compounds is to lower the surface tension of water so that soils can be lifted and flushed away. Cleaning compounds are not intended to kill microorganisms; sanitizing agents have that function. However, large numbers of microorganisms may be removed during the cleaning operation when lifted soils are properly flushed away. After cleaning the surface, sanitizing agents are used to destroy remaining organisms that are exposed as a result of cleaning.

There are two types of cleaning and sanitizing procedures:

STANDARD PROCEDURE

1. Rough clean (broom, brush, etc.)
2. Detergent cleaning
3. Rinse
4. Sanitize
5. Rinse (if needed)
6. Air dry

ONE-STEP CLEANING-SANITIZING PROCEDURE

1. Rough clean
2. Germicidal detergent cleaning and sanitizing
3. Rinse (if needed)
4. Air dry

The supporters of the Standard Procedure say that the cleaning and sanitizing steps must be separated for maximum effect in the reduction of bacterial levels, hence there is no acceptable shortcut to good sanitizing.

The supporters of the One-step Cleaning-Sanitizing Method claim that the new modern germicidal detergents combine the operations with equal effectiveness in destroying bacteria and also save up to 50% in labor.

Whichever method you prefer, either will do the job effectively, if combined with correct procedures for cleaning and sanitizing. Both are approved!

SANITIZING AGENTS

There are three basic groups of sanitizing agents used in food processing plants and supermarkets. Whichever one you use is, of course, up to you; however, I would like to briefly point out some of the advantages and disadvantages to each group.

1. Chlorine Sanitizers

Advantages

Inexpensive

Active against all microorganisms

Unaffected by hard water salts

Active against spores at high temperatures, long contact

Easily dispensed and controlled

Non film-forming

Concentration easily measured by convenient field test

Disadvantages

Short shelf-life

Odor

Precipitate in iron waters

Adverse effect on skin

Corrosiveness on some metals

2. Iodophors

Advantages

Stable -- long shelf-life

Active against all microorganisms except bacterial spores and bacteriophage

Unaffected by hard water salts

Non-corrosive

Non-irritating to skin

Easily dispensed and controlled

Acid nature prevents film formation

Concentration easily measured by convenient field tests

Visual control (color)

Good penetration qualities

Spot free drying

Disadvantages

Not as effective against spores and bacteriophage as chlorine

Expensive

Should not be used at temperature exceeding 120°F

Staining of porous and some plastic surfaces

Germicidal action adversely affected by highly alkaline water or carryover of highly alkaline detergent solutions

3. Quaternary Ammonium Compounds

Advantages

Stable -- long shelf-life

Active against many microorganisms, especially the thermophilic types

Form bacteriostatic film

Prevent and eliminate odor

Non-irritating to skin

Non-corrosive

Stable in presence of organic matter

Easily dispensed and controlled

Stable to temperature changes

Good penetration qualities

Disadvantages

Germicidal efficiency varied and selective

Slow in destruction of coliform and gram-negative psychrotrophic bacteria (like pseudomonas)

Not effective in destruction of spores and bacteriophage

Expensive

Slow to dissipate (residual problem, must be removed from food contact surfaces)

Objectional film on surface treated

Foam problem in mechanical application

WHERE AND WHEN TO SANITIZE?

Where to sanitize and how often to sanitize depends on the use of the area or equipment and the temperature of the environment.

1. Raw Product Equipment and Areas

- a. If area is 50°F or below, sanitize daily, such as at the end of the shift.

- b. If area is above 50^oF, sanitize at mid shift and end of shift.
- c. All equipment must be disassembled completely for cleaning and sanitizing.
- d. Fish handling equipment -- in addition to cleaning and disinfecting, all surfaces should be final rinsed with 200 ppm chlorine sanitizer before start of operations in the morning.

2. Coolers - Floors and Walls

In fish coolers, after rough cleaning, flush floors daily with warm water, followed by applying 200 ppm (chlorine) sanitizing solution. Do not rinse solution. Following this, walls and ceiling must be wet down with sanitizing solution (200 ppm) which is left on.

If your cooler is moldy, (apparent by dark discoloration): scrub with detergents, rinse, spray with 1000 ppm chlorine solution.

3. Frequently Overlooked Areas or Equipment

a. Ice Makers:

- 1) Turn off water and power; empty drain
- 2) Clean thoroughly inside, including circulating the sanitizing solution through machine
- 3) Rinse thoroughly

b. Air returns and grills:

- 1) Should be cleaned weekly with vacuum hose

c. Hand Dips: 50 ppm chlorine

d. Restrooms: cleaned and sanitized daily

e. Vehicles:

- 1) Those used to transport non-perishable items must be rough-cleaned daily and sanitized on a weekly basis
- 2) Those that are used for perishables must be cleaned and sanitized daily

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PACKAGING

The recent trend appears to be for food stores, which have a seafood department or counter, to have self-service displays. Obviously, if seafoods are to be self-service then this necessitates a prepackaged product.

Before discussing seafood packaging specifically, let's discuss packaging in general terms. There are several factors that should be considered as part of packaging, these factors include:

1. Product protection
2. Package durability
3. Appearance
4. Suitability to retail display
5. Consumer appeal

Most retailers probably do consider the latter three factors, since these have the most obvious implications on consumer acceptance and therefore sales volume. However, the first two factors (product protection and packaging durability) also have definite implications in enhancing product quality and in control of product losses through freezing.

According to Borgstrom (1968) food packages protect their contents during storage, before sale and in the home, from contamination by dirt and other foreign material, infestation by insects, rodents, and microorganisms; and loss or gain of moisture. Certainly all of these attributes are important for fresh seafoods, particularly protecting against moisture loss in the retail display case.

During an earlier discussion, on inventory control, the concept of freezing product, which was not sold after 24 hours in the refrigerated case, was introduced. If this concept is to be practiced by seafood

retailers, then it would be advisable to overwrap fresh fish with a packaging film which is durable at freezer temperatures. Moreover, the characteristics which constitute a good freezer wrap would also be very desirable for refrigerated products.

Properties of a good packaging material (for refrigerated and frozen storage) should be:

1. Moisture proof. Loss of water during frozen storage results in a condition known as freezer burn. Also, loss of water during refrigerated storage can accelerate quality loss as well as loss of product weight.
2. Low permeability. Permeability refers to the rate of which the packaging material permits vapors and gases to pass between the product and the surrounding atmosphere. It is particularly important to use a film which possesses a low permeability to oxygen; this retards the development of oxidative rancidity. Furthermore, for those who do not wish to smell "fishy odors," a film of low permeability is helpful.
3. Tightness of fit. A tight-fitting package is essential to prevent moisture loss inside the freezer package. In a loose-fitting package, moisture evaporates from the fish and condenses as ice crystals on the inside surface of the package. If the product is warmed slightly during defrosting or each time unfrozen material is placed next to frozen product, the moisture may move from the food surface to the package surface. When the package cools again, the

cycle is repeated. This may continue until a large quantity of water is removed from the food, causing severe dehydration.

4. Strong. Wrapped products, whether frozen or refrigerated, are subject to abuse. The wrapping material may possess all the desirable characteristics, low moisture and gas permeability and tightness of fit, but if easily punctured or torn all is in vain.

Advantages and Disadvantages of Packaging

As with most any retailing practice, there are apparent advantages and disadvantages. The OECD (1970) stated several advantages and disadvantages which deserve mention.

Advantages:

1. Weight and price of the contents can be determined before sale and marked on the package together with date of packing.
2. Contents are protected against contamination from the outside.
3. Other commodities carried by the shopper are not contaminated by fish.
4. In some cases the shelf life can be extended.
5. An attractive wrapping can enhance sales appeal.
6. Fish can compete on more equal terms with other wrapped food products, in stores other than traditional seafood shops.

Disadvantages:

1. The formation of unsightly drips inside the package.
2. Accumulation of odor in the package.
3. Formation of condensation on the inside of the wrapper.
4. Spoilage of wrapped contents may go unobserved.

5. Too much reliance may be placed on the packaging, while other quality aspects are ignored.

Forms of Packages

There are three common forms of packaging used for fresh fish. These methods are vacuum pouch, overwrap, and overpouch.

The vacuum pouch simply involves placing fish in a pouch and applying a vacuum to the open end to exhaust gases before heat sealing.

Overwrapping, as with red meats, consists of placing product on a styrofoam tray and wrapping the tray and its contents in a layer of transparent material.

The overpouch packaging combines components of both the vacuum pouch and overwrap systems. The tray is placed in a plastic pouch and the open end is heat sealed.

Types of Packaging Films

To say the least there are numerous food packaging films on the market. Many of these films could adequately serve the needs of both fresh and frozen seafood products. It is beyond the scope of this manual to recommend a specific film. However, the following table may be helpful in displaying the variations encountered with different types of packaging film.

Prepackaging

There has been a growing trend in recent years to the merchandising of prepackaged fish. There are several apparent advantages to prepackaged fish, some of these advantages apply to the retailer and some to the consumer. Prepackaged fish, which are processed (dressed or filleted) and packaged at a centralized location, offer the retailer the following advantages when compared to a traditional service counter:

- a. Less space required
- b. Counter does not have to be continuously manned
- c. Ease of product handling
- d. Less odor
- e. More conducive to sanitary handling
- f. Attractive packaging can encourage impulse buying

The advantages prepackaged fish offer the consumer are:

- a. Convenience
- b. Can be examined by the consumer for type, quantity,
and price

Prepackaged fish should not be regarded as possessing any additional shelf life advantage; prepackaging should be regarded merely as a means of presentation, not of preservation. There are methods of prepackaging fish to enhance shelf life such as modified atmospheric packaging or vacuum packaging. These latter two methods of packaging are more expensive than traditional methods and there are still some unresolved questions regarding their safety. Nonetheless, it seems apparent that in the future, methods of packaging which enhance shelf life expectation will be the wave of the future.

CHARACTERISTICS OF FREEZER PACKAGING MATERIALS

Material	Permeability		Tightness of Fit	Strength	Cost
	Water	Air			
Polyvinylidene Chloride (saran)	Low	Very Low	Very Good	Medium Low	Low
Polyvinyl Chloride P. V. C.	Low	Very Low	Very Good	Medium	Low
Polyester Bags and Sleeves	Very Low	Low	Good	Very High	Low
Polyethylene Wraps and Bags	Medium	High	Poor	High	Low
Cellophane	Very High	Medium	Fair	Low	Low

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SECTION 5

Merchandising a Fresh Seafood Department

The material in this section was prepared by Mr. Mike Haby, Extension Agent, Dr. Don L. Long, Professor of Agricultural Economics, Dr. Charles W. Coale, Jr., Professor of Agricultural Economics, Virginia Tech; and George Harrison, President of Harrison Seafoods, Inc.

MERCHANDISING PRACTICES FOR A SEAFOOD DEPARTMENT

Michael Haby

Introduction

Merchandising is the customer-oriented arm of a retailing effort which turns top management commitment, quality of product, and the sales plan into a genuine profit generator. All the effort exerted to seek out and purchase a mix of quality seafood and to maintain that quality should be communicated through merchandising efforts. Above all, a merchandising effort should properly present the store image and seafood array so that customers will be enticed to stop and shop at your seafood department. Hand in hand with this idea, the actual product selection and purchase should be a satisfying customer experience.

The objective of an effective merchandising program is a rapid inventory turnover with a maximum contribution to overhead. To achieve this objective, a merchandising effort must help the customer achieve his objectives by providing products and services at a price that represents a value. What are the customer's objectives?

First and foremost is a tasty, nutritious meal for him and/or his family. Second, is the most food value for the dollar. Third, is a pleasant shopping experience. By keeping these customer requisites in mind, the necessary perspective is established to turn a commitment of time, floor space, and investment into a strong contribution toward overhead.

How can a merchandising effort be tailored to mesh with the customer's desire for value. In developing any merchandising plan, four factors need to be considered. First, who is the customer: what attitudes does he have

about seafood, what processes does he go through in making a purchase decision, and what budget constraints is he operating under? Second, what retailing tools and techniques can be used to tie into the customer purchase decision process? Third, what out-of-store influences may cause unforeseen problems in the seafood department? Fourth, what managerial responsibilities and duties must be borne by the seafood manager?

This paper addresses each of these considerations.

The Customer

Successful retailing efforts must begin and end with customers. If continuing profits are to be generated from a seafood department, the shopper must be satisfied. This section considers some general consumer ideas toward seafood and examines the process consumers go through in deciding to make a purchase. With these ideas in mind, an effective, customer-oriented seafood retailing effort can be initiated.

Customer Attitudes on Seafood

Consumption of seafoods is very low compared with other meat items. Why are seafoods so infrequently consumed? Much of the problem can be explained by customer attitudes toward seafood.

Generally, customers feel that seafoods are quite nutritious. They also believe that many seafoods represent a good value for their meat dollar. What about eating habits? Over half of all seafood consumed is eaten in restaurants, and only steak exceeds seafood in restaurant sales. Thus, many customers feel that seafood is tasty, and in many cases, an elegant dish.

With these positive attitudes, why hasn't seafood commanded a greater share of the market for home consumption? Besides the U.S. population

being red meat oriented, customers have had little experience in preparing ocean products. This creates some real impediments to greater buying. Because customers have some doubts about preparation and taste, they sense a risk in purchasing it ... a risk that their families will be unhappy with the meal. To reduce this risk, people buy those meat items they are more familiar with, and for most Americans this means beef or poultry.

Another limit to increased home consumption has been negative experiences in shopping for seafoods. Rough handling of products, poorly arranged displays, lack of product selection, and drippy packages have presented a poor image in the customer's eye. This idea gets back to consumerism: people want the maximum value for their dollar and expect to be treated "fairly" with an adequate variety of quality products and services at prices that represent a value. This idea is tremendously important in a seafood department since most customers are uneasy about home preparation and consumption of seafood anyway.

Limited experience in preparation of seafood and negative shopping experiences have combined to seemingly create a pessimistic environment for the retailer wishing to merchandise fresh seafood ... or have they? The negative attitude on the customer's part generally relates to experiences, not the product. A retailer committed to profiting from a seafood department can turn these negative attitudes into positive buying habits through a comprehensive, well-planned merchandising strategy.

The Customer Purchase Decision Process

The purchase decision process is a set of steps that all customers go through when purchasing a product. For many routinely purchased seafood items, the process may take seconds; for the purchase of expensive items ... such as lobsters ... minutes may be spent in contemplation. Each person

structures the process according to the item and their own way of doing things. As an example, many customers plan their purchases by moving through the process in an orderly manner. At the other extreme, all steps in the purchase decision process could occur quickly in a supermarket; this is referred to as impulse buying.

A consideration of the purchase decision process will allude to what the retailer can do to help the customer get through the steps in making a seafood purchase.

The decision process begins with the recognition of a problem. For food items, it may be what to serve for dinner. Once a problem is recognized, a search is made of what could be served. Cookbooks, newspapers, and other sources are solicited, and some evaluation is made of what to prepare and serve. Once the actual purchase is made and the item prepared, the shopper evaluates the decision as to whether the item will be purchased and prepared again. Thus, the customer searches for a product to fulfill a need and evaluates the purchase. The decision of whether to purchase the item a second time relates to how well the product tasted, how easy it was to prepare, and the cost in relation to substitute items. If any of these evaluation criteria are negative, repeat buying may not occur. There are two crucial steps in this process: getting customers to try seafood and getting them to continually buy seafood. Shoppers must be motivated and enticed into trying seafoods. Retailers must also make sure that shoppers have a positive experience with seafood and be able to turn it into a tasty, nutritious meal.

Customer Involvement

While customer attitudes toward seafood are accurate in a general sense, specific market segments may be different. For instance, many ethnic groups

consume large amounts of seafood. Some groups prefer species which many Americans find unpalatable such as squid and shark.

In some market areas, the retail price of certain seafoods may be a significant deterrent to increased consumption, while in other regions the target market may look upon seafoods as a luxury purchase and expect to pay accordingly.

There is no substitute for knowing the characteristics of the target market. By accurately knowing your market, a mix of seafood items can be assembled which, when properly promoted and presented, will become a strong profit generator. Being aware of general budget constraints on the part of customers can better direct wholesale purchases so a product offering is not priced higher than what customers can afford, or are willing to pay.

Customers follow a comprehensive purchase decision process. The retailer's efforts to help the customer make a decision should parallel this purchase process, and be continuous. Successful merchandising begins and ends with a consumer decision. The following section explains how the retailer can assist the customer, who may be in a quandry about what to purchase and serve for dinner.

Available Retailing Tools

Increased demand for seafood and strong repeat sales can only be cultivated through an effective retailing campaign. Often the customer relies on the retailer to assist with a purchase decision. Through shopping aids, the retailer can actively help the customer make a purchase. The "pull strategy" is a useful way of looking at how an effective merchandising program should be designed.

The Pull Strategy

The pull strategy refers to a retailer-initiated program which helps the shopper with his purchase decision process. Even though consumers make up their own minds, the retailer plays a major role in helping them to do so. This is done by providing the right aids (or information) to help the customer move through the purchase decision process toward the shopper's (and the retailer's) objective. In many cases, the customer must be taken from one step to the next. Since the retailer is never sure when the customer "is" in the purchase decision process or exactly how he feels about seafoods, information must be provided at each stage.

AIDA according to Gillespie & Schwartz (1977) is the retailing process used to implement the pull strategy. AIDA stands for Awareness, Interest, Desire, and Acceptance. Practically speaking, it is a set of thoughts and images the retailer tries to create in the consumer's mind's eye so that certain thoughts and actions will follow. In a seafood department, AIDA should plant 1) thoughts of options to red meat and poultry and 2) images of a wide assortment of seafood items to choose from in creating exciting, nutritious dishes for the family. By stressing ease and variety of preparations and a pleasant shopping experience, images are developed which will put ill feeling to rest. In a nutshell, think through customer's goals and empathize with them through merchandising efforts.

There is a real parallel between the purchase decision process and AIDA. This process of providing the customer with various information and shopping aids should start long before the customer enters the store and should not end until the product has been purchased.

Specifically:

...Create awareness of your store, your seafood selection, and seafood's many attributes.

...Activate interest in your seafood department through advertising and in-store promotion.

...Build desire for seafood by stressing the ease of seafood preparation and its nutritional benefits. By providing back-up information, promotion, and recipes, you can reinforce the notion of an economical, tasty product.

Acceptance relies on how well the product has met the customer's needs and how well the retailer has assisted the customer with his decision process and made him feel comfortable with the seafood purchase.

AIDA is a process. To attain objectives of sales and contribution to overhead, AIDA must be implemented with a certain idea or thought in mind. A useful way of implementing the AIDA process in a seafood department is to adopt the idea: "SUPERmarketing the Seafood Concept."

"The seafood concept is the total set of visual cues that comprise what the customer sees, hears, and doesn't smell that tells them ... here's where I buy my seafood." (Gillespie and Schwartz, 1977)

SUPERmarketing refers to using all of your talent, creativity and experiences as retailing pros to develop and implement a complete customer sensation package.

"SUPERmarketing the seafood concept is the total set of merchandising skills that say the product is fresh, clean, top quality, fun to prepare, and a joy to eat." (Gillespie, et al., 1977)

The following section considers supermarketing the seafood concept from the standpoint of an action plan designed to create awareness and ultimately acceptance of your store, your seafood department, and seafood as a pleasant substitute for other meat items.

An Action Plan

The intent of this section is to devise a way of putting the seafood concept to work using AIDA. This plan focuses on those actions required to pull customers into the store, and help them leave with a seafood purchase.

In developing a specific action plan, remember the two factors which have limited the home consumption of seafoods: lack of preparation know-how and negative shopping experiences. Assuring that customers do not sense either of these deterrents will go a long way toward realizing the contribution to overhead objective.

Creating Awareness

Customer awareness of your seafood department should begin long before shoppers enter the store. Newspaper advertisements are a very cost effective method of communicating new product lines, new departments, weekly specials, and serving suggestions. For many customers, store ads help plan shopping lists.

The newspaper may be the first information many shoppers receive about your new seafood department, so make the image one they will remember. At this point, images are critical. Take advantage of line drawings, catchy slogans, and the departmental name. These techniques enhance a seafood ad, and can go a long way toward making shoppers aware of a new department and stimulate their thinking about substitutes for red meat.

A bonus to newspaper advertising can be the local food editor. This person is in a position to change customers' attitudes about a specific food product or an eating theme. Tying in newspaper advertising with a seafood related article can enhance your ad dollars' effectiveness. October is national fish and seafood month, so one theme is already established.

Through advertising, awareness of your store and its seafood department is being created. Many shoppers have "filed" your ad away in their minds. Be sure they are continually reminded ... "this is where I buy my seafood."

Store front promotion can be quite persuasive. Just calling attention to the seafood department can create a groundswell of enthusiasm. To the shopper uninformed about your seafood department, window signs can spark awareness. They can also reinforce your newspaper ads.

Window signs have several purposes. For some it changes awareness to interest. For others, it is creating awareness of a new product line. For still others it may be just what was needed to "tip the scales" in favor of a seafood purchase.

Activating Customer Interest

In-store promotion can accentuate shopper awareness and channel it into curiosity or interest. Shelf talkers are an easy way to continually remind shoppers of your new and exciting line of ocean products as they comb the interior aisles.

The most intriguing force of in-store promotion is the department name and logos, or photos placed where they are visible throughout the entire store. This type of atmospheric promotion communicates a general idea or theme to customers. Upon seeing a fishnet or a seafood mural, customers make an immediate connection with the ocean. Atmospheric promotion can really spark customer interest and draw them to the seafood department in the store.

Developing a Desire for Seafood

Although advertising and in-store promotion help keep the seafood department on the customer's mind, the department proper, consisting of the product display and point of purchase promotional material, is crucial in pulling customers to the seafood department.

Point of purchase promotion reinforces the idea of seafood generally and should draw attention to your offering. Recipes, consumer information on nutrition, and freezer strips all serve to successfully promote seafood and entice the shopper into buying and serving seafoods. This type of promotion is especially effective for certain under-used or unknown species. In fact, promoting these underutilized species often provides a real value to the customer as well as a satisfactory return to the store.

While each of these components helps build shopper interest for seafood, the single most important consideration in a marketing effort centers on the display case. The case is where customer interest can be heightened to desire (and a purchase), or turned off. Many successful seafood retailers claim that the case is like the heart of the body; by maintaining it, seafood sales will increase, but disregarding it will cause the entire department to wither and die. (Gillespie, et al., 1977)

Individual situations will dictate whether a service or self-service case will best complement the seafood department and parallel other, existing deli and meat departments. Regardless of which case type is used, the guidelines for developing a display which attracts customers are really the same.

The key to an effective display rests in the word "MERCHANDISE."

Maintain a wide variety of fresh and frozen seafood. A broad seafood selection increases sales opportunities. (This is a cardinal rule of good merchandising.)

Each different product should be placed in narrow rows or "ribbons" running from front to back of the case.

Remove unappealing merchandise. This can ruin the visual effect of an entire display.

Check the entire seafood department at least twice a day to replenish dwindling stocks and straighten and reorganize misplaced packages.

Have packages tailored to seafoods. All packages should be leakproof, odor proof, secure, and clearly labeled with the market form.

Alternate light and dark seafoods to help make each type stand out. Plastic greenery strips and lemons may also be used. Contrast has eye appeal!

New items should be placed on the bottom, and old items on top when restocking.

Department-wide appeal should be the rule.

Images of abundance are important in good merchandising. Keep the case filled with fresh ice (if service) and fresh seafood. (This is the other cardinal merchandising rule.)

Safe temperature ranges should be adhered to. Don't build a seafood display above the load line, as top items may become warm.

Evaluate the display by viewing it from the customer's vantage point ... in front of the case!

The last letter of merchandise, 'E', refers to evaluating the seafood department. With poor experiences in shopping for seafood contributing to low home consumption, a customer's opinion (their evaluation) can literally make or break a sale. Special care should be exercised to insure the customer arrives and leaves with a positive attitude toward the department, the display, and the point of purchase material.

One way of evaluating your entire marketing effort from the customer's perspective is to follow the "3-C" rule. The 3-C rule refers to convenience, cleanliness, and color.

Is the marketing effort for seafood convenient? This is a "broad brush" question, but the customer should sense convenience from whatever vantage they take. Thus, the departmental "atmosphere" right down to the package, should not escape the retailer's scrutiny.

Is advertising accessible?

- Can shoppers peruse ads to find specials?
- Are storefront ads visually accessible?

Is the department in a convenient spot?

- Do customers get snarled up trying to move through it?
- Are products visually and physically accessible?
- Are packages accurately and legibly weighed, labeled, and priced?
- Is there ample promotion preparation material?
- Is point of purchase material accessible?
- Are sales people helpful?
- Will actual preparation be helpful?

Is the seafood department clean? This "C" is a very important consideration. The manager should be on guard for anything customers may see, smell, or sense which would presuppose an untidy work environment, display case, product, or employee.

Do the walls and floors connote cleanliness?

Are they kept clean through regular maintenance?

Is the display case free from any annoying effects, such as a jumbled array, dirty ice, or torn packages?

Are the packages themselves odor and leak proof?

Do my employees intimate the idea of cleanliness in their appearance, their mannerisms, and their handling of a customer's purchase?

Colorful is the last 'C'. Is the retailing effort a colorful one?

Does the department maintain good color contrast which sets it apart from other perimeter sections?

Is the lighting casting the product in a warm appetizing glow, or washing it out?

How well is the promotional material complementing package wrap and other colors in the seafood section?

Are the labels beckoning to the customer and adding that needed color contrast?

Finally, are the slogans colorful and vivid in their description of the department and the line it handles?

This checklist allows the retailer to preview his efforts through the consumer's eyes and alter any situations which don't measure up before the customer catches them. The "3-C" rule also allows a comprehensive assessment of seafood marketing practices, from newspaper ad layout and copy, to product labels and point of purchase material. Through continual use of these sorts of questions, a seafood department can constantly be evaluated and upgraded, making negative shopping experiences a phenomena of the past.

Integrating Your Seafood Merchandising Effort

Thus far, an action plan has been discussed which will mesh with the shoppers' attitudes about seafood and their process of making a purchase decision. This action plan has described all of the principles which affect a good merchandising plan, but it has not explained any specific considerations such as what types of products to purchase, what contingencies are available when certain products are in short supply, or how to tie in with existing supermarket trends.

Fine tuning a retailing effort requires a systematic use of information; information about customers, seafood products, and market news. Customers can provide a wealth of knowledge which will impact upon an entire operation. For instance, the day(s) of most seafood purchases will establish a delivery time. Awareness of these types of issues will better direct a retailing effort so that the product line and its presentation can really parallel the needs of target markets.

Initiating a seafood retailing effort may place you in an "information vacuum." How do you know what people will buy? Some indication may be available from the frozen seafood inventory sheets. Are people buying "luxury" seafoods such as crab, shrimp, scallops, or cocktails, or "staple" items such as breaded portions. In the northeastern United States, some

market research has been done which suggests that many customers enjoy skin-off fillets. If the target market does not have a strong orientation towards seafood, a prudent operations plan might be to begin with skin-off fillets. Initiate customers with a product they can be comfortable with, and gradually help them gain confidence with other forms and species.

Deciding on the market form is not a difficult choice; after all, there are only five forms of fresh fish: whole, drawn, dressed, chunks and steaks, and fillets. However, the seafood buyer is literally faced with a "net full" of species from which to choose.

How does one select an appropriate product mix for a given market area? Again, customer orientation is the key. This orientation will establish some bounds of operation. Are budgets tight in your market area? If so, fillets of traditionally purchased finfish may be an unaffordable option to beef and poultry. Furthermore, at certain times of the year, the traditionally purchased species may be prohibitively expensive because of quotas and closed seasons. Even if the wholesale price allows a margin, the retail price may create a slow-moving product. What can be used to fill this gap in supply?

Although there are numerous species, many kinds of seafood may be grouped by their texture, flavor, and color similarities. (The federal government is developing just such a nomenclature system which would categorize and describe seafoods by their product characteristics instead of the names which, in many cases, is the only unpalatable part of the fish.) Thus, if Cod is priced too high for a target market's budget, why not stock a lower priced item such as Pollock or Greenland Turbot. In these contingency plans, ordering is only half the requirement. Proper promotional follow through is required to soothe the customers' perceived risk of buying an unfamiliar item. Your sales person behind the counter can turn this

alternative specie into a quick mover by reducing the customers' anguish. Also, by providing recipes which spell out substitutes, seafood lovers can be kept happy regardless of what is offered as long as it is within a similar product class.

To make a point, who asks for Angus or Hereford steak? Consumers want steak. One main reason why customers want a certain specie is because they are comfortable with it, but unfamiliar with other similar products. The onus is on the retailer to help make customers comfortable with under-utilized species. This is accomplished through education (promotion).

Given this information about actual products, how can an annual procurement plan be developed which accounts for seasonality and price fluctuations?

The National Marine Fisheries Service publishes a series of Market News Reports for each major fresh fish market in the country. These reports are historic in nature and cover: the quantities delivered to the market, a range of prices and the demand for products in the market (steady, all sold out, etc.). While this information is helpful in deducing general trends and certain seasons, it is not a complete market information system. Figures are collected by market news reporters who rely on contacts in the market to give current information. Quality, which can significantly alter the asking price of fresh seafood products, is not a factor in determining the prices for these market news reports. Thus, an item of poor quality may be listed at a lower wholesale price than an item with a much longer shelf-life. In summary, Market News Reports serve as a guide to trends in the seafood market-place but are not the last word on the "price of quality"; conversely, a reputable seafood supplier is!

Tying in with Supermarketing Trends

The supermarket business is a most dynamic industry. In an effort to better serve the sometimes harried, but always demanding customer, certain changes are taking place in many stores. These trends are gradual changes which are occurring over the long run. They may not be widely nor wholeheartedly accepted; however, these trends are surfacing in varying degrees in greater numbers of stores. Trends in supermarketing relate to three ideas: the new concept of supermarkets; attempts to protect profit margins; and new display techniques. A seafood program can be related to each of these trends, and find additional justification for a profitable niche in the supermarket.

Supermarketing's New Image

Many stores are becoming malls in their own right. Certain parts of the store are beginning to establish their own identity, separate from the store, but always related to it through advertising. For instance, the meat counter is sometimes referred to as "The Butcher Shop," and produce and dairy departments are following suit. In many cases, the only changes are packaging, displaying, cross merchandising, and perhaps uniforms by departmental employees. While these modifications outwardly change the look and image of a commodity section, product lines and customer services may remain the same.

A seafood department is a natural for this shop within a shop idea. Through the use of a comprehensive image campaign using names, stick-on labels, and other motifs, a seafood department can gain the recognition and traffic necessary to make a strong contribution to overhead.

Margin Maintenance

All businesses are caught in the profit squeeze today, but retailing establishments, since they are caught between consumerism and rising input

prices, may be the most affected. In an effort to protect overall margins, some retailers are handling a wider variety of products. This practice of handling a broad array ties in nicely with customers' whims and their needs for one-stop shopping. Retailing certain high markup items can contribute to overall store performance at the same time.

Seafoods generally carry higher gross margins than fresh meat items; generally around 30 percent. Making this high markup commodity group a profitable line depends on the mix of seafood and the promotional strategy designed to move the mix; each related to the characteristics of the target market.

Display Techniques

Innovative display techniques are one of supermarketing's pioneer efforts. Aside from making the shopping experience convenient, certain display programs can, in the long run, increase contribution to overhead. By displaying merchandise so that the customer can shop comparatively for a specific item, retailers are finding greater movement of private labels which contain a greater contribution to overhead. In other words, all brands of an item are grouped together so that customers can directly compare the cost of all brands, whether national, private, or general.

This type of display is certainly apropos for a seafood department. Within reason, most white fleshed seafoods are substitutable in recipes. By developing a display based on product characteristics of texture, color, and oiliness, many different items can be stocked under one heading. Thus, the customer has a wide variety of products, and prices, to choose from. With substantial price (and markup) differentials in seafood, this type of display can get customers oriented to the similarities of seafood while helping them purchase more low cost (and higher markup) items.

Just displaying seafoods in this manner is no guarantee of movement. Proper promotional follow through is required. In this particular instance, recipes need to be geared to a wide range of substitute species. Recipes might say something like ... use two pounds of trout, or any white fleshed mild fish ... Thus, when the customer decides on a recipe, the purchase can be tailored to budget constraints while still enjoying seafood's nutritional and preparation attributes, and learning more about its versatility.

This idea is virtually untested, and would require some innovative promotion, but the lure of a rapid turnover of high markup items could certainly make merchandising by product characteristics a viable theme in any supermarket.

These three innovative, progressive changes are occurring to take advantage of customer lifestyles and help shoppers derive greater value from their food purchases. Of late, time is a precious commodity, and customers are becoming interested in one stop shopping. Customers are also looking back to the nostalgia of specialty markets. The store within a store concept gives the customer a feeling of the specialty store coupled with the convenience and pricing of supermarket shopping. Other customer trends are more "penny pinching" and a greater interest in personal hygiene and nutrition. While the customer may be searching for nutritious foods, he is also looking for ways to cut corners. By displaying seafoods with the product characteristics as a theme, customers can be enticed into selecting nutritious products within their individual price ranges while simultaneously, retailers receive greater contribution to overhead.

A Systematic Perspective of Managing the Seafood Effort

Throughout the last section, constant reference was made to activities which needed to be performed in order to achieve the seafood department's

objectives. "Taking the customer by the hand" is the process which will net the most sales and repeat business. This "spoonfeeding" must occur from the time an individual opens the newspaper to check weekly ads until a seafood purchase is made. Someone should be responsible for making sure that the action plan is properly developed and implemented. Assuring that the plan is properly implemented takes on a host of activities from checking incoming inventory for quality to evaluating the department through the customers' eyes using the "3-C" rule.

Just because top management has committed a portion of the walls and floor space to a seafood effort is no guarantee of success. As has been discussed, seafood takes on different traits from the time it is placed at the back door until it is sold. Throughout these stages, different managerial oversight is required to insure that the product is being received, handled, and marketed for its greatest return.

Potential purchases (deliveries) have to be inspected for quality; records need to be updated so the first product in can be the first one out; and storage practices must be scrutinized. Similarly, a retailing plan must be created and implemented so that seafood inventory can generate profit.

While all perishable deliveries need the care that seafood receives, the customer, and the uncertainty and unfamiliarity with seafood as a home-consumed item, places additional responsibility on the seafood department. The seafood department has to "turn the customers' perceptions around" and awaken them to: 1) a tremendous value for their food dollar; 2) a unique, alternative source of high quality body maintenance foods; and 3) an easily prepared, tasty dish.

This is quite an undertaking, and with a qualified manager in the operation from start to finish, your objectives for the seafood department will be realized.

REFERENCES

Gillespie, S. M. & W. B., 1977, Seafood Retailing, 2nd Edition, Texas Parks and Wildlife, Austin, Texas.

Participants Exercise

Fresh Seafood Display

Jim wanted to determine whether his fresh seafood display was providing Landover customers with information and incentives for purchasing fresh seafood in his department. Discuss his merchandising display in your small groups.

Service Department _____

Self-Service Department _____

List four merchandising strengths you observe in the Seafood Department.

EXAMPLE: 1) Landover Market features fresh seafood items in their weekly newspaper ads.

List four changes your group would make to improve Landover's display of fresh seafood.

WORKSHEET FOR BUILDING SEAFOOD DISPLAYS

WORKSHEET FOR BUILDING SEAFOOD DISPLAYS

Participants Exercise

"Seasonal Procurement and Merchandising Case"

Jim Landover has been selling a moderate seafood mix for the past few months. He has been averaging \$2,500 weekly, or about 5.5 percent of total meat sales.

Jim has seen that the traditionally-used finfish species (cod and yellow-tail flounder) have accounted for the majority of sales over the past months. He maintains crabmeat and shrimp as infrequently purchased luxury items and is satisfied to take a high margin on these slower moving items. The balance of his finfish assortment represents "money in the bank" to Jim if he can start moving these items. With low prices, he feels that extraordinary margins can be obtained while still giving the customer a good food value.

From his inventory records, Jim has been noting a general increase in the prices of cod and yellowtail flounder. He is concerned about maintaining turnover, and expects his gross margins to suffer on these items.

The week before Thanksgiving, Jim receives a call from his supplier who says, because of strict catch limitations, the delivered cost for cod and yellowtail should jump about 30 percent. Thus, the new cost for cod and yellowtail would be \$2.92/lb. and \$3.96/lb. respectively.

With these two items contributing heavily toward Jim's profit and sales objectives he is concerned about abandoning them. However, given the budget constraints of his target market, Jim feels that his retail price increase might dampen the demand he has been cultivating. Therefore, Jim decides to handle small quantities of cod and yellowtail. But, he must order other products to fill the gap.

Jim has a week to develop a contingency plan for meeting the fresh seafood demand which is steadily increasing as the holiday season approaches.

Specifically:

- I. What procurement and price strategy can Jim follow in rearranging his seafood mix assuming that cod and yellowtail account for 3 percent and 2 percent respectively of total seafood sales?

In other words, what seafood items can Jim assemble which will fill the gap left by his ordering less cod and flounder?

(Use the hypothetical product and price list in the Exhibit).

Remember: Jim doesn't want to price any seafood less than \$1.50/lb. He is aiming for at least a 30 percent gross margin, and wants his sales to remain at \$2,500/week.

- A. What products can Jim order?
- B. What contribution should each product contribute toward total sales? (use percentages)
- C. What will Jim price these products for?
- D. How much of each product will Jim order? (use formula in Exhibit 3)

By answering A-D you have determined the mix of seafood to be sold, priced that mix and established your sales goal.

- II. What merchandising and promotional follow-through can Jim develop to help move this new, somewhat unfamiliar mix of seafood?

- A. How should he communicate the change in mix to his target market?
- B. What merchandising techniques can Jim use to help customers understand the similarities in the new species he is retailing?
- C. What promotional and point of purchase support can Jim provide to insure his sales goal will be reached and his customers kept happy?

By answering A-C you have designed an action plan which can help you attain your sales goal.

Exhibit

Product and Price List

White Meat: Very Light, Delicate Flavor

Cod	\$2.92/lb.
Yellowtail Flounder	\$3.96/lb.
Lake Whitefish	\$1.35/lb.
Haddock	

White Meat: Light to Moderate Flavor

Whitting	\$1.00/lb.
Gray Sea Trout	\$1.50/lb.
Butterfish	

Light Meat: Very Light, Delicate Flavor

Sea Bass	\$2.00/lb.
Brook Trout	
Ocean Perch	
Pollock	\$1.00/lb.

Light Meat: Light to Moderate Flavor

Pollock	\$1.75/lb.
Spot	

Crabs:

Blue Crab Special Pack	\$4.30/lb.
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Shrimp:

PHD Shrimp	\$4.30/lb.
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IDEAS FOR SEAFOOD IN THE DELI

Laurie Dean

There are many seafood items that might fit well into deli cuisine, provided the proper holding temperatures are maintained within the food and some care is taken with the preparation to ensure both palatability and eye-appeal in the finished product. It is easy to imagine that the homemaker who likes seafood, but is unsure of how to cook it, would buy it from a deli that produces a quality product. Then too, with more homemakers working outside the home now, spendable income is increasing while time for food preparation is decreasing, and a deli that offers quality seafood can become a truly viable operation.

Seafood used in the deli could be cooked and further prepared on the premises using seafood that has not sold within a 24-hour period or it could be items specifically ordered for deli use.

Depending on the capabilities of the deli, the following are some ideas for utilizing seafood:

Cold Items

Salads

Crab
Squid
Shrimp
Lobster
Scallop (remoulade sauce is
good on cold scallop
Flaked fish
Smoked Fish

Fish cubes in combination with
vegetables and fruit
Pickled fish and/or
Salted fish in combination with
cheese and fruit
Pickled shrimp
Fish and Potato Salad
Seafood Mousse

Sandwiches

Flaked fish sandwich
(similar to tuna)
Crabmeat

Shrimp - or
Lobster hoagies

Hot Items

Salads

Hot fish potato salad
Hot deviled crab - or
Crab stuffing

Sandwiches

Fish portions
Fish cakes
Poor boys (oyster, shrimp,
crabmeat with chesse, clam)
Seafood piroshki

Soups

Gumbo
Bouillabaisse
Chowders (fish or clam, -
Manhattan or New England
style)

Ethnic Items

Sardines
Anchovies
Lox
Kippered herring, etc.
Clamari - fried or in insalata
di mare

Hors d'Oeuvre Items for Delis that Cater Parties, etc.

Hot crab ball
Boiled or steamed shrimp
with sauce
Pickled shrimp
Smoked fish butter
Shrimp butter (called "Biloxi
Butter")
Crab dips and spreads
(hot and cold)
Open-face fish finger
sandwiches
Marinated oysters
Smoked oysters
Marinated crab claws

Seafood stuffed puff pastry
Seafood stuffed Cherry Tomatoes
Angels on horseback
Seafood stuffed mushroom caps
Seafood pate
Shrimp in aspic
Tempura style seafood set ups
Cocktail skewers of shrimp or
oysters with bacon, mush-
rooms, and green peppers
Seafood stuffed eggs
Seafood empanadas

SLIDE SHOW

The following are descriptions of slides depicting some ideas for seafood in the deli.

SMOKED FISH FILLETS

1. Time involved to produce this recipe depends on size of the fish and the amount to be cooked, but does not require constant attention. For retailers interested in producing this product, small, relatively inexpensive commercial smokers are available. An imitation of this product can be produced by basting fish with liquid smoke and oil and then grilling or broiling after soaking in brine. It is passable but certainly not as good as the original. The product can be made from almost any kind of fish, so is an excellent way to take an inexpensive and sometimes hard to sell fish and with a little bit of time and a small amount of effort create a high priced gourmet item. This item is best served hot (140°F) or slightly higher. If not consumed it can be frozen and then used in the following spread.

SMOKEY FISH SPREAD

2. The smokey fish spread can be sold as a salad, a sandwich spread, or an hors d'oeuvre (with crackers). The only time consuming procedure involved is deboning the fish. Every other step can be done mechanically in less than 5 minutes. The amount of ingredients other than the fish and mayonnaise is almost miniscule. Once again, many different species of fish can be used . . . especially good for this are smoked mullet, smoked bluefish, or smoked trout. The spread should be kept at about 40°F or below and will last about 3 days.

SEAFOOD SALAD

3. The seafood salad filling can be made from a variety of fish, but a mild flavored fish will sell best. The fish cooking method can vary, but poaching or microwaving in liquid is recommended to retain moisture. Poaching (cooking in liquid) and microwave cooking are both inexpensive and efficient from the standpoint of time and energy usage . . . fillets, depending in size will poach in 5 to 10 minutes. This is an item which should be kept cold (40°F or below). It is versatile enough to be sold as a sandwich filling, a stuffing for tomato cups, or a salad on a bed of lettuce. Once again, everything but the fish flaking can be done mechanically in less than 5 minutes.

NOTE: Microwave time is very short but will increase with the mass of food to be cooked.

NEW ENGLAND CLAM CHOWDER

4. This New England Clam Chowder is a gourmet item and will bring whatever the market will bear. It has a hearty base of milk, potatoes, and clams

and served with crackers, toast or muffins is a meal in itself. Timewise, once the potatoes are cooked and chopped, a recipe of this chowder can be made in less than 30 minutes. Institutional size cans of New England chowder are also readily available on the market, and with a little extra added "pizzazz" some of these institutional brands could make you famous! Chowder should be served hot (140°F or higher). With the homemade chowder, the aroma of the bacon and onions alone will attract customers to this item. If kept at 140°F or higher (but below the boiling point) this item will last all day.

5. This slide is of blue crab cocktail claws, a delicious hors d'oeuvre that requires no preparation except mixing of a dipping sauce (i.e., ketchup and horseradish). OMNI International Hotel in Norfolk charges \$100.00 for 100 (approximately two pounds) of these cocktail fingers on a buffet catering line.
6. This is a buffet table with heavy seafood hors d'oeuvres -- i.e., crab fingers, boiled shrimp, vegetables with crab and shrimp dip, and smoked fish spread. Once again, for these items, OMNI would charge \$100.00 for 100 pieces of both crab fingers and shrimp and almost that much for the vegetable tray with seafood spreads!
7. This table is full of some gourmet seafood preparations that can be delicatered. Starting at the bottom of the slide are:
 - a. Coquilles St. Jaques -- scallops poached in wine and served with a mushroom cream sauce
 - b. Oysters Rockefeller
 - c. Fish cooked in parchment paper
 - d. Pasta with red clam sauce
 - e. Seaweed rolls
 - f. Salmon wrapped pastry
 - g. Smoked fish fillets
 - h. Crabmeat crepes
 - i. Tempura

NEW ENGLAND CLAM CHOWDER

(Adapted from Maryland Cookbook #2)

INGREDIENTS

24-26 (1 cup) PORTIONS

DIRECTIONS

Potatoes
Salt

- 4 whole large (about 1 lb.)
2 teasp.
1. Pare potatoes, and cook in boiling salted water until tender. Drain and chop into bite-sized pieces.

Bacon*

8 strips - about 2/5 1/2 lb.

2. Cook bacon until crisp, remove from pan and chop.

Onion, chopped
Clams

1 c.
48 oz. canned, chopped, with broth
or 3 dz. chowder sized in-shell**

3. Cook onion in bacon drippings until clear.
4. Add clams with broth and simmer about 5 minutes.

Margarine
Flour
Milk

1 stick (1/2 lb.)
1 c.
2 qt. (1/2 gal.)

5. Melt margarine in stock pot. Add flour, cook and stir for a minute or two to cook flour. Add milk slowly -- cook and stir until mixture thickens.

Worcestershire sauce
Half and Half
Pepper

approx. 2 tablesp.
2 c.
1 teasp.

6. Reduce heat, add potatoes, clam/onion mixture, bacon pieces, Worcestershire sauce and pepper. Add half & half. Heat until hot but do not boil.

* Artificial bacon pieces may be used and shortening substituted for bacon drippings -- this will affect final balance of flavor however.

** Shuck shell clams, reserve and strain liquid. Chop clams fine, measure liquid -- if necessary add water to equal 3 c.

SEAFOOD SALAD SANDWICH

INGREDIENTS

AMOUNT FOR 24 PORTIONS
(for sandwich, tomato
cup or on lettuce)

Cooked flaked fish
Hard-cooked chopped eggs
Chopped olives
Mayonnaise
Chopped celery
Chopped dill pickle
Horseradish
Pepper

3 lb. or 8 c.
1 dz.
3 c.
1 1/3 c.
2 c.
1 c.
3-4 tablesp.
approximately 1/8 teasp.

DIRECTIONS

1. Chop vegetables and eggs in food processor if desired
2. Combine all ingredients and mix thoroughly. Salt to taste and chill. Serve mixture as a sandwich spread, in tomato cups, or in lettuce leaves as a salad.

SMOKEY FLAVORED FISH SPREAD

INGREDIENTS

PORTIONS

49 (1 cup) portions

DIRECTIONS

Smoked Fish *

21 pounds

1. Remove skin and bones
flake fish well

Onion, minced

½ c. + 1 teasp.***

Finely chopped celery

½ c. + 1 teasp.***

Minced garlic

12-14 cloves (depending on strength
desired)***

Finely chopped sweet pickle

1 ¾ c.

Parsley

1 ¾ c.

Mayonnaise

14-17½ c.

Mustard

7/8 c.

Worcestershire sauce

to taste (several dashes)

2. Chop vegetables in food
processor,** measure and
blend with all other
ingredients. Chill for
at least 1 hour.

* Almost any specie of fish can be used. Fillets may be first poached, flaked, and mixed with liquid smoke to taste if conventionally smoked fish is not available.

** If dried vegetables are substituted for fresh, adjust amounts used according to manufacturer's directions.

*** May be increased to taste.

RETAIL MARKETING OF FRESH SEAFOOD

A Summary

Charles W. Coale, Jr., Don L. Long, and George H. Harrison

Marketing fresh seafood in retail stores may be best accomplished through a systems approach. Participants of a retail workshop learn about seafood marketing and the systems approach through lectures, case studies, slide series, and practical exercises. Three systems are highlighted in a fresh seafood department -- management, quality maintenance and sanitation, and merchandising. The notion of departmental profitability was stressed throughout the total program. The importance of management planning is stressed by illustrating the development of action plans supporting the systems approach to marketing fresh seafood.

Marketing fresh seafood may not be a feasible merchandising alternative for all retailers. However, if a carefully documented analysis indicates there are greater benefits than costs associated from the establishment of a fresh seafood department, management should consider it.

The Management System

Top management must make a commitment to support a fresh seafood department by allocating resources -- personnel, funds, and space -- in adequate amounts to ensure departmental success. Continuous management planning begins with establishing departmental objectives designed for profitable fresh seafood operations. Store management is concerned about total store profitability and the seafood department should contribute to this concept. There are certain sales-related objectives that management expects from the seafood department -- sales, gross margin,

inventory turnover, etc. These objectives should be supported by an in-store marketing plan consisting of detailed plans for sales, procurement, inventory, labor, quality assessment, and facilities.

A well-thought-out sales plan should serve management as a marketing tool. Its value is shown by the gross sales and gross margin dollars generated by each fresh seafood product sold by the department. Adequate gross margin dollars are a necessary condition for covering the costs incurred in operating the department. Gross margin dollars generated from seafood sales must exceed the costs of the department to provide an adequate contribution to overhead. Management will expect a contribution to overhead from the fresh seafood department.

There are many methods for controlling cost in the fresh seafood department. These methods include various work study and analysis techniques utilized in industrial engineering. Management oriented cost control techniques discussed in this workshop include utilizing on-site records, effective labor scheduling, and proper definition of duties and assignments for personnel in the seafood department.

The departmental manager is another key to successful and profitable operation of a fresh seafood department. In our systems approach for retailing fresh seafood, the job analysis chart, consisting of four categories, gives the seafood manager enough authority to achieve the objectives set for the seafood department. The job analysis chart is developed from data collected from the manager's daily routine and illustrated by a diary of his activities. These activities are analyzed by a time use chart. The chart divides the activities into management (thinking and operational), and labor (productive and non-productive) functions. These data and other managerial insights (action plans) are utilized during the development of

the job analysis chart. Store management and the seafood manager jointly develop a clearly defined set of duties, the corresponding authority, a management information system (controls), and determine the resources needed to support each duty of the seafood manager. It is important that sufficient authority be granted the seafood manager for each duty that management expects him to perform. If this authority is not granted, the seafood manager is reduced to performing tasks and management does not receive the fullest contribution of the seafood manager. On the other hand, management must have an information system to ensure that the seafood manager is performing according to the job analysis agreement. Finally, resources must be allocated to support the manager. These resources may be in the form of training, equipment, funding, space, etc.

Quality Maintenance and Sanitation

Many independent retail stores receive fresh seafood deliveries once a week. Fresh seafood is highly perishable. So, retailers must take precautions to protect the quality of fresh seafood once it is in the retail store. Retailers have available procedures and techniques to extend the shelf life of fresh seafood.

Packaging materials and techniques protect the shelf life of fresh seafood. Proper packaging protects fresh seafood from outside contamination, protects other commodities from seafood, enhances sales appeal, and puts fresh seafood on more equal terms with other food commodities.

Many factors affect the shelf life of fresh seafood, but the control of four major factors -- initial product quality, temperature, contamination, and cross-contamination -- will improve consumer satisfaction from fresh seafood.

Probably the most important of these factors is initial product quality. If fresh seafood arrives at the retail store in poor quality, its quality characteristics cannot be improved, regardless of the environmental conditions at the store or expert handling by personnel. The best insurance against receiving poor quality fresh seafood is selecting a reputable seafood distributor, establishing quality standards, and checking all incoming fresh seafood against these standards. Fresh seafood quality and price usually are related. The lowest priced fresh seafood may not be the best buy for a retailer and his customers.

Fresh seafood should be maintained at a constant temperature of about 35 degrees Fahrenheit. If this temperature varies upward for an extended period, fresh seafood shelf life is drastically reduced. The seafood manager should check temperatures of all incoming fresh seafood and have the authority to reject items not meeting the temperature standard.

Fresh seafood requires special handling to prevent product contamination. Employee handling is a source of contamination when rules for hand washing, smoking, and other sanitary procedures are violated. Employee rules must be enforced if shelf life is to be maintained.

Cross-contamination reduces shelf life and may cause other dangers to consumption. Storing fresh seafood with other meat, poultry, or live seafood products may cause cross-contamination. The same dangers are present when seafood is merchandised at the retail center. Picking up and moving raw seafood products over cooked seafood is a common source of cross-contamination because contaminates fall or drop into cooked seafood.

Sanitation procedures and agents are available to help the seafood manager maintain shelf life of fresh seafood. A written sanitation plan assures the manager that all needed spaces will be cleaned. A duty list,

from the plan, assigning personnel to clean up tasks contributes to the overall sanitary conditions of the department. Many sanitizers for cleaning are available -- chlorine, iodophors, and quaternary compounds. Each set of sanitizers has certain advantages and disadvantages and its application should be studied carefully.

The Merchandising System

Effective merchandising is the third building block in the systems approach to marketing fresh seafood profitably. Customers use a definite decision-making process and seafood retailers can help with this process. One excellent merchandising theme for fresh seafood is "Value for the Food Dollar." Management has a set of merchandising tools for promoting this concept to its customers. Merchandising seafood begins with newspaper ads, store front window ads, aisle walkers, and is completed at the display case with a sale. Weekly newspaper ads stimulate ideas for seafood purchases by the consumer. These ads highlight value and serve as an aid to menu planning prior to the shopping experience. Food editors may highlight fresh seafood which complements store newspaper ads. Window ads at the store front again reinforce the value inherent in fresh seafood. Aisle walkers call attention to seafood and direct customers to the seafood department. Once at the department, the fresh seafood display must favorably impress the customer and reflect value for the food dollar. The fresh seafood display should be convenient and colorful and the department neat and clean. The department must be convenient to shop without excessive reaching or stopping; with prices clearly marked; and with all seafood items visible in the display case. The display of fresh seafood will be effective if contrasting colors associated with seafood species are used when building the display.

The department must be clean. This is demonstrated by employee dress and attitudes, the condition of the display, the condition of the floors, and other decor.

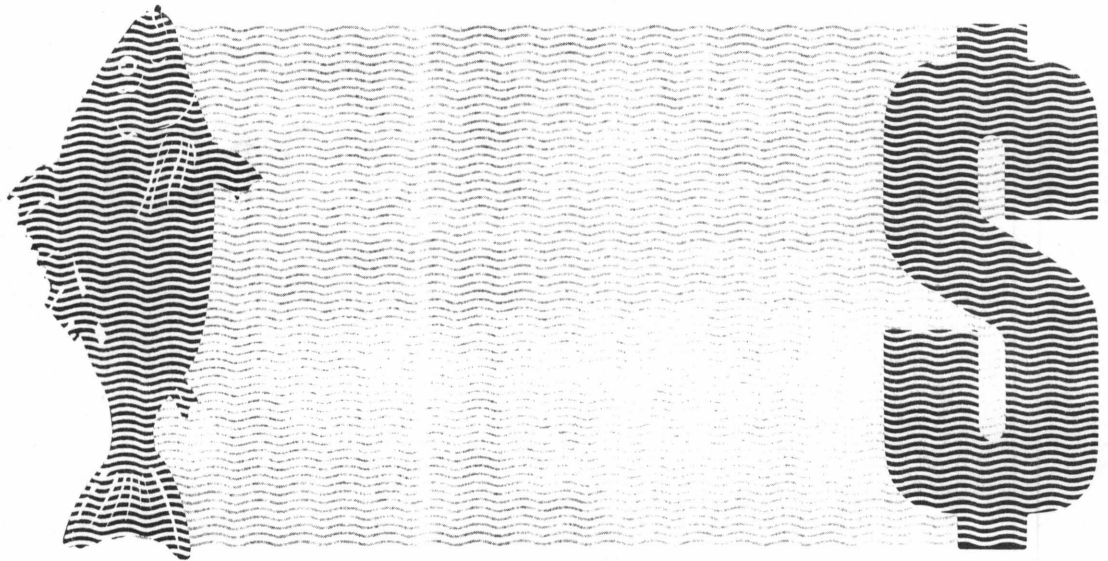
The value of fresh seafood is enhanced by effective pricing strategies. Each seafood product has periods when it is either relatively plentiful or scarce. The availability of seafood by specie and season is publicized by state seafood councils. Corresponding wholesale prices are found in various governmental and private industry reports and forecasts. This information is valuable to the retailer for developing a merchandising plan and taking advantage of the marketing opportunities for fresh seafood.

Retailers may develop their pricing strategies to generate in-store traffic and/or secure sales to make a contribution to store overhead. There are traditional fresh seafood items which are constantly in high demand. Higher than average margins should be taken on these items. However, there may be periods in the season when their supply is limited and margins will be squeezed. During these periods, many less-well-known species of fresh seafood may be substituted for the traditional highly demanded seafood with the quantities and prices in both groups adjusted according to product movement. Alternative species, many of which are close substitutes for the high demand items, can be utilized as fresh seafood specials capturing acceptable margins and giving customers a recognized value for their food dollar.

New ideas for merchandising fresh seafood may be associated with deli operations. Fresh seafood forms include -- hot and cold salads, sandwiches, soups, and other products.

Point of Purchase Videos . . .

Simply Seafood



In-store experiments show that you can increase sales up to 300% on items advertised via video! These 60 to 90 second point-of-purchase video programs offer your customers ideas on preparation of the product, menu planning, and information concerning the product's nutritional value. This marketing tool really pays off! Order your POP videos today!

TAPE I (Quantity _____)

General Cooking
Stir-Fry
Eliminating Odors
Poaching
Sauce

TAPE II (Quantity _____)

Freshness
Kebobbing
Eliminating Odors
Frying
Grilling
Steaming

TAPE III (Quantity _____)

General Cooking
Microwaving
Cooking Frozen Fish
Baking
Sauce
Recipe Substitutions

TAPE IV (Quantity _____)

Recipe Substitutions
Broiling
Eliminating Odors
Stews
Freshness
Cold Salads

Price

1-10 tapes:

\$50 each

11 or more tapes:

\$35 each

IMPORTANT: Return this entire page to FMI when ordering your video tapes

NOTE: Each tape contains 30 minutes of the 60 or 90 second commodity message.

These consumer programs were jointly produced by:

Food Marketing Institute
Virginia Marine Products Board
Gulf & South Atlantic Fisheries
Development Foundation
National Fisheries Institute



To: Food Marketing Institute
1750 K Street, N.W.
Washington, D.C. 20006
(202) 452-8444

FOOD MARKETING INSTITUTE

SHIPPING INFORMATION
Please print or type

Name _____

Title _____

Company _____

Address _____
(Street Address ONLY No P.O. Boxes)

City _____ State _____ Zip _____

Country _____ Telephone () _____

I need the format as checked:
 1/2" VHS
 1/2" BETA
 3/4"

TOTAL TAPES _____ TOTAL COST = \$ _____

ADD POSTAGE & HANDLING
Domestic: 10% of order up to a maximum of \$30.00 = \$ _____

International (air): 20% of order up to a maximum of \$75.00 = \$ _____

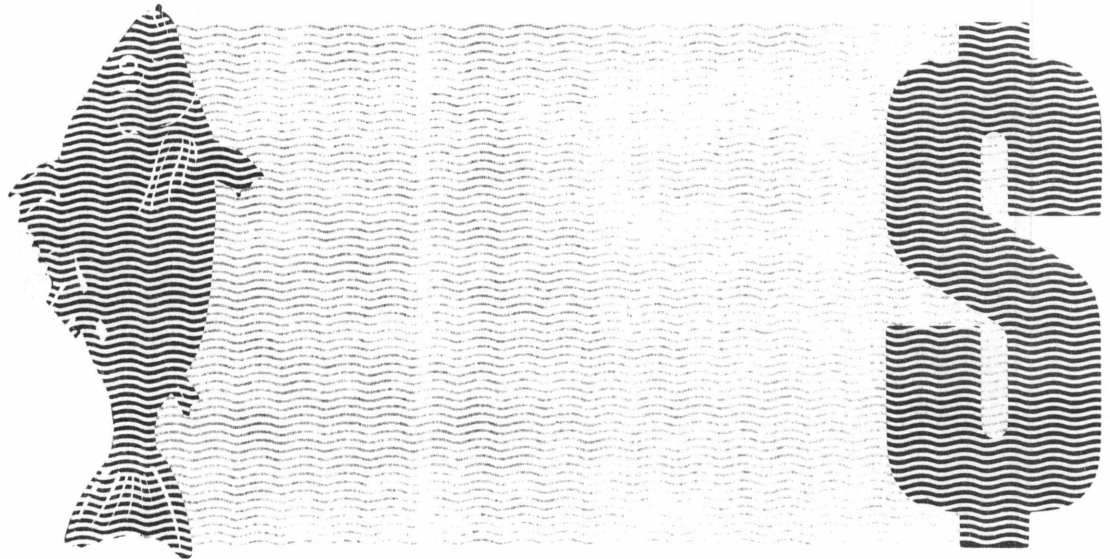
GRAND TOTAL DUE = \$ _____

Note: Payment is due with order. If paying by check to FMI it must be in U.S. funds only

I am paying by check
 I am paying by VISA Card No. _____ / _____
 I am paying by MasterCard No. _____ / _____
Signature _____
(FMI Acct. #4-297-72173)

Point of Purchase Videos . . .

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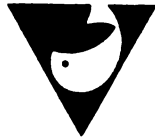
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I am paying by check
 I am paying by VISA Card No. _____ / _____
 I am paying by MasterCard No. _____ / _____
Signature _____
(FMI Acct. #4 297-72173)
Expiration Date _____
Expiration Date _____



VIRGINIA MARINE PRODUCTS COMMISSION

P.O. Box 1248 • Newport News, VA 23601 • (804) 599-7261

Shirley Estes Berg, Executive Director

Seafood Promotional Material Order Form

<u>POSTERS</u>				<u>SHELF STRIPS</u>			
<u>TITLE</u>	<u>QUAN</u>	<u>COST</u>	<u>TOT.</u>	<u>TITLE</u>	<u>QUAN</u>	<u>COST</u>	<u>TOTAL</u>
Classic Crab	_____	.35	_____	Bluefish	_____	.07	_____
Excellent Standards	_____	.35	_____	Clams	_____	.07	_____
Catch Us At Our Best	_____	.35	_____	Crab	_____	.07	_____
How to Bisect a Bivalve	_____	.35	_____	Croaker	_____	.07	_____
How to Crack Into a Crab	_____	.35	_____	Oysters	_____	.07	_____
The Best Way to Catch Fish in a Store	_____	.35	_____	Flounder	_____	.07	_____
When to Catch the Best Catch from Virginia Waters	_____	.35	_____	Scallops	_____	.07	_____
How to Dress a Fish for Dinner	_____	.35	_____	Seatrout	_____	.07	_____
Nine Ways to Deal with a Fresh Fish (Cooking)	_____	.35	_____	Spot	_____	.07	_____

The Great Taste of Virginia Seafood Cookbook

This book is 274 pages, 6x9 inches, with a spiral plastic comb binding so it'll lay flat. And the cover, printed in full color, is laminated with plastic for protection. Inside the book there are eight full color photographs, a special "how to" section with black-and-white photographs, and over 300+ recipes professionally typeset for easy reading.

_____ \$10.95 _____

Please inquire about our bulk rates. Minimum order for bulk rates...5 books.



<u>CONSUMER RECIPE BROCHURES</u> (Packets of 100, minimum.)	<u>QUAN.</u>	<u>COST</u>	<u>TOTAL</u>
Appetizers - Seafood Hors D'Oeuvres	_____	1.50	_____
Blue Crab Recipes	_____	1.50	_____
Cooking Out - Seafood Recipes for the Outdoor Grill	_____	1.50	_____
Fast Food - Quick & Easy Seafood Recipes	_____	1.50	_____
Fast Food - Seafood in the Microwave	_____	1.50	_____
Oyster Recipes	_____	1.50	_____
Scallops - A Seafood Treat	_____	1.50	_____
Thrifty Seafood - Low Cost Recipes for the \$ Conscious	_____	1.50	_____
Weight Watching - Seafood Recipes for the Calorie Conscious	_____	1.50	_____
Winter Warmers - Seafood Soups, Stews & Chowders	_____	1.50	_____
<u>COMMERCIAL BUYER BROCHURES</u>			
Virginia Seafood (Foodservice Edition)	_____	.30	_____
Virginia Seafood (Retail Edition)	_____	.30	_____
The Most Profitable Way to Carry Virginia Seafood (Retail Manual)	_____	.25	_____
How Seafood On Your Menu Can Net You More Profit (Foodservice Manual)	_____	.25	_____
<u>MERCHANDISING KIT</u> (Contains posters, shelf strips, retailers manual, other materials in box entitled "How to Become a Big Fish Selling Virginia Seafood.")	_____	5.95	_____

Sub Total \$ _____

(Residents Only) Virginia Sales Tax (4%) \$ _____

TOTAL AMOUNT OF ORDER: \$ _____

Make check or money order payable to "Treasurer of Virginia." DO NOT SEND CASH.

(PLEASE PRINT)

Name of Company _____ Attention _____

Street Address _____

City _____ State _____ Zip _____

(NOTE: Be sure to provide street address - not post office box number.)



VIRGINIA MARINE PRODUCTS BOARD

97 Main Street, Suite 103, Newport News, VA 23601 (804) 599-7261

Shirley Estes Berg, Executive Director

Seafood Promotional Material Order Form

POSTERS			SHELF STRIPS				
<u>TITLE</u>	<u>QUAN</u>	<u>COST</u>	<u>TOT.</u>	<u>TITLE</u>	<u>QUAN</u>	<u>COST</u>	<u>TOTAL</u>
Classic Crab	_____	.35	_____	Bluefish	_____	.07	_____
Excellent Standards	_____	.35	_____	Clams	_____	.07	_____
Catch Us At Our Best	_____	.35	_____	Crab	_____	.07	_____
How to Bisect a Bivalve	_____	.35	_____	Croaker	_____	.07	_____
How to Crack Into a Crab	_____	.35	_____	Oysters	_____	.07	_____
The Best Way to Catch Fish in a Store	_____	.35	_____	Flounder	_____	.07	_____
When to Catch the Best Catch from Virginia Waters	_____	.35	_____	Scallops	_____	.07	_____
How to Dress a Fish for Dinner	_____	.35	_____	Seatrout	_____	.07	_____
Nine Ways to Deal with a Fresh Fish (Cooking)	_____	.35	_____	Spot	_____	.07	_____

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Blue Crab Recipes	_____	1.50	_____
Cooking Out - Seafood Recipes for the Outdoor Grill	_____	1.50	_____
Fast Food - Quick & Easy Seafood Recipes	_____	1.50	_____
Fast Food - Seafood in the Microwave	_____	1.50	_____
Oyster Recipes	_____	1.50	_____
Scallops - A Seafood Treat	_____	1.50	_____
Thrifty Seafood - Low Cost Recipes for the \$ Conscious	_____	1.50	_____
Weight Watching - Seafood Recipes for the Calorie Conscious	_____	1.50	_____
Winter Warmers - Seafood Soups, Stews & Chowders	_____	1.50	_____

COMMERCIAL BUYER BROCHURES

Virginia Seafood (Foodservice Edition)	_____	.30	_____
Virginia Seafood (Retail Edition)	_____	.30	_____
The Most Profitable Way to Carry Virginia Seafood (Retail Manual)	_____	.25	_____
How Seafood On Your Menu Can Net You More Profit (Foodservice Manual)	_____	.25	_____

MERCHANDISING KIT (Contains posters, shelf strips, retailers manual, other materials in box entitled "How to Become a Big Fish Selling Virginia Seafood.") _____ 5.95 _____

Sub Total \$ _____

(Residents Only) Virginia Sales Tax (4.5%) \$ _____

TOTAL AMOUNT OF ORDER: \$ _____

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(PLEASE PRINT)

Name of Company _____ Attention _____

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VIRGINIA MARINE PRODUCTS BOARD

97 Main Street, Suite 103, Newport News, VA 23601 (804) 599-7261

Shirley Estes Berg, Executive Director

Seafood Promotional Material Order Form

POSTERS			SHELF STRIPS				
<u>TITLE</u>	<u>QUAN</u>	<u>COST</u>	<u>TOT.</u>	<u>TITLE</u>	<u>QUAN</u>	<u>COST</u>	<u>TOTAL</u>
Classic Crab	_____	.35	_____	Bluefish	_____	.07	_____
Excellent Standards	_____	.35	_____	Clams	_____	.07	_____
Catch Us At Our Best	_____	.35	_____	Crab	_____	.07	_____
How to Bisect a Bivalve	_____	.35	_____	Croaker	_____	.07	_____
How to Crack Into a Crab	_____	.35	_____	Oysters	_____	.07	_____
The Best Way to Catch Fish in a Store	_____	.35	_____	Flounder	_____	.07	_____
When to Catch the Best Catch from Virginia Waters	_____	.35	_____	Scallops	_____	.07	_____
How to Dress a Fish for Dinner	_____	.35	_____	Seatrout	_____	.07	_____
Nine Ways to Deal with a Fresh Fish (Cooking)	_____	.35	_____	Spot	_____	.07	_____

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Blue Crab Recipes	_____	1.50	_____
Cooking Out - Seafood Recipes for the Outdoor Grill	_____	1.50	_____
Fast Food - Quick & Easy Seafood Recipes	_____	1.50	_____
Fast Food - Seafood in the Microwave	_____	1.50	_____
Oyster Recipes	_____	1.50	_____
Scallops - A Seafood Treat	_____	1.50	_____
Thrifty Seafood - Low Cost Recipes for the \$ Conscious	_____	1.50	_____
Weight Watching - Seafood Recipes for the Calorie Conscious	_____	1.50	_____
Winter Warmers - Seafood Soups, Stews & Chowders	_____	1.50	_____

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Sub Total \$ _____

(Residents Only) Virginia Sales Tax (4.5%) \$ _____

TOTAL AMOUNT OF ORDER: \$ _____

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(PLEASE PRINT)

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Street Address _____

City _____ State _____ Zip _____

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VIRGINIA MARINE PRODUCTS BOARD

97 Main Street, Suite 103, Newport News, VA 23601 (804) 599-7261

Shirley Estes Berg, Executive Director

Seafood Promotional Material Order Form

POSTERS			SHELF STRIPS				
<u>TITLE</u>	<u>QUAN</u>	<u>COST</u>	<u>TOT.</u>	<u>TITLE</u>	<u>QUAN</u>	<u>COST</u>	<u>TOTAL</u>
Classic Crab	_____	.35	_____	Bluefish	_____	.07	_____
Excellent Standards	_____	.35	_____	Clams	_____	.07	_____
Catch Us At Our Best	_____	.35	_____	Crab	_____	.07	_____
How to Bisect a Bivalve	_____	.35	_____	Croaker	_____	.07	_____
How to Crack Into a Crab	_____	.35	_____	Oysters	_____	.07	_____
The Best Way to Catch Fish in a Store	_____	.35	_____	Flounder	_____	.07	_____
When to Catch the Best Catch from Virginia Waters	_____	.35	_____	Scallops	_____	.07	_____
How to Dress a Fish for Dinner	_____	.35	_____	Seatrout	_____	.07	_____
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Cooking Out - Seafood Recipes for the Outdoor Grill	_____	1.50	_____
Fast Food - Quick & Easy Seafood Recipes	_____	1.50	_____
Fast Food - Seafood in the Microwave	_____	1.50	_____
Oyster Recipes	_____	1.50	_____
Scallops - A Seafood Treat	_____	1.50	_____
Thrifty Seafood - Low Cost Recipes for the \$ Conscious	_____	1.50	_____
Weight Watching - Seafood Recipes for the Calorie Conscious	_____	1.50	_____
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