

**FLORIDA COOPERATIVE EXTENSION SERVICE**  
 UNIVERSITY OF FLORIDA  
 FOR SEA GRANT COLLEGE OF THE STATE UNIVERSITY SYSTEM OF FLORIDA



NATIONAL SEA GRANT DEPOSITORY  
 PELL LIBRARY BUILDING  
 URI, NARRAGANSETT BAY CAMPUS  
 NARRAGANSETT, RI 02882

MARINE ADVISORY PROGRAM  
 REPLY TO:

3188 PGA Boulevard  
 Palm Beach Gardens, FL 33410  
 (305) 626-6900, Ext. 211

MARINE NEWS OF THE SOUTHEAST

SEA GRANT, SBDC SERVE MARINE INDUSTRIES

Florida, a state with more than 1,350 miles of coastline, has a large number of marine-dependent businesses. Many times, problems confronting these businesses parallel those of the typical small firm but often the nature of the industry creates unique concerns.

Businesses dependent on living marine resources are subject to environmental fluctuations, as well as the human impact on the habitat. This fragile balance influences capitalization; quality control; gear and habitat design; and also affects support industries such as seafood processors, marinas and boatyards. Development companies in the coastal zone must consider shore and beach dynamics to insure safety and durability of coastal structures.

The Florida Small Business Development Center program, in an attempt to answer questions in these areas, is developing a working relationship with the Florida Sea Grant College program. Congress passed the National Sea Grant College and Program Act in 1966, recognizing that sea and coastal environments deserve special attention.

Florida Sea Grant operates as a State University System program providing the means through which scholars and institutions of higher education can apply their knowledge and talents to the practical needs of the nation's marine sector.

All nine state and several private universities in Florida participate in the Sea Grant program. As part of the Florida Cooperative Extension Service, the Sea Grant Extension program utilizes 11 marine extension agents and several campus based specialists. These agents reach every coastal county in Florida through seminars, workshops, demonstrations, publications and personal contacts, representing a valuable resource to the state's marine industries.

Interface between Florida Sea Grant and the Florida SBDC represents accomplishment of a major SBDC goal - to work with existing agencies and programs to better serve the Florida small business community.

SOURCE: Florida SBDC, Dividends Newsletter, Vol. 1, No. 2, Winter 1985.

## MARINE FISHERY COMMISSION REVISITS KINGFISH

The Commission has been asked by various sportfishing groups to consider extending the king mackerel rule, which became effective December 20, 1984. The rule, designed to protect the Gulf of Mexico stock, places a two fish per person per trip bag limit on all harvesters of king mackerel, both commercial and recreational, in designated state waters during certain periods. From April 1 through October 31, the areas affected include all state waters from the Alabama-Florida border along the Gulf coast south to the Monroe-Collier counties border. For the period November 1 through March 31, when the Gulf group moves into southeast Florida, the areas affected include the entire Gulf coast and also the areas from the Monroe-Collier counties border around the southern tip of the state north to the Volusia-Flagler counties border.

The Commission is looking for input from the public to determine if further regulation is needed. Possible alternatives that will be considered include applying the daily two fish bag limit to all areas of the state at all times, or establishing additional regulation to some lesser degree in those areas which are presently unregulated.

## MARINE FISHERY COMMISSION PROPOSES RULES FOR SNAPPER AND GROUPER

The Commission's rule for snapper and grouper, expected to reach the Governor and Cabinet for final approval in March, passed with some changes, including the addition of mutton snapper to the 12 inch minimum size limit set for red and yellowtail snapper, the deletion of lane, yelloweye, and vermillion (or beliner) snapper from the daily bag limit of 10 snapper per recreational fisherman, and the deletion of the hinds and graysby groupers from the daily bag limit of 5 grouper per recreational fisherman. The species deleted are small and not considered overfished. The rule proposal also includes size limits of 18 inches for jewfish, red, Nassau, black, gag, and yellowfin groupers and 8 inches for black and southern sea bass, and prohibits the use of longline gear.

SOURCE: Marine Fisheries Commission

## NATIONAL AQUACULTURE DIRECTORY

A National Aquaculture Directory, composed of private firms engaged in marine and freshwater aquaculture is now available, announced James W. Ayers, Fishery Marketing Specialist; National Marine Fisheries Service; Little Rock, Arkansas. This directory, the first of its type, list by state and the aquacultural firms, address and kind of fish or shellfish grown.

Copies of the National Aquaculture Directory may be obtained from the National Technical Information Service (NTIS), U.S. Department of Commerce, 5285 Port Royal Road, Springfield, VA 22161 for \$16.00 (paper) or \$4.50 (microfiche). Please state NTIS accession number PBG 4244334 when ordering.

## THIRD REPORT TO THE FISH FARMERS IS AVAILABLE

The Third Report to the Fish Farmers, the Status of Warmwater Fish Farming and Progress in Fish Farming edited by Dr. H. K. Dupree and Dr. J. V. Huner is now

available. The paper bound book was published by the U.S. Fish and Wildlife Service, Washington, D.C. 1984. The paper bound book can be obtained for \$8.00 from the Superintendent of Documents; U.S. Government Printing Office; Washington, D.C. 20402. Please refer to stock no. 024-010-00654-4 when ordering. (The Little Rock N.M.F.S. Marketing Office has a limited supply and can be obtained for free on a first come-first served basis).

### SODIUM BISULFITE RESIDUE ISSUE RESOLVED

In a January 23, 1985, Federal Register notice, the FDA, acting on a petition from NFI, raised the action level for sodium bisulfite residue in shrimp to 100 ppm. The notice state:

". . . The Food and Drug Administration (FDA) is advising domestic shippers, distributors, packers, and importers of shrimp and all other interested persons that it is not consistent with current good manufacturing practice to use sulfites in shrimp in amounts that exceed that necessary for the prevention of black spotting (melanosis). FDA has determined that use of sulfites in accordance with current good manufacturing practices (CGMP) will result in a sulfite residue in the shrimp of from 60 to 100 parts per million (ppm). FDA is also advising the shrimp industry that foods containing preservatives must bear labeling stating that fact. Therefore, shrimp products in packaged form that have been treated with sulfiting agents must bear labeling declaring their presence as preservatives. The lack of such labeling constitutes misbranding. The reason for issuance of this notice is to inform the shrimp industry of FDA's concern about the presence of undeclared sulfiting agents in shrimp and of its concern about the use of sulfiting agents at levels in excess of those necessary to achieve their intended effect. . ."

"FDA will sample shrimp products to determine their sulfite content. In measuring the level of sulfites in the shrimp, FDA will thaw and without further washing or rinsing analyze the shrimp for the presence of sulfiting agents using the methods described in the 13th edition of the "Official Methods of Analysis of the Association of Official Analytical Chemists" in sections 20.106 through 20.108. . ."

"FDA is prepared to take appropriate regulatory action if the shrimp industry fails to take action to ensure that residual sulfites are present only at CGMP levels, and that the presence of sulfiting agents as preservatives is declared on the label of shrimp products in packaged form."

SOURCE: Flashes Newsletter, The National Marine Fisheries Institute.

### SURIMI

Surimi is in the news, the New York Times, USA Today, Glamour and various consumer food publications have published or are planning to publish stories about surimi-based products.

In addition, several prominent national restaurant chains, including Long John Silver's, Skipper's, and Howard Johnson's are serving menu items that spotlight a surimi-based product.

Whether you are a retailer, a restaurateur or foodservice director of an institution, you can cash in on the profit potential of this exciting new product category.

The first step is to bone up on the subject and then carefully select product forms or create menu items that will appeal to your market. As with any unfamiliar product, merchandising will be the key to selling surimi products. So the next step is a promotion plan for these new prepared seafood items. The facts that follow plus the nutrition and serving suggestions should help.

#### NATURAL SEAFOOD GOODNESS

Surimi-based products are created from fish flesh (usually white pollock from icy Alaskan waters) with natural or artificial flavoring added. At sea or ashore, fish fillets are minced and subjected to a series of washings and strainings to yield, with addition of sugar, sorbitol and salt, a concentrated fish paste. The fish paste is known as surimi, a term coined by the Japanese who originated the manufacturing process.

The surimi fish paste is then frozen, and later thawed to be restructured into various products or ingredients.

#### GROWING VARIETY OF PRODUCTS

The most common surimi-based seafood items available in the United States are simulated shellfish, including crab, scallop, shrimp and lobster-like products. In addition to this spectrum of "flavors" surimi products come in a selection of forms and textures including tails, sticks or legs, flakes, chunks, and pre-breaded morsels or portions, in both thawed and frozen forms.

#### CONSISTENT QUALITY

Formulas for surimi-based products vary from processor to processor and thus brands have individual characteristics and price structures. Some products even contain a percentage of meat from the shellfish that is being simulated.

Because of the highly controlled manufacturing process, consistency within a brand is excellent. This means that once you sample various brands and select a product, you can rely on consistent quality for your customers.

#### LONG TERM ECONOMY

Surimi-based products are economical compared to their natural shellfish counterparts and are a natural for stretching homemakers' budgets and lowering food costs for restaurants or institutions. And the already abundant supply of surimi-based products promises to grow as the U.S. surimi industry expands. More than 29 million pounds of surimi products were imported in 1983, compared to only 6 million pounds in 1981. Since Alaska pollock (the major ingredient in most surimi manufactured today) is one of the largest finfish resources in the world, the long term supply and price outlook for surimi is excellent.

#### SURIMI NUTRITION STACKS UP

Like fin and shellfish, surimi offers a high percentage of protein, important minerals and vitamins with fewer calories and less fat than comparable servings of many other protein sources.

#### CONVENIENCE AND FLEXIBILITY

Surimi-based products are portioned and shaped according to strict specifications which makes them easy to handle for both home chefs and foodservice operators. Most of the products are precooked and require only heating or finishing to serve hot and no cooking to serve cold in appetizers or salads.

As with their natural shellfish counterparts, surimi-based products offer countless serving possibilities. Seafood salads, quiches, crepes, newburgs, omelettes and cocktails; breaded and battered appetizers and entrees are all appropriate presentations for surimi products.

If you are a retailer, suggest that your customer try a surimi-based product in a favorite shellfish casserole or sauce recipe. Restaurant operators also should experiment and test products in recipes before adopting them for menus.

#### PROPER LABELING

Be certain products are properly labeled or menued to advise consumers that they are a fish or shellfish prepared product and not natural shellfish. Currently the Food and Drug Administration directive states that surimi-based products which resemble other foods and are intended to be substitutes for them are to be called "imitation". Research is underway to determine the feasibility of a unique common name for these products.

#### KEEP IT COLD, KEEP IT CLEAN, KEEP IT MOVING

Maintaining the quality of fresh and fresh frozen seafood is no mystery. Like all foods, fishery products are susceptible to spoilage and food poisoning bacteria - so bacteria control, through temperature, time and sanitation procedures, is the key. In addition, special care must be taken a) with cooked seafoods to avoid cross contamination and b) with mollusks to make certain they come from certified harvest areas.

The handling rules that follow may be used as a checklist for you to evaluate your own operation's system. If you are not already taking these simple quality steps your seafood may not be as good as it could be when it reaches the customer:

- 1) Make sure the delivery truck is properly refrigerated and check product temperature as it is delivered.
- 2) Check condition of all frozen master cases and open any damaged cases to inspect product inside. Dried moisture on master cases can indicate thawing and refreezing of product.
- 3) Use your nose to detect off odors in any part of the delivery and random check weights and counts.
- 4) Bulk packed fresh products should be re-iced before placement in the cooler at 32°F.
- 5) Tray packed products should not be stacked above the load line in a display case.
- 6) Rinse whole gutted fish and place directly on lots of flaked ice in case; rotate to cooler every few hours.
- 7) Drain excess liquid off fillets and steaks and rinse carefully in cold brine solution if there is any odor; place fillets or steaks on paper or in metal pans on ice so product is not in direct contact with ice.
- 8) Wipe excess grit off oysters and clams before placing in display case; make sure containers are surrounded with ice but do not let ice or water contact product; cover loosely, allowing shellfish to breathe. Mollusks are susceptible to contamination if they are harvested from uncertified areas; to protect yourself and your customers against dangerously tainted shellfish, you should purchase oysters, mussels, and clams only if accompanied by certification of origin and keep certification tags on file for 60 days.
- 9) Thawed shrimp should be displayed in containers with drainage holes or on top of ice; mist with ice water continuously.

- 10) Live crabs and lobsters must be kept moist and cold, either in their shipping containers, surrounded with damp cloths or seaweed or in aerated saltwater.
- 11) Canned crab meat must be sunk in ice.
- 12) Scallops should be displayed in metal trays without drainage, trays should be nestled in ice.
- 13) Containerized oyster, clam and crab meat should be kept in chipped or slush ice and handled as little as possible.
- 14) Smoked and marinated seafoods must be kept under refrigeration but should not directly contact ice; to avoid cross contamination keep smoked and marinated product separate from raw product.
- 15) Cooked seafood must be refrigerated and separated from raw product as well.
- 16) Before placing frozen product in a display case make sure it is solidly frozen, and place newer packages on the bottom to adhere to first in-first out rule; never refreeze any seafood items that have thawed.

#### PUBLICATIONS

The following publications are available from this office. Write or call:

Frank J. Lawlor  
Sea Grant Extension Program  
3188 PGA Boulevard, Room 101  
Palm Beach Gardens, FL 33410  
(305) 626-6900, Ext. 211

Discovery - SGR-70

Hurricane-Resistant Construction for Homes - SUSF-SG-76-005

Recreational Use Reefs in Florida: Artificial and Natural - MAP-9

Economic Returns in Operating Atlantic Coast  
Charter and Party Boats, 1980-81 - MAP-28

Artificial Fishing Reefs: Materials and Construction - MAP-29



Frank J. Lawlor  
Extension Agent  
Sea Grant Extension Program

NATIONAL SEA GRANT DEPOSITORY  
PELL LIBRARY BUILDING  
UNIVERSITY OF NARRAGANSETT BAY CAMPUS  
100 WEST STREET, RI 02882

RECEIVED  
NATIONAL SEA GRANT DEPOSITORY  
DATE APR 22 1988