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A Survey of Seafood Traceability and Sustainability in the United States— Processes, Regulations, and Current Initiatives

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A Survey of Seafood Traceability and Sustainability in the United States— Processes, Regulations, and Current Initiatives

Abstract

The global seafood industry currently lacks a standardized, widespread method to easily trace the chain of custody of products that they purchase. With global overfishing leading to declining fish stocks around the world, it is vital for seafood providers to have the ability to identify and buy products from sustainable fisheries that are well managed, target abundant species, and fish in environmentally responsible ways. This paper analyzes public and private initiatives that seek to provide product traceability. In summarizing the current status of seafood traceability, stakeholders agree that there are a number of challenges with trying to piece together so many records from so many different supply chain members between international trade partners and the United States. Currently, investigators can follow the paths of seafood products until they (hopefully) find the point where these paths cross. While the process might seem straightforward, it is not. Regarding traceability implementation, there is also great concern in the market about a "level playing field"- why should one supplier make an investment for the sake of traceability or sustainability when it means that a competitor can sell the same product at a lower price?

A Survey of Seafood Traceability and Sustainability in the United States— Processes, Regulations, and Current Initiatives

Prepared by Nancy A Olsen on behalf of the MarViva Foundation

June 2012

Seafood Traceability Initiatives

Traceability is a business process that enables distribution channel participants to follow products as they move through the supply chain. Each traceability partner must be able to identify the direct source and direct recipient of the product. Traceability as a business process can be utilized for a range of business purposes, including:

- Product Recalls/Market Withdrawals
- Regulatory Compliance
- Public Health Trace Backs
- Safety and Quality Assurance}
- Sustainability
- Order Management/Inventory Accuracy

With a growing wave of demand for seafood safety and sustainability, traceability systems are becoming a critical requirement. This section summarizes public and private initiatives that seek to provide all members of the seafood industry with guidance to develop and adopt business processes that provide product traceability.

U.S. Food & Drug Administration (FDA) and Institute of Food Technologists (IFT)

Under a task order from the FDA, the Institute for Food Technologists (IFT), a nonprofit scientific society that has expertise in product tracing, hosted three invitation-only Traceability Research Summits between summer and fall of 2011. The summits were funded by BASF Health and Nutrition, Underwriters Laboratories, and the Fisheries Scholarship Fund of the National Fisheries Institute. The purpose of these meetings was to bring together a diverse group of around 50 stakeholders to discuss critical issues in food traceability. Several white papers will be published describing the fruitful discussions that took place at these meetings, and these preliminary meetings will form the basis of future dialogue among all interested parties, especially as companies seek to identify efficient ways to meet new FDA regulatory requirements in this area.

IFT hosted the first summit with nearly 50 thought-leaders in traceability on July 14, 2011. Representatives from many parts of the food system, including food companies, trade associations, state and Federal government representatives, and technology providers discussed some of the key attributes of the traceability system of the future, and the key requirements and challenges related to achieving a common vision.

On the heels of a successful, thought-stimulating event in July, a group of nearly 50 product tracing experts reconvened on August 22, 2011 for the second traceability research summit. Representatives from many parts of the food system, including food companies, trade associations, state and Federal government representatives, and technology providers discussed some ongoing and future pilot studies, as well as various approaches to achieve product tracing. The meeting was held in cooperation with GS1 US, who co-sponsored the event.

A third and final traceability summit was held on November 1, 2011 at the PepsiCo Sustainability Center in Chicago, IL. Forty tracing experts attended this summit, with the most diverse group to date, coming from many trade associations, government, technology companies and the food industry. **The traceability working group's "Traceability Guidance Document" was the center of discussion**, with the summit group refining the KTE/CDE definitions and the ROI information.

All three traceability research summits were funded by IFT's Traceability Improvement Initiative, supported by BASF Nutrition & Health and Underwriters Laboratories at the Silver level and the Fisheries Scholarship Fund of the National Fisheries Institute at the Bronze level. **The full proceedings will be published in the *Journal of Food Science* in 2012.**

Technology solution providers were solicited in December 2011, and IFT is currently determining which of these solution providers will be part of the "collaborative platform" for the further implementing strategies from the pilots.

In summarizing the current status of seafood traceability, stakeholders agreed that there are a number of challenges with trying to piece together so many records from so many different supply chain members between international trade partners and the United States. Currently, investigators can follow the paths of seafood products until they (hopefully) find the point where these paths cross. While the process might seem straightforward, it is not. Regarding traceability implementation, there is also great concern in the market about a "level playing field"- why should one supplier make an investment for the sake of traceability or sustainability when it means that a competitor can sell the same product at a lower price?

National Fisheries Institute and GS1 US: Traceability for Seafood—A U.S. Implementation Guide

Bioterrorism Act of 2002 (see "U.S. Regulatory Requirements for Seafood Products") requirements for chain of custody include contact information and product data for the company that shipped the product and for the company to which the product has been shipped. Section 204 of the Food Safety Modernization Act of 2010 confirms the Bioterrorism Act and outlines further requirements for traceability pilot studies.

In May 2011, the National Fisheries Institute (NFI) published a manual entitled "Traceability for Seafood: A U.S. Implementation Guide". Recommendations are based on GS1 global standards for supply chain management and product identification. These standards were developed by industry participants to optimize business practices across supply chains worldwide. Contributors to the Guide include research scientists, government representatives, and a number of stakeholders from the seafood industry. The Guide recommends an additional voluntary approach in best practices for identifying and tracking of seafood from farm or vessel to point of sale.

This is a practical guide that is intended for those responsible for implementing traceability in their company's operations and supply chain. The document provides guidance for traceability for seafood farmers, vessels, exporters, suppliers, distributors, retailers, and foodservice operators.

The scope of the Guide establishes minimum requirements and best practices to share information among distribution channel participants. In that context, the Guide:

- Addresses traceability practices from the processing facility to the point of consumer sale to support Critical Tracking Events (CTEs) such as:
 - Product Creation/Repackaging
 - Product Shipping
 - Product Receipt
 - Product Consumer Sale
 - Product Depletion

- Considers traceability practices upstream from the processing facility, including guidance for source tracking for sustainability
- Applies to all seafood products for human consumption
- Applies to all levels of the product hierarchy including shipping logistics, unit information, lots, pallets, cases, etc.
- Includes all U.S. distribution channel participants including farms, vessels, processors, suppliers, exporters, distributors, retailers, and food service operators.

Lobster Council of Canada—Lobster Traceability Pilot Project

Formed in 2008, The Traceability Task Group (TTG) of the Canadian Council of Fisheries and Aquaculture Ministers (CCFAM) coordinated a series of three seafood traceability pilot projects in Ontario, British Columbia, and Eastern Canada. Each project focused on different species of seafood, but with shared common goals. The focus of the Eastern Canada project was lobster. The project was led by the Lobster Council of Canada and managed by the New Brunswick Department of Agriculture, Aquaculture, and Fisheries (DAAF). The goal was to implement and test a pilot system for traceability in the lobster supply chain. In August 2011, a report was published entitled “Lobster Traceability Pilot Project—Analysis Phase”. The following description is taken from the executive summary of the report.

The primary objectives of the initial “analysis” phase were to develop a gap analysis as well as recommendations for moving forward toward implementing a test system for the pilot project. The study included ten participants covering different points in the supply chain including harvesters, buyers, processors, and brokers/exporters. (Contact information for the participants is provided in an appendix to the report.) During this phase, details were gathered from the participants on their current procedures and compared to existing traceability models, standards, and regulations.

The report first looks at the participants’ current product and information flows. Findings show that:

- A majority of processors are still paper based, tracking all processes from receiving to product shipping on paper.

- Most processors receive lobster from multiple sources simultaneously and process them by batch as received.
- Many products are received and processed in bulk from multiple sources and sometimes over multiple days.

Finished consumer products are identified by UPC barcode and packaging may also include labels with the date, product, and company information. While this can provide traceability back to the final processor, issues including labels being printed in advance, as well as batching and multiple sourcing processes mean that traceability beyond this is difficult, if not impossible.

Next, the report covers traceability requirements and models based on government regulations and existing traceability programs. The primary requirement is implementation of a traceability program that can fully trace lobster, at any point in the supply chain, back to the source within 24 hours. The basic model for traceability, and one enforced by the U.S. Bioterrorism Act, is known as “one up, one down”. This mandates that each organization in the supply chain must be able to identify from whom, where, and when the product was received and to whom, where, and when the product was sent. Additional requirements to support traceability include standards for batch sizing and sourcing, standardized product labeling, and data storage.

The requirements for the pilot project were chosen to provide a solid initial basis for traceability. The mechanisms identified will be researched and considered following the completion of the pilot project, prior to a full system rollout.

Sustainable Seafood Initiatives

(Note: From the Executive Summary of FMI’s Sustainable--Seafood Retailer Toolkit: A Guide for Retailers 2012)

“Sustainable or environmentally responsible” seafood can be defined as fish and shellfish that are raised or harvested in a manner that protects not only the target seafood species but also the ecosystem, so that future generations can have access to the resource we currently enjoy.

Some of the key issues that help to evaluate whether a fishery is sustainable include:

- How abundant a species of fish is
- How many fish are being caught
- What other types of animals are caught with the fish
- Whether endangered species are harmed
- What effects the fishing gear has on ocean habitats

- The extent to which fishery management agencies adhere to science and data to manage their fisheries

Some of the key issues used to evaluate fish farming include:

- The type of system used to farm the fish
- Whether the farms release pollution into the surrounding environment
- What types of chemicals are used
- The amount of wild fish that are used as feed
- Whether the farmed species is native to where it is raised

Ensuring the continuity of the seafood supply is a core business issue. Retailers can help mitigate threats to biodiversity by choosing or sourcing sustainable species and knowing how and where each was caught or raised, taking into account the following potential issues:

Wild-Caught

- Health of fish (or shellfish) population and fishing level (stock assessments)
- Fishing methods and gear types
- Quality of fishery management

Farm-Raised

- Pollution
- Threat to wild populations
- Fishmeal or fish oil used in feed

Sustainable sourcing practices enable producers, processors and suppliers to consistently deliver seafood products while protecting and improving the natural environment and livelihoods of local communities. Additionally, investing directly in on-the-ground training and development while participating in Fishery Improvement Projects (FIPs), Aquaculture Improvement Projects (AIPs) and other improvement efforts can help fishing communities improve how they manage their resources, increasing both yield and quality of the fish stock over time.

Food Marketing Institute Sustainable--Seafood Retailer Toolkit: A Guide for Retailers

Food Marketing Institute (FMI) conducts programs in public affairs, food safety, research, education and industry relations on behalf of its 1,500 member companies — food retailers and

wholesalers — in the United States and around the world. FMI's U.S. members operate approximately 26,000 retail food stores and 14,000 pharmacies. Their combined annual sales volume of \$680 billion represents three-quarters of all retail food store sales in the United States. FMI's retail membership is composed of large multi-store chains, regional firms and independent supermarkets. Its international membership includes 200 companies from more than 50 countries. FMI's associate members include the supplier partners of its retail and wholesale members.

Despite the 2008-2010 financial crises in the U.S., the continuing global economic malaise, and competing priorities of many retailers, industry leaders remain keenly aware of the tactical and reputational implications of seafood sustainability. Sustainability is emerging as a critically important issue globally, and FMI is developing the tools and resources needed to develop and implement business sustainability strategies.

Developing policies for sustainable seafood that address all of the issues facing wild-caught and farm-raised seafood products remains a daunting challenge for many retailers. In May 2012, FMI published the FMI "Sustainable Seafood Retailer Toolkit—A Guide for Retailers," a new resource created by FMI's Sustainable Seafood Committee, a group of 22 retail seafood executives. The purpose of the toolkit is to assist food retailers with the integration and implementation of sustainable seafood procurement policies and procedures. It features case studies, guidelines and best practices of 14 retailers, 2 suppliers and 2 NGO's as they developed their own sustainable seafood procurement, education and outreach policies and practices. In the toolkit retailers can learn about: making the business case internally; initiating an assessment of current seafood categories; developing guidelines to create a sustainable seafood program; connecting with industry peers; partnering with seafood suppliers; partnering with non-governmental organizations; engaging and enlisting the support of store associates, and communicating with customers.

From the Forward of the Toolkit:

"One of the keystones of FMI's Sustainability Initiative is sustainable seafood sourcing. This is the direct result of a 2009 FMI Board of Directors Policy encouraging the retail food industry to work with its suppliers, fishermen, government and NGOs to transition supply chains to verifiably and responsibly sourced seafood products. We appreciate the commitment and hard work of the 22 retailer companies engaged in moving our industry forward faster with sustainable seafood policies and actions. FMI is proud to share this toolkit as our gift to the industry"

- Jeanne von Zastrow

Senior Director, Sustainability and Industry Relations
Food Marketing Institute (FMI)

"The Sustainable Seafood Committee consists of a fantastic group of retailers — people who are passionate about seafood sustainability. This toolkit was created with the help of 14 of our members, two NGOs that our group has worked closely with, and two suppliers that have been very supportive of our group's work. This is a great resource for companies that are just starting down this path or are looking for ideas on certain aspects with respect to seafood sustainability. We are proud of this toolkit that has been put together on behalf of the Sustainable Seafood Committee and hope others find this useful as well."

- Tracy Taylor

Chair, FMI Sustainable Seafood Committee

Procurement Manager, Seafood

Ahold USA

"Sustainability is not an option; it is essential to doing business in the seafood industry—whether fishing, processing or retailing. It is our responsibility to ensure that the seafood we provide to our consumers is sourced from stocks that are harvested and managed in a manner that not only meets today's needs but, equally importantly, ensures a healthy supply for future generations. Without responsible fisheries management, those of us who depend on the seafood industry have no future."

- Chris Lischewski

President and Chief Executive Officer; Bumble Bee Foods, LLC

This publication will be used to share key insights and to highlight and demonstrate leading retailers' actions around developing a sustainable seafood program, including:

- Making the business case to executive management
- Initiating an assessment of the seafood category
- Developing guidelines to create seafood sustainability programs
- Connecting with industry peers
- Partnering with seafood suppliers
- Partnering with non-governmental organizations (NGOs)
- Engaging and enlisting the support of store associates

- Communicating with customers

The toolkit will also feature an updated list of experts, certification and auditing bodies, government agencies, NGOs and other resources tailored to retailers.

Food Marketing Institute—2012 Retailer’s Guide to Sustainable Seafood

In conjunction with the International Boston Seafood Show 2012, FMI sponsored a Sustainable Seafood Workshop. The workshop was organized by FMI’s Sustainable Seafood Committee and included input from 13 NGOs, the International Seafood Sustainable Foundation, Loblaw’s Sustainable Seafood Policy Initiative, and a majority of major grocery chains. Conference tracks included:

- Navigating the Sustainable Seafood Waters: The What, Why, and How of Sustainable Seafood
- FMI Sustainable Seafood Marketing Research
- Seafood Sustainability—Progress and Opportunities
- A Retailer’s Guide to Sustainable Seafood
- Food Safety Compliance under the Food Safety Modernization Act of 2011
- Food Safety and Sustainability in the Seafood Supply Chain—A Collaborative Approach between Industry and Government
- Marking 15 Years of HACCP—Toast or Roast?
- Seafood Substitution—Efforts and Strategies to Eliminate Seafood Mislabeling and Fraud from the Marketplace

Consensus was reached in the development of A Sustainable Seafood Policy and proposed by FMI. Key components to the agreement are:

- Never knowingly buy illegal seafood
- Traceability is a critical issue
- Purchase and sales (or prohibition of sales) decisions are based on social, ecological, and economic considerations
- Suppliers are selected and monitored based on a demonstration of continuous improvement in the sustainability of their operations
- Seafood will be labeled with the legally required information
- Sustainable seafood will be actively promoted
- We are engaged in activities with other stakeholders to improve the sustainability of the seafood produced

- Scientific research linked to the sustainable production of seafood is needed and supported
- To ensure produce integrity, the implementation of traceability systems is of crucial importance
- We do not do business with suppliers who cannot fulfill their ethical and/or sustainability responsibilities
- Communicate to consumers, associates, and shareholders about efforts to improve seafood sustainability

U.S. Regulatory Requirements for Seafood Products

Summary of Processes

(Note: The Summary section is largely taken from FDA’s website and the “Guide for Importing Food and Seafood into the United States: Regulations and Processes” published in 2008 by fish and seafood experts at the West Africa trade hub in Dakar.)

In the United States, imported foods must meet the same legal requirements as domestically produced foods. Under provisions of the U.S. Federal Food, Drug and Cosmetic Act, food manufacturers, processors and distributors must ensure that their food products intended for distribution in U.S. interstate commerce are safe, sanitary, and labeled according to federal requirements. Processors of food products sold in U.S. commerce are familiar with and employ the U.S. Current Good Manufacturing Practices (GMPs) for foods. These regulations set forth basic considerations that food processors and distributors should take into account to keep food clean and safe during manufacturing, packing, and holding. The GMP regulations are contained in Part 110 of Title 21 of the U.S. Code of Federal Regulations. (They can be accessed at www.access.gpo.gov/nara/cfr/waisidx_03/21cfr110_03.)

In addition to the other applicable requirements and statues (outlined below), seafood products are required to have been processed in a facility that has in place an operational Hazard Analysis and Critical Control Point (HAACP) safety plan that meets sanitation prerequisite requirements. Information about the HACCP requirement for seafood products are published in the FDA manual entitled “Fish and Fishery Products Hazards and Controls Guidance, 4th Edition. The regulations for the Safe and Sanitary Processing and Importing of Fishery Products (21CFR, part 123) can be found at this link: <http://www.cfsan.fda.gov/~lrd/FCF123.html> and the FDA “Seafood HCCP Alliance” website. These regulations also describe the importer’s responsibility to verify that imported fish and fish products meet the HACCP and sanitation requirements.

Provisions of the Federal Food, Drug, and Cosmetic Act, the U.S. Fair Labeling and Packaging Act, and the Nutrition Labeling and Education Act require that retail packages and containers of food products sold in interstate commerce bear labels in English (Spanish acceptable in Puerto Rico)

that include specific information: the identity of the product, the name and address or phone number of the responsible firm (may be the manufacturer or distributor, foreign or domestic), a list of ingredients in descending order of predominance in the product, the net weight of contents, and in the case of processed seafood mixed with other ingredients , nutritional information. Detailed information about U.S. labeling requirements can be obtained from FDA’s website.

When a food shipment is offered for import into the U.S., the shipment must be declared by the importer or broker/agent to the U.S. Customs and Border Protection (CBP) office at the port of entry by the filing of an “entry notice” and acquisition of a bond. Customs then notifies FDA staff of the presence of the shipment. FDA may inspect and sample the shipment to ensure its compliance with U.S. requirements. Inspections of FDA-regulated food shipments are carried out by inspectors with the agency’s Office of Regulatory Affairs. More detailed information on FDA import procedures can be found on the agency’s website in the “Imports and Exports” section.

In a memorandum of understanding between the FDA and the National Marine Fisheries Service (NMFS) went into effect in 2009. NMFS’s Seafood Inspection Program assists the industry in improving the quality, wholesomeness, safety, proper labeling, and marketability of fish and fishery products for the benefit of the consumer. While FDA is recognized as the competent authority in the U.S. , the NMFS is responsible for the development and advancement of commercial grade standards and provides certification services for interested parties.

Public Health Security and Bioterrorism Preparedness and Response Act of 2002

The U.S. Public Health Security and Bioterrorism Preparedness and Response Act of 2002 requires that food facilities (other than private homes) producing, storing, or handling food products intended for sale in interstate commerce be registered with the FDA. Registration is a procedure for providing the FDA with certain information about the food facility and its products; registration is not an approval process. The Act also requires that FDA receive prior notice before food is imported or offered for import into the United States. Advance notice of import shipments is coordinated with the support of the Bureau of Customs and Border Protection (CBP). Prior notice can be provided in either of two ways:

- The CBP has modified the Automated Broker Interface of the Automated Commercial System (ABI/ACS) found at www.cbp.gov/xp/cgov/import/operations to allow prior notice to be submitted to FDAQ through the existing interface between CBP and FDA.
- The Prior Notice System Interface (PNSI) is available to individuals or companies who cannot, or choose not to, file through CBP.

Food Safety Modernization Act (FSMA) of 2011 (administered by FDA’s Office of Regulatory Operations)

On January 4, 2011, President Obama signed into law the FDA Food Safety Modernization Act (S. 510) (FSMA), which amends the Federal Food, Drug, and Cosmetic Act (the FDC Act or FDCA). The FSMA has radically changed the sourcing, transportation, importation into the U.S., warehousing, and distribution of seafood. Under the new law, for the first time, importers are specifically required to have a program to verify that the food products that they are bringing into the U.S. are safe. Because 80% of U.S. seafood is imported, the law gives FDA important new authority to hold imported seafood products to the same standards as domestic foods. This authority includes:

Importer accountability—for the first time, importers have an explicit responsibility to verify that their foreign suppliers have adequate controls in place to ensure that the food they produce is safe.

Third-party certification—FSMA establishes a program through which qualified third parties can certify that foreign food facilities comply with U.S. standards. This certification may be used to facilitate the entry of imports.

Certification of high-risk foods (including seafood)—FDA has the authority to require that imported foods that are at high risk of contamination have a credible third-party certification or other assurance of compliance as a condition of entry into the U.S. The “third party” can be a private company or a governmental entity.

Voluntary qualified importer program—FDA must establish a voluntary program for importers that provides for expedited review and entry of foods from participating importers. Eligibility is limited to, among other things, importers offering food from program-certified suppliers.

Authority to deny entry—FDA can refuse entry (in partnership with U.S. Customs and Border Protection-CBP) into the U.S. of food from a foreign facility if the agency is denied inspection access by the facility of the country in which the facility is located.

The law also directs FDA to develop a plan to expand the technical, scientific, and regulatory food safety capabilities of foreign governments and their industries. Part of the plan includes training foreign governments and food producers on U.S. regulatory requirements. The implementation executive committee includes Joe Reardon who is responsible for Federal/State integration. Resident investigators in FDA’s 11 foreign offices have already obtained and shared local information that has resulted in better identifying the products entering the U.S. that might not meet strict FDA standards.

Most recently (June 19, 2012), the FDA held a “FSMA International Capacity Building Public Meeting” in Washington, D.C. The FDA International Capacity Building plan outlines several key elements to promote international collaboration:

- Element 1: Recommendations for bilateral and multilateral arrangements and agreements, including provisions to provide for responsibility of exporting countries to ensure the safety of food
- Element 2: Provisions for secure electronic data sharing
- Element 3: Provisions for mutual recognition of inspections reports.
- Element 4: Training of foreign governments and food producers on U.S. requirements for safe food
- Element 5: Recommendations on whether and how to harmonize requirements under the Codex Alimentarius

- Element 6: Provisions for the multilateral acceptance of laboratory methods and testing and detection techniques

In the context of the current report, it will be important to obtain the transcripts of this meeting.

Section 204: Enhanced Tracking and Tracing of Food and Recordkeeping

Section 204 of the FSMA has two major requirements. First, FDA, working with the U.S. Department of Agriculture (USDA) and State Agencies, must establish pilot projects in coordination with the food industry to explore and evaluate methods and appropriate technologies **for rapid and effective tracking and tracing of foods**. Second, FDA must publish a notice of proposed rulemaking to establish recordkeeping requirements for high risk foods (including seafood) to help in tracing products.

With input from a variety of stakeholders, FDA chose the two products for the pilots, which were tomatoes and a ready to eat or non-ready to eat complex food product containing meat, spices, and peanut containing ingredients (like Kung Pao chicken or Pad Thai dishes). The pilot studies were conducted under a task order with the Institute for Food Technologists (IFT), which is a nonprofit scientific society that has expertise in product tracing. Stemming from IFT's contract work with the US Food and Drug Administration, **IFT has released a number of documents, presentations, and other resources relating to product tracing (traceability)**. (These documents, along with audio recordings of the sessions discussed below, are available at www.ift.org/traceability.)

Customs Modernization Act (Title VI of the North American Free Trade Agreement Implementation Act [P.L. 103-182, 107 Stat. 2057])

The Customs Modernization Act (Title VI of the North American Free Trade Agreement Implementation Act [P.L. 103-182, 107 Stat. 2057]), commonly referred to as the “Mod Act”, became effective December 8, 1993 and applies to all import arrangements with the U.S. Its provisions have fundamentally altered the relationship between importers and U.S. Customs and Border Patrol (CBP) by shifting to the importer the legal responsibility for declaring the value, classification, and rate of duty applicable to entered merchandise. . A prominent feature of the Mod Act is a relationship between CBP and importers that is characterized by informed compliance. A key component of informed compliance is the shared responsibility between CBP and the import community, wherein CBP communicates its requirements to the importer, and the importer, in turn, uses reasonable care to assure that CBP is provided with accurate and timely data pertaining to his or her importations.

CBP operates through a field-office structure that consists of 20 Field Operations offices around the United States. These field offices provide managerial oversight and operational assistance to 329 ports of entry around the nation and 15 preclearance offices in Canada and the Caribbean. (For a detailed listing of ports of entry, please refer to <http://www.cbp.gov/xp/cgov/toolbox/ports/>.) The five primary ports of entry for Costa Rican seafood are located in Miami. Field Operations offices provide guidance to the ports under their geographic jurisdiction to ensure the dissemination and implementation of CBP guidelines, policies and procedures. Import transactions are conducted at service ports, area ports, and ports of entry, so these locations are of primary interest to traceability implementation.

CBP publishes a wealth of information to assist the import community in complying with CBP requirements. They issue rulings and informed compliance publications on a variety of technical subjects and processes. Most of these materials can be found on-line at www.cbp.gov.

Caribbean Basin Initiative (CBI) and the Caribbean Basin Economic Recovery Act (CBERA)

The Caribbean Basin Initiative (CBI) is a program that allows duty-free entry of certain merchandise from designated beneficiary countries or territories. This program was enacted by the United States as the Caribbean Basin Economic Recovery Act, (CBERA) which became effective January 1, 1984, and has no expiration date. Costa Rica is a beneficiary country under terms of the CBI. Most products from designated beneficiary countries may be eligible for CBI duty-free treatment.

Merchandise from one or more of these countries, however, may be excluded from time to time over the life of the program. Also, the list of beneficiary countries may change from time to time as well. Therefore, importers should consult the latest edition of the *Harmonized Tariff Schedule of the United States* for the most up-to-date information on eligible commodities. Chapter 3 outlines tariffs for “Fish and Crustaceans, Molluscs, and other Aquatic Invertebrates”. Imports of shrimp or products of shrimp are subject to the provisions of section 609 of Public Law 101-162 of November 21, 1989 (16 U.S.C. 1537 note). General Note 7(a) in the latest edition (2012 Rev. 2) of the *Harmonized Tariff Schedule* contains updated information on the current list of beneficiary countries.

Section 10816 of 2002 Farm Bill

Administered by the US Department of Agriculture (USDA), Section 10816 of the 2002 Farm Bill requires country of origin labeling (COOL or COL) for all products designated for consumption. The seafood requirements include:

- Display country of origin for all fresh or frozen fish or shellfish
- Display method of production for all fresh or frozen fish or shellfish. Method of Production categories are Wild or Wild Caught, or Farmed or Farm-Raised
- Country of origin and method of production not required for seafood that has been Processed (e.g., cooked, cured, smoked, restructured=) or Combined with Other Foods
- Display country of origin and method of production by: Pin Tag, Shelf Tag, Scale Label (for store-wrapped product), or Outer Package of supplier-packaged product
- Use the origin and production information provided by supplier
- Seafood with different origins or production methods may be sold in same bulk display or package if all possible origins or production methods are stated

Contacts

Dan Fone (fone@NSF.org): Director of Business Development-Global Food; NSF International. NSF International is an independent, not-for-profit NGO in public health and safety. Mr. Fone has spent over 20 years in the food industry. NSF Surefish is the premier provider of seafood quality, safety, sustainability, and other technical solutions for the seafood industry. Surefish services include auditing for traceability, recall, and country of origin assistance and system audits.

Stan Hazan (hazan@nsf.org): Senior Director Regulatory Affairs; NSF International. Hazan is charged with chain of custody certification.

Enrique Mendeguia (costarica@nsf.org): NSF Costa Rica SA; Edificio Teral II, Tercer Piso; Avenida 11 y Calle 13; San José, CR; +506 2248 0259 or 2248 0263): NSF Country Manager. The office provides food safety auditing, certification, consulting and training services in Costa Rica to providers, manufacturers, and suppliers as well as certification to the Global Food Safety Initiative (GFSI)-benchmarked standards. The GFSI, an independent non-profit foundation managed by The Consumer Goods Forum, was founded in 2000.

Dean Leaman (contact info to come): Director of Business Development; ABC Research Laboratories; Gainesville, FL, USA. ABC Research is a full service food testing laboratory providing testing for seafood companies. Mr. Leaman's primary focus is on U.S. imported seafood commodities.

Howard Tenen (contact info to come): Director of Quality Assurance and Regulatory Affairs; Quirch Foods; Miami, FL USA. Mr. Tenen has been in the food industry for over 50 years and Quirch Foods is the fifth largest Hispanic-owned company in the U.S.

Peter Quinter (contact info to come): Shareholder, Customs and International Trade Law Group; Gray Robinson; Ft. Lauderdale, FL, USA: formerly the Partner in charge of the Customs and International Trade Law department. Mr Quinter is an expert in customs and international trade law with extensive knowledge and experience with U.S. Customs and U.S. FDA laws, regulations, policies and procedures. He formerly was employed as an attorney for U.S. Customs.

Valarie Neuhart (Valarie.M.Neuhart@cbp.gov): Director of Import Safety and Interagency Requirements Division: U.S. Customs and Border Protection; Washington, D.C. USA. Specializes in food safety compliance under the new Food Safety Modernization Act of 2011.

Domenic Veneziano (contact info to come): Director, Division of Import Operations & Policy; U.S. Food and Drug Administration; Rockville, MD USA. Veneziano is responsible for providing directions, guidance, and leadership to all FDA district offices and senior agency officials related to import operations.

Bill DiMento (contact info to come): Corporate Director of Sustainability; High Liner Foods; Danvers, MA, USA: DiMento has 20 plus years of experience at HLF including Director of Manufacturing & Regulatory Affairs, Director of International Food Safety & Regulatory Affairs, and Director of Quality Assurance and Regulatory Affairs. He is active in the National Fisheries Institute, having served twice as director. He is on the Board of International Association of Fish Inspectors.

Dr. Barbara Blakistone (contact info to come): Blakistone has served for 6 years as Director, Scientific Affairs for the National Fisheries Institute. Her previous positions included 8 years at the Food Products Association (now Grocery Manufacturer's Association) as a Research Staff Scientist.

Lisa Weddig (contact info to come): Weddig is the Director of Regulatory and Technical Affairs for the National Fisheries Institute. She joined NFI in 2007 and serves as the primary liaison for food regulatory issues. She also serves as the Secretary for the Better Seafood Board, an organization formed by NFI to address economic integrity issues in the seafood industry.

Morton J. Nussbaum (contact info to come): Chairman and CEO, International Marketing Specialists, West Newton MA, USA. Nussbaum has been involved in the seafood industry for over 40 years. He has traveled extensively around the world trading seafood and is particularly knowledgeable about the Asian shrimp industry, its packers, personnel, capabilities, and reliabilities. He also served as a Regional V.P. of the National Fisheries Institute and was one of the founders of the American Seafood Association.

Steven Wilson (contact info to come): Chief Quality Officer, Seafood Inspection Program, NOAA, US Dept of Commerce, Silver Springs, MD, USA. Wilson is the lead figure in the field of HACCP for the USDC Seafood Inspection Program and has trained hundreds of industry and government personnel in quality management principles.

Recommendations

- According to spreadsheets obtained from Procomer—Promotora del Comercio Exterior, Costa Rica exported \$79.152,82 in seafood and seafood products to the U.S. in 2011. Of that \$19.166,27 (24%) derived from the “fresh or refrigerated” category and \$53.532,56 (68%) derived from the “filets and other fish meat” category. Because these two categories constitute collectively 92% of seafood exports from Costa Rica to the U.S. , MarViva should focus development of a CR—U.S. traceability scheme in two tracks mirroring these two categories of exported seafood.
- To initiate the investigation, MarViva could develop a survey and send it via Survey Monkey (a free online web service) to the contacts listed in the previous section. Questions would aim to determine what traceability schemes exist in the U.S. and possibly which importers work with Costa Rica.
- Informed by the survey (and email/Skype discussions as follow-up) and information on pilots conducted by the Institute of Food Technologists and the National Fisheries Institute, MarViva could seek to follow the Canadian pilot (see “Seafood Traceability Initiatives”) on lobsters and other fishes and/or other suitable schemes and investigate a similar system for Fresh/Refrigerated and Filets/Other Processed in Costa Rica.
- This would begin by meeting with Enrique Mendeguia (costarica@nsf.org): NSF Costa Rica SA; Edificio Teral II, Tercer Piso; Avenida 11 y Calle 13; San José, CR; +506 2248 0259 or 2248 0263) who is the NSF Costa Rica Manager. The objective would be to learn the current status of traceability initiatives in Costa Rica.
- MarViva would then meet with contacts provided by Sr. Mendeguia including fishers, processors, suppliers, shippers, etc. The purpose would be to follow-up on information gained to date and begin to develop a spreadsheet that outlines the seafood exporting process from Costa Rica to the United States.