



GENERAL

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FAO Technical guidelines for aquaculture certification approved by COFI

The FAO Committee on Fisheries, (COFI) approved the Technical Guidelines for Aquaculture Certification during its 29th Session held in Rome during January 31 to Feb 4, 2011. The guidelines include minimum substantive criteria in four major areas: food safety, animal health and welfare, environmental integrity and socio-economic issues. The Guidelines can be downloaded from: ftp://ftp.fao.org/FI/DOCUMENT/aquaculture/TGAC/guidelines/Aquaculture%20Certification%20GuidelinesAfterCOFI4-03-11_E.pdf

IAFI: Word Seafood Congress

Please make a note in your calendar that the next IAFI World Seafood Congress is in Washington D.C., USA from 1-6 October 2011. Further details of the program, registration, accommodation can be found at www.iafi.net. We hope to meet you in Washington 2011!

AOAC New official method for the analysis of saxitoxins in shellfish

A new official method, OMA 2011.02, was approved by AOAC for the analysis of paralytic shellfish toxins (saxitoxins) in shellfish. It is a post-column oxidation LC fluorescence method developed by Canadian Food Inspection Agency (CFIA) and National Research Council (NRC) Canada and (Single Laboratory Validation (SLV) and Interlaboratory) validated by Jeff van de Riet, CFIA. The method will help the transition from mouse bioassays to modern methods in the management of marine toxins in shellfish.

Source: James Hungerford, Ph.D. Chair of AOAC Task Force and GR, Marine and Freshwater Toxins, Research Chemist, FDA, ORA, ATC, 22201 23rd Dr SE, Bothell, WA 98021 USA. Phone: 425-483-4894; Fax: 425-483-4996; E-mail: James.Hungerford@fda.hhs.gov

World supplies of fishery products

The UK's Department for Business, Innovation & Skills has produced a report entitled *Global Food and Farming Futures* which explores the increasing pressures on the global food system between now and 2050. The report and documents are available for download as pdf files at: <http://www.bis.gov.uk/foresight/our-work/projects/current-projects/global-food-and-farming-futures/reports-and-publications>.

One document of great interest is: *Driver Review DR17 - Post-harvest to consumer driver review of the aquatic supply chain*. This document summarizes trends in supplies of fishery products and the complexities of international trade in them - about 37% of the total estimated catch of 142 million tones in 2009 enters international trade, a substantially greater proportion than any other food commodity. It indicates a disappointing figure that estimated world per caput consumption of fish in 2009, 16.8 kg, slightly down on values for 2007 and 2008, 16.9 kg. Of more direct interest to fish inspectors there are references to the effect of hygiene regulations on trade and there is a complete subsection, 3.2, on *Food safety, hygiene and traceability standards* within a major section, 3, on *Potential technical barriers to trade*. The fish technologists are catered for in a section, 2, on *Developments in aquatic food processing*. This section draws attention to postharvest losses due to various causes, estimated by FAO at 10% on a global scale, but much larger in some regions, especially among traditionally produced products.

Source: Letter of 8 Feb 2011 to Seafood HACCP. Peter Howgate phowgate@clara.co.uk

AFRICAN NEWS

Uganda: Food safety and aquaculture

Selected commercial aquaculture enterprises in Uganda were evaluated for compliance with internationally recommended food safety-related control measures. Food hazard control measures at potential critical control points of: farm siting, farm facilities and premises, and facilities for feed processing and storage, chemical storage, drug storage and waste storage were evaluated. Feed processing and storage areas were the most deficient of the potential critical control points. Other significant deficiencies occurred in requirements for traceability of fish and use of on-farm standard sanitation operating procedures. Veterinary drug use, a common problem with aquaculture exports, was not an issue since none of the farms was highly intensive – a practice that would increase the risk of contamination of fish with pathogens and raise the need for use of drugs.

Source: Bagumire et al. Food safety – related control measures in emerging aquaculture enterprises in sub-Saharan Africa: Compliance of Uganda's operations against international market requirements. *African Journal of Food Science* 4 (47), 444-357, July 2010

ASIAN NEWS

Bangladesh: Nitrofurazone marker occurs naturally in crustaceans

In a November 24 symposium in Belgium, the Seafood Importers and Processors Alliance (SIPA) and Bangladesh Shrimp and Fish Foundation (BSFF) presented scientific research that concluded semicarbazide was present as a natural component in freshwater prawns and all crustacean species tested, from crabs to langoustines and shrimp. When present at higher than a level of 1 ppb, semicarbazide (SEM) is considered a metabolic marker for the illegal veterinary drug nitrofurazone presently, but this new finding suggests that SEM is not a reliable marker.

Research findings on laboratory-grown prawns and wild-caught freshwater prawns from Bangladesh showed that semicarbazide was primarily found in the shells of the animals. Although the metabolic route for its production in the animals has not been confirmed, a possible fundamental role in protein synthesis is thought to be one of the possibilities. The research was performed in response to over 50 alerts issued by the Rapid Alert System for Food and Feed in 2009 for consignments of shrimp from Bangladesh.

China: Ambitious plan to improve food safety

In its 12th five-year plan starting from this year and ending in 2015, China plans to establish a network of food-safety offices in each of China's provinces, as well as a national food-safety risk assessment center. Exporters get HACCP certification through two Chinese government agencies, the China Inspection & Quarantine (CIQ) and General Administration of Quality Supervision, Inspection and Quarantine (AQSIQ). Of the 2 862 county-level quality inspection centers nationwide, less than half, 1100 are capable of carrying out food-safety tests and the governments plans to double this number. The administration is making efforts to expand the number of qualified personnel from 93 000 to more than 100 000 by the end of 2015. AQSIQ figures also show that by the end of 2010 the administration had established 180 inspection centers nationwide, with 148 more being built. Meanwhile, 209 national-level inspection laboratories, with equipment worth \$2.1 billion, had been set up with 100 more under construction.

Significant growth in seafood-certification activity driven by demand among U.S. retailers has prompted many Chinese seafood suppliers proactively seek certification, recognizing it as useful in driving overseas sales. The Chinese government has attempted to tighten inspection, but random CIQ inspections of most farms are usually limited to twice a year due to the sheer number of such farms. Certification will be vital to ensure higher standards among seafood farmers and processors in China. A U.S. congressional hearing in 2008 heard that producers often overuse anti-bacterial and anti-fungal agents to compensate for overcrowded fish ponds and cages. Among the agents used are malachite green, gentian violet and chloramphenicol, all considered potential carcinogens. The government initiatives and proactive seafood industry are expected to dramatically boost the food safety in the coming years.

Source: INFOFISH *International* May-June 2011

India: Cap antibiotic use

The government is to introduce a cap on the use of antibiotics and ban some products altogether in poultry, shrimp and fish during production in order to tackle the problem of antibiotic

resistance in human pathogens. For the first time, National Policy for Containment of Antimicrobial Resistance has put a cap on how much antibiotics can be used in seafood or poultry products. The use of over 20 antibiotics or pharmacologically active substances has been prohibited in seafood and poultry products.

India is also putting in place a national repository of bacterial strains, including molecular components like DNA/plasmids. The national repository of standard bacterial strains is required for quality control or comparison when new bugs appear and can help in carrying out genetic studies on strains; know where they came from, what their weaknesses are and how they can be eliminated.

Source: TheFishSite News Desk

EUROPEAN NEWS

Italy: Results of European Union Inspection

Food and Veterinary Office of DG SANCO reported on a mission to Italy in September 2010, with regard to sanitary conditions for fishery products. The mission found significant shortcomings concerning the official controls of primary production (i.e. aquaculture farm and fishing vessels) and freezer and factory vessels. Structural, hygiene and HACCP deficiencies were found in all establishments visited. Responsibilities between different regional and Ministerial competent authorities were not clearly defined. The inspection team was not able to gain access to some fishery businesses. In one region there was no annual inspection plan. There were major deficiencies identified in respect of the monitoring arrangements for residues and contaminants in fishery products. Despite being accredited, testing laboratories were found to be deficient in proficiency testing, use of validated methods and in timely communication of results. In addition, the effectiveness and comparability of official controls by central and regional competent authorities could not be assessed, due to lack of monitoring and verification procedures. The mission concluded that the system of official sanitary controls of fishery products could not be considered as compliant with EU requirements. The central competent authority the Department for Veterinary Public Health, Nutrition and Food Safety of the Ministry of Health was requested to submit an action plan of corrective measures.

Source: FishFiles Lite, MEGAPESCA, March 2011.

Spain: Training Course on laboratory techniques on shellfish toxins

A training course on laboratory techniques for lipophilic toxins by LC-MS/MS is scheduled to be held at University of Vigo in Vigo, Spain from 28-29 April 2011. Temperate lipophilic toxins such as the okadaic acids, azaspiracids, pectenotoxins and yessotoxins are found around the world and the state-of-the-art methods taught in this course have now been approved by the EU for their detection in shellfish. Mouse bioassay reduction of use and replacement is now a fact, and this hands-on course, will help laboratories prepare for these imminent changes.

Course fees are 250 Euros and the course is offered on a space-available basis. Attendees are encouraged to register also for "Marine and Freshwater Toxins Analysis" the Second Joint Symposium and AOAC Task Force Meeting at nearby Baiona, Spain May 1-5, 2011. This event will include presentations by experts in marine toxin detection as well as practical advice and discussions on the challenges of instrumental method implementation in monitoring, and mouse use elimination and/or reduction.

Please contact biotoxins.meeting@uvigo.es regarding registration.

UK: FSA publishes updated Strategy to 2015

The Food Standards Agency has published its updated Strategy to 2015: Safer food for the nation. The strategy sets out six outcomes that the FSA will work towards to ensure that food is safe and that consumers can continue to have trust and confidence in the food they buy and eat. This is the first update of the strategy since it was first published in December 2009, and it has been revised to reflect recent changes to the remit of the FSA, new information on allergens and, following the merger with the Meat Hygiene Service, a more extensive enforcement role for the FSA. To demonstrate that it will take strong yet proportionate action while carrying out enforcement, the FSA has also adopted a new core principle: 'Enforcing food law fairly'.

To support the delivery of the updated strategy, the FSA is publishing its updated Science and Evidence Strategy 2010–2015, which sets out how we will use science and evidence to meet the challenges of delivering safer food for the nation. The Science and Evidence Strategy reiterates the Agency's commitment to using the best available science and evidence in an open and transparent manner.

Source: <http://www.foodingredientsfirst.com>

NORTH AMERICAN NEWS

Canada: Marine Institute QMP & HACCP Online Courses Spring 2011

The Marine Institute will be offering two online courses in QMP and HACCP during Spring 2011. All materials will be available on the course website. Online delivery allows you to complete training in your own home or workplace and at a time that is convenient for you. Certificates of Achievement will be awarded upon successful completion of each course:

QMP (Quality Management Program) - This course is designed to provide participants with an understanding of requirements of the Quality Management Program (QMP) that exist in federally registered fish processing establishments. Course Dates: April 18-May 6, 2011 (equivalent to our three day in-class course), Course cost: \$450.

HACCP (Hazard Analysis Critical Control Point) - This course is designed to provide participants with an understanding of requirements of the Hazard Analysis Critical Control Point (HACCP) system that exists in federally registered fish processing establishments. Course Dates: May 9-20, 2011 (equivalent to our two day in-class course),

Course cost: \$345.

To register, please contact Barbara Hunt, Marine Institute. Tel: 1-800-563-5799, ext. 0404, or (709) 778-0404, Fax: (709) 778-0535, E-Mail: Barbara.Hunt@mi.mun.ca

USA: Shrimp School 2011

The University of Florida's *Shrimp School 2011* is now open for registration. The program is scheduled for 10-12 May 2011, on the University of Florida campus in Gainesville, FL. The school is dedicated to advancing shrimp product quality and safety, and has become the leading academically-based training program for domestic and international shrimp processors, buyers, chefs, and authorities. This year the traditional Shrimp School program will be extended to cover more hands-on training in the methods to detect and judge the acceptance and shelf-life of shrimp products based on established criteria for product decomposition. The extended program, designed for professionals offering analytical services and inspections, is known as *Shrimp Pro's 2011* (10-13 May). Completion of the extended professional course is intended to be formally recognized by the existing authorities in the USA (e.g., FDA and respective state agencies) in terms of program content, experience, and performance ratings. For more information about Shrimp School 2011 and Shrimp Pro's 2011 please visit <http://fshn.ifas.ufl.edu/seafood/shrimpschool/>

USA: Seafood Sensory School 2011

The University of Florida's *Professional Seafood Sensory School 2011* is open for registration. The program is scheduled for May 16 - 20, on the University of Florida campus in Gainesville, FL. The program is intended and designed for private and regulatory laboratory services, both domestic and internationally based, that provide analysis for commerce with seafood and aquaculture products either through customer request or government contracted services. However, industry members involved in quality assurance who would like to become more proficient in the sensory evaluation of seafood may also register in the Professional Seafood Sensory School 2011. This year's program will feature Category 4: Processed Scombrotoxin-Forming Seafood Products (Canned and Pouch Tuna) and Category 5: Processed Seafood products (other than scombrotoxin-forming fish species).

For more information about the Professional Seafood Sensory School, please visit <http://fshn.ifas.ufl.edu/seafood/sensory/index.shtml> or contact Laura Garrido: shrimp@ufl.edu or 352-392-1991 ext. 308.

USA: International Center of Excellence in Food Risk Communication

The International Food Information Council (IFIC) announced the launch of the International Center of Excellence in Food Risk Communication and the Center's new website:

www.foodriskcommunications.org. According to FoodInsight.org, where the announcement was made, the Center provides government officials, health professionals, academicians, food producers, the public, and others with resources to better communicate and understand concepts, practices, research, and data about food safety, nutrition, and health.

Learn more at www.foodriskcommunications.org

PUBLICATIONS

FAO Fisheries and Aquaculture Technical Paper 553

Private standards and certification in fisheries and aquaculture - Current practices and emerging issues by S. Washington and L. Ababouch.

Private standards and related certification schemes are becoming significant features of international fish trade and marketing. Private standards are now a key mechanism for large-scale retailers and commercial brand owners wishing to translate requirements – both product and process specifications to other parts of the supply chain. This is especially important as supply chains become more vertically integrated. They can also facilitate traceability, standardization of products from a range of international suppliers, and transparency of production processes. Although the impact of private standards is not uniform across markets, species or product types, it is likely to increase, including in developing countries, as supermarket chains consolidate their role as the primary distributors of fish and seafood products, and as their procurement policies move away from open markets towards contractual supply relationships. As the leading retail transnationals extend their global reach, their buying strategies are likely to progressively influence retail markets in East Asia, Africa, Eastern Europe and Latin America. The proliferation of private standards causes confusion for many stakeholders: fishers and fish farmers trying to decide which certification scheme will maximize market returns; buyers trying to decide which standards have most credence in the market and will offer returns to reputation and risk management; and governments trying to decide where private standards fit into their food safety and resource management strategies.

This technical paper analyses the two main types of private standards affecting fish trade, namely ecolabels and food safety and quality standards, and their importance for a range of stakeholders. It addresses issues that are driving their development and examines *inter alia* their policy and governance implications, their impact on costs, their role in traceability, the assessment of their credence, and the challenges and opportunities for developing countries

The publication can be downloaded from:
<http://www.fao.org/docrep/013/i1948e/i1948e00.htm>.

FAO Fisheries and Aquaculture Technical Paper 550

Postharvest losses in small scale fisheries - case studies in five sub-Saharan African countries by Akande, G and Diei-Ouadi, Y. describes studies conducted in five sub-Saharan African countries Ghana, Kenya, Mali, United Republic of Tanzania and Uganda. The fieldwork indicates that post-harvest fish losses in small-scale fisheries occur at all stages in the fish supply chain from capture to consumer. Huge physical and quality losses were found to occur in some supply chains assessed in all the countries, with quality losses reported to account for more than 70 percent of total losses. Concurring data are that physical losses seldom exceed 5 percent in some fisheries, but the findings from assessments of the Lake Victoria sardine (*Rastrineobola argentea*) fishery indicate much higher losses are occurring during the rainy season when poor drying conditions prevail. Although the nutritional losses and human health problems were not the focus of the study, it can be easily admitted that these financial losses add to the food safety and quality concerns in small pelagic species (such as anchovies in Ghana), which form a noticeable part of the landings in question and are known to be prone to histamine accumulation under conducive uncontrolled time/temperature conditions. To try and reduce or prevent losses, various coping strategies are used by fishermen, processors and traders with varying degrees of success. Despite these, as has been demonstrated by the study, losses still occur, hence the need for careful and continued technical and policy initiatives by international and national agencies. Balancing technical interventions to improve fish quality with the potential increase in selling prices, associated with better quality fish with the demand for cheaper fish by low income consumers, is an important dilemma. In this situation, a policy intervention to encourage access to alternative cheap proteins to improve the food security of low income consumers would help mitigate any downbeat effects from price increases.

This publication can be downloaded from:<http://www.fao.org/docrep/013/i1798e/i1798e00.htm>

New book on fish technology

Edited by E. Grazyna Daczowska-Kozon, West Pomeranian University of Technology, Poland and Bonnie Sun Pan, National Taiwan Ocean University, Taiwan, a new book on fish technology is now available - *Environmental Effects on Seafood Availability, Safety, and Quality*. This book discusses a variety of factors, both intrinsic and extrinsic to the marine environment, and their potential to influence the availability of finfish/shellfish, their nutritional value, quality attributes, and the safety issues at the time of capture. It also covers the handling of newly caught finfish/shellfish

aboard the fishing vessel. Authors include renown fish technologists such as H. Allan Bremmer, Stephen T. Grabacki, Bonnie Sun Pan, and Z. E. Sikorski.

Members of the discussion group seafood@ucdavis.edu can save 20% on *Environmental Effects on Seafood Availability, Safety, and Quality* by visiting www.crcpress.com and enter promo code 850AW at checkout to receive a discount, plus FREE standard shipping.

If you are interested in the book contact Stephen T. (Steve) Grabacki, FP-C, President, GRAYSTAR Pacific Seafood, Ltd., P. O. Box 100506, Anchorage, Alaska, 99510-0506 USA, +907-272-5600, graystar@alaska.net

New aquaculture drug guide

The American Fisheries Society – Fish Culture Section has published a new guide to the use of aquaculture drugs. The Working Group on Aquaculture Drugs, Chemicals, and Biologics has announced the publication of the Guide to Using Drugs, Biologics and Other Chemicals in Aquaculture and a companion tool, the Treatment Calculator, to assist in the calculation of the amount of drug, biologic or chemical to be used for specific aquatic animal treatment needs. The Guide is being published exclusively in electronic format to facilitate efficient and timely updates in the U.S. ever-changing regulatory climate. For more information about the Guide and Treatment Calculator, as well where to obtain your free downloadable copy go to: <http://tinyurl.com/4ara8r2>.

Source: Posted on 8 March 2011 by GRASSAM.

New traceability implementation guidance for US seafood supply chain

A new industry resource, “Traceability For Seafood, U.S. Implementation Guide” (March 2011), for applying traceability standards in the U.S. seafood supply chain has been developed in collaboration by the National Fisheries Institute (NFI), GS1 US™ and US seafood industry stakeholders. The Guide gives consistent, practical seafood-traceability guidance for voluntary industry-wide use. It defines minimum requirements and best-practice recommendations for tracking seafood as it moves through the supply chain from farms to processors, suppliers, distributors, retailers, and foodservice operators. The 53-page Guide includes illustrations and photographs that demonstrate precise “how-to” instructions for use of numerical identifiers, barcodes, and other standards needed for traceability. You may download this free Guide from either the websites of the NFI (<http://www.aboutseafood.com/about/us-seafood-traceability-implementation-guide>) or the GS1 US™ (http://www.gs1us.org/sectors/fresh_foods/seafood).

Source: Dr (Ms) Pamela Tom, California Sea Grant Advisor, University of California, Food Science and Technology Department, One Shields Avenue, Davis, CA 95616 USA, Fax 1-530-752-4759, web <http://seafood.ucdavis.edu>

The next issue of THE FISH INSPECTOR will be distributed in June 2011. Please forward any information you may wish to have disseminated through this newsletter to: Mr C A Lima dos Santos, Rua Cel. Eurico Gomes de Sousa 510 Cob 01, Jardim Oceanico – Barra da Tijuca, 22620-320 Rio de Janeiro, RJ – BRASIL, Tel: +55 21 2491-0704; E-mail: dossantoscarlos@globo.com

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