IFFO

THE MARINE INGREDIENTS ORGANISATION

January 2014 Issue 254

UPDATE

www.iffo.net

Contents

Launch of the new Update

Over the past year, we have been refreshing and updating IFFO's brand, starting with the launch of the new logo and ending last year with the new IFFO website. This year we are continuing these efforts and now focusing on Update.

This new design is in line with our other marketing materials and we hope that you find it easy read and digest. We would also like to revise the content, with more focus on members, creating a magazine that gives you both industry news and a place for you to showcase your work or share your insights on industry developments. **There are three ways through which we would like to get you involved:**

1) **Profiles**—we are looking to publish one profile a month on a senior figure in the industry;

2) **Case-studies or articles**—showcasing new developments, important company news or raising important issues; and

3) **Events**—you can now advertise any international industry events in our calendar on the back page.

For more information or questions on any of the above please contact Georgie – gharris@iffo.net

Editorial

January is one of the few months of the IFFO year when there is some time to plan – objectives are agreed and the question of what are we going to do better this year is asked. Members will be receiving a survey shortly. We rely on your advice to find ways of making IFFO membership more useful and better value, so please let us know how we can help your business in 2014.

One area that is valued by many is the reporting of trade statistics on the important China market. Following a board decision in Hong Kong last October, we have now recruited a China Market Analyst to be based in our Beijing office and develop our market research. Mr. Meng WANG joined us on 8th January and, as well as learning about our members, one of Meng's first tasks will be to produce a monthly summary of key data. We hope having a dedicated resource in China will allow the excellent reports produced by Dr Enrico Bachis to be extended to cover more detailed information on the China market.

Another board decision was to explore offering training courses to IFFO members – the first being a joint event with GAFTA scheduled in Lima from 3 – 5 February with further courses on Chinese regulations and IFFO RS certification to be arranged. Please watch our website for the latest details.

I am sure 2014 (and the Chinese year of the Horse) will be another exciting year for our industry. Our challenges remain to deliver consistent quality from responsibly managed sources, maximise volumes into production and ensure the finished products are as cost effective in their applications as possible. It was pointed out at our conference in Hong Kong that sometimes the feed companies know more about the fishmeal than the suppliers – let's hope that 2014 will see more partnering between suppliers and buyers to ensure our industries' market share is protected from the competition. We look forward to carrying on these important discussions at our members meeting in May (details below).

I hope you enjoy this new for 2014 style of the monthly Update, as always comments are welcome!

Andrew Mallison
Director General

Members' Meeting 2014, London, 1-3 May

Registration for this Members' Meeting, which will be held in London from Thursday 1st to Saturday 3rd May, will go live in February via www.iffoevents.com.

The cut off dates registrations with accommodation is Friday 28th March and without accommodation is Wednesday 23rd April.

We look forward to seeing members again after such a successful meeting in Hong Kong. If you have any questions, then please contact secretariat@iffo.net and we will do our best to assist you.

New and improved Monthly and Weekly Reports

As you may have noticed, we have recently changed the layout of our Monthly and Weekly reports to a fresher design which is in align with IFFO's new branding. With more graphs in the weekly report, we are delivering the old statistics in a clearer way, making it easily digestible for readers.

In addition, more statistics on the past have been introduced in order to facilitate your analysis. In particular, the graphs on the cumulative production of fishmeal and fish oil will make the comparison with the previous season very intuitive. Similarly, the European section has been completely redesigned in order to accommodate the great amount of statistics on the different species' quotas, while the other commodities' pages are now a mix of raw numbers and graphs. And finally, in order to respond to some readers' requests we are now reporting quotations at the Chicago board of trade also in US$ per metric tonne, making the comparison with other commodities' prices easier.

We are confident that all these changes will meet your needs, but as this is a work in progress we are eager to hear your thoughts on how to further improve our reports. Please send any input to ebachis@iff.net

The archive of the weekly/monthly reports can be found in the Members Area of the IFFO Website, under 'Market Intelligence'. Please contact us if you have any problems logging in.

Enrico Bachis, IFFO Chief Analyst

IFFO Technical Department starts a new year

Following a busy year in 2013, 2014 looks like more of the same for the staff in the Technical Department of IFFO. Andrew Jackson went to both Thailand and Vietnam in January to continue discussions he has been having with a number of members in the area. One of the main topics has been the possibility of IFFO RS and RS Chain of Custody certification. Following some negative reports in Europe about shrimp farming and particularly the fishmeal used in their diets there is a growing interest in the area about product certification.

The SAI, the certification body for the RS standard, now has trained auditors based in Bangkok and some initial audits have already been conducted and it is hoped that 2014will see a number of new approvals in the area. Andrew went to Vietnam at the invitation of CP Feeds, an IFFO member, and met a number of their fishmeal suppliers at a workshop on IFFO RS certification. Andrew was also given a chance to see CP's brand new fishmeal plant which processes fresh by-products direct from their pangasius filleting line.

Andrew also attended a joint meeting with IFFO, FAO and the GSI (Global Salmon Initiative), at the UN FAO offices in Rome, to progress a joint project on the global mapping of potential by-product raw materials for the production of marine ingredients. This work is a continuation of the project conducted last year with the University of Stirling and presented to members at the Hong Kong Conference by Professor David Little.

Meanwhile Gretel Bescoby has been continuing to prepare IFFO's submission to the EU Commission on the extensive sampling programme carried out by the fish oil industry every year on the Dioxin and PCB levels of fish oil used in the EU. A number of members have assisted IFFO in this work and we would like to express our appreciation for their contributions.

Andrew Jackson, IFFO Technical Director

IFFO THE MARINE INGREDIENTS ORGANISATION

上海汇易咨询有限公司
Shanghai JC Intelligence Co., Ltd.

IFFO/JCI FISHMEAL AND FISH OIL FORUM

28th March, 2014
Xiamen, Fujian Province, China

In conjunction with the **9th JCI Spring Conference on Chinese Feed Raw Materials Market** on 27th March, IFFO and JCI will jointly host our first Fishmeal and Fish Oil Forum on 28th March. The programme will cover a rich range of topics, focusing on both Chinese trade discussions and the latest global trends, with hot topics including:

- the evolving Chinese aquiculture industry and fishmeal consumption markets;
- Chinese food standards and the quality of imported fishmeal;
- global marine resources, with focus on Peruvian fishmeal fish oil production;
- the current and future trends of fishmeal replacement by plant protein in European salmon farming;
- the increasing development of fishmeal substitution on the fishmeal soy price ratio in Chinese feeds;
- technology trends in the production of fishmeal; and
- standards and quality classification of fishmeal.

Date: 28th March, 2014

Location: International Conference Centre Hotel, Xiamen, China

Registration:
http://www.jcichina.com/company/jcizh/

Contact:
Tel: (86-21) 6875-1628 ext. 601/623
Fax: (86-21) 6875-2578
Email: sales@chinajci.com

More information to follow soon, please contact us if you have any questions.

ICJ's decision on Chilean-Peruvian maritime dispute

On Monday 27th January, the six year maritime boarder dispute between Chile and Peru was settled by the International Court of Justice in The Hague, with the ruling seen as in favour of Peru. With 10 votes in favour and 6 against, the court ruled that the maritime border between Chile and Peru follows parallel up to 80 nautical miles and an equidistant line out to 200 miles.

The decision which cannot be appealed, will affect industrial fishing the most with the new boundary, set 80 miles off the coast of Peruvian city Arica, slicing about 8,000 square miles of ocean from Chile's "exclusive economic zone." Chile's President Sebastian Pinera described the decision as "a lamentable loss" for his nation, with hundreds of Arica fisherman demonstrating throughout the day. Pinera added that "it is necessary and important to note that the judgment, first acknowledges and cautions in its full integrity the 12-mile territorial sea, sovereign of Chile, upon which it keeps full and absolute right," he said.

Source: ICJ

But the swathe was smaller than Peru had wanted. It had asked for 38,000 sq km (23,600 sq miles) but had to settle for around 21,000 sq km. Chile gets to keep the rest, including the lucrative fishing grounds closest to its coastline. By changing the border, the court also gave Peru an additional 28,000 sq km of sea that until now was in international waters. Additionally, the ICJ said the maritime border should start from the same point on the coastline as it does now. Peru had wanted it moved south, further into Chilean territory.

After learning about the decision, the Peruvian agent, Allan Wagner, thanked on behalf of the Peruvian delegation the backing received from President of Peru, Ollanta Humala, and former presidents Alan Garcia and Alejandro Toledo.

For his part, Humala declared that after six years of litigation, it is "gratifying" that the Court has recognized the validity of the Peruvian position, which is there was no delineation of maritime boundary with Chile up to mile 200. "Accordingly, it has proceeded to establish a limit that recognizes a space that can be preliminarily calculated at about 50,000 square kilometres of Peru's sovereign rights," he added.

According to information published by Diario Financiero, the main fishery resources Chile captures in the disputed area, anchovy, among others, would not be significantly affected because 95% of the fishery develops up to mile 50. Likewise, fisheries in Peruvian hands would be migratory, among which are the Patagonian toothfish, leatherjack and swordfish.

The dispute was a legacy of the War of the Pacific, which lasted from 1879 to 1883. Chile won, conquering Peruvian territory and depriving Bolivia of a coastline. A treaty between Peru and Chile in 1929 granted Chile control of Arica, and the countries later fixed a land boundary. The maritime boundary, however, was never fully defined.

In 2008, Peru, under President Alan García, took Chile to the World Court. Peru's proposal would have allowed it to project a 200-mile maritime zone across waters that Chile considered high seas, giving Peru an additional 15,000 square miles. Chile argued that the border had been clearly established by fishing treaties signed by Chile, Peru and Ecuador in 1952 and 1954; by subsequent agreements; and by customary practice and the unilateral actions of Peru.

The court settled on a compromise, recognizing that while the treaties had not expressly established the maritime boundary, the 1954 document had "cemented" a "tacit agreement." Through fishing activities, enforcement and other practices based on those treaties and subsequent agreements, the court said, both countries had acknowledged a maritime border running 80 miles from the coast along a line of latitude.

Still, Chilean officials said they were confused by the court's reasoning in setting the boundary at 80 miles off Arica. Incoming Chilean President, Michelle Bachelet, noted that "This decision of the Court, which we do not share and regret, affects part of the Exclusive Economic Zone (EEZ), where Chile has economic rights." "We will take all necessary actions and measures to adequately safeguard and protect the legitimate rights and interests of our country," she said.

Sources: BBC, The New York Times and FIS

IFFO's response to UK coverage on recent GM omega-3 research

In January the Rothamsted Research Institute, for formal permission to grow the first GM plants that are designed to produce high yields of the same omega-3 fatty acids found in fish oil. This news sparked a lot of interest in the UK Press and IFFO's Andrew Mallison issued a response to an article published by The Independent, titled *'First nutrient-enriched GM crops could be grown in the UK within months'*.

Dear Sir/Madam,

I read with interest the announcement that Rothamsted Research has developed genetically modified plants to produce oils normally found in fish. One of the justifications given for the research was the threat of overfishing which, although a concern, is not unavoidable. Your readers will be interested to know that approximately 40% of the world's production of fish oil comes from sources that have been assessed against an independent standard. To be certified the fishery must demonstrate conformance with the United Nations Food and Agriculture Organisation Code of Conduct for Responsible Fisheries.

Increasing amounts of marine protein and oil now come from recycled trimmings and offcuts from fish processing, latest estimates indicate this forms around one third (and rising) of total raw material used. Whole fish like herring and mackerel that in the past may have been reduced to protein and oil is now increasingly sold for direct human consumption as markets have developed.

Furthermore, major animal feed companies, through their support for fish oil, are incentivising fishery improvement programs. Losing markets to vegetable alternatives would reduce the incentive for this positive change and favour competition, which itself is not free from environmental concerns.

Another developing market which should not be ignored is the culture of non-genetically modified marine algae, which is relatively new but now well established and already contributing to the supply of Omega 3 oil to direct human consumption. Over time, as efficiency improves, the oil produced may become financially viable for feed companies to access. Finally, it is important to remember that farmed fish are given Omega 3 oils partly for their own health but mainly as an important way to provide the human consumer with these essential nutrients.

Marine ingredients have an essential role to play in human health and the farming of fish and other animals to feed our growing population. The fish oil industry welcomes competition and the food security that comes from diversity of supply. However, as new sources arise, it is important to make informed decisions on their benefits and avoid overstated concerns that put at risk the momentum of improving practices within the fishing industry.

Ewos reaches milestone with low-marine content feed

Ewos has succeeded in developing a feed with a very low content of marine raw materials, according to a report in *Intrafish*. The fish feed producer carried out an experiment where the salmon were raised on low levels of marine protein raw material and omega-3 from fish oil, demonstrating that good production results can be achieved on full scale production with low marine content feed. Just before Christmas, various industry members were invited to the Norwegian Seafood Centre in Bergen for the presentation of the trial results by Sigured Tonheim, product development manager at Ewos (pictured). In addition to being enlightened on the facts of the trial studies, guests were also treated to samples of fish that had been raised on the feed.

He pointed out that the production of feed for farmed salmon is based on the same quantity of marine raw materials today as when production of salmon amounted to just one-third of current production. In order to achieve this, an increasing percentage of vegetable raw materials is blended into the salmon feed.

Tonheim told the audience that in 1990 fish feed had a content of 42% fishmeal, 27% fish oil and 12% vegetable proteins. The average feed in 2012 contained 20%

fishmeal, 11% fish oil, 12% vegetable proteins and 19% vegetable oil. "The feed is not optimum in terms of cost in relation to current raw material prices, but it represents a commercially good solution where we have employed cost-effective replacements for necessary nutrients that are normally covered through the fishmeal," Tonheim told IntraFish.

He went on to say that Ewos makes use of a larger percentage of raw materials from offcuts. This includes left-over material from herring for herring meal. "Close to 100% of all herring fished in Norway goes to human consumption. The left-over material from herring production amounts to a considerable resource as a raw material for feed," he said.

The amount of wild fish used to produce 1 kg salmon has been discussed numerous times. Tonheim said his calculation shows that 1 kg wild fish is used for production of 1 kg salmon and 34-35% of the marine raw materials that are used in the feed come from off-cuts.

He said there are several ways to calculate the amount of wild fish used to produce 1 kg salmon. "Use of oil from lean fish means more fish are needed to gain the same amount of fish oil gained from using fewer fish that are fatter. On the other hand you get more fishmeal from a lean fish than from a fat fish. The calculation is complicated, but one to one represents a correct figure," said Tonheim.

Source: Intrafish- http://www.intrafish.com/news/article1383804.ece

IFFO's Response: *"There is obviously an economic driver to inclusion rates but one aspect of lower percentages is the reduced pressure on fish in vs. fish out (FIFO) ratios. Some environmental groups have raised concerns over the amount of wild fish used to produce 1kg of farmed fish but it is apparent FIFO ratios continue to fall."*
Andrew Mallison

New krill oil at-sea extraction process

Tharos, a Chile-based krill utilisation consultancy, has finished the onboard trialling of its novel process for extracting oils from krill caught in the South Antarctic Ocean. "We have successfully finished our at-sea pilot stage," says general manager Dimitri Sclabos. "Our programme consisted of running the entire process using small scale equipment which mimics the commercial sized layout. We made crucial progress from what was tested on land. We then operated the system onboard a factory trawler in South Atlantic waters dealing with real sea and resource conditions. "We are now ready to move to commercial scale."

Unlike other methods currently used to extract oil from krill, the tiny crustacean found in huge quantities in Antarctic waters, the Tharos non-solvent extraction principle leaves no residue in the final product - which is aimed at the human pharmaceutical and health supplement market.

"We believe this to be a twice revolutionary concept because all current processes used to extract phospholipids rich krill oil are carried out on shore, either from a protein/lipid complex (semi dried pellet), dried krill meal or whole frozen krill, and all of them use solvents" Mr Sclabos says. "Tharos' krill oils will be entirely manufactured at sea and the process used is chemical free."

The new method eliminates the solvent application to get a quality krill oil with no residues at all and with a pharma-quality grade." The traditional onboard krill oil extraction process uses cookers, decanters and centrifuges to produce krill oil. "But these processes only generate lower priced triglycerides enriched krill oils," says Mr Sclabos. Phospholipids are a significant component of cell membranes and thus play a major role in human health; triglycerides are generally considered to be less beneficial.

Tharos filed for a patent under PCT (Patent Cooperation Treaty) protocol in 2009. So far it has been granted in several countries including the USA, China and Ukraine out of the more than 15 national applications. Tharos claims that its patented extraction process will significantly reduce the costs of producing krill oil at sea. "This invention will also protect the resource as fishing will not be focused on the period when the oil content of krill is higher than it is at other times of the year." More on at-sea oil extraction from krill

Raw whole fresh krill is pumped from sea to Tharos' onboard pilot plant facility and processed in minutes after being captured

Source: worldfishing.net

Arab region's aquaculture development seen as promising

Aquaculture in the Arab region has shown a fast growth, matching that of the rest of the world, especially in the last three decades. In 2002 farmed fish output in the region reached 194,000 tonnes and increased steadily in the following years to reach about 1.1 million tonnes in 2011, produced mainly in Egypt, as revealed at the Aquaculture Investment Forum held in Dubai (UAE) by Fisheries Consultant Izzat H. Feidi in his presentation titled "*Seafood Market and Consumer Demand for Aquaculture Products in the Arab Region*."

In his presentation, Feidi stressed that given the decline in captures, states like Tunisia, Morocco, Jordan, and several others in the Arabian Gulf started ambitious aquaculture projects intended to narrow the gap of fish supplies for the growing populations. He also pointed out that in 2011 aquaculture products contributed about 30% to the region's seafood supply. He also remarked that some states like Egypt, Saudi Arabia, and Kuwait – which have been experiencing lack of freshwater -- have been developing mariculture, farming fish and shrimp and others are re-stocking their waters with local species in an effort to rebuild depleted stocks. Among the main species that have been farmed are tilapia, carp species and grey mullet. Shrimp production follows but sea bass and sea bream farming is limited.

As to trade, Feidi pointed out that most species are marketed around landed areas, being fresh whole (round) fish the main form for consumption. However, in recent years whole individually chilled, frozen and processed fish products, have become widely accepted and labelling information on expiry dates, country of origin, traceability and certification are becoming demanded. He also highlighted that by 2020 aquaculture will be strengthened in inland unpolluted waters and will be developed in fresh and brackish water bodies.

Source: globefish

Chile fishing quotas set and landing information certification

Fishing quotas and the requirement to certify landing information, for all industrial fishing vessels, transporting boats and artisanal fishing vessels of 12 or more metres length was confirmed in Chile this month.
The Undersecretariat of Fisheries and Aquaculture (Subpesca) released the catch quotas set for 2014, noting that the Fisheries Development Institute (FDI) collected scientific information from 16 major fisheries of Chile and published several reports, which were later used to define different quotas.

For the north, for example, a slight decrease in the quota of anchovy was established in the XV-II regions, from 800,000 tonnes to 750,000 tonnes. While in the centre, the hake quota was lowered from 40,000 tonnes to 19,000 tonnes, while that of the giant squid was maintained at 200,000 tonnes. And finally for the south, the anchovy quota of V-X regions was reduced from 120,000 tonnes to 42,200 tonnes, and the sardine quota for the same areas was cut down from 605,000 tonnes to 373,000 tonnes. The jack mackerel quota was also increased from 250,000 tonnes to 298,000 tonnes.

When introducing the new quotas, the Undersecretary of Fisheries, Pablo Galilea, stressed the importance of understanding that the decline of some "species is due to the complex status in which fisheries are, and that the only way to retrieve resources is limiting them to levels that allow their sustainable exploitation through time. He added that the quotas "will allow recovery of resources" and "will lead to have more and better jobs in the future, and greater contribution to the country's economy by the fishing industry."

The certification of landing information will be conducted by an auditing company authorised by the National Fisheries Service (Sernapesca) in order to verify landing information declared by shipowners and fishing permit holders. This measure is further extended to foreign-flagged ships landing at authorized domestic ports and nationals ships downloading at foreign ports.

The announcement was made by the National Director of Fisheries and Aquaculture, Juan Luis Ansoleaga Bengoechea, who explained that "International markets are increasingly demanding regarding the quality of fishery products they buy. More and more countries require certified products with full traceability, allowing them to know the entire route of the product, from the area where it was harvested, until it reaches the supermarket shelves, detailing landing points, processing plants and transportation," Ansoleaga emphasised.

In order to explain the grounds for this measure and the procedures to follow, Sernapesca is completing a national awareness campaign (launched in April) on the landing certifications.

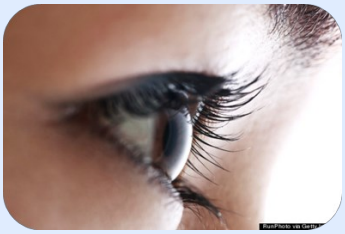
Source: FIS

9 reasons to eat fish right NOW!

An article in the Huffington Post recently highlighted the new position released by the Journal of the Academy of Nutrition and Dietetics on fat intake, promoting fatty fish as the go-to source for polyunsaturated fatty acids. It is the position of the Academy of Nutrition and Dietetics that dietary fat for the healthy adult population should provide 20% to 35% of energy, with an increased consumption of n-3 polyunsaturated fatty acids and limited intake of saturated and trans fats.

Two "long-chain" omega-3 fatty acids found in fish, EPA (eicosapentaenoic acid) and DHA (docosahexaenoic acid), are not made by the human body, meaning we need to eat them from a dietary source. Many people get omega-3 fatty acids from plant sources like flax seeds and walnuts, though this type of "good" fat - alpha-linolenic acid - only partially converts to EPA and DHA in the body and doesn't have the same amount of research behind it that omega-3s derived from fish do. Here are nine reasons to eat fish for your health:

1. **Save your eyesight** - In a large-scale study of French subjects, researchers found that eating a diet high in omega-3 fatty acids was strongly correlated with a reduced risk of age-related macular degeneration, a degenerative condition in which the central retina becomes damaged.



2. **Cut your risk of a deadly heart attack** - Heart disease is the leading cause of death among U.S. adults, but a Harvard School of Public Health study found that eating fatty fish once or twice a week, for a total omega-3 fatty acid intake of 2 grams, reduced a person's risk of cardiac death by 36% and of death from any cause by 17%.

3. **Enhance your brainpower** - If you've got an important presentation or exam coming up, you might want to chow down on fatty fish before the big day, according to recent research published in PLOS One.

4. **Halve your risk of rheumatoid arthritis -** For women, just one serving of fatty fish -- or four servings of lean fish -- could reduce the risk of developing the chronic auto-immune disease, rheumatoid arthritis, according to research gleaned from the Karolinska Institute's Swedish Mammography Cohort Study.

5. **Improve your baby's development** - A healthy diet of omega-3s is also important during pregnancy for the development of a fetus's brain and nervous system according to a study published in The Lancet in 2007.

6. **Live longer** - Eating fish could help you live longer, according to a reported by TIME, showing that study participants who had high blood levels of the fatty acids found in fish were 27% less likely to die during the 16-year study period and lived an average of two years longer than participants who had low levels.

7. **Breathe easier -** Eating fish during early childhood might be a good way to stave off asthma, according to a Dutch study of 7,210 children.

8. **Protect your skin -** One component of fish oil, EPA, has many great skin benefits, including the ability to regulate the oil production that hydrates skin, according to an article in Health.

9. **Up your, um, counts -** For couples hoping to conceive, a man's diet may matter more than previously thought, according to a recent Harvard study.

Source: http://www.huffingtonpost.com/2014/01/06/fish-health-benefits_n_4519174.html

Business

Marine Harvest is officially about to list on the New York stock exchange, becoming the first vertically integrated aquaculture firm to do so. "This is a big day for Marine Harvest and the salmon farming industry," said Alf-Helge Aarskog, CEO of Marine Harvest. Aarskog sees a number of advantages of being listed at the NYSE. "The listing gives us exposure to a larger part of the US investment community, including those who are not mandated to invest in Norway. Marine Harvest should also benefit from being aligned to the land based protein companies listed in the US. These companies are generally larger than Marine Harvest, but we have some superior attributes in terms of margins and growth prospects which should be attractive to investors," said Aarskog. Earlier in January sources suggested to Undercurrent News that listing in New York would bring exposure to world protein conglomerates such as Tyson Foods and Sanderson Farms. *Source Undercurrent News*

Neptune Technologies & Bioressources Inc, the supplier of krill oil for use in dietary supplements, is poised to open a new kill oil production facility in the spring. The company needs final approvals from government authorities to open the Sherbrooke facility, which is estimated to cost roughly $43 million. In November 2012, a fatal explosion destroyed Neptune's plant, stymieing its growth and prompting a government investigation. However, in spite of the plant explosion, Neptune said it has been able to maintain a significant portion of its revenues through margin concessions and by selling commodity krill oil. The new plant will have capacity to produce more than 150 metric tons of krill oil annually. In the three months ended Nov. 30, 2013, the company posted a net loss of $10.44 million on consolidated revenues of $4.4 million. Those results compare to a year-ago quarterly loss of $12.44 million on revenues of $7.03 million. *Source: naturalproductsinsider.com*

The Villa Arctic AS Jarfjord Farm in Norway is the first salmon farm to be awarded Aquaculture Stewardship Council (ASC) certification. The ASC celebrates this important development; one that has been eagerly anticipated by the market and diversifies the number of ASC certified species available to buyers. "This is a crucial first step for the salmon aquaculture industry and we congratulate Villa Arctic AS for their great effort in achieving ASC certification for Jarfjord Farm. The farm's ASC labelled products hit the market next week. Villa Organic AS, the parent company of Villa Arctic AS, has been a leading innovator in sustainable aquaculture and was one of the stakeholders involved in developing the ASC Salmon Standard. The ASC Salmon Standard aims to address the key negative environmental and social impacts of salmon farming and requires an unprecedented level of transparency. *Source: aquatic.animalhealth.org*

QL Resources, Malaysian fishmeal producer, has agreed to take over a fishmeal producer, Kuala Kedah Fish Meal Sendirian (KKFM), for RMB 2.7 million ($820,669). The takeover will be carried out by QL Resources' Fishery subsidiary. The company is being sold by Kuala Kedah Fish Industry. KKFM is strategically located in a key fish landing centre in Malaysia's northern peninsular, said QL Resources. Founded in 1979, KKFM owns the piece of leasehold industry land held under Pajakan Mukim No. 14, Lot 1121, Bandar Kuala Kedah, Daerah Kota Setar, Negeri Kedah, with a tenure of 60 years expiring on 3 July 2036, and measuring in area of approximately 9,200 square meters together with a fishmeal processing plant. KKFM will now become a wholly-owned subsidiary of QL Fishery. *Undercurrent News*

Asmak, an Abu Dhabi fish farming company, plans to bring a new home-reared species to UAE dinner plates in 2014 with the launch of the Middle East's first salmon farm. Based in the western region of the Abu Dhabi emirate, the Dhs100 million project will be a unique proposition for the Gulf. Asmak's plans are to build two projects: a land based recirculation aquaculture system (RSA) farm including a cluster for small fish farmers and an offshore sea cages farm in Dalma Island. The land based RSA farm will cover an area of 500,000 square metres and produce 4,000 metric tonnes of fish a year including salmon, seabream, barumundi and subaiti. An offshore sea cages farm will also be developed in Dalma Island consisting of 50 cages covering an area of 250,000 square metres, producing hammour, subaiti and seabream. The farm will also host a processing plant with a production capacity of 800-1,000 metric tonnes per annum, guaranteeing around 20 jobs. *Source: Gulf Business*

Benemilk Ltd, a joint venture of Raisio and Intellectual Ventures (IV), has filed a United States patent application for a Finnish fish feed invention and is starting the commercialisation of the invention in the USA. The fish feed invention was developed by the Finnish Game and Fisheries Research Institute and the patent application is regarding the utilisation of the more ecological and affordable rapeseed oil. This new formulation maintains the quality and health benefits of the fish while ensuring that any resulting products meet consumer needs. Fish oil was primarily replaced by Finnish rapeseed oil in the early growth stage of salmons. High fish oil content was used only in the final stage of salmon farming. The health benefits, growth, processability, shelf life and taste of the fish remained high. *Source: www.raisio.com*

Country / Regional

Namibia's pelagic fishing sector has been slammed with a zero industrial fish quota for 2014, presumably stemming from last year's season in which operators were unable to catch industrial fish as the biomass remained mixed with high volumes of pilchard. On the positive side, the sector received a 25,000 metric tonnes pilchard total allowable catch for the 2014 fishing season, and a further 5,000 metric tonnes that lies in reserve for the Minister of Fisheries and Marine Resources. The pelagic sector relies on some 35,000 metric tonnes of industrial fish quotas each year, mainly processed into fishmeal. Albeit, both the Namibian Government and the pelagic sector remain committed to the conservation of the country's volatile pilchard biomass and does not target industrial fish in situations where the biomasses remains intermixed with pilchard biomass. *Source: informante.web*

Brazil has launched the National Plan to Combat Illegal Fishing in the country, with the aim of raising fishermen's awareness of the importance of operating within the legal framework and of preserving the environment and fishing resources. At present, the fishing sector has almost one million regularized professionals performing artisanal and industrial fishing activities, and 400,000 anglers that have licenses. But the MPA admits that there may be thousands of illegal fishermen. *Source: FIS*

EMS is killing off the stocks of the world's three largest shrimp producers: Thailand, China and Vietnam. In some places, production is down by nearly 50% from last year. But there is hope. At the University of Arizona, professor Don Lightner in the School of Animal and Comparative Biomedical Sciences has a solution for detecting the bacteria in the stocks, allowing infected populations to be separated from healthy ones. Dr Lightner and Assistant Staff Scientist Linda Nunan have created a rapid diagnostic test capable of detecting the genetic differences between the pathogenic and non-pathogenic versions of the common marine bacterium, called Vibrio parahaemolyticus, which causes the disease. *Source: The Fish Site*

EU: The Scientific, Technical and Economic Committee for Fisheries (STECF) have published two new reports on the economic performance of the EU aquaculture sector. Aquaculture production by the 28 European Union Member States reached 1.35 million tonnes and EUR4.0 billion in 2011.

Production is mainly concentrated in 5 countries: France, Greece, Italy, Spain and United Kingdom, making up 77% in volume and 76% in value of EU totals. Production value increased by 8% in 2011, while volume decreased slightly (by 0.3%). *Source: http://stecf.jrc.ec.europa.eu/*

US: Specific types of fish farming can be accomplished with minimal or no

harm to the coastal ocean environment as long as proper planning and safeguards are in place, according to a new report from researchers at NOAA's National Ocean Service. The study evaluated the environmental effects of finfish aquaculture, including interactions with water quality, benthic habitats, and marine life across various farming practices and habitat types. In the report, scientists said that continued development of regional best-management practices and standardized protocols for environmental monitoring are key needs for aquaculture managers. As aquaculture development increases in the coastal ocean, the ability to forecast immediate or long-term environmental concerns will provide confidence to coastal managers and the public. *Source: TheFishSite News Desk*

Research

UK: A new study quantifies for the first time future losses in deep-sea marine life, using advanced climate models. An international team of scientists predict seafloor dwelling marine life will decline by up to 38% in the North Atlantic and over 5% globally over the next century. These changes will be driven by a reduction in the plants and animals that live at the surface of the oceans that feed deep-sea communities. As a result, ecosystem services such as fishing will be threatened. The projected changes in marine life are not consistent across the world, but most areas will experience negative change. Over 80% of all identified key habitats – such as cold-water coral reefs, seamounts and canyons – will suffer losses in total biomass. The analysis also predicts that animals will get smaller. Smaller animals tend to use energy less efficiently, thereby impacting seabed fisheries and exacerbating the effects of the overall declines in available food. The study led by the National Oceanography Centre and funded by the Natural Environment Research Council (NERC) was published in the scientific journal *Global Change Biology*. *Source: FIS and National Oceanography Centre*

International Council for the Exploration of the Sea: Scientists verify fishery resource recovery in the Atlantic.

Experts from ICES determined that overfishing in the Northwest Atlantic has decreased "significantly" in the last decade, a key factor to ensure the "regeneration of fish stocks". Lower overexploitation allowed the Council of Fisheries Ministers of the European Union (EU) to increase most of the Total Allowable Catches (TAC) that were important to Spain and Galicia in December. However, scientists explained that the improvements were not identical for all species and regions. There are still stocks with low populations, such as the cod that is caught in Irish or Faroe Islands waters.

Meanwhile, other resources, such as the blue whiting, continue to increase their biomass. This led EU ministers to raise by 42% (to 20,405 tonnes) the quotas for species in northern waters and up to 114% for the southern ones (19,500 tonnes). In addition, the Fisheries Council agreed to increase nearly 50% the hake quota in the waters of Gran Sol where. ICES also recommended Brussels to increase the monkfish quota by 20% next year in the Northern fishing ground and by 6% in the case of Iberian waters. Galician ship-owners made public their complaints about the ministers' proposal to cut horse mackerel quota by 40% in the Bay of Biscay, stating, "it is not in accordance with what the ICES says." *Source: FIS*

Omega-3 intake linked to higher cognition in infants, toddlers and young children.

A study on the effect of the ratio of omega-6 and omega-3 fatty acids and the cognitive abilities of children seven to nine years of age were recently published in The *American Journal of Clinical Nutrition*. In the study, dietary data confirmed the ratio of each child's omega-6 to omega-3 intake. After taking a set of neuropsychological tests, researcher Carol L. Cheatham said, "children who were eating too many omega-6 in comparison to omega-3 had slower speed of processing on working memory and planning problems." "Think of omega-6 as fatty acids as French fries and omega-3 as vegetables," Cheatham said. "Intake needs to be in balance because the metabolic pathways share the same enzymes. If the pathways get

out of balance because you are eating more omega-6 than omega-3, the enzymes get used up, and you won't be able to make your own DHA (docosahexaenoic acid) because you will be out of the things you need to make it." *Source: yottafire.com*

DNA detectives can identify fish species from just one glass of water.

Scientists from Monterey Bay Aquarium's 1.2 million-gallon Open Sea tank, among the 10 largest aquariums in the world, used just a glass full of water to identify the Pacific Bluefin tuna, dolphinfish and most of the other 13,000 fish swimming there. Researchers also for the first time used DNA from water samples to discern which of the species were most plentiful in the tank. Being able to determine the relative abundance of fish species in a body of water is the next step in possibly using modern DNA identification techniques to census fish in the open ocean, according to Ryan Kelly, University of Washington assistant professor of marine and environmental affairs. *Source: University of Washington News*

Feed alternatives: A new research project involving Aarhus University and the Danish Shellfish Centre is looking into whether starfish and mussels which could be used as alternative sources of protein for laying hens and young pigs.

Mussels remove nutrients from the fjords and can therefore make an important contribution to reducing the impact of pollution on the fjords from, for example, pig farms. The project will examine whether mussels and starfish can be used as an alternative source of protein – in terms of quality – to soy and fish waste and whether it is economically viable to trawl them up from the sea. The new project involving Aarhus University, Danish Shellfish Centre and Lumino A/S, and involves testing with pigs and laying hens. The first results from the project are expected before the end of the year. *Source: FIS*

German scientists searching for a sustainable source of medically important polyunsaturated fatty acids (PUFAs) have shown they can be manufactured by soil-dwelling bacteria.

Rolf Müller and colleagues at Saarland University have identified that certain species of myxobacteria, also known as slime bacteria after the slime they

produce to aid their movement, have the genes to synthesise certain omega-3 long-chain PUFAs de novo by employing enzymes known as PUFA synthases. The multi-enzyme systems are encoded by PUFA biosynthetic gene clusters. Müller's team have so far discovered two distinct PUFA pathways: *Sorangium cellulosum* can make linoleic acid and the recently discovered genus *Aetherobacter* turned out to be prolific producers of eicosapentaenoic acid (EPA) anddocosahexaenoic acid (DHA). 'The presence of different types of PUFA biosynthetic pathways with such product diversity within the same bacterial family is an outstanding aspect in the field of research on PUFA biosynthesis,' says Müller. *Source: Chemistry World*

2014

3-5 February	**Gafta Trade Foundation Course** - *Lima, Peru* *http://www.gafta.com/training*
4-6 February	**GOED Exchange** *Salt Lake City, Utah* (includes **IFFO Workshop**: Certifying Marine Ingredients: Why It's Important to Your Business)
5 February	**Sustainable Fisheries Partnership Fisheries Forum** – *Las Vegas, USA* *www.sustainablefish.org*
4-6 March	**North Atlantic Seafood Forum Conference** - *Bergen, Norway* *www.nor-seafood.com*
28 March	**IFFO-JCI Fishmeal and Fish Oil Forum** - *Xiamen, China* *http://www.jcichina.com/company/jcizh/*
1-3 May	**IFFO Members' Meeting** - *London, UK* *www.iffo.events.com*
7-10 October	**The Global Aquaculture Alliance's annual GOAL Conference** (Global Outlook for Aquaculture Leadership) - *Ho Chi Minh City, Vietnam*
26-28 October	**2014 IFFO Annual Conference**, *Vancouver, Canada*

IFFO
THE MARINE INGREDIENTS ORGANISATION

Contact Us

IFFO, Unit C, Printworks, 22 Amelia Street
London, SE17 3BZ, United Kingdom
Tel: +44 (0)2030 539 195
Fax: +44 (0)2030 539 196
e-mail: secretariat@iffo.net
www.iffo.net