

Skretting celebrates 1 mmt of salmon feed

SKRETTING teams around the world are celebrating reaching the “1 million metric ton” mark in salmon feed delivered this year.

“We continue to build our market share, even in challenging times, and this year, we will certainly pass 1 mmt of produced and delivered feed,” said Knut Nesse, managing director of the business group Skretting Salmon Feed.

“Our entire workforce on all continents can take real pride in this achievement,” Nesse added. “Hitting the 1 mmt mark within the year reflects our passion for meeting customer needs with quality and performance in the fish feeds we produce and the service we provide along with them. All employees will have a moment to celebrate, but we won’t pause for too long because we know there are customers and fish out there wanting more.”

Skretting companies in Australia, Canada, Chile, Ireland, Norway and the U.K. are highlighting the occasion with ceremonial deliveries of “millionth tonne” bags and special gifts for all employees.

Endorsing the pride Skretting can take from this moment, Wout Dekker, chief executive officer of Skretting’s parent company Nutreco, said, “This is a real milestone for the company. The achievement highlights the firm foundation of this young industry. Given the existing size of the salmon industry and the continuing growth of other aquaculture species, I can foresee a day when we will celebrate 2 mmt. To reach that point, we need to continue our investments in (research and development) and bring about many innovations.

“There is much to be done, for example, in fish health and the sustainability of aquaculture, but when you look back at how far we have developed since we celebrated 100,000 metric tons, it is clear we can achieve remarkable progress, and Nutreco is determined to continue that progress,” he added.

Skretting calculated that 1 mmt of salmon feed translates into close to 3 billion servings of fish. This is based on an average economic feed conversion ratio of 1.4 and a fillet yield of 60% so that 1 kg of feed provides 2.9 salmon portions of 150 g.

Aquaculture

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“Fish continues to grow in popularity in the Western Hemisphere because it is healthy nutrition. Simultaneously, consumption is rising in line with increasing wealth in the Far East. We know we will have to work hard to keep up with demand,” said Nesse. “Our other challenge is to do this in a sustainable manner, without taking more of the marine raw materials, fish meal and fish oil than the seas can continue to provide, which is why our marine raw materials are only sourced from regulated fisheries.

“Furthermore, because Skretting makes significant investments in (research and development), for several years, we have been able to increase our production while decreasing the amount of fish meal and fish oil we use,” he said. “For example, between 2004 and 2007, we increased our sales of salmon feed by 28% but decreased the consumption of fish meal 11% and of fish oil 20%. Fish

meal and fish oil have been replaced with other raw materials such as rapeseed oil, soybean meal, sunflower meal and corn gluten.”

Aquafeed Horizons

Cultivated marine shrimp have been an important source of protein in Thailand for many years, and the country has been an exporter since 1991.

In 2005 and 2006, total production of marine shrimp was about 380,000 and 410,000 tons, respectively, and for 2007, that figure is expected to reach more than 500,000 tons. However, Thailand has not escaped the devastating disease outbreaks suffered in shrimp farms worldwide.

This, plus the uncertainty of healthy brood stock supplies, has seen the country make a dramatic shift from black tiger shrimp to white shrimp, which accounts for 95-98% of production.

Other major aquaculture species in Thailand are sea bass, grouper, green muscle, blood clam, oyster, tilapia, catfish and giant freshwater prawn. There are 155 registered aquafeed mills in the country, including premixed, supplemental feed, concentrate feed and complete feed.



Dr. Juadee Pongmaneerat, senior expert in fishery product and inspection for the Department of Fisheries in Bangkok, Thailand, will open the Aquafeed Horizons Asia Conference March 6, 2008, with an update of the country's aquaculture and aquafeed status and explain the steps the Department of Fisheries has established to develop a strategy and policy for sustainable aquaculture and to enhance the safety and quality of aquatic food.

The conference will have a strong technical emphasis. Delegates will discover the very latest innovations in feed additives, such as pheromone attractants and palatability enhancers. Ingredients to add to the aquafeed formulator's arsenal will be presented — from krill to insects and novel feed supplements and nutraceuticals to promote performance and health in farmed fish and shrimp.

Many of these new ingredients will have an impact on processing, and this will be examined as part of the afternoon session, which will be devoted to practical processing issues.

To register for Aquafeed Horizons Asia 2008, visit www.aquafeed.info.

Organic fish feeds

U.K.-based organic certification body The Soil Assn. has met its target of eliminating the use of synthetic antioxidants in its certified organic fish feeds. Only natural antioxidants are now permitted in these feeds and their ingredients.

This is the first time such a requirement has been placed on any sector of the fish farming industry. Four months have now passed since the deadline set by The Soil Assn. in July, and all those involved in the production of Soil Assn.-certified organic fish feeds and their ingredients have successfully switched to natural products.

Organic foods and animal feeds aim to avoid all synthetic ingredients, but while the terrestrial organic feed industry has already replaced synthetic antioxidants with natural alternatives, it has been more of a challenge to protect the unique, highly unsaturated fats found in fish meal and fish oil from spoilage by oxidation.

The more unsaturated an oil is, the more prone it is to spoilage (rancidity) by oxidation. The exceptional nutritional value of oily fish and their oils is mostly due to the high levels of omega-3 fatty acids docosahexaenoic acid and eicosapentaenoic acid, both of which are highly unsaturated.

The aquaculture industry has, therefore, relied on synthetic antioxidants (particularly ethoxyquin), but effective natural alternatives are now available.

After establishing the availability of potential natural products, The Soil Assn. set a deadline of July 1 after which

all antioxidants used in organic fish feeds and their raw materials must be of natural origin.

By working with fish meal and oil manufacturers, feed mills and various companies developing natural antioxidant products, the necessary testing and development has taken place, and The Soil Assn. has met its target.

Natural antioxidants typically use extracts of plants, seeds and nuts and have active ingredients that include various forms of vitamin E tocopherols, vitamin C, gallates (from gallnuts) and diterpenes (from rosemary).

Peter Bridson, Soil Assn. aquaculture program manager, said, "It has been very satisfying to bring all the links of the supply chain together to work on this project. It has required a lot of testing. We agreed on the deadline with the stakeholders last year, and everyone has worked together to achieve it.

By using fish meal and oil made from the recycled filleting wastes of fish already caught for human consumption, we already have the most sustainable feeds in the industry, and it is great to know that we can also protect their unique omega-3 fatty acids with natural antioxidants," he added.

Aquafeed plant

CP Vietnam Livestock Co. Ltd. has received an investment license from the southern province of Ben Tre to open a \$68.5 million plant to produce feed for fish and shrimp.

The project, the biggest yet of its kind in the province, will cover an area of 12 hectares at the An Hiep Industrial Complex in Chau Thanh District. When completed in August 2008, the plant will operate with a total capacity of 384,000 mt per year.

BernAqua, Ocialis

Evalis, a leader in animal nutrition worldwide, has acquired a 51% share capital of larval feeds and larval products manufacturer BernAqua.

The Evalis group is comprised of 57 industrial plants operating in 15 countries and marketing products and services in more than 50 countries. In 2006, Evalis achieved a turnover of 637 million and employed more than 3,000 people.

Evalis has a strong emphasis on expanding its activities internationally, investing in research and development and developing Ocialis, its specialized brand for aquaculture.

BernAqua was founded by Bernard Devresse, a well-known specialist in larval nutrition who has developed worldwide sales of his company, which has reached a leadership position in Europe in terms of volumes as well as technology.

BernAqua said it sees the move as a means to secure a long-term future for the company both financially and in terms of human resources. It will reduce the reliance of the company's activities on its founder's know-how and ensure a steady and significant investment in research and development.

Ocialis manufactures and markets aquafeeds in Europe, Asia and South America. The BernAqua acquisition will allow the company to expand its offerings from growout feeds to all aquaculture rearing stages and to develop the strategic market of larval feeds.

Public comment

The National Oceanic & Atmospheric Administration (NOAA) and the U.S. Department of Agriculture are soliciting information and ideas on ways to lessen dependence on fish-based feeds in the aquaculture industry.

This comment period is the first step of a broad, yearlong program that will include research projects, scientific consultations and a national workshop aimed at developing new and effective ingredients for aquafeed.

"Forty percent of the seafood consumed in the U.S. comes from farmed sources, so we have a keen interest in making sure that aquaculture production is efficient and environmentally responsible," said Bill Hogarth, director of NOAA Fisheries Service. "Our program will identify science needs on alternative feeds for aquaculture to guide federal research funding priorities."

Congress is considering legislation to allow NOAA to permit aquaculture operations in federal waters between 3 and 200 miles off U.S. coasts. If enacted, the National Offshore Aquaculture Act of 2007 also would authorize a research and development program for all marine aquaculture, which would advance the movement to find additional feed options.

Producers feed pellets to farm-raised fish and shrimp that are made in part from ground-up herring, menhaden, anchovy and sardines, so-called industrial fish. These small, bony species provide farmed seafood with important protein, fatty acids and essential vitamins and minerals.

The issue of feed ingredients is a challenge facing the expanding global aquaculture industry because industrial fish are under increasing pressure as a commercial fishery worldwide.

The cost of fish meal has risen steeply as farming operations have increased. In 2002, 46% of fish meal went to aquaculture uses, while 22% went to poultry and 24% went to pigs. The amount of available fish meal and fish oil is not likely to increase, so producers must find other sources of feed protein as the aquaculture industry continues to

grow.

In response, industry is turning to other feed ingredients such as algae and soybeans, thus reducing the use of fish meal and fish oil. Studies are helping scientists to better understand the nutritional requirements of fish to ensure that new feeds effectively grow seafood that retains nutritional benefits for humans.

NOAA Fisheries Service and USDA's Agricultural Research Service and Cooperative State Research, Education & Extension Service are interested in making better use of discarded fish parts from fish processing plants for feeds, in addition to using a variety of potential ingredients from agriculture, including plants.

To submit a question, idea or

recommendation on alternative feeds for aquaculture, stakeholders should send an e-mail to noaa.aquaculture@noaa.gov; send a fax to (301) 713-9108, or send a letter to NOAA Aquaculture Program, Alternative Feeds Initiative, 1315 East-West Highway, Room 13117, Silver Spring, Md. 20910. The deadline for comments is Feb. 29, 2008.