



EU aquaculture  
hits €3.5 billion

Page 32



Stocks weather  
tough Q1

Page 36



U.S. shrimp  
market falters

Page 39

# Aquaculturebusiness

June 2008 Volume 1 Issue 2 



## Scotland's next move

- The aftermath of the salmon trade wars
- Niche production: A way forward?
- Behind the Scotland brand

## Loose ends? Innova ties it all together

Innova is an intelligent production control system that provides a complete IT solution for the modern food processor to optimize profits and overall production performance.

RETURN ON INNOVATION  
[www.marelfoodsystems.com](http://www.marelfoodsystems.com)



For information that could change your production process!  
Call Jens Bjarnason on: +354 563 8000 or visit: [www.marelfoodsystems.com/innova](http://www.marelfoodsystems.com/innova)






**IntraFish**

## Chile's next chapter

Can it get much worse for the Chilean salmon farming industry? The country's farmers have been beset with a string of setbacks. First, there was an earthquake that forced some farms to move, then the whole infectious salmon anemia (ISA) outbreak that continues to hamper production. Labor unrest is at a level never before seen. Then the *New York Times* took shots at the industry. And now a volcano erupting near the epicenter of salmon farming, Puerto Montt, is impacting farmers. Life is sometimes stranger than fiction.

Despite the recent setbacks, most think Chile will be back on track soon.

Maybe so, but the salmon farming giant would be wise to learn from this latest string of bad fortune.

For one thing, ISA is not going away. It can be managed, but not eliminated. Hopefully, the sanitary precautions and operating practices being put in place as a result of ISA will become permanent and help reshape sanitary and environmental policy in the region.

Also, Chile needs to be more transparent with its information. At the outset of ISA, officials tried to downplay the extent of the outbreak, as if by speaking happy-speak the problem would go away.

To thrive, Chile needs to rebuild its reputation and modernize business practices on farms and in processing plants.

Progress has been made since. Regular reports about infected farms are now available, and company execs are working together like never before in Chile.

Last year, six of the most influential companies formed the G6. The group has a dedicated health manager and meets regularly to share information they normally would keep from competitors. The Chilean salmon industry powerhouses account for 60 percent to 70 percent of Chile's total salmon output.

Let's hope this transparency continues.

Chile will survive the natural disasters and disease outbreaks, but to thrive and rebuild its reputation it needs to use lessons learned in these trying times to modernize business practices on farms and in processing plants.



NO ONE IS HAPPY: A string of setbacks, including labor unrest, disease, natural disasters and negative publicity have hurt Chile's salmon industry. How will it recover? PHOTO: PAULA CARVAJAL



## On intrafish.com



### Intrafish.com goes warp speed

We're delivering you the best in seafood news, first – and now, faster. IntraFish Media always is looking for ways to improve our services.

One of the reasons our readers choose us is because we offer news and insight into the seafood industry you can't get anywhere else – right up to the minute, right at your fingertips. This month, we've rolled out an optimized Web site that makes all the great content and sponsorships on our site load lightning-fast. Call it IntraFish 2.0. Our new site makes it easier than ever to access our content, no matter if you're accessing via a slow or fast connection, or on your mobile phone or PDA. In addition, we've rolled out other new features. We've added a special section that houses our photo galleries from out on-the-ground reporting from around the world. Just click on the photo of our latest gallery along the left-hand side of the page to see our galleries. We've made it even easier to find and access our IntraFish TV videos both on our front page, and with a convenient button that takes you to the full player.

In addition, we have links to our sister publication sites, which together with IntraFish.com make up the world's largest seafood news organization. Keep your eye out for more great new features!

### Regular features

Round-the-clock news

Free daily newsletter

Breaking news updates

Columns

Market prices

Web TV

Photo galleries

Letters to the editor

Online newspaper

Archive

Industry reports

Events calendar

Jobs board

Conference previews/ wrap-ups

Graphic: Erik Dyngeland

**IntraFish Media** is a subsidiary of NHST, an Oslo, Norway-based publishing company whose publications cover the shipping, oil and seafood industries.

The IntraFish Media group of seafood publications includes IntraFish newspaper, a monthly publication for global seafood professionals, and Fiskaren, a publication for the Scandinavian fishing industry published three times per week.

The group also operates the daily online news services IntraFish.com and IntraFish.no and publishes The Wave, a daily electronic seafood industry newsletter.

#### OFFICES

**IntraFish Media AS**  
Bontelabo 2  
5003 Bergen, Norway  
Tel: +47 5521 3300  
Tel: +47 5530 2230  
Fax: +47 5521 3301  
info@intrafish.com

**IntraFish Media London**  
Haines House, 21 John St.  
London WC1N2BP, UK  
Tel: +44 20 7017 4502  
(sales)  
Tel: +44 20 7017 4514  
(edit.)  
Fax: +44 20 7017 4536  
sfi@seafood-international.com  
www.intrafish.com

**IntraFish Media North America**  
701 Dexter Ave N ste 410  
Seattle, WA 98109 USA  
Tel: (1) 206-282-3474  
Fax: (1) 206-282-3470  
info@intrafish.com  
www.intrafish.com

#### IntraFish Media Chile

Walker Martines 430  
Office 32  
Puero Varas  
Region X, Chile  
Tel: +56 6523 3134 (sales)  
Tel: +56 6523 3217 (edit.)  
Fax: +56 6523 3209  
info@intrafish.com  
www.intrafish.com

#### SALES

**Bergen, Norway**  
Tel: +47 5521 3300  
Tel: +47 5521 3333  
Fax: +47 5521 3340

#### London, UK

Tel: +44 20 7017 4502  
Fax: +44 20 7017 4536

#### Seattle, USA

Tel: +1 206-282-3474  
Fax: +1 206-282-3470

#### Puerto Varas, Chile

Tel: +56 6523 3134  
Fax: +56 6523 3209

#### Singapore, ASIA

Tel: +65 6557 0047  
Fax: +65 6557 0444

#### STAFF

**Publisher**  
Paal Korneliussen  
pal.korneliussen@intrafish.com

#### Editorial Director

John Fiorillo  
john.fiorillo@intrafish.com

#### Graphic Designer

Erik Sivle Dyngeland  
erik.dyngeland@intrafish.com

#### Editor

Drew Cherry  
drew.cherry@intrafish.com

#### Editorial Production

Ben DiPietro  
ben.dipietro@intrafish.com



## Net notes

### Kona kampachi gets green thumbs up

Kona kampachi is getting a "good alternative" rating on the Monterey Bay Aquarium's Seafood Watch consumer seafood purchasing ratings guide.

Kampachi is grown by Hawaii-based Kona Blue Water Farm.

"We're very pleased to be rated as a 'Good Alternative' by Seafood Watch, the leader in fisheries and aquaculture sustainability evaluation," said Michael Wink, CEO of Kona Blue. "Our aspiration, however, is to be the first marine net pen farm to be rated as a 'Best Choice.' Our work with the Monterey Bay Aquarium has given us a clearer understanding of how we can improve on our sustainability standards to achieve a goal of a 'green' rating."

Most farmed yellowtail originates in Japan. However, these farms rely heavily on wild-caught fish; using juvenile yellowtail from the wild to stock the pens and fishmeal to feed them. Both practices put pressure on wild fish populations, the aquarium says in its guide, saying to avoid such fish.

Kona Blue has worked to reformulate its feed ratios so it uses less fishmeal and fish oil, and this won praise from the aquarium.



### AKVA earnings slide

AKVA Group, the Norwegian fish farming equipment maker, posted first quarter earnings before interest, taxes, depreciation and amortization of NOK 16.3 million (€2.1 million/\$3.2 million) – a fall of 21.2 percent on difficult Chilean trading conditions and a weaker U.S. dollar compared with the same period last year.



The company's sales were down 3.6 percent to NOK 207.3 million (€26.3 million/\$40.7 million), having been affected by the sale of the Marel division of the Maritech business last year, a note to the Oslo Stock Exchange said.

The general market outlook for the salmon farming industry in Norway remains good but a problematic fish health situation in Chile is biting into capital expenditure plans in the South American country, AKVA CEO Knut Molaug said (pictured).

Nevertheless, AKVA said it expects to increase revenues from its recirculation systems in Chile in 2008.

### Farmed abalone standards under way

The process of creating standards for certifying farmed abalone is under way. Standards will help minimize the key environmental and social impacts associated with abalone production, World Wildlife Fund (WWF) says.

At the first meeting of the abalone aquaculture dialogue, held in Australia in April, participants identified the key impacts associated with abalone farming and agreed on overarching goals to address those impacts.

The impacts discussed relate to biosecurity, genetics and the ecosystem effects of abalone aquaculture.

Dialogue participants made significant progress in categorizing criteria, which are specific areas to focus on in order to reduce the impacts of abalone farming, WWF said.

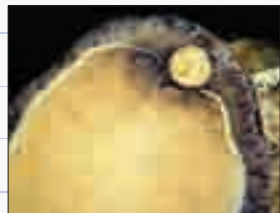
### Landcatch expands in South Africa, Denmark

Salmon smolt supplier Landcatch Ltd. has expanded its selling network for pedigree strains of Atlantic salmon to South Africa and Denmark, the company said.

Alan Stewart, Landcatch business development director, said the expansion was part of an effort by the company to expand beyond core markets of Scotland, Chile and Ireland.

Landcatch, based in Chile and Scotland, also has customers in Norway, Russia, Ireland, France, Shetland, Faroes and now Denmark.

"Every time we place eggs or smolts into a new environment we inevitably gain valuable experience of stock performance under a new range of conditions," Stewart said. "Such experience is extremely helpful to us in our drive to keep lifting the Landcatch strain to new levels of growth efficiency and disease resistance."



#### 1 Coupeville, Wash.: Kumamoto explosion for Penn Cove

Mussel, oyster and clam grower Penn Cove Shellfish said its efforts to seed prized Kumamoto oysters has paid off: the company's total "Kumo" resource has grown by 300 percent. Through its joint venture with California's Coast Seafoods, Penn Cove Shellfish is now the largest distributor of Kumos in the world.

#### 2 Chaiten, Chile:

Some 600,000 farmed salmon were relocated to avoid the erupting Chaiten volcano in Chile. The volcano erupted on May 2, forcing the evacuation of 4,500 Chaiten residents.

#### 3 Oslo, Norway:

Norwegian tilapia firm Genomar, which operates in China, the Philippines and Malaysia, raised NOK 134.5 million (\$26.6 million/€17.1 million) in its initial public offering (IPO). The company listed on the Over The Counter (OTC) board on the Oslo Stock Exchange.

#### 4

**Iraq:** The United States Agency for International Development (USAID) will supply millions of carp fingerlings to hundreds of fish farms across central and southern portions of Iraq as part of a joint effort with the U.S. military, the State Department, and area Iraqi farmers.

#### 5

**Vietnam:** Bianfishco, a leading seafood exporter and processor of Vietnam, says it will build a pangasius research institute to help improve techniques to grow the fish.

#### 6

**Nelson, New Zealand:** Sealord's bombshell that it plans to lay off more than 300 workers at its loss-making Nelson, New Zealand, mussel factory -- the biggest staff cuts it's ever made.

# EU aquaculture output hits €3.5 billion mark

Norway is region's largest aquaculture producer.

#### BY BENT-ARE JENSEN

Europe's fish farmers harvested €3.49 billion (\$5.49 billion) worth of product in 2007, according to the statistics from the Federation of European Aquaculture Producers (FEAP).

FEAP, which marks its 40th anniversary this year, announced the figures at its annual general meeting in late May.

Norway is unquestionably the largest aquaculture producer in Europe, accounting for around 68 percent of the total value of the bloc's aquaculture production last year.

Norway produces salmon and trout, primarily.

Measured in quantity, FEAP members produce approximately 1.4 million tons of fish, around half of which was produced on fish farms throughout Norway.



BIG BUSINESS: Europe's aquaculture industry is increasing in size, primarily driven by salmon. PHOTO: PHOTOPQR/LEST REPUBLICAIN/ALEXANDRE

Sea bass and bream, saltwater and freshwater trout and shellfish also account for a large portion of the volume and value of Europe's growing aquaculture output.

FEAP was established in 1968 by French, Belgian, German and Italian small trout producers. It was first called the European

Federation of Trout Breeders (FES), but changed its name in 1994 as salmon production began to dominate among members. John Stephanis, founder co-owner and managing director of the bass and bream farming company Selonda, is currently serving as chairman of the group.



**AADI AANDERAA**  
AANDERAA DATA INSTRUMENTS • www.aadi.no

*Save money  
on feed!*



- If you plan to reach feed factor 0.85, you will need 100% correct data
- To get 100% correct data reliable sensors must be used
- We make the most reliable sensors available today



**Oxygen Water Flow Temperature**

- Maintenance free
- Recalibration free
- Fouling no problems
- 40-Year Proven Track Record

**AADI**

AANDERAA DATA INSTRUMENTS  
info@aadi.no +47 55 60 48 00



DIFFICULT READING: Marine Harvest CEO Aase Aulie Michelet (right) says Chile will be her firm's big challenge in the coming months. Pictured on left is Marine Harvest Communications Director Arne Hjeltnes. PHOTO: IDA VON HANNO BAST

## Michelet: Chile remains our defining problem

Marine Harvest CEO Aase Aulie Michelet understands that the key to her company's turnaround lies in Chile.

BY KARL-ERIK STROMSTA

Marine Harvest notched a pre-tax loss of NOK 634 million (€128 million/\$197 million) in its first quarter results, with revenue falling at all five of its major operational divisions, as the company struggles to deal with lower salmon prices, the rising Norwegian kroner and continuing disease problems in Chile.

While maintaining cautious optimism about the company's medium-term future, CEO Aase Aulie Michelet sought to underscore the severity of the situation in Chile and the toxic world economy.

"Chile is still a major challenge for us," Michelet said. "It is a very, very difficult situation."

Michelet was quick to point out she's been CEO since March, but said her views on the company's options and prospects were the same as former CEO Leif Frode Onarheim.

In March, before Michelet took the helm, Marine Harvest

stated its goal was to utilize 2008 to implement "tough" changes in Chile to regain profitability and begin growing by 2010.

"I've only been here for seven weeks," Michelet said, "but I want to make it clear that this is a direction I strongly support."

Marine Harvest has taken strides toward restructuring its Chilean operations, including shuttering one processing plant, following 13 sites where infectious salmon anemia (ISA) is suspected or confirmed, and laying off more than 900 workers.

Without divulging details, Michelet indicated a number of major changes are left to be made.

"It's fair to call our aim a full reorganization of Chile," Michelet said.

### Revenue downturns

Every one of Marine Harvest's five major divisions – Norway, Chile, United Kingdom, Canada, and value-added processing (VAP) – saw revenues fall in the first quarter.

Revenue was dragged down by a perfect storm of currency fluctuations, lower salmon prices and the rising cost of just about every raw material from fuel to feed to packaging supplies.

Despite seeing revenue fall 13 percent to NOK 1.2 billion

(€153 million/\$237 million), Marine Harvest's Norway division – the company's largest and most profitable – performed strongly.

The Norway division was hampered by salmon prices and the rising kroner, and still reported a 7.5 percent profit margin.

Marine Harvest's VAP unit has become an increasingly important source of revenue, and is the company's second-largest breadwinner.

The VAP division saw revenue fall 6.5 percent to NOK 839.2 million (€107 million/\$166 million), though it actually notched an improved profit margin.

For the other three divisions – United Kingdom, Canada and especially Chile – the news was grim, with revenues dropping 19 percent, 23 percent and 51 percent, respectively.

Marine Harvest's loss in the U.K. was pegged to a batch of diesel-contaminated salmon that cost the company NOK 35 million (€4.5 million/\$6.9 million) in a one-off expense.

Its Chile division, the company's third-largest, is where the real bloodletting took pace. Chile operated at a loss of NOK 6.5 (€0.83/\$1.28) per kilo of salmon produced, a figure expected to remain in the red through 2009.

## Australis reports jump in barramundi sales

Australis Aquaculture says quarterly revenue is up 64 percent compared to the same period last year, with sales of fresh barramundi up 17 percent and sales of frozen products jumping 244 percent.

The numbers for the third quarter come following the launch of the company's packaged product line at the Boston Seafood Show, along with

expanded deliveries to Costco and other retailers.

The company continued to focus on its supply creation initiatives, increasing Barramundi growth rates in its Turners Falls, Mass., facility and expanding its overseas production activities.

Total biomass in the Turners Falls facility increased 11 percent over the second quarter.

The quarter saw a significant increase in both fresh and frozen production, and the company says the expectation is both will continue to increase in the coming fourth quarter and into the new fiscal year.

The company's success comes while U.K.-based barramundi farmer AquaBella went into administration. –Ben DiPietro



# Analysts mixed on salmon sector after tough Q1 results



SUNNY SKIES? Analysts see reasons for optimism in spite of gloomy first quarter results for salmon companies.

PHOTO: TARAL JANSEN

Though the numbers at some salmon farming firms disappointed, analysts are not downbeat on the entire sector.

BY JOAR GRINDHEIM

Cermaq's first-quarter results fell short of the market for many analysts, after the company posted a loss of NOK 16 million (€2 million/\$3.2 million).

"I expected Cermaq to break even for the quarter, but it managed to end in the red," said Klaus Hatlebrekke, chief analyst for DnB Nor Markets.

The result was "way below consensus," Hatlebrekke said.

Cermaq revenue in the first quarter bumped up a notch over last year to NOK 1.77 billion (€225.3 million/\$348.4 million), but the increase was due to Norgrain, which was consolidated onto Cermaq's balance sheet in late 2007.

The company's earnings fell significantly, slammed by lower salmon prices, increased production costs in Chile and higher raw material costs for its feed company EWOS.

"Cermaq is performing relatively well in Norway, and things look OK in Canada," Hatlebrekke said.

"Otherwise it has some real problems. We knew EWOS

would be weak, but it came out even worse than expected."

Hatlebrekke said he is not optimistic that Cermaq will see any sudden change of fortunes, given continuing problems in Chile.

"Just how much Chile will actually be harvesting this year is tough to say, so we are playing it conservative in our expectations," he said.

"It's winter there now, and that usually means fewer challenges," he said.

"We have to keep holding out hope that things will finally settle down over there, but so far they have done anything but."

Hatlebrekke and other analysts were upbeat about Leroy Seafood's salmon farming

operations, however, after the company posted worse-than-expected first quarter earnings.

Leroy Seafood posted a first quarter 2008 net loss of NOK 93.2 million (€11.8 million/\$18.1 million).

At NOK 68.7 million (€8.7 million/\$13.4 million), Leroy's earnings before interest and taxes (EBIT) also came in below analysts' expectations.

First Securities analyst Aslak Berge had forecast an EBIT of NOK 77 million (€9.7 million/\$15 million) for Leroy in the first quarter, but said the outlook for the company remains encouraging.

"The company is earning money and will have healthy earnings this year," he said.

Glitnir analyst Henning Lund said he was disappointed with Leroy's sales numbers, but thinks the memory of this will quickly fade.

He noted its salmon farming operations are performing well.

Goldman Sachs, the world's biggest investment bank, meanwhile raised its outlook for Leroy and Marine Harvest.

The brokerage firm recently increased its target price on Leroy Seafood shares from NOK 98.60 (\$19.83/€12.56) to NOK 104.10 (\$20.94/€13.26).

It also re-adjusted Marine Harvest's target share price upward from NOK 2.20 (\$0.44/€0.28) to NOK 2.51 (\$0.50/€0.31), according to *Bloomberg News*.

## Grieg grows in Shetlands

Norway-based Grieg Seafood in late May acquired Shetland-based salmon farmer Collarfirth Salmon.

Grieg acquired Collarfirth via its Shetland subsidiary Grieg Seafood Hjaltland Ltd.

Collarfirth has three salmon farming licenses with a total capacity of 2,100 tons.

"The additional farm sites will strengthen Hjaltland's market position," said Michael Stark, managing director of Grieg Seafood Hjaltland.

In April, Grieg acquired the remaining assets of defunct organic cod producer No Catch, together with with Salmar and Leroy Seafood-owned Scottish Seafarms.

## Are banks warming to farmed cod?

Codfarmers Managing Director Oystein Steiro says the decision by DnB NOR to back it with NOK 75 million (€94.8 million/\$147.6 million) shows banks realize the potential of farmed cod.

"We are delighted DnB Nor has faith in us," Steiro said.

In an essentially primary industry, what matters is to recognizing the economic driving forces and the underlying values in the individual companies, said Steiro.

As with different types of agriculture, there is a considerable divergence between regions, companies and farm sites, he said.

With Codfarmers set to harvest 4,000 tons of farmed cod this year, the decision is an

acknowledgement the company is moving into a more mature phase, he said, adding the company should expect dynamic growth for a number of years ahead, making access to necessary capital crucial.

"It feels like we are running a marathon at a sprinter's pace," he said.

Having upgraded its juvenile producing capability and established its own packing plant, Steiro said Codfarmers has a solid foundation upon which to build.

Average fish growth rates have reached 2.2 kilos, with the biggest fish weighing more than five kilos.

"The distance between forecast and actual result will become increasingly less," Steiro

said. "We are becoming increasingly more industrialized and predictable, which makes financing a lot simpler."

Despite the cash injection, Codfarmers saw first quarter losses widen due to zero production. The company used the time to upgrade its equipment and processing operations.

Codfarmers reported first-quarter revenue of NOK 1.1 million (€141,000/\$219,000), down from NOK 6.4 million (€820,000/\$1.3 million) during the same period last year.

—Vegard Solsletten

FAITH IN COD: Codfarmers CEO Oystein Steiro says banks are starting to believe.

PHOTO: SIGBJORN SANDSMARK





A focus on branding and marketing is needed to expand the market for farmed salmon, says the top executive at Leroy Seafood Group.

BY KARL-ERIK STROMSTA

With the U.S. dollar and Japanese yen in the dog house, Leroy Seafood CEO Ole-Eirik Leroy said his company is looking to pounce on emerging markets and create new ones altogether to grow sales in the coming years.

The softening of a basket of currencies crucial to Leroy's sales – including the dollar, yen and British pound – has led the company to redouble its focus on emerging salmon markets in countries such as Russia, China, Thailand and Turkey.

“In some of these countries the market for salmon didn't exist just a few years ago,” Leroy said, speaking at Glitnir's Seafood Conference in Oslo in May.

Leroy Seafoods recently opened a sales office in Turkey, a country the company would never have considered targeting until recently. Now Turkey is viewed as an extremely promising market for fresh salmon, he said.

“It's a country of 70 million people, and they've really picked up the taste for salmon,” Leroy said.

Several years ago Turkey imported no salmon whatsoever. Now it is importing more than 3,000 tons a year from Leroy alone – a figure growing at 40 percent a year.

Turkey is not alone among developing countries in its growing affinity for salmon. Leroy's sales to China rose 71 percent last year.

Sales to the Ukraine are up 109 percent; and Thailand is up 148 percent.

The salmon boom in emerging



I'VE GOT A SECRET: Leroy CEO Ole-Eirik Leroy has seen his company grow with a focus on branding and marketing.

PHOTO: PER THRANA

markets could not come at a better time; traditional markets have dwindled in the face of an onslaught of economic and currency-related woes.

In value terms, sales to the United States are down 35 percent compared to last year. Sales to Japan have fallen 20 percent.

#### Making the brand

Leroy said other avenues for growth include brand development and getting farmers to

work more closely with the marketing end of the business.

“Branding ... you have to be brave to use that word as a salmon producer,” Leroy said.

Leroy said Alfesca's success with branded

products served as motivation to salmon companies everywhere to take a closer look at name brand seafood.

“[Alfesca-owned] Labeyrie is really the only brand with a lot of shareholder value, at least for smoked salmon,” he said. “But

that could change one day. We are doing quite a bit of branding now in Scandinavian markets, and will be extending it to other markets as well.”

#### Working with marketers

Leroy said it also pays to get farmers to work directly with the marketing end of the business to create new products.

Two years ago U.K. retailer Marks & Spencer began working with Leroy-owned Scottish Sea Farms (SFF) to develop their “Loch Muir” brand of salmon.

Sold exclusively at Marks & Spencer, Loch Muir has been a resounding success, Leroy said.

“I think it's a perfect example of market teamed up with excellence in farming,” he said.

Leroy also said the Aurora division of LSG is producing a special type of salmon exclusively for the Japanese market.

Farmed in the extreme north of Norway, the salmon are kept in cold water, given huge amounts of oxygen and allowed to grow more slowly than normal farmed salmon.

“The Japanese consider it the ‘real’ taste of salmon,” Leroy said. “We think we'll be able to introduce Aurora salmon to other markets as the popularity and appreciation for sushi grows.”

” Branding...you have to be brave to use that word as a salmon producer”



TIME TO CELEBRATE? The European Union is letting farmed salmon back in, is trout next?

PHOTO: AFP/ANDREI PUNGOVSKI

## EU salmon decision could be boon for trout exports

Norwegian trout could catch a break in June when the European Commission (EC) proposes the minimum-import price on Norwegian salmon be struck down.

Though the EU's 20-percent tariff on Norwegian trout is different than the duty regime imposed on salmon, the EC's recommendation – set to be

handed to the EU in June – could be a boon for both, according to the Norwegian Seafood Federation (FHL).

On May 9 Norwegian officials said they had received word from the EC it would recommend the salmon duties, in place since January 2006, be eliminated.

–Bent-Are Jensen

## Skretting: Salmon to remain competitive protein

Farmed salmon will remain among the most competitively priced proteins as increases in feed costs and demand for bio-fuels push global food prices ever higher, Skretting Salmon Feed boss Knut Knesse said.

“The relative competitiveness of salmon will increase, that's definitely my expectation,” Knesse said.

He said it is difficult to forecast how much feed prices will keep rising, however.

“I would expect between flat and five and 10 percent,” he said.

The fundamental driver is high energy prices led by oil and gas, which are encouraging crop production normally destined for feed mills to end up in bio-fuel production, Knesse said.

Seafood processing equipment makers are managing to shrug off global credit crunch concerns, though higher feed costs are making some businesses



STILL CENTER OF THE PLATE: Salmon will continue to be a choice raw material despite rising input costs.

PHOTO: IGLO

push back their orders, **IntraFish** reported in May.

Planners drawing up budgets increasingly have to take into account steeply rising feed costs particularly those containing ingredients such as corn and soy, as they are driven up by demand from Asia and an uptake in interest in biofuels.

Western economies, in partic-

ular, are feeling the effects of rising fuel and raw material prices, in the face of a global credit crunch.

Skretting has commissioned a study of the global impact of increased raw material prices and plans to make it public at the Aquavision conference in Stavanger, Norway at the end of September. –John Evans



# Tilapia shortage hits as Chinese production plummets 80 percent

Whitefish traders are concerned that tilapia production in China could tumble as much as 80 percent due to the unusually brutal winter just now coming to an end, according to a new Globefish report.

BY KARL-ERIK STROMSTA

"Tilapia traders worldwide forecast a significant scarcity this year, which could last between eight and 12 months," the report said.

Prices have already begun to rise, and are likely to continue to increase "sharply."

The Chinese tilapia boom has hit the global whitefish industry like a tsunami, more than doubling over the past few years to its 2007 level of 210,000 tons.

Chinese tilapia exports were worth more than \$500 million (€322 million) last year, up from \$160 million (€103 million) in 2004.

Tilapia has elbowed aside other forms of whitefish in the U.S. and European market, particularly as favorites such as cod and haddock have come under fire from environmentalists.

The tilapia shortage will likely have a spillover effect on other corners of the whitefish market.

"Demand for other fish species might be affected also, with higher prices across the board," the report said.

Supplies will be shortened around the globe, with exports to emerging markets in places like Africa expected to drop first, as prices are typically lowest in such countries.

Recent expansion in tilapia exports to the European market "is forecast to come to a sudden end," while the United States

will also see a significant decline.

The shortage will have a positive effect on some other whitefish producing nations, particularly Latin American tilapia producers such as Ecuador, Costa Rica, Honduras and Brazil. Non-Chinese tilapia producers are likely to see much better prices in 2008, but will be unable to fill the gap left in the market by China.

The United States currently buys more than half of China's tilapia exports – 122,000 tons in 2007.

But Russia has been the fastest growing market, with 2007 consumption growing fourfold over 2006.

Rapidly rising tilapia consumption in Russia is growing hand in hand with increased imports of other types of whitefish such as panagasius from Vietnam. Russia is proving itself "an interesting market for whitefish at a competitive price," the report said.



OUT IN THE COLD: Unseasonably cold weather in China this year has cut tilapia production significantly, impacting global prices and supply. PHOTO: ELITE SEAFOOD

## U.S. tilapia imports down in Q1

Imports of fresh and frozen tilapia into the United States fell 1.9 percent in the first quarter, but higher prices brought more value for producers despite the lower shipments.

A total of 46.7 million kilograms of tilapia was shipped to the United States between Jan. 1 and March 31, down 1.9 percent from the 47.6 million kilos shipped during the first quarter of 2007.

The value of the shipments was \$154.5 million (€99.4 million), 2.8 percent higher than the 2007 Q1 value, the National Marine Fisheries Service (NMFS) reported.

Shipments of fresh fillets rose 6.6 percent to 7.6 million kilos,

and value climbed 5.2 percent to \$48.4 million (€31.1 million).

Ecuador remains the top provider of fresh fillets, sending 2.6 million kilos through March 31, a decline of 23.5 percent from 2007's Q1.

Honduras remained steady at 2.2 million kilos, same as last year, but higher prices boosted the value of the 2008 shipments 1.3 percent to \$14.9 million (€9.6 million). Costa Rica increased its shipments 33.3 percent to 1.5 million kilos, and Columbia nearly doubled its output from 216,778 kilos to 416,031 kilos.

There was an increase in frozen fillet imports to the United States, with numbers

rising 5 percent to 26.4 million kilos and value rising 5.2 percent to \$88.4 million (€56.9 million).

China remains the clear leader in the category, as its volume gained 5.2 percent to 23.2 million kilos and value gained 3.3 percent to \$72.1 million (€46.4 million). Indonesia's exports rose 13 percent to 2.3 million kilos, while value climbed 17.9 percent to \$12.3 million (€7.9 million).

Orders of frozen whole tilapia declined 17.5 percent to 12.7 million kilos the first three months, NMFS said, while value dropped 13.7 percent to \$17.7 million (€11.4 million).

China is the category leader

but its shipments tumbled 34.2 percent to 7.7 million kilos, and value was off 36.8 percent to \$9.8 million (€6.3 million).

Taiwan's shipments rose 5.3 percent to 3.8 million kilos, and value rose 20.3 percent to \$5.9 million (€3.8 million).

Thailand looks as though it will become a player in this arena, as NMFS' numbers show the country boosted its shipments from 26,547 kilos in the first quarter of 2007 to 858,833 kilos this year worth more than \$1.1 million (€707,800).

Indonesia also could join in, as its grew its exports from zero in 2007 to 144,960 kilos worth \$784,000 (€504,400).

—Ben DiPietro

## Nireus not expecting sales growth in 2008

Caught under the collapsing price of bream, greek aquaculture firm nireus said it would consider 2008 a "great success" even if it saw no sales or earnings growth, but merely managed to stabilize the gains it saw in 2007.

"Ultimately, we'll view the year as a success if we're in the same vicinity of sales as last year," Executive Vice Chairman Paniotis Alexakis said during a conference call with reporters.

Athens-listed Nireus, Greece's largest food exporter, saw its first-quarter sales drop 5.4 percent to €39.4 million (\$61.4 million).

Net earnings fell far more sharply to €1.7 million (\$2.6

million) – down 23.5 percent compared to the corresponding quarter last year.

Nevertheless, Nireus managed to increase its profit margin to 23 percent as it successfully implemented a slew of acquisitions in its wake and whittled down operating costs.

In addition to poor bream prices, which began heading southward in mid-2007 and still show no signs of recovery, Nireus blamed the drop in earnings on recent losses sustained by Marine Farms, in which it holds a 30 percent stake.

"We really consider it a successful beginning to the year, considering all the challenges we are facing," Alexakis said.

"The only real issue for us right now is the price of bream. It's not just us – it's affecting every mediterranean aquaculture company," Alexakis said. "We think prices will stabilize in due course."

Alexakis said the company is holding back on bream production to "protect the current price level," in hopes of seeing a rebound by the end of the year.

On balance, he said, nireus is expecting average bream prices in 2008 to come in below what they were last year – "maybe around p3.80 (\$5.89) A kilo."

Meanwhile, bass prices remain strong and continue rising. Nireus expects the average price to hit €5 (\$7.75) a kilo in



NO GROWTH: Nireus Executive Vice Chairman Panayotis Alexakis discusses his plans for Nireus. PHOTO: PER THRANA

2008.

Alexakis said the primary reason for the discrepancy is that bream is easier to farm – ensuring more small- and medium-sized farmers dive into the bream industry while leaving bass relatively uncontested.

Responding to questions about Nireus' relatively heavy debt load, alexakis said the

company would not pursue any major acquisitions during 2008.

"We are sensitive to our debt situation," he said. "I'm not going to say we won't pursue any acquisitions whatsoever. But I believe we aren't going to go after any major targets – the kind we would need to borrow large amounts of money to pursue." —Karl-Erik Stromsta



# U.S. shrimp imports continue slide

The world's No. 1 farmed shrimp market is showing signs of a slowdown.

BY BEN DIPIETRO

Shrimp shipments to the United States the first three months of 2007 totaled 123.8 million kilograms, a 2 percent drop from the same period last year. The value of the 2008 imports is \$861.9 million (€556.8 million), a 0.7 percent decline from the year-earlier period.

While China remains the leading provider of breaded frozen shrimp, Thailand is making some inroads into the sector.

China's shipments fell 36 percent to 6.6 million kilos, and their value declined 40.7 percent to \$27 million (€17.4 million). Thailand boosted its output 37.1 percent to 2.7 million kilos, and value rose 9.2 percent to \$14.1 million (€9.1 million).

In the frozen-other category, China saw its shipments plunge 61.4 percent to 1.8 million kilos, while value fell from \$25.4 million (€16.4 million) to \$10.7 million (€6.9 million), the National Marine Fisheries Service reported.

Thailand leads the peeled frozen market but its shipments fell 19.8 percent to 9.7 million kilos, while value dropped 19.5 percent to \$70.7 million (€45.7 million).

In the shell-on, frozen, 15-20-count range, Mexico remains

the leading U.S. supplier but its output fell 62.3 percent to 830,190 kilos, while value was down 24.8 percent to \$9.4 million (€6.1 million). Mexico leads in the 21-25-count size, boosting shipments 21.4 percent to 2.8 million kilos, and upping value 29.8 percent to \$25.8 million (€16.7 million).

Thailand was tops in the 26-30-size, sending two million kilos to the United States the first three months of 2008, a decline of 13 percent from the same time last year. The value of the shipments was down 14.2 percent to \$12.7 million (€8.2 million).

In the 31-40-count sector, Indonesia overtook Ecuador to become the leading U.S. supplier. Indonesia boosted exports 40 percent to three million kilos, and the value of those orders rose 38.5 percent to \$18.2 million (€11.8 million).

Ecuador, the previous leader in the category, saw its shipments rise 11.5 percent to 2.6 million kilos, and its value gain 16.8 percent to \$15.5 million (€10 million), NMFS said, while Thailand's output declined 28.6 percent to 1.5 million kilos and value was off 27.6 percent to \$8.4 million (€5.4 million).

Ecuador leads in the 41-50-count range, increasing its shipments 20 percent to 3.5 million kilos, while value gained 31.9 percent to \$19.1 million (€12.3 million). It also is the top supplier of 51-60-sized shrimp, though shipments fell 17.1 percent to \$2.9 million kilos and value fell 4.4 percent to \$15



NO THANKS: Is the U.S. losing its appetite for shrimp?

PHOTO: FOODISTABLOG

million (€9.7 million). In the 61-70 category, Ecuador saw its output decline 34.6 percent to 1.7 million kilos, but remains the leading U.S. supplier through March.

The value of the orders fell 23.4 percent to \$8.2 million (€5.3 million).

In the under-15 segment, Mexico remains the leading supplier but Bangladesh is coming close to the top slot. Mexico shipped 1.3 million kilos, a decline of 7.1 percent, but value of those shipments climbed 10.2 percent to \$18.5 million (€11.9 million).

Bangladesh's shipments fell 7.7 percent to 1.2 million kilos, and value was down 5.9 percent to \$16 million (€10.3 million).

In the over-70 size, Ecuador's shipments dropped 52.5 percent to 997,854 kilos, and value fell 46.8 percent to \$4.2 million (€2.7 million).

## Shrimp execs meet U.S. official to discuss alleged worker abuses

Several top global shrimp industry executives met in May with a U.S. State Department official to discuss recent allegations of worker enslavement and abuse at shrimp processing plants in Thailand and Bangladesh.

On May 12, representatives including Eric Bloom of Eastern Fish, Bill Herzig and Chip Kunde of Darden Restaurants, Shue Wing Chan of Chicken of the Sea/Thai Union, John Connelly and Stetson Tinkham of National Fisheries Institute (NFI) met with Ambassador Mark Lagon of the U.S. Department of State's Office to Monitor and Combat Trafficking in Persons.

The participants discussed conditions in shrimp plants in Thailand and Bangladesh and how alleged bad labor practices might be corrected.

The ambassador agreed to assist NFI in getting specifics on alleged problems in the two countries from the Solidarity Center, the group that recently reported child abuse and other worker concerns in the region.

NFI has requested a meeting with the Solidarity Center in order to get details on the reported problems.

The industry officials say they agreed to work with the ambassador and his staff in solving specific problems in the two countries, once they identify what those problems are.

In June, NFI was warning its members to prepare for the release of a report by the U.S. Labor Department suggesting shrimp from Thailand and Bangladesh are being produced with some level of child labor or forced labor involved.

The additional attention and media coverage is sure to further cast a negative perception over shrimp imports from these countries, analysts say.

NFI recently visited plants in Thailand and is expected to have details on its findings in the coming weeks.

The Solidarity Center refuses to identify plants where it says worker abuse is occurring for fear of putting the workers in jeopardy.

—IntraFish Media

## Macro Fish Counter

A revolutionary fish counter designed to count fish from 0.2 g



- Up to 200,000 smolts per hour
- Over 98% accuracy
- Size range from 0.2 g
- Permanent record of fish counted
- Multi channel options
- Average weight and size distribution
- Wellboat version available



[www.vaki.is](http://www.vaki.is)

Akralind 4, IS-201 Kópavogur, Iceland  
tel. +354 595 3000, fax +354 595 3001, e-mail: info@vaki.is



# IFFO to create certification scheme for feed producers

The International Fishmeal and Fish Oil Organization (IFFO) has begun developing a new certification scheme that will allow fishmeal and oil producers to demonstrate their traceability and sustainability credentials.

BY KARL-ERIK STROMSTA

Called the Code of Responsible Practice (CORP), the certification program will likely be approved in October, with producers able to enter the auditing process in early 2009.

The first certifications are expected to be handed down by late 2009.

CORP will bridge three separate elements – food safety and traceability; responsible raw materials sourcing; and a commitment to the United Nations Food and Agricultural Organization's (FAO) code of responsible fishing practices, according to IFFO Director General Jonathan Shepherd.

"Many of our members are very responsibly managed, but this will give them a chance to demonstrate that more plainly to their customers," Shepherd said.

"This is not in any way an eco-label.



FISH FEED FOR THE FUTURE: IFFO's new certification scheme aims to ensure a sustainable supply of fishmeal and feed well into tomorrow. PHOTO: BJORN TORE FORBERG

We are not in competition with the Marine Stewardship Council (MSC) or Friend of the Sea or anyone else. This is simply a business-to-business tool."

Though there have been calls for such a scheme along the entire feed supply chain, most of the pressure has come from the

feed companies themselves, Shepherd said.

"It's a reflection of the pressure they feel from High Street retailers, who want to be able to demonstrate that the fish they're supplying to their customers is the result of responsible practices," he said.

In particular, U.K. retailer Tesco has offered both money and ideas for the creation of CORP, Shepherd said.

It is not yet possible to know how much the accreditation process will cost companies, nor how long it will take, as many of the final details still need to take

shape, according to IFFO Technical Director Andrew Jackson. "Of course it will all depend on the individual businesses, based on what they've already got in place. Clearly some businesses are going to find [certification] much easier than others," Jackson said.

## Nutreco CEO: Get ready for GMOs

The world's growing base of seafood consumers is not ready for genetically modified fish (GMO), but will have to get used to the idea of some modification of the ingredients in fish feed, according to Nutreco CEO Wout Dekker.

For the time being, however, the seafood industry cannot afford the bad press that comes with genetically modified products, Dekker said.

"Nutreco's strategy is abundantly clear, and I totally agree: Consumers are simply not ready for GMO food, whether it's being produced on shore or off-shore," Dekker said.

Dekker said seafood must be especially careful, as it evokes stronger feelings among consumers than nearly any other type of food production.

Nevertheless, with the world's population set to rise to 9.2 billion by 2050, the writing is on the wall.

Genetically modified food production is becoming a necessity, regardless of the volume or fer-

vor of criticism from environmental groups.

And fish feed will inevitably use GMO products such as soya and maize as ingredients, Dekker said.

"It's our job to begin preparing people for the reality of the urgent need for GMO production to feed the exploding world population," he said.

Dekker said consumers must be made aware animal feed is produced to an increasing degree on the basis of genetically modified (GMO) raw materials such as corn and soy.

By 2050, Dekker noted, GMO food production will be a necessity and a challenge, particularly in regard to the NGOs that run an almost religious-like campaign against development of such products.

A large percentage of today's production of corn and soy is genetically modified, said Dekker.

Though genetically modified corn and byproducts such as corn gluten are a reality, and the



NUMBERS GAME: Sooner or later, GMOs in fish feed will be a reality, said Nutreco CEO Wout Dekker.

PHOTO: BENT-ARE JENSEN

pharmaceutical industry uses many GMO products in medicines, consumers are not ready to accept the use of GMOs in the production of meat and other proteins they consume, whether on land or in the water, said Dekker.

"We must start to prepare people to that GMO production will be necessary in the future in order to feed the world's explosively expanding population," he said.

—Bent-Are Jensen



CAN YOU AFFORD IT? Fish feed is going up in price, but it won't affect aquaculture's growth rate, IFFO says. PHOTO: ARE KVISTAD

## Will feed prices slow growth?

Though supplies of fishmeal and oil are tight, prices are considerably lower than they were two years ago, and global aquaculture growth is not being held back by a scarcity of feed, according to the International Fishmeal and Fish oil Federation (IFFO).

Global fishmeal prices were stable around \$600 (€382) per ton in 2002, but by 2005

demand from China had begun driving up prices.

By mid-2006 prices hit their apex at around \$1,300 (€827) before reversing.

These days prices are once again rising.

Fishmeal prices now stand at around \$900 (€573) per kilo – painful, but not high enough to hamper growth.

—Karl-Erik Stromsta



# For Faroese, disease outbreak a catalyst for change

An ISA epidemic forced Faroese fish farmers to totally rethink their way of fish farming.

BY JOGVAN GARDAR

In the space of just a few months ISA broke the back of the entire Faroese aquaculture industry.

The contagious disease spread swiftly. Fjord after fjord became infected. It may have been a harrowing experience, but the sector is close to saying it was a necessary one.

Fish producers say it had to go wrong sooner or later, with too many fish in the cages leading to stress and making the fish more vulnerable to disease.

The Faroese salmon farming industry, in cooperation with au-

thorities, laid the groundwork for new regulations that today steer the industry.

There now are fixed directives for density of fish in cages and a mandatory fallow period after fish are slaughtered in fjords, among other things.

The Avrik company analyzed the production figures before, during and after the ISA period. The figures were presented at an aquaculture conference held this spring in Torshavn.

They show how much the industry has profited since procedures were changed.

Feed consumption is one of the factors having the greatest impact for fish producers.

Avrik documented feed consumption for a combined production of 40,000 tons is 1,240 tons lower than it was before the

ISA epidemic. In monetary terms, this equates to a saving of around NOK 10 million (\$1.95 million/€1.26 million).

Before ISA, fish farmers had to release 10.5 million smolts to produce 40,000 tons. Now they don't need to set out more than 9.4 million tons to achieve the same volume.

One reason for this is smolts are bigger when released into sea cages, amounting to a savings of close to NOK 11 million (\$2.15 million/€1.39 million).

The biggest dividend, according to Avrik, lies in a considerable shortening of production time.

Prior to ISA, fish farmers utilized 20 farm sites for 20 months at a cost of NOK 640 million (\$125.3 million/€81.1 million) to grow the fish to the desired size.



FROM ROUGH WATERS TO SMOOTH SAILING: The Faroese salmon farming industry used ISA to restructure and create a better, more efficient industry. Can Chile learn the same lesson? PHOTO: UPSTREAM

With changes in routines and by releasing larger smolt, they succeeded in cutting down production time to 16 months. This ended up in a savings of NOK 51 million (\$9.97 million/€6.45 million). Altogether these changes

brought a total saving of around NOK 72 million (\$14.07 million/€9.11 million) from before ISA up to the present day, where the industry has changed substantially with new, stricter and tighter regulations.

## Invasive mussel species threaten Scottish shellfish industry

Scottish mussel producers face a rising – if poorly understood – threat from two invasive types of mussels that blend in with traditional species but are far less attractive from a commercial perspective.

Scotland's traditionally grown blue mussel species *M. edulis* has been a major source of growth for the aquaculture industry over the past two decades.

In 1986 Scotland produced 262 tons of *M. edulis* – last year it produced more than 4,200 tons.

In 2005 reports began emerging that larger producers were experiencing problems with their stocks.

"They were finding mussels that were oddly shaped and had weak shells," said Ian Davies, of the Fisheries Research Services. "They were seeing mussels that were being broken far too easily by grading machines, mussels that couldn't survive transportation."

Testing has since shown that two similar but fundamentally different species of mussel – *M. trossulus* and *M. galloprovincialis* – have proliferated throughout Scottish waters without attracting notice.

The impact of the two new species is still poorly understood within the industry, both economically and environmentally, Davies said, speaking at the Aquaculture U.K. 2008 show in Aviemore, Scotland.

"For some producers it's catastrophic," Davies said. "The fragile shells mean the quality of the meat at the market is damaged."

At the same time, others seem to be able to grow and sell the new species quite successfully." Even the origin of the new species remains a mystery. *M. trossulus* is typically found in Baltic waters, while *M. galloprovincialis* is a staple of Mediterranean shellfish farming.

"It could be they are just

extending their natural range, perhaps as a result of climate change," Davies said. "Another possibility is they arrived in one specific location, perhaps having grown attached to the fouling on a vessel."

The industry is now researching ways to skew production toward *M. edulis*, including exploring the depth and salinity preferences of the different species, Davies said.

–Karl-Erik Stromsta

## Tassal sues over fish kill

The University of Tasmania is being sued by aquaculture company the Tassal Group for AUD\$1.7 million (\$1.6 million/€1 million) over the alleged loss of fish in a research trial.

Tassal says it agreed to let the university use some of its salmon in a field trial in December 2005.

The trial involved using a substance called Chloramine T

to treat amoebic gill disease.

Tassal alleges more than 60,000 fish died due to an overdose caused by the negligence of the university and its agents.

Fidelity Investments earlier this year purchased nearly 6.8 million shares in Australia-based salmon farmer Tassal Group.

–IntraFish Media



ENDANGERED? Scottish farmed mussels are facing a threat from invasive species.

PHOTO: SSMG

**TROUT LODGE**  
THE WORLD'S LEADING SUPPLIER OF Eyed Salmonid Eggs

- Comprehensive genetic selection program
- Internationally accepted independent disease-free certifications
- Personalized customer and technical services
- Eggs are available every week of the year

Since 1945 [www.troutlodge.com](http://www.troutlodge.com)  
T +1 (253) 863-0446 F +1 (253) 863-4715 E [trout@troutlodge.com](mailto:trout@troutlodge.com)  
PO Box 1290, Sumner, WA 98390 USA





WORTH THE DRIVE: Set down a long driveway overlooking majestic Badcall Bay, Loch Duart's headquarters is a hive of activity that seems out of place given its placid, almost lethargic surroundings. The company has a policy of hiring local workers at every opportunity. PHOTOS: Loch Duart

# Scottish salmon farmers see bright future

The industry has had its challenges and tough time still prevail. But with its focus on quality, Scotland's salmon farming industry appears ready for the global market.

BY KARL-ERIK STROMSTA

It is not an easy drive to Loch Duart, but it certainly is a glorious one.

One of a dwindling handful of successful independent Scottish salmon farmers, Loch Duart is perched on the northwestern coast of the Scottish Highlands, and is every bit as rugged and unspoiled as its well-known name implies.

The closest town, Scourie, feels less "blink and miss it" and more "keep your eyes

peeled and you still might miss it."

Scourie's sole gas station – the only one for dozens of kilometers in any direction – recently installed an outdoor credit card machine, enabling the town's 200 or so locals to fill their tanks after four in the afternoon for the very first time.

Set down a long driveway overlooking majestic Badcall Bay, Loch Duart's headquarters is a hive of activity that seems out of place given its placid, almost lethargic surroundings.

Upon seeing the flurry of activity inside, it is immediately clear why the health of the salmon farming industry is such a hot-button issue in Scotland, one espoused by politicians, businesses and community groups alike.

Quite simply, many of the people scurrying around the old stone building would not have jobs, or at least would not

be able to live where they do, without a paycheck coming from Loch Duart each month.

The harsh but self-evident reality is, there are few other places to work.

Scottish Minister for the Environment Michael Russell recently said one of his priorities is to "encourage long-term expansion of salmon farming in rural Scotland ... with more people living there, employed in quality jobs and enjoying a good life."

Loch Duart CEO Nick Joy, who comes to his office door wearing Birkenstocks and lives in an attached flat during the one week per month he spends in Scourie, says, "we hire locally first, as a rule.

"After the local communities, we'll look to the rest of Scotland, then to the U.K., then even to Europe. But locals always have – and always will – get priority," Joy said.



SPECIAL STUFF: More than 15 years ago Scottish salmon was the first non-French food to receive the French government's prestigious Label Rouge award for quality. More recently it has received Protected Geographical Indication status from the EU, putting it in the same league as champagne, parma ham and Cornish sardines, and giving it an instant marketing boost.

PHOTOS: LOCH DUART.

The salmon farming industry rural Scottish communities in may be most attached to local, the public's imagination, but it





TOP-SHELF: One of the most powerful advantages the industry has is Scotland's own good name. The salmon industries in other countries may be focused on volume, but Scotland has always had a reputation for producing salmon of the highest quality.

also plays an important role in the overall economy.

Scotland is the world's third largest salmon producing nation, trailing Norway and Chile in production volume, and cranking out roughly 10 percent of the world's farmed Atlantic salmon.

After rising steadily since records began in the 1980s, production plateaued around 170,000 tons in 2003, and has come down slightly in the years since.

Farmed Scottish salmon is worth more than 400 million pounds (€509 million/\$792 million) a year at the farm-price level – more than pork and poultry combined, and only slightly behind Scottish beef.

For many consumers around the globe farmed salmon is the face of Scottish food, accounting for 40 percent of all of Scotland's food exports. The worldwide retail value of Scottish farmed salmon recently blew past the 1 billion pound (€1.3 billion/\$2 billion) mark.

**Boom, boom, bust, bust**

Scotland's salmon industry has a venerable history, but it's also a history marked with periods of illness, misdirection and failure.

Even as SMP for Environment Russell was underscoring the importance of the industry to Scotland's constellation of unique coastal villages, he also noted the industry has a history of boom-and-bust cyclicity that can be as harmful to those villages as it is beneficial.

Back in the '80s, before multinational salmon corporations – mostly Norwegian and Dutch owned – arrived on the scene, even Scottish farms producing 250 tons a year were "creaming it in," Loch Duart's Joy recalls.

"The money that was coming in back then was astronomical. You didn't need to produce very much fish, you didn't need a good feed conversion rate, you didn't even need a good survival rate," Joy says.

"A lot of people got in fast and got in small in those years.

The problem came when everybody thought, 'Well, if the money's this good we'll just ramp up production.' It was the beginning of the boom-and-bust cycle."

While it appears the harshest notes of the traditional "bust" periods have been softened, so too have the sweetest peaks of the "booms."

While a handful of companies continue to do very well, Scotland's farmed salmon industry appears to have settled into a gradual state of decline, at least in terms of its overall effect on Scotland's economy.

Total jobs directly tied to the industry have fallen 30 percent since 2000, to their current level of 1,325.

In 1995 there were more than 120 companies involved in the industry; now there are less than 50 – and the number is falling thanks to the slow but constant trickle of insolvencies and the inevitable crush of consolidation.

**Too many rules, little money**

One constant headache for the industry is Scotland's regulatory regime, cited by a surprisingly high number of producers as one of the most arduous hurdles they face.

The current regulatory scaffolding stifles innovation and places far too high a burden on small-time Scottish producers, many of which are barely treading water, according to Richard Slaski, chief executive of the Federation of Scottish Aquaculture Producers (FSAP).

"The regulations that are in place now are structured in a very complicated way," Slaski says. "In some cases such complexity is necessary, but the more complex you get, the more you risk overregulation – or worse, inappropriate regulation."

"Ultimately the regulatory climate dictates whether you make a profit or not," he said recently at the Aquaculture UK 2008 show in Aviemore, Scotland.

The onerous regulatory framework – which could

become even more burdensome if the U.K. passes a new marine bill later this year, as it looks to do – causes a far worse problem than adding a blizzard of paper-

work. It makes the salmon farming industry far less attractive to potential investors, Slaski says.

Even as investment capital has poured into Scotland's main competitors, Norway and Chile, it has shied away from Scottish companies, due primarily to a history of poor profitability and several tidal waves of insolvency.

"Especially for small- and medium-sized companies, this is a huge challenge right now," Slaski says. "As a broad trend, the U.K. needs larger farms, which in turn require investment to get off the ground."

All of the major Scottish banks were invited to attend the recent Aquaculture U.K. 2008 show in May, highlighting many of the country's best and brightest companies.

But the banks, many of which have aquaculture specialists tracking the industry, largely ignored the invitation, explains show organizer David Mack.

"They essentially told us they have more important things to do than talk about fish farming."

**Heightened competition**

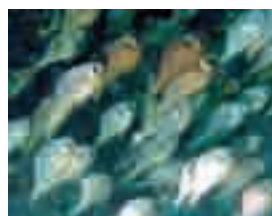
Further winds of change are in the air for Scotland's salmon farmers, as the demise of the minimum-import price (MIP) on Norwegian salmon in place since January 2006 becomes increasingly likely.

For nearly 20 years, independent Scottish and Irish salmon farmers have sought to pin some sort of duty on Norwegian salmon, and the fact that only 15 percent of the industry is still in Scottish hands has only further embittered and obfuscated the issue.

Scottish producers have long claimed Norway has a tendency to dump salmon onto European markets at prices cheaper than its cost of production, representing an unfair and unbeatable source of competition given Norway's massive production volumes.

Unsurprisingly, Norway has vehemently denied the allegations.

The current MIP, put in place by the EU in January 2006, forces Norwegian producers to pay an import duty when salmon prices fall below NOK



With Omega Protein's products, made from only the finest quality fresh whole fish, our catch is your net gain. There's a reason we're North America's largest manufacturer of fish meal and oil: we carefully control and monitor the quality of our products from our boats through delivery. Because you buy directly from us, you can be assured that you're getting 100% fish meal, liquid fish concentrate and fish oil, consistent in quality, year-round.



www.omegaproteininc.com  
713-623-0060 800-345-8805





A STORY TO TELL: "I'm very proud of Scotland and what it does, but I think Scottish salmon sells itself very badly," says Loch Duart's Nick Joy.

22.5 pounds (€2.85/\$4.42) per kilo.

Historically the salmon price has been higher than the MIP, making it little more than a contentious talking point.

However, salmon prices have fallen recently, making it a more poignant issue.

Even larger fish have flirted

with the MIP in recent months, while the smallest fish have often sunk below it, lending some credence to Scottish producers' concerns.

Regardless, the MIP appears to be on its last legs.

In late May, the European Union Antidumping Committee voted an overwhelming 25 to 2

in favor of ending the MIP, with Ireland and the United Kingdom the lone dissenting votes.

The EU Ministerial Council will make its final decision on July 21, but both Norway and Scotland are bracing themselves for the change.

"The Norwegians are pressing

for this so they can get control over the whole industry," says independent Scottish salmon farmer Angus MacMillan, who owns West Minch Salmon on the Isle of Uist.

"We already know that they get subsidies and loans which aren't available in other countries, and they are using this to take complete control of the industry in Ireland and Scotland."

Others, such as former Marine Harvest CEO Atle Eide, deny such lines of thought.

Not only has the MIP failed to benefit Scotland, but lifting it would actually force through a wave of painful changes that would help Scotland's industry in the long run, Eide has said.

The problem was never the price of Norwegian salmon, but rather poorly run Scottish salmon farms which never managed to grow big enough to compete at an international level, Eide wrote recently in a guest editorial for *IntraFish*.

"Few [Scottish producers] ever focused on actually developing a globally competitive industry. Few invested enough money to build up a business that can stand its ground in the international food industry," he says.

"Amazingly enough, they even persuaded Scottish politicians on board, who never seemed to appreciate that if the industry were ever to grow and develop, it badly needed modernization and heavyweight investment."

Ultimately, the MIP allowed the Scots to put off painful

restructuring, and refrain from necessary investment and modernization, he says.

#### Plenty of cards on the table

Despite the raft of challenges it faces, Scotland's farmed salmon industry has plenty going for it, and optimism is in no short supply. By every indication, properly managed Scottish companies can look forward to a bright and prosperous future.

One of the most powerful advantages the industry has is Scotland's own good name. The salmon industries in other countries may be focused on volume, but Scotland has always had a reputation for producing salmon of the highest quality.

More than 15 years ago, Scottish salmon was the first non-French food to receive the French government's prestigious Label Rouge award for quality.

More recently it has received Protected Geographical Indication (PGI) status from the EU, putting it in the same league as champagne, parma ham and Cornish sardines, and giving it an instant marketing boost.

Despite its success at the top-shelf level, Scotland's industry has plenty of room to grow upward.

Currently, just 16 percent of Scottish farmed salmon is sold as organic, Label Rouge-approved, or differentiated product.

And according to Loch Duart's Joy, the industry has



BIG PLAYER: Scotland is the world's third largest salmon producing nation, trailing only Norway and Chile in production volume, and cranking out roughly 10 percent of the world's farmed Atlantic salmon.





**RUGGED AND REMOTE:** Scottish Minister for the Environment Michael Russell recently said one of his priorities is to “encourage long-term expansion of salmon farming in rural Scotland ... with more people living there, employed in quality jobs and enjoying a good life.”



**TOO MUCH GOVERNMENT:** One constant challenge for the industry is Scotland’s regulatory regime, cited by a surprisingly high number of producers as one of the most arduous hurdles they face. The current regulatory scaffolding stifles innovation and places far too high a burden on small-time Scottish producers.



**UPS AND DOWNS:** Scotland’s salmon industry has a venerable history, but it is also a history marked with periods of illness, misdirection and failure.

managed to succeed despite scant marketing knowledge or wherewithal.

“I’m very proud of Scotland and what it does, but I think Scottish salmon sells itself very badly,” Joy says.

“It’s a classic British attitude: We’re going to make the best product we possibly can and spare no expense doing it. But once producers get to the marketplace and someone asks what makes their fish different, they get all coy and uncomfortable, and say, “Oh, it’s just farmed salmon like any other.

“It’s a very endearing characteristic, this whole underselling thing. But in a global marketplace you have to understand the value of PR and the marketplace you’re trying to enter,” Joy says.

Rather than trying to compete

on volume, the Scottish industry should focus on producing the highest quality salmon possible and sell as much as possible through restaurants, fishmongers, and other premier outlets, he suggests.

“Many companies have bought into the classic idea of ‘let’s pay our way into the multiples [retailers],” Joy says.

“With all due respect, you can pay your way into just about anywhere, but can you actually make your money back? Too many people think the only route to making money off Scottish salmon is in the multiples,” Joy says. “It isn’t the only route, and I don’t think it’s the best.”

**Close to the market**

And then there is what is perhaps Scotland’s biggest advantage

of all: its proximity to, and close relationship with, U.K. consumers.

It is an advantage that both Norway and Chile can only dream of.

MIP or not, non-EU-member Norway has always had to contend with trade restrictions in Europe and elsewhere. And it has less than four million of its citizens to sell to.

Chile, addled with biological problems and labor unrest, ships most of its salmon to an entirely different continent.

Being within a day’s drive of the U.K.’s more than 60 million food-forward consumers gives Scottish producers tremendous advantages in terms of flexibility, traceability and customer service.

Exports to Europe will likely continue to be strong, with

France as the largest export market for Scottish salmon.

Scottish producers are realizing just how attractive their backyard is.

Salmon consumption in the U.K. market, one of the world’s most lucrative, has more than tripled in the past decade.

While Norway is the dominant supplier of salmon to the EU market, it holds a comparatively small share of the U.K. market. Scotland, however, sells more than two-thirds of its salmon to U.K. consumers.

Moreover, U.K. consumers are more favorably disposed toward Scottish salmon.

In most cases they are willing to pay a premium for it, according to a recent survey conducted by Ernst & Young.

“Our aim is to build on Scotland’s premium reputation

for producing some of the finest food in the world and capitalize on demand for our products in the future,” MSP Russell said.

“Scotland has excellent conditions for Atlantic salmon and a skilled workforce, alongside a significant domestic market in the U.K.”

Scottish salmon will never dominate the industry, but few think it should even try.

Its future could be one of turmoil and rancor, but far more likely is a future of moderation, larger companies and better profits.

“There are signs the industry is now entering a new and resurgent phase,” Mack says. “Despite there being a number of challenges and difficulties, the industry is looking to the future with a degree of optimism.”

# Find the right person for the job

Join the fast-growing list of companies that use [www.intrafish.com](http://www.intrafish.com) to post their positions available in the seafood industry.  
Mail: [info@intrafish.com](mailto:info@intrafish.com)

First in seafood news





## Events calendar



### International Symposium on Fish Nutrition and Feeding

Dates: June 1-5 Place: Florianopolis, Santa Catarina, Brazil

### ACUI 2008

Dates: June 3-5 Place: Villagarcia de Arousa, Spain  
www.acui.es

### International Shimp Culture Symposium and Trade Show

Dates: June 4-6 Place: Los Mochis, Mexico

### Vietfish 2008

Dates: June 12-14 Place: Ho Chi Minh City, Vietnam  
www.vietfish.com.vn

### Shanghai Fisheries and Seafood Exposition 2008

Dates: June 28-30 Place: Shanghai, China  
www.sifse.com

### Skretting Australasian Aquaculture

Dates: Aug. 3-6 Place: Nelson Bay, Australia  
www.skretting.com

### Aquaculture Pacific Exchange

Dates: Sept. 25-26 Place: Campbell River, British Columbia, Canada

### Aquaculture Europe 2008

Dates: Sept. 15-18 Place: Krakow, Poland  
www.was.org

### AquaVision

Dates: Sept. 30-Oct. 1 Place: Stavanger, Norway  
www.aquavision.org

### Future Fish Eurasia

Dates: Oct. 23-25 Place: Istanbul, Turkey



NOT WHAT WE EXPECTED: The EU Fish Processors Association says the quality of farmed salmon has fallen as imports into the bloc have risen. PHOTO: DREW CHERRY

# Norwegian farmed salmon not meeting quality standards

As exports to EU rise, quality suffers, say analysts.

## BY INTRAFISH MEDIA

The EU Fish Processors Association (AIPCE) says the quality of farmed salmon has fallen as imports into the bloc have risen.

In May, the salmon group in AIPCE held a board meeting in Brussels, deciding among other things Norwegian farmed salmon does not meet expectations for a high quality product, according to *IntraFish Media's Fiskeribladet/Fiskaren Newspaper*.

### Focus on listeria

"Put it this way: AIPCE has supported the Norwegian salmon industry where having the EU antidumping measures lifted were concerned.

Now it would seem the minimum import price (MIP) will be lifted, and now we will concentrate our efforts on doing something with the product, the salmon," AIPCE board member and chairman of the Association of Danish Fish Processing Industries and Exporters (DFPE) Peter Bamberger said.

AIPCE members in several countries, such as Denmark, Holland, Germany, France and

Spain, have reacted to the quality of Norwegian salmon deteriorating as exports of salmon to the European Union have increased, Bamberger said.

"There are several things that worry us. Among others, listeria has been detected in much of the salmon from Norway. The other thing is the quality of the salmon fillets. The salmon meat is softer and more fatty than was the case earlier," Bamberger said.

Bamberger said the listeria problem will be tackled by AIPCE's salmon group at the earliest opportunity.

"Our aim is first to find out which salmon processing plants in Norway the 'listeria salmon' is coming from. We are looking for a dialogue with the Norwegians about this because we are in the same boat. It all concerns the reputation of the salmon. It's not all pleasant for any of us when supermarkets in the European Union reject salmon because the listeria bacteria content is too high," Bamberger said.

### Taking matters seriously

Bamberger said AIPCE believes the Norwegians are not taking the problems with listeria seriously.

"When a value-added producer in the EU points out to the Norwegians there is listeria in the salmon consignment, he is

not taken seriously. He often hears back he's quarrelsome. It's also common that the Norwegians say the salmon contracted listeria after it arrived in the EU," Bamberger said.

Bamberger says the problem with Norwegian salmon is much bigger than the Norwegians believe themselves.

"The Norwegian Seafood Federation (FHL) is not taking this seriously," he said.

FHL's director for health and quality, Henrik Stenwig said the FHL is "highly concerned" with the listeria problem.

"But we regard what the AIPCE is now doing as a matter we do not get involved in. It is an issue between buyer and seller. You could say that in this matter we have a communication problem with AIPCE in that the FHL represents both buyers and sellers, while the AIPCE only represents buyers."

Stenwig noted that EU processors costs would be lower if the level of listeria bacteria were minimized, but said that "there is listeria everywhere and there are no regulations that say there must not be listeria in salmon sent for value-added production in the EU.

But we realize their costs would be lowered if there were no listeria in the Norwegian salmon," Stenwig said.

## People moves



### Skretting makes changes...

**Skretting** Managing Director for Northern Europe **Hans Abrahamson** is stepping down from his post by mutual consent, the Norwegian food producer said.

**Knut Nesse** will operate as Managing Director for both Skretting Salmon Feed and Skretting Northern Europe.

**Jose Miguel Barriga**, CEO of **Skretting Chile**, is leaving the company July 15. Barriga joined Skretting in 2000 as the commercial manager and was named CEO in 2003. Barriga "has decided to continue his career outside Skretting and Nutreco. We wish him every success for his future and thank him for his valuable contribution to our company during that period," the company said.

**Hugo Le Ruz**, currently CEO of Skretting Western Europe, will replace Barriga. Le Ruz served as Skretting Chile CEO five years ago.

### Creative CEO moves on...

**Spencer Evans**, general manager of the Canadian firm **Creative Salmon**, is leaving the company to become regional manager with Australian aquaculture company Tassal Pure Tasmania.

### Organic certifier adds delegate...

**Michael Stark**, managing director of **Grieg Seafood Hjalmland UK**, has been elected to serve as an international delegate to Germany-based organic certifier Naturland.

### MariCal names new CEO

**Bruce Andrews** has been appointed CEO of **MariCal**, a Portland, Maine-based fish health and nutrition biotechnology company. **Steven Morrell**, chairman of MariCal and a senior partner of **Teknoinvest AS**, a Norwegian based venture capital company and shareholder in MariCal, had been acting CEO since January 2007. He is stepping down from his CEO post to dedicate more of his time to MariCal's growing subsidiary businesses in commercial aquaculture production.