SCOTTISH SALMON WATCH

DISEASES

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25 February 2020

Dear Sir/Madam,

FOI on Infectious Salmon Anaemia & Norway's Ban on Salmon Egg Exports

Yesterday, Scottish Salmon Watch wrote to Scottish Ministers with respect to 'Bio-security Protocols & Safety Precautions re. Ova Imports'. Could you please provide information on the extent of Norway's problems with Infectious Salmon Anaemia including an update on the ban on exports of ova from salmon farming operations? Please consider this a formal request for information under the relevant Freedom of Information and Environmental Information Regulations. Please include emails, letters and other documents since 1 January 2019.

As context, Scottish Salmon Watch is aware of an update to the European Commission provided by Mattilsynet in November 2019.

ESAs recommendations

- The Norwegian Food Safety Authority will continue with the self-imposed voluntary suspension of the certification of live aquaculture animals, until the recommendations of the report from ESA are satisfactorily addressed.

Undoubtedly you will all be aware of the damning report published in September 2019 by the European Free Trade Association's Surveillance Authority (ESA) which detailed a critical inspection of Norwegian salmon farms in May 2019 leading to a ban on exports in June 2019.

Brussels, 23 September 2019
Case No: 83033
Document No: 1085525

Final report

EFTA Surveillance Authority's mission to

Norway from 20 to 29 May 2019

in order to evaluate animal health controls

in relation to aquaculture

- "ESA found that Norway must improve the controls of diseases in farmed fish/shellfish that will be traded in the EEA," reported ESA in a press release dated 30 September 2019. "Currently, Norway cannot fully ensure that farmed fish/shellfish sent from Norway to other EEA-states does not affect the health of farmed fish/shellfish in the receiving countries."

- "At the time of the mission there was no reliable system in place in Norway enabling identification of farms which have been granted ISA-free status," detailed the ESA report dated 23 September 2019. "Moreover, in the majority of cases, such status has been granted without or with very limited involvement of the NFSA [Norwegian Food Safety Authority] staff prior to the stage when the formal application is forwarded to the NFSA. The lack of official verification by the NFSA of surveillance activity undertaken to prove freedom from ISA casts significant doubt on the reliability of the statements included in the declaration of free status for compartments submitted by the NFSA since it is not in a position to ascertain the accuracy of the information being certified or ensure that no conflict of interest compromises the process."

"Norway has submitted several declaration for dependent Infectious Salmon Anaemia (ISA)-free compartments: i.e. sites which are dependent on the health status of the surrounding water," detailed the ESA report published in September 2019. "However, in these cases Norway does not apply additional disease surveillance activities to confirm that the sea waters surrounding element of the dependent compartment (e.g. neighbouring salmon farm or susceptible species of wild fish) can also be considered free of ISA. The mission team considers that due to the lack of surveillance in surrounding waters and the absence of any additional measures to prevent the introduction of ISA to sea sites declared free of ISA, such dependent compartments should not be declared and certified for intra-EEA trade and export to third countries as ISA-free compartments."

Conclusion:

> 34. There is currently no reliable definitive list of ISA-free compartments and zones publicly available for Norway. The information currently available in Norwegian legislation and on the NFSA's website is inaccurate and contradictory. This, combined with the use of inconsistent terminology, has the potential to mislead officials and interested parties regarding which areas in Norway are disease free and from which certification and trade of live fish and products thereof may take place.

Conclusions

> 89. Due to delays in withdrawing ISA free status, compartments that no longer fulfil the requirements of ISA-free status still appear on the list of ISA-free compartments in the relevant Norwegian legislation. This precludes the possibility of relying on that list to ascertain conclusively that aquaculture animals originate from ISA free areas.

Further information disclosed by the Scottish Government via FOI-19-02663 on 14 February 2020 paints an alarming picture of lax biosecurity and inadequate safety precautions with respect to Infectious Salmon Anaemia in Norway.

- "Norway is unable to ensure that farmed fish/shellfish sent for export to other EEA states will not affect the health of farmed fish/shellfish in those receiving countries," explained the Scottish Government in a letter to Scottish Salmon Watch on 14 February 2020. "As of the date of this communication, the suspension remains in place as corrective measures are taken and implemented."

- Fergus Ewing raised the issue with the Norwegian Government in late November 2019

- FOI documents cited "serious short falls" & "regulatory short comings in Norway" - "We cannot accept exports from Norway until authorities are able to attest to ISA disease freedom," admitted an internal Scottish Government memo in November 2019

- "Yet another nightmare scenario and example of why we are rigorous in our implementation of the regulations and adherence to surveillance and control requirements to evidence and maintain disease status," said the Scottish Government in October 2019

- "Scottish salmon production is heavily reliant upon the import of Norwegian ova ~ 90% of ova imports come from Norway" claimed the Scottish Government in October 2019. "Scotland is free from ISA, no imports from Norway can be accepted unless an attestation of disease freedom can be signed by Norwegian Authorities."

- "It certainly will have a significant impact if there is an impasse into the autumn, around 90% of our salmon ova are foreign sourced, the vast majority from Norway," stated an internal Scottish Government email in June 2019

- "In 2018 we imported 48 million salmon ova (41 consignments) from Norway and nearly 24 million this year (21 consignments)," [stated an internal Scottish Government memo in October 2019]

- Salmon farmers in Scotland receive Norwegian ova from Mowi Norway (Tveitavag), Aquagen (Rimstad), Salmobreed, Grieg Seafood Rogaland (Erfjord Stamfisk) and AS Bolaks (Eikelandsosen and Nordveitgrend)

The Ferret [reported yesterday] (24 February 2020):

In February 2019, [The Ferret revealed] that Government officials raised concerns over the import to Scotland of salmon eggs from AquaGen in Norway after the outbreak of a deadly virus.

Data disclosed by the Scottish Government via FOI-19-02663 on 14 February 2020 details 9.9 million ova imported by Mowi Norway between 4 April and 22 May 2019 (just before the Norwegian ban was imposed in June 2019):

Date consignment due	Destination site name	Destination business name	Species	Stage	Number in consignment	Source Country	Import consignor
04/04/2019	Lochailort Recirculation Hatchery	Mowi Scotland Ltd	SAL	OVA	1,537,191	Norway	Mowi Norway
09/04/2019	Inverpolly	Finfish Ltd	SAL	OVA	1,322,403	Norway	Mowi Norway
10/04/2019	Inverpolly	Finfish Ltd	SAL	OVA	1,247,597	Norway	Mowi Norway
15/05/2019	Inchmore	Mowi Scotland Ltd	SAL	OVA	1,300,000	Norway	Mowi Norway
17/05/2019	Inchmore	Mowi Scotland Ltd	SAL	OVA	1,300,000	Norway	Mowi Norway
22/05/2019	Lochailort Recirculation Hatchery	Mowi Scotland Ltd	SAL	OVA	3,200,000	Norway	Mowi Norway

And another 7 million ova imported by Mowi Norway from January to 2 April 2019.

Date consignment due	Destination site name	Destination business name	Species	Stage	Number in consignment	Source Country	Import consignor
24/01/2019	Niall Bromage Freshwater Field Station	University of Stirling	Salmon	Ova	30,000	Norway	MOWI Norway
04/02/2019	Lochailort Recirculation Hatchery	Mowi Scotland Ltd	Salmon	Ova	1,563,000	Norway	MOWI Norway
05/02/2019	Lochailort Recirculation Hatchery	Mowi Scotland Ltd	Salmon	Ova	1,537,000	Norway	MOWI Norway
05/02/2019	Inchmore	Mowi Scotland Ltd	Salmon	Ova	1,000,000	Norway	MOWI Norway
28/03/2019	Lochailort Recirculation Hatchery	Mowi Scotland Ltd	Salmon	Ova	1,350,000	Norway	MOWI Norway
02/04/2019	Lochailort Recirculation Hatchery	Mowi Scotland Ltd	Salmon	Ova	1,562,809	Norway	MOWI Norway

Data disclosed by the Scottish Government via FOI-19-02663 on 14 February 2020 details 34.9 million ova imported by Marine Harvest Norway in 2018:

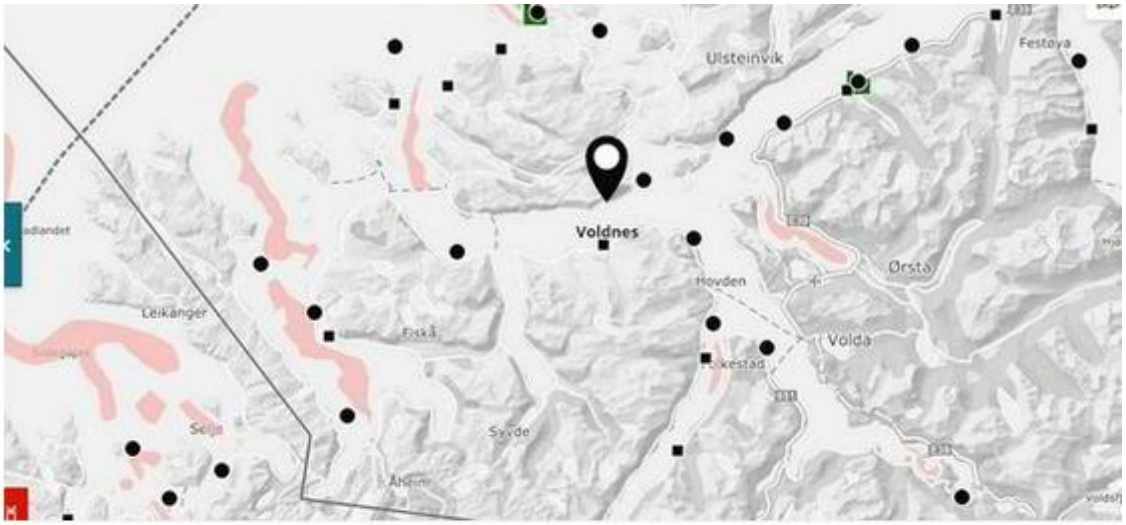
Date consignment due	Destination site name	Destination business name	Consignee Business name (if different from destination business)	Species	Stage	Number in consignment	Source Country	Import consignor
04/01/2018	Inverpolly	Finfish Ltd	Marine Harvest (Scotland) Ltd	Salmon	Ova	2,600,000	Norway	Marine Harvest Norway
11/01/2018	Inverpolly	Finfish Ltd	Marine Harvest (Scotland) Ltd	Salmon	Ova	87,639	Norway	Marine Harvest Norway
31/01/2018	Lochailort Recirculation Hatchery	Marine Harvest (Scotland) Ltd		Salmon	Ova	216,592	Norway	Marine Harvest Norway
07/02/2018	Lochailort Recirculation Hatchery	Marine Harvest (Scotland) Ltd		Salmon	Ova	1,884,000	Norway	Marine Harvest Norway
08/02/2018	Inchmore	Marine Harvest (Scotland) Ltd		Salmon	Ova	2,300,000	Norway	Marine Harvest Norway
27/02/2018	Ardtaraig Hatchery	Cooke Aquaculture (Freshwater) Ltd		Salmon	Ova	350,000	Norway	Marine Harvest Norway
20/03/2018	Cairndow Hatchery	Lakeland (Cairndow) Ltd		Salmon	Ova	1,800,000	Norway	Marine Harvest Norway
04/04/2018	Inverpolly	Finfish Ltd		Salmon	Ova	2,300,000	Norway	Marine Harvest Norway
18/04/2018	Lochailort Recirculation Hatchery	Marine Harvest (Scotland) Ltd		Salmon	Ova	3,500,000	Norway	Marine Harvest Norway
15/05/2018	Inchmore	Marine Harvest (Scotland) Ltd		Salmon	Ova	1,300,000	Norway	Marine Harvest Norway
16/05/2018	Lochailort Recirculation Hatchery	Marine Harvest (Scotland) Ltd		Salmon	Ova	3,800,000	Norway	Marine Harvest Norway
14/06/2018	Inchmore	Marine Harvest (Scotland) Ltd		Salmon	Ova	1,900,000	Norway	Marine Harvest Norway
14/06/2018	Inchmore	Marine Harvest (Scotland) Ltd		Salmon	Ova	1,900,000	Norway	Marine Harvest Norway
28/06/2018	Inchmore	Marine Harvest (Scotland) Ltd		Salmon	Ova	310,000	Norway	Marine Harvest Norway
15/11/2018	Lochailort Recirculation Hatchery	Marine Harvest (Scotland) Ltd		Salmon	Ova	2,500,000	Norway	Marine Harvest Norway
04/12/2018	Quoys Hatchery	Cooke Aquaculture Scotland Ltd		Salmon	Ova	495,000	Norway	Marine Harvest Norway
05/12/2018	Inchmore	Marine Harvest (Scotland) Ltd		Salmon	Ova	1,400,000	Norway	Marine Harvest Norway
06/12/2018	Cairndow Hatchery	Lakeland (Cairndow) Ltd		Salmon	Ova	2,500,000	Norway	Marine Harvest Norway
12/12/2018	Ardtaraig Hatchery	Cooke Aquaculture (Freshwater) Ltd		Salmon	Ova	350,000	Norway	Marine Harvest Norway
17/12/2018	Inverpolly	Finfish Ltd		Salmon	Ova	1,300,000	Norway	Marine Harvest Norway
18/12/2018	Inverpolly	Finfish Ltd		Salmon	Ova	500,000	Norway	Marine Harvest Norway
18/12/2018	Inchmore	Marine Harvest (Scotland) Ltd		Salmon	Ova	800,000	Norway	Marine Harvest Norway
18/12/2018	Temperate Facilities	University of Stirling		Salmon	Ova	3,000	Norway	Marine Harvest Norway
20/12/2018	Inverpolly	Finfish Ltd		Salmon	Ova	770,000	Norway	Marine Harvest Norway

Scottish Salmon Watch is aware that Infectious Salmon Anaemia (ISA) is a notifiable disease which must be reported to the World Organisation for Animal Health (OIE) and infection with genotype HPR-deleted of the genus Isavirus (ISAV) is listed as a non-exotic disease under Annex IV, Part II of Council Directive 2006/88/EC (as amended in 2014/22/EU).

In Norway, ISA was reported at a Mowi salmon farm in Nordland in July 2019 and at another Mowi salmon farm in Aukrasanden in April 2019 and at another Mowi salmon farm in Kjeahola in November 2019 and at Mowi's salmon farm at Finnoy in Rogaland also in November 2019.

A suspected case of ISA at Laholmen in Finnmark was reported by Grieg to the Norwegian Food Safety Authority in January 2020.

Intrafish reported in January 2020:



ISA virus detected at Mowi site

Authorities were notified and are taking necessary actions to mitigate any further risks.

20 January 2020 8:35 GMT *UPDATED 20 January 2020 8:35 GMT*
By **Demi Korban**

Norwegian salmon giant Mowi is under suspicion of an infectious salmon anemia (ISA) outbreak at its Voldnes site in Norway's Heroy municipality.

The company notified the Norwegian Food Safety Authority on Jan. 17 of the possibility based on samples taken a few days earlier.

The authority will inspect the site with results expected to be available next week.

In order to prevent any spread of the infection, the company is restricted from harvesting or relocating the fish.

Intrafish reported in November 2019 that SalMar (owner of Scottish Sea Farms) notified the Norwegian Food Safety Authority of a positive test for ISA.

ISA detected at SalMar-run salmon farm

Salmar notified the authorities on Nov. 15 following a positive test, leading to restrictions on the movement of fish from the site.

22 November 2019 3:50 GMT *UPDATED 28 November 2019 16:18 GMT*
By **John Evans**

Traces of ISA disease have been detected at a salmon farm operated by Norwegian producer SalMar in conjunction with Havbrukstasjonen in Tromso, Norway, according to feed producer Skretting and Stim, the Norwegian Food Safety Authority.

SalMar notified the authority on Nov. 15 following a positive test.

Intrafish reported in April 2019:

Over 1 million fish at risk from ISA outbreak at Mowi site

17 April 2019 12:56 GMT *UPDATED 17 April 2019 13:03 GMT*
By **Joar Grindheim**

Mowi, the world's largest salmon farming company, on Monday reported a suspected finding of the infectious salmon anemia (ISA) virus at its farm in Aukrasanden, in Norway's More og Romsdal region.

The site has around 1.3 million fish, with an average weight of 3.5 kilograms.

If the sample is confirmed, the farms will be quarantined, and the fish destroyed.

In May 2019, Intrafish reported: "Mowi begins slaughter of 1.3 million fish in ISA outbreak". Intrafish reported in February 2019:

ISA the 'biggest threat' to salmon farming

Experts warn that the deadly virus is not just a danger to netpens, but land-based salmon facilities as well.

22 February 2019 8:53 GMT *UPDATED 22 February 2019 13:33 GMT*
By **Anders Furuset**

Infectious Salmon Anemia (ISA) is currently the largest threat to the salmon farming industry, with both the Norwegian Food Safety Authority and the Veterinary Institute warning against potential infection in hatcheries and RAS facilities.

During the recent Norwegian Research Institute (Sintef) conference in Trondheim, Norway, Ole Bendik Dale, veterinarian and section leader at the Veterinary Institute, said the salmon farming industry needs to carefully guard against ISA, and take high precautions.

"We must be extremely careful not to let this virus spread. It is a willing virus that quickly becomes 'greedy' in dense fish farms," Dale said.

The harmless HRP0 virus can easily mutate to HRPdel -- and create huge losses for salmon farmers, he warned.

"HRP0 is not very dangerous in itself, more like a cold -- with HPR0, the origin of HRPdel that is infected internally is unstoppable and creates high mortality," Dale said.

Widespread in hatcheries

ISA was first detected in Norway in 1984, and peaked in 1990 with around 80 known outbreaks, Dale said. Rates have now come down considerably.

There are two types of origin for ISA outbreaks: so-called primary outbreaks and secondary outbreaks. In the past, there have been several primary outbreaks, which in Dale's mind is worrying.

"We know that there is a lot of HPR0 in hatcheries. Then there is hardly ever an ISA outbreak there, but now we see that we have had several ISA outbreaks early in the sea phase," he said.

According to Dale, a nightmare scenario would be the spread of several strains of HRP0 virus in hatcheries.

"The virus can spread before it is detected, thereby providing more secondary outbreaks," he said.

Read more via the World Organisation for Animal Health (OIE):
"INFECTION WITH HPR-DELETED OR HPR0INFECTIOUS SALMON ANAEMIA VIRUS"

A scientific paper published in 2017 reported that "ISAV-HPR0 represents a reservoir and risk factor for the emergence of ISA disease":

J Gen Virol. 2017 Apr;98(4):595-606. doi: 10.1099/jgv.0.000741.

First field evidence of the evolution from a non-virulent HPR0 to a virulent HPR-deleted infectious salmon anaemia virus.

Christiansen DH[1], McBeath AJA[2], Aamelfot M[3], Matejusova I[2], Fourrier M[2], White P[2], Petersen PE[1], Falk K[3].

Author information

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2 Marine Scotland Science, Marine Laboratory, Aberdeen, Scotland.
3 Norwegian Veterinary Institute, Oslo, Norway.

Abstract

The putatively non-virulent subtype of infectious salmon anaemia virus (ISAV), ISAV-HPR0, is proposed to act as a progenitor and reservoir for all virulent ISAVs and thus represent a potential risk factor for the emergence of infectious salmon anaemia (ISA) disease. Here, we provide the first evidence of genetic and functional evolution from an ISAV-HPR0 variant (FO/07/12) to a low-virulent ISAV virus (FO/121/14) in a Faroese Atlantic salmon marine farm. The FO/121/14 virus infection was not associated with specific clinical signs of ISA and was confined to a single net-pen, while various ISAV-HPR0 subtypes were found circulating in most epidemiologically linked marine and freshwater farms. Sequence analysis of all eight segments revealed that the FO/121/14 virus was identical, apart from a substitution in the fusion (F) gene (Q266L) and a deletion in the haemagglutinin-esterase (HE) gene, to the FO/07/12 variant from a freshwater farm, which supplied smolts exclusively to the FO/121/14-positive net-pen. An immersion challenge with the FO/121/14 virus induced a systemic infection in Atlantic salmon associated with a low mortality and mild clinical signs confirming its low pathogenicity. Our results demonstrate that mutations in the F protein and deletions in the highly polymorphic region (HPR) of the HE protein represent a minimum requirement for ISAV to gain virulence and to switch cell tropism from a localized epithelial infection to a systemic endotheliotropic infection. This documents that ISAV-HPR0 represents a reservoir and risk factor for the emergence of ISA disease.

Read more via:

Front Vet Sci. 2018; 5: 308.
Published online 2018 Dec 6. doi: 10.3389/fvets.2018.00308
PMCID: PMC6292176
PMID: 30574509

Risk Factors Associated With Outbreaks of Infectious Salmon Anemia (ISA) With Unknown Source of Infection in Norway

Trude Marie Lyngstad, Lars Qviller, Hilde Sindre, Edgar Brun, and Anja B. Kristoffersen*

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Abstract Go to:

The occurrence of infectious salmon anemia (ISA) outbreaks in marine farmed Atlantic salmon constitutes a recurring challenge in Norway. Here, we aim to identify risk factors associated with ISA outbreaks with an unknown source of infection (referred to as primary ISA outbreaks). Primary ISA outbreaks are here defined by an earlier published transmission model. We explored a wide range of possible risk factors with logistic regression analysis, trying to explain occurrence of primary ISA with available data from all Norwegian farm sites from 2004 to June 2017. Explanatory variables included site latitude and a range of production and disease data. The mean annual risk of having a primary outbreak of ISA in Norway was 0.7% during this study period. We identified the occurrence of infectious pancreatic necrosis (IPN), having a stocking period longer than 2 months, having the site located at high latitude and high fish density (biomass per cage volume) in the first six months after transfer to sea site as significant risk factors ($p < 0.05$). We have identified factors related to management routines, other disease problems, and latitude that may help to understand the hitherto unidentified drivers behind the emergence of primary ISA outbreaks. Based on our findings, we also provide management advice that may reduce the incidence of primary ISA outbreaks.

In February 2018, Norway's Ministry of Climate & Environment banned the import of Scottish salmon eggs citing risks of disease and genetic impacts of escapes under the Norwegian Nature Diversity Act.

"Farmed salmon with partial Scottish origin increases the likelihood of a negative impact on Norwegian wild populations above negative effects with Norwegian farmed strains," stated the 22-page letter of refusal dated 9 February 2018 from Norway's Ministry of Climate & Environment to Hendrix Genetics (owners of Landcatch). "There is a high probability that genetic mixing between Norwegian wild salmon and farmed salmon of partly Scottish origin will increase the loss of genetic diversity."

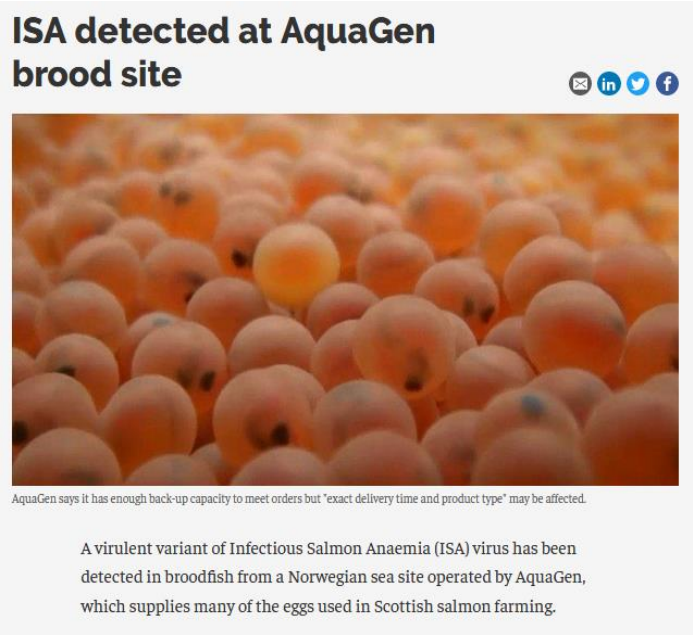
In a blistering email to Fergus Ewing (Cabinet Secretary for Rural Economy & Connectivity) in February 2018, the head Landcatch (owned by Hendrix Genetics) accused the Scottish Government of taking a "massive risk" by allowing salmon eggs from Norway and Iceland to flood 'Scottish' salmon farms citing the danger of "transfer of ISA from infected countries such as Norway".

"This means that the Scottish salmon industry is now 100% reliant on imported eggs - both a massive risk in the event of borders closing for disease issues (and also the transfer of ISA from infected countries such as Norway), but also making a complete mockery of the brand 'Scottish Salmon'," stated the email to Fergus Ewing dated 12 February 2018.

In an email obtained via FOI in December 2018 from the Scottish Government, the Cabinet Secretary for Rural Economy & Connectivity (Fergus Ewing) was warned that Norway's ban on ova imports "reeks of discriminatory trade practice".

FOI documents disclosed by the Scottish Government to Scottish Salmon Watch on 1 February 2019 reveal that Scottish salmon and trout farmers received ova during the 2016/2017 season from broodstock held at a ISA suspected site operated by AquaGen at Tingvoll.

In 2017, Fish Farming Expert reported:



ISA detected at AquaGen brood site

AquaGen says it has enough back-up capacity to meet orders but "exact delivery time and product type" may be affected.

A virulent variant of Infectious Salmon Anaemia (ISA) virus has been detected in broodfish from a Norwegian sea site operated by AquaGen, which supplies many of the eggs used in Scottish salmon farming.

"We have found another solution. We lost the one export permit to Scotland and found another solution this year with a partner that delivers to Scotland," AquaGen's Nina Santi told SalmonBusiness in January 2018. "We'll be back with deliveries to Scotland in mid-2018."

ISA in roe could create supply bottleneck

In July 2017, Hendrix Genetics (owners of Landcatch) asked the Scottish Government "if the ISA outbreaks in Norway, in particular AquaGen, would have any effect on their ability to export eggs into Scotland".

From: <REDACTED> <REDACTED>@hendrix-genetics.com
Sent: 19 July 2017 10:02
To: <REDACTED> (MARLAB)
Subject: Aquagen eggs

Hi <REDACTED>

I was just wondering what your thoughts are on the Aquagen situation now that the site at Hemne also seems to be affected. Can MS ask for 100% testing for ISA on all broodfish parents of eggs destined for Scotland or are you still reliant on the Norwegians to say they are free of the disease.

Kind Regards

<REDACTED>

<REDACTED>
<REDACTED>
Atlantic Salmon

T <REDACTED>
M <REDACTED>475
<REDACTED>
W www.landcatch.co.uk

HENDRIX GENETICS

Landcatch Natural Selection Ltd
Ormsary Fish Farm, Lochgilphead
Argyll, PA31 8PE, Scotland, UK-EU

Read more via:
Restrictions due to ISA suspicion also attached to AquaGens' broodfish departments at the Vestseøra site in Hemne municipality
ISA detected at salmon broodstock sites
Aquagen ISA outbreak: cause unknown, but damage contained

Data disclosed by the Scottish Government via FOI-19-02663 on 14 February 2020 details 3 million ova imported by AquaGen from Norway to Scotland in 2018 and 2019 - including to the Scottish Sea Farms Barcaldine Hatchery officially 'opened' by Scotland's Minister for Public Finance and Digital Economy (Kate Forbes) and AquaGen's own Hollywood Salmon Farm (bought off Scottish Sea Farms and promoted by Scotland's Rural Economy Secretary, Fergus Ewing).

Date consignment due	Destination site name	Destination business name	Species	Stage	Number in consignment	Source Country	Import consignor
27/11/2018	Barcaldine Hatchery Incubation 1	Scottish Sea Farms Ltd	Salmon	Ova	1,250,000	Norway	AquaGen AS
27/11/2018	Barcaldine Hatchery Incubation 3	Scottish Sea Farms Ltd	Salmon	Ova	1,250,000	Norway	AquaGen AS
04/12/2018	Quoys Hatchery	Cooke Aquaculture Scotland Ltd	Salmon	Ova	128,000	Norway	AquaGen AS
17/01/2019	Holywood Salmon Farm	AquaGen Scotland Ltd	Salmon	Ova	42,000	Norway	AquaGen AS
26/02/2019	Ardtaraig Hatchery	Cooke Aquaculture (Freshwater) Ltd	Salmon	Ova	367,500	Norway	AquaGen AS

AquaGen chairman Odd Magne Rødseth, speaking to Fish Farming Expert in November 2017: "said the move to start egg production in Scotland would help serve the Scottish industry better and was also a precautionary measure against any ban on the import of eggs. “You never know whether will find some reason to close the border,” he said at the time.

Data disclosed by the Scottish Government via FOI-19-02663 on 14 February 2020 details 30 shipments of ova totalling 24.6 million from AquaGen in Norway to Scotland in 2016.

Date	Site of destination	Operator	Consignee on certificate (if different from operator)	Species	Stage	Number	Source Country	Source Company
14/01/2016	Mill Burn	Kintail Hatchery	Marine Harvest (Scotland)	Salmon	Ova	2,000,000	Norway	Aquagen AS
05/01/2016	Quoys Hatchery	Cooke Aquaculture Scotland Ltd		Salmon	Ova	550,000	Norway	Aquagen AS
20/01/2016	Howietoun Hatchery	Howietoun Fishery	The Scottish Salmon Company	Salmon	Ova	400,000	Norway	Aquagen AS
20/01/2016	Barvas Hatchery	The Scottish Salmon Company		Salmon	Ova	1,908,540	Norway	Aquagen AS
10/02/2016	Ardtaraig Hatchery	Cooke Aquaculture (Freshwater) Ltd		Salmon	Ova	400,000	Norway	Aquagen AS
24/02/2016	Geocrab Hatchery	The Scottish Salmon Company		Salmon	Ova	461,160	Norway	Aquagen AS
24/02/2016	Mingarry Hatchery	Hebridean Smolts Ltd	The Scottish Salmon Company	Salmon	Ova	564,375	Norway	Aquagen AS
24/02/2016	Allt Mor Hatchery	JS Salmon Ltd	Kames Fish Farming Ltd	Salmon	Ova	500,000	Norway	Aquagen AS
02/03/2016	Kinlochmoidart Hatchery	Sunbeam Aquaculture	The Scottish Salmon Company	Salmon	Ova	575,000	Norway	Aquagen AS
02/03/2016	Amhuinnsuidhe Hatchery	The Scottish Salmon Company		Salmon	Ova	275,000	Norway	Aquagen AS
02/03/2016	Quoys Hatchery	Cooke Aquaculture Scotland Ltd		Salmon	Ova	70,000	Norway	Aquagen AS
17/03/2016	Furnace (FW)	Cooke Aquaculture (Freshwater) Ltd		Salmon	Ova	650,000	Norway	Aquagen AS
02/06/2016	Lochailort Recirculation Unit	Marine Harvest (Scotland)		Salmon	Ova	1,333,333	Norway	Aquagen AS
02/06/2016	Lochailort Recirculation Unit	Marine Harvest (Scotland)		Salmon	Ova	1,333,333	Norway	Aquagen AS
02/06/2016	Lochailort Recirculation Unit	Marine Harvest (Scotland)		Salmon	Ova	1,333,333	Norway	Aquagen AS
23/08/2016	Girlsta Hatchery	Grieg Seafood Shetland Ltd (Hatchery)		Salmon	Ova	1,500,000	Norway	Aquagen AS
09/11/2016	Kinlochmoidart Hatchery	Sunbeam Aquaculture	The Scottish Salmon Company	Salmon	Ova	562,500	Norway	Aquagen AS
09/11/2016	Allt Mor Hatchery	JS Salmon Ltd	Kames Fish Farming Ltd	Salmon	Ova	350,000	Norway	Aquagen AS
15/11/2016	Furnace (FW)	Cooke Aquaculture (Freshwater) Ltd		Salmon	Ova	800,000	Norway	Aquagen AS
15/11/2016	Cairndow Hatchery	Lakeland (Cairndow) Ltd		Salmon	Ova	1,800,000	Norway	Aquagen AS
17/11/2016	Couldoran Incubation Unit	Scottish Sea Farms Ltd		Salmon	Ova	1,000,000	Norway	Aquagen AS
22/11/2016	Girlsta Hatchery	Grieg Seafood Shetland Ltd (Hatchery)		Salmon	Ova	1,500,000	Norway	Aquagen AS
22/11/2016	Quoys Hatchery	Cooke Aquaculture Scotland Ltd		Salmon	Ova	400,000	Norway	Aquagen AS

06/12/2016	Mingarry Hatchery	Hebridean Smolts Ltd	The Scottish Salmon Company	Salmon	Ova	918,750	Norway	Aquagen AS
06/12/2016	Kinlochmoidart Hatchery	Sunbeam Aquaculture	The Scottish Salmon Company	Salmon	Ova	628,500	Norway	Aquagen AS
06/12/2016	Barvas Hatchery	The Scottish Salmon Company		Salmon	Ova	735,000	Norway	Aquagen AS
08/12/2016	Ormsary Hatchery	Landcatch Natural Selection Ltd	Scottish Sea Farms Ltd	Salmon	Ova	988,000	Norway	Aquagen AS
15/12/2016	Ardtaraig Hatchery	Cooke Aquaculture (Freshwater) Ltd		Salmon	Ova	350,000	Norway	Aquagen AS
21/12/2016	Allt Mor Hatchery	JS Salmon Ltd	Kames Fish Farming Ltd	Salmon	Ova	325,000	Norway	Aquagen AS
21/12/2016	Quoys Hatchery	Cooke Aquaculture Scotland Ltd		Salmon	Ova	400,000	Norway	Aquagen AS
Numbers of salmon ova collated from health certificates								

Data disclosed by the Scottish Government in December 2019 via FOI-18-01553 details 5.5 million ova imported from Norway by AquaGen in 2017 including to The Scottish Salmon Company's Kinlochmoidart Hatchery, Loch Duart's Duartmore Hatchery, Kames Fish Farming's Allt Mor (via JS Salmon) and Cooke Aquaculture's Ardtaraig Hatchery.

Date	Site of destination	Operator	Consignee on certificate (if different from operator)	Species	Stage	Number	Source Country	Source Company
11/01/2017	Kinlochmoidart Hatchery	Sunbeam Aquaculture	The Scottish Salmon Company	Salmon	Ova	785,250	Norway	AquaGen AS
18/01/2017	Mill Burn (Old Mill)	Kintail Hatchery	Migdale Smolts Ltd	Salmon	Ova	2,000,000	Norway	AquaGen AS
01/02/2017	Mingarry Hatchery	Hebridean Smolts Ltd	The Scottish Salmon Company	Salmon	Ova	525,000	Norway	AquaGen AS
09/02/2017	Allt Mor	JS Salmon Ltd	Kames Fish Farming Ltd	Salmon	Ova	350,000	Norway	AquaGen AS
16/02/2017	Duartmore Hatchery	Loch Duart		Salmon	Ova	330,000	Norway	AquaGen AS
16/02/2017	Ardtaraig Hatchery	Cooke Aquaculture (Freshwater) Ltd		Salmon	Ova	400,000	Norway	AquaGen AS
16/02/2017	Kinlochmoidart Hatchery	Sunbeam Aquaculture	The Scottish Salmon Company	Salmon	Ova	562,500	Norway	AquaGen AS
01/03/2017	Geocrab Hatchery	The Scottish Salmon Company		Salmon	Ova	396,000	Norway	AquaGen AS
09/03/2017	Rysa Incubation Unit	Rysa Salmon Farm	Cooke Aquaculture Freshwater Ltd	Salmon	Ova	170,000	Norway	AquaGen AS

Information obtained via FOI from the Scottish Government in February 2019 included:

From: <REDACTED> (MARLAB)
Sent: 12 July 2017 13:49
To: <REDACTED> (MARLAB) <REDACTED>@gov.scot>; <REDACTED> (MARLAB) <REDACTED>@gov.scot>; <REDACTED> (MARLAB) <REDACTED>@gov.scot>
Cc: <REDACTED> (MARLAB) <REDACTED>@gov.scot>
Subject: FW: Information update

Hi

This is the information from <REDACTED> on the ISA detection at Aquagen.

In summary, Aquagen have detected ISA at the seawater broodstock site Merraberget and the freshwater site at Rimstad, Tingvoll which received broodstock from Merraberget in May. This is to be confirmed by Mattilsynet. Samples taken in April, May and June by a private laboratory for ISA were negative, but the July samples were positive.

Scottish sites received ova in 2016/2017 from both Hemne (unconnected location) and Tingvoll hatcheries but the broodstock stripped for the 2016/2017 season were held previously at a sea site known as Hegebergetroa, not the currently affected site. I don't know the relation of the two sea sites to one another, but the reports state that Merraberget is more than 10km from any other site.

Andy has provided a list of the source hatcheries for all of the 2016/2017 consignments delivered to Scotland. Do we need to conduct any follow up surveillance at this point or do we need to contact Mattilsynet for further information?

Thanks

<REDACTED>

Read more via: Game Ova for Scottish Salmon - Deadly disease delays egg imports from AquaGen in Norway

In conclusion, please provide information on the extent of Norway's problems with Infectious Salmon Anaemia including an update on the ban on exports of ova from salmon farming operations. Please consider this a formal request for information under the relevant Freedom of Information and Environmental Information Regulations. Please include emails, letters and other documents since 1 January 2019.

For example, this would include any discussions at AquaNor in August 2019 (as detailed by documents disclosed via FOI-19-02663):

"Mr Ewing raised this issue at a meeting with Mr Nesvik, the Norwegian Fisheries Minister, at AquaNOR in August," continued the Scottish Government briefing dated 15 October 2019 (also copied to Scotland's Chief Vet Sheila Voas and the Minister for Rural Affairs and the Natural Environment (Mairi Gougeon). "The NFSA has been working hard to address the concerns raised during in the audit report however this has taken longer than expected. Current advice from the NFSA is that they are working along a plan which will enable exports from 1st November. This would be the start of Norway's normal peak in ova exports. Part of this process involves establishing a new list of ISA free compartments and discussions with EFTA to determine whether the issues raised have been satisfactorily resolved. Correspondence suggests that some areas will lose their ISA free status, and therefore the areas open to trade with Scotland will reduce. A risk of further delay, pending discussions with EFTA, also remains."

And a visit by the Scottish Government to Norway in November 2019:

From: [Redacted] SG staff
Sent: 22 November 2019 13:19
To: [Redacted] SG staff
Cc: Palmer MR (Mike) <Mike.Palmer@gov.scot>; [Redacted]<[Redacted]@scotland.gsi.gov.uk>
Subject: RE: Briefing and Itinerary - Mr Ewing's visit to Norway 24-26 November


Updated OVA briefing.docx

Hey [Redacted]

Please find attached updated briefing so insert into the pack.

Grateful if you could provide the below text in response;

The ova annex has been updated to include additional background information on the reasons for the suspension and include further details on why the suspension has not yet been lifted. I've also increased information under stakeholder views which explains the industries current position.

In very short summary, there were some serious short falls found with regard to Norway's ability to provide assurance that the compartments they are trading from are free from infectious salmon anaemia. The suspension was recommended until Norway could put forward a justifiable list of ISA free compartments. That process has been delayed on two occasions. The NFSA was due to submit their suggest list to EFTA on 1 November. They did not meet this deadline and we have just had feedback from the Commission that they are still working to bring together documentation. We should press that this list is finalised urgently and shared with us when it is submitted. The suspension will not be lifted until the list is provided to EFTA and they are satisfied Norway can assure that they are free from ISA.

We cannot accept exports from Norway until authorities are able to attest to ISA disease freedom. That process is for Norway and EFTA. For our part, we must apply the pressure that we can to ensure that the situation is resolved as quickly as is possible, whilst respecting that trade can only take place on the basis of assurance of ISA freedom.

The industry accepts that regulatory short comings in Norway have been exposed and that the ban is in place in order to protect the interests of trading partners and Scotland's ISA free disease status. For minimal impact, the industry would like to see the ban lifted by January at the latest. If the Norwegian Minister suggests that this date will not be met, we will engage in further contingency planning discussions with industry in order to reopen previously used broodstock sites, which would allow the stripping of fish in Scotland and create an alternative ova supply.

[Redacted]
[Redacted]

Marine Scotland – Aquaculture, Crown Estate, Recreational Fisheries, EMFF and Europe
[Redacted]@gov.scot
Web: http://www.scotland.gov.uk/marinescotland
Mail: Scottish Government, 1B North, Victoria Quay, Edinburgh EH6 6QQ

gov.scot

Please also provide information - including emails, letters and other documents - relating to discussions by the Norwegian Government and Mattilsynet (Norwegian Food Safety Authority) and EFTA (as well as other agencies such as the European Commission). This email obtained via FOI-19-02663 refers to a meeting between Mattilsynet and EFTS on 29 May 2019.

From: [Redacted]@defra.gov.uk
Sent: 05 July 2019 16:06
To: [Redacted]@trade.gov.uk; [Redacted]@cefas.co.uk
Cc: [Redacted]@fco.gov.uk; [Redacted]@defra.gov.uk; [Redacted]@gov.scot; [Redacted]@cefas.co.uk; [Redacted]@trade.gov.uk; [Redacted]@mobile.trade.gov.uk
Subject: RE: Norwegian - EU Trade Barrier

Dear [Redacted]

Apologies for the slow response.

I discussed with [Redacted] (Scottish govt), who had more detailed information on the issue:

She confirmed that there is a temporary suspension on the movement of fish and ova from Norway to countries free from Infectious Salmon Anaemia (including the GB health zone). It is her understanding that this temporary suspension has been in place since June. The suspension has been put in place voluntarily following a meeting between the Norwegian Food Safety Authority and the EFTA surveillance authority on 29 May, where issues were raised with the Norwegian documentation system which lists ISA free compartments.

The Norwegian Food Safety Authority (NSFA) has written to all exporters in Norway to state that no export licenses will be issued until resolved, and that they expect that to take 3 – 4 weeks. [Redacted] will check on progress with Norwegian colleagues in the coming days, who are confident that they will be able to resolve the situation and keep disruption to a minimum. [Redacted] is correct in that Scottish gvt is not privy to the exact cause of the suspension, as the NSFA are working to address issues raised before the final findings are published. We are led to believe that they are largely administrative in nature, but we cannot verify this. The Scottish fish farming industry is of course heavily reliant on the import of Norwegian ova and we are monitoring the situation very closely.

Read in full via:
FOI Dossier: Norwegian Salmon Egg Exports Banned Due to Disease Risks (February 2020)

Please provide a receipt for this FOI request and please provide the information electronically to mailto:salmonfarmingkills@gmail.com. If you have any queries please do not hesitate to contact me on +44 7771 541826.

For more background on this vital food safety and bio-security issue please read:

Letter to Scottish Ministers: "Bio-security Protocols & Safety Precautions re. Ova Imports"
The Ferret: "Imports of Norwegian salmon eggs banned over deadly virus"
Norwegian Salmon Egg Exports Banned Due to Disease Risks

Yours sincerely,

Don Staniford

Director, Scottish Salmon Watch

Cc:

Geir Inge Sivertsen (Norwegian Minister of Fisheries and Seafood): postmottak@nfd.dep.no

Sveinung Rotevatn (Norwegian Minister of Climate and Environment): postmottak@kld.dep.no

Kristina Landsverk, Chief Veterinary Officer at the Norwegian Food Safety Authority: Kristina.Landsverk@mattilsynet.no