Animal Health & Welfare Act (Scotland) 2006

Animal & Plant Health Agency

Report on Fish Welfare for Scottish Government

Part 1: General details

1. Reference number	Leinish (FS0800)
2. Name and address	Grieg Seafood Shetland Ltd (FB0440) Dunvegan Pier Dunvegan Skye IV55 8WF Postcode
3. Location of Fish (if different from above)	As above Postcode
4. Date of Visit	25/08/2020
5. Time of visit	09:00 to 13:40

Part 2: Detail

6. Present at visit:

(List the names and roles of attendees at the visit)

[redacted], Marine Scotland; [redacted] (Animal and Plant Health Agency), [redacted] (Grieg Seafood, [redacted]) and partly [redacted] (Grieg Seafood, [redacted]).

7. Reason for Visit:

(state specific reason for visit i.e. routine visit, complaint etc. If a complaint include by whom)

[redacted] made allegations to SEPA that salmon morts would be unsafely stored [redacted] APHA were copied into these allegations. Liaising with Marine Scotland it emerged that this site had experienced higher than normal mortality and a joint inspection was scheduled between APHA and Marine Scotland. I accompanied the colleague of Marine Scotland who led the inspection.

8. Background

(include nature of site (sea/freshwater), species, number, production aim, production cycle, source, history of unit, any recent changes, transport used, veterinary and other advisers).

This was a seawater site with 9 pens stocked out of 10 present. At the time of inspection the cages were stocked with 250,064 Atlantic salmon with an average weight of 2.2kg

The site employs [redacted] for routine inspections and to help with health management. The company vet were not available to attend on the date of inspection.

9. Findings

(include disease situation and duration, mortalities and other significant records, feeding patterns, advice sought, diagnosis, treatment, vaccinations, culling, expectations etc).

FINDINGS

At the time of inspection 9/10 cages were stocked with 250,064 Atlantic salmon with an average weight of 2.2kg.

SEA LICE

below the reporting levels. Salmosan used.

MORTALITY

Week 30 – 0.78% - 3,124

Week 31 – 0.93% - 3,726

Week 32 – 1.37% - 5,400

Week 33 – 27.65% - 107,700

Week 34 – 14.29% - 40,260

The company's staff at the site and the Private Veterinary Surgeon employed (hereafter PVS) have carried tests of the water and of the fish to understand the possible root cause of this severe mortality. The PVS attended on multiple occasions between July and August (July the 24th, August the 19th and August the 21st) to inspect records, fish and to carry out diagnostic samples. It is noteworthy that the company employ the services of [redacted] (hereafter [redacted]); a vet of [redacted] attends this site almost every month as they are also the prescribing vets. [redacted] carry out routinely random sampling to screen a representative group of the fish population and also targeted sampling of fish appearing sick. The PVS also analyzes the cycle records to observe trends and advises accordingly. Due to the large mortality recorded [redacted] were called to carry out physical inspections which happened on July the 24th ,on August the 19th and on August the 21st. The case PVS was also remotely following progress when not on site.

Despite lab testing the root cause was difficult to establish with absolute certainty. However, on the grounds of ancillary diagnostics and findings, the PVS considered it very likely that zooplankton blooms, which have been documented by monitoring, have severely damaged the gills of the fish causing mortality and predisposing them to microorganisms affecting the gills including amoeba Neoparamoeba perurans.

Pancreatic disease did not appear to have been the cause of deaths to the PVS, moreover the fish were vaccinated against it and laboratory findings seem to have excluded SAV as the causative agent of this large mortality. The PVS also reported seeing some fish damaged by the tentacles of macro-jellyfish.

No specific treatment exist for gill damage due to zooplankton, but hygiene of the cages, nets and removal of morts were the only aspecif options to manage zooplankton damage. On the day of official inspection operatives were seen actively removing morts from cages and dealing with moribunds.

The amoeba Neoparamoeba perurans was treated with low dose peroxide. However, only little difference was observed following this treatment. Thus, due to the complexity and severity of the issue emergency harvesting was carried out. The site was depopulated on October the 23rd to prevent further health and welfare issues.

10. Action

(outline any necessary actions)

No further actions for APHA beyond inspection because the company took satisfactory action on this occasion.

11. Conclusions and recommendations

The site has experienced high levels of mortality of a multifactorial nature. Initial damage of the gills of the salmons by blooms of hydrozoan jellyfish was compounded by secondary factors. The company recruited a fish vet specialist to carry out physical inspections, take diagnostic samples and to treat accordingly. Hygiene of cages and removal of deaths were carried out to manage this incident along with treatments. Despite this, emergency harvesting was carried out and the site fallowed on October the 23rd to prevent further welfare issues; Grieg Seafood took satisfactory actions in this set of circumstances including: employment of veterinary specialist advice and treatment, emergency harvesting of salmons and depopulation.

12. Overall Assessment: Compliant*

** delete as appropriate*

Signature	
Name in BLOCK LETTERS	[redacted]
Date	
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DATA PROTECTION
For information on how we handle personal data please go to www.gov.uk and search Animal and Plant Health Agency Personal Information Charter.

APHA is an Executive Agency of the Department for Environment, Food and Rural Affairs and also works on behalf of the Scottish Government, Welsh Government and Food Standards Agency to safeguard animal and plant health for the benefit of people, the environment and the economy.