

Case No: 2023-0067 Date of visit: 28/02/2023

Time spent on site: 4 hours Main Inspector:

Site No: FS1269 Site Name: Lochailort Recirculation Hatchery
Business No: FB0119 Business Name: Mowi Scotland Ltd

Case Types: 1 ECI 2 CNI 3 VMD 4 5 6

Water Temp (°C): 9 Thermometer No: Site FHI 045 completed N/A

Observations: Region: HI Water type: F CoGP MA:

Dead/weak/abnormally behaving fish present? N If yes, see additional information/clinical score sheet.
Clinical signs of disease observed? N If yes, see additional information/clinical score sheet.
Gross pathology observed? N If yes, see additional information/clinical score sheet.
Diagnostic samples taken? N

UNI/REG only - if unable to carry out intended visit detail reason below:

[Empty text box for visit detail reason]

Additional Case Information:

Site has been having issues with ova specifically in the Q3 populations received in Nov 2021 and Dec 2022 from Aquagen. In addition, increased mortality was observed in the recent Q1 and Q4 Kindrum Hatchery ova inputs (Ireland). In the highest observed mortality events (15.92% with loss of 297980) salinity baths (2.5pp) were used to separate unviable ova from healthy population, allowing for more efficient sweep during picking.

Water input originates from River Ailort. Each unit in the facility has its own water filtration and disinfection system. The water filtration and disinfection system is composed of sand filters and an ozonation component (treats water at 950milivolts for ~1hr)., Water exchange on the whole site is very minimal and therefore is classed as a recirculation system, with the smolt unit exchanging ~2% per day. In the hatchery one full water exchange occurs per day.

Treatment records show that regular formalin and Cress administered to keep on to of any saprolegniosis observed. Buffodine is used to disinfect eggs upon arrival at the hatchery.

Stock details:

hatchery a: 1876370, 544 degree days, 0.1g/alevins, Q4 2023

hatchery b: 1484417, 0.1g/alevins, Q4 2023

hatchery c, 1013841, 0.1g/alevins, Q4 2023

hatchery d: 650000, unhatched. Q1 2024, Ova 440, degree days. Arrived to site on 23/02/2023 from Ireland (Kindrum Hatchery)

fry: 1330585, 1.03g. Q3 2023

Parr unit empty.

Smolt unit: 173119 (minus 13000 due to export on day of inspection), 78g. 3 facilities. Q1 2023

Fish sampled for VMD were observed to be healthy.

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Registration/Authorisation Details

1. Business/site details summary checked by site representative?
2. Changes made to details?

Site Details (include cleaner fish for all sections)

	1 hatchery + 55 tanks	Facilities stocked	1 hatchery + 37 tanks
Total No facilities			
Species	SAL	SAL	SAL
Age group	Q1 2023	Q3 2023	Q4 2023
No Fish	173,119	1,330,585	4,374,628
Mean Fish Wt	78g	1.03g	0.1g
Next Fallow Date (Site)	site never fallow		Next Input Date (Site)
Recent (last 4 wks) disease problems?			N
If yes, detail:	Any escapes (since...)		

Movement Records

1. Movement records available for inspection?
2. Date of last inspection:
3. Are records complete and correctly entered?
4. Are movement records available for dead fish and waste?
5. Are records complete and correctly entered?
6. Are health certificates for introductions (outwith GB) available?

Transport Records

1. Are any movements carried out by (or on behalf) of the business (not using a STB)?
- If yes, is there a system in place for maintenance of transportation records?

Mortality Records

1. Mortality records available for inspection?
 2. How are mortalities disposed of? **Incinerated - on site**
 3. Mortality records complete and correctly entered?
4. Recent mortality (last 4 wks):
 Q1 2023 (smolts Feb 2023 output) : Wk8, 0.03%, 295; 431. Q3 2023 (parr July 2023 output): Wk8, 0.72%, 960; 0.30%, 4086. Q4 2023: Wk8, 2.61, 33466; Wk7, 0.71% (ova arrived 23/02/23): Wk8, 0%, 0.
5. Evidence of recent increased/atypical mortalities?
 If yes, facility nos/no mortality per facility/no stock per facility/reason:
Q3 2023 (output July 2023): 2023 Wk1, 9.20%, 137970(failed hatches); 2022 Wk49, 15.92%, 297980 (unviable)
6. Any other peaks in mortality during period checked?
 Unviable eggs/failed hatch mortality (0.1g): Q3 2023 (output July 2023): 2022 Wk50, 3.12%; 2022): 2022 Wk6, 1.30%, 41861; Wk7, 5.39%, 171444; 2022 Wk8, 6.35%, 190857 (failed hatches); 2022 Wk9, 1.26%, 34869. Q1 2022 (output Nov 2022): 2022 Wk12, 1.00%, 33672; Wk13, 1.26%, 42158; 2022 (output July 2022): 2021 Wk 46, 1.92%, 36135; Wk48, 1.48%, 27109; Wk51, 2.38%, 36135.
- If yes, detail:
7. Have increased (unexplained) mortalities been reported to vet or FHI?
 If yes, detail action:
 8. Have 'mortality events' been reported to FHI? If no, enter details on mortality events sheet.

Treatments and Medicines Records

1. Recent treatments (see comment)?

Buffodine, Cress,
Formalin

If yes, detail:

If other, detail:

2. Medicines records available for inspection?

3. Are records complete and correctly entered?

4. Are fish in a withdrawal period?

5. If yes, what treatment(s)?

T.M.S

If other, detail:

6. Are medicines stored appropriately?

Biosecurity Records

1. Biosecurity records available for inspection?

2. Has the manner and frequency of mortality removal, recording and safe disposal been considered?

3. Has the manner and period in which the APB will notify Scottish Ministers or veterinary professional of any at the site been included?

4. Has the action that will be taken in the event that the presence or suspicion of the presence of a listed disease *how* and *when* that will be notified to Scottish Ministers?

5. Has the health status of aquaculture animals being stocked on the farm site been covered (equal or higher required)?

6. Have the husbandry and biosecurity measures implemented between each epidemiological unit to minimise covered (movement of staff, visitors, equipment, live or dead fish etc.)?

7. Is documentation available regarding the measures in place to maintain the physical containment of aquaculture?

8. Have the biosecurity procedures been adequately implemented on site?

If no, detail:

Results of Surveillance

1. Has any animal health surveillance been carried out by, or on behalf of, the business?

2. If yes, are results available for inspection?

3. Any significant results?

If yes, detail (if not detailed under recent disease problems).

Records checked between:

10/05/2022-28/02/2023

	Y	
	N	
No facilities inspected	1 hatchery + 55 tanks	
end of march 2023		
the last visit?		N
	Y	
10/05/2022		
	Y	
	N/A	
	N/A	
	Y	
	N	
	Y	
te		
	Y	
Wk7, 0.02%, 536; Wk6, 0.02%, 540; Wk5, 0.02%, 52; Wk7, 0.19%,2554;Wk6, 0.20%, 2737; Wk5, 6,11968; Wk6, 0%,0; Wk5, 0.12%, 2364 . Q1 2024		
	Y	
le ova).		
	Y	
%, 49126 (failed hatches). Q4 2022 (output Sept hatch/unviable ova); Wk9, 1.70%, 48002; Wk11, 3;Wk14, 1.68%,55469; Wk16, 4.60%,149132. Q3 42146; 2022 Wk4, 1.60%, 27347; Wk9, 1.06%, 17547		
	N/A	
	Y	

	<input type="checkbox"/>	Y
	<input type="checkbox"/>	Y
	<input type="checkbox"/>	Y
	<input type="checkbox"/>	Y
	<input type="checkbox"/>	Y
	<input type="checkbox"/>	Y
	<input type="checkbox"/>	Y
increased (unexplained) mortality	<input type="checkbox"/>	Y
case is detected been included and	<input type="checkbox"/>	Y
health status, certification if	<input type="checkbox"/>	Y
	<input type="checkbox"/>	Y
transmission of disease been	<input type="checkbox"/>	Y
	<input type="checkbox"/>	Y
culture animals held on site?	<input type="checkbox"/>	Y
	<input type="checkbox"/>	Y
	<input type="checkbox"/>	Y
	<input type="checkbox"/>	N

Case no: Site No: Date of visit/
 Sampling:

Priority samples: VI BA PA MG HI

Time sampling starts/ends: Inspector: VMD No.

Environmental conditions: 1 2 3 4 5

Summary samples HIST BA MG VI PA Total Samples

Add Fish/Pools - click

Pool/Fish No												
Fish nos	1-20	21-40	41-61									
Pool Group												
Species	SAL	SAL	SAL									
Average weight	78g	78g	78g									
Sex	N/A	N/A	N/A									
Water Type	FW	FW	FW									
Stock Origin	Kindrum Hatchery (Mowi Ireland; FHA000022IE)	Kindrum Hatchery (Mowi Ireland; FHA000022IE)	Kindrum Hatchery (Mowi Ireland; FHA000022IE)									
Facility No	40	43	42									

02/2023 Additional Sample Information:

[Empty text box for additional sample information]

0

Total Tests assigned

0

Case Number:	2023-0067	Site No:	FS1269	Insp:		
Date of Visit	28/02/2023	No of movements/supp./dest.			Score	
Live fish movements		0	1-5	6-10	>10	
Movements on (from out with GB) of susceptible species	Frequency of movements on from equivalent MS	0	5	10	14	0
	Frequency of movements on from equivalent zone or compartment including third country	0	9	18	26	9
	Number of suppliers	0	5	10	14	5
Movements off	Frequency of movements off	0	3	6	10	10
	Number of destinations	0	3	6	10	6
Exposure via water		Site contacts				
		0	1-5	6-10		
Water contacts with other farms (holding species susceptible to same diseases)	Farm is protected (secure water supply through disinfection or borehole)	0				0
	Farm is on-line or in a coastal zone with category I farms upstream or within 1 tidal excursion	1	2		4	
	Farm is on-line or in a coastal zone with category III farms upstream or within 1 tidal excursion	1	3		6	
	Farm is on-line or in a coastal zone with category V farms upstream or within 1 tidal excursion	1	4		8	
Management practices		None	Secure	Unsecure		
Water contacts with processors	Any processing plant discharging into adjacent waters	0	1		2	0
On farm processing within the rules of the directive	No on farm processing	0				0
	Processing own fish (re-cycling risk)	1				
	Processing fish from MS of equivalent status	2				
	Processing fish from zone or compartment of equivalent status	4				
	Processing fish from Category III farm	8				
	Processing fish from Category V farm	10				
Disposal of fish and fish by-products	Site's own waste only processed.	0				0
	Common processes with other farms	3				
	Collection point for waste from other farms	5				
Use of unpasteurised feeds	No feeding of unpasteurised feed	0				0
	Feeding unpasteurised feed	5				
Biosecurity		Number of sites	1	2 or 3	≥ 4	
Contacts with other sites	Sites operating from single shorebase	0	1		2	0
	Sites sharing staff and equipment	0	1		2	0
Disinfection of equipment between sites, use of footbaths etc	Yes	0				0
	No	1				
CoGP/Regulator						
Practices in accordance with regulator or industry code of practice	Yes	0				0
	No	3				
Platform access to cages	Yes	0				0
	No	2				
Total Rank					30	
Rank					HIGH	

Case No: **2023-0067**

Site No: **FS1269**

Sea Lice Inspection (Seawater Sites Only)

1. Has the site experienced sea lice problems in the previous 4 years?
2. Is the CoGP Farm Management Area (or equivalent) followed synchronously on a single year class basis?
3. Does the site have access to a range of licenced in-feed and bath sea lice medications (including deltamethrin, azamethiphos and emamectin benzoate) as well as access to suitable biological and/or mechanical control measures, and can these be deployed in a reasonable period of time?
4. Is there a signed documented farm management agreement or statement relevant to the site and CoGP Farm Management Area (or equivalent)?
5. Are sea lice count records available for inspection? (Legal SSI, CoGP Annex 6)
6. Do records adequately reflect the required standard specified in the SSI and the CoGP? (Legal SSI, CoGP Annex 6)
7. Are sea lice (*L. salmonis*) record levels below the suggested criteria for treatment in the CoGP during the period that records are inspected? (CoGP Annex 6)
8. Have average adult female sea lice (*L. salmonis*) numbers per fish been at a level of 3 or above (prior to w/b 10/6/19) or 2 or above (from w/b 10/6/19) during the period that records are inspected?
If yes, have these been reported to the Fish Health Inspectorate? If no, FHI see comment.
9. Is *C. elongatus* infestation at a level which is considered to cause significant welfare problems? (CoGP 4.3.81, 5.3.50)
10. Have therapeutic treatments been administered or other actions taken when *L. salmonis* levels have exceeded the suggested criteria for treatment or where *C. elongatus* is considered to have welfare implications? (CoGP 4.3.82, 5.3.51)
11. Has any other action been taken (where applicable)?
12. Have therapeutic treatments or the actions taken had a significant impact upon the lice levels recorded?
13. Are treatments, where conducted, carried out in cooperation between participating farms?
14. Is there a harvesting strategy for the site, where fewer populations or part populations are held without treatment for sea lice?
15. Is there a site specific written lice management procedure with waypoints describing set actions to deal with recognised scenarios during the escalation of a sea lice infestation?
16. Do the sea lice levels observed on stocks reflect sea lice count data? If no please detail reasons.

Containment Inspection

1. Has the site experienced equipment damage due to predators in the current or previous production cycles? N
2. Are measures in place to mitigate against the predation experienced on site? (Detail below) Y

Site indoors,
If other, detail below:

3. Have escape incidents or events been experienced on or in the vicinity of the site since the last FHI inspection? N
If Yes proceed with questions 4 – 9. If No skip to question 10
4. Have these been reported to Scottish Ministers?
5. Have these been reported to local DSFB forthwith (where they exist)? (CoGP – 4.4.37, 5.4.17)
6. Have these been reported to the SSPO and local fisheries trusts forthwith (where they exist)? (CoGP – 4.4.37, 5.4.17)
7. Were methods (if any) used to recover escapees? If yes give detail
8. If gill nets were deployed was this action agreed with local wild fish interests and was permission given by Scottish Ministers? (Legal, CoGP – 4.4.38, 5.4.18)
9. What action was taken to prevent and minimise the risk of further escapes? (Not covered in code but could be considered under satisfactory measures of the Act)
10. Is the site inspected as satisfactory with regards to containment? If no, please detail reason(s) Y

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Site No: FS1269 Inspector:

Results Summary	Freq.	Date of Notification						
		Database	Insp	Phone	Insp	Writing	Insp	2 nd Insp

Report Summary			
Case Type	Date	Insp	2 nd Insp
ECI, CNI, VMD	07/03/2023		

FISH HEALTH INSPECTORATE VISIT REPORT

SUMMARY FOR INFORMATION OF SITE OPERATOR

BUSINESS No	FB0119	DATE OF VISIT	28/02/2023
SITE No	FS1269	SITE NAME	Lochailort Recirculation Hatchery
CASE No	20230067	INSPECTOR	██████████

Inspection under the Aquatic Animal Health (Scotland) Regulations 2009

The above site was inspected, in accordance with the Aquatic Animal Health (Scotland) Regulations 2009.

All epidemiological units were inspected. On this occasion no samples were taken for disease analysis. The Inspector did not observe any clinical signs associated with the listed diseases as described in the Aquatic Animal Health (Scotland) Regulations 2009.

Records

The surveillance frequency category of the site was assessed as high. An inspection under the Aquatic Animal Health (Scotland) Regulations 2009 will be conducted annually. The category of the site will be reassessed on a routine basis and updated as required.

The information required for the public record of aquaculture production businesses regarding this site was verified and where necessary updated. The following records were also inspected to ensure that the conditions of authorisation for your Aquaculture Production Business (APB) are being met:

Aquaculture animal and aquaculture animal product movement records were inspected and appeared to be adequately maintained.

Mortality records were inspected and found to be adequately maintained.

Mortality levels had exceeded the reporting criteria since the last inspection and had been reported to the Fish Health Inspectorate as required.

Reports detailing the results of animal health surveillance carried out by or on behalf of the business and/or Marine Scotland were available for inspection.

The biosecurity measures plan for the site was inspected and found to be adequately maintained and implemented.

Inspection under the Animals and Animal Products (Examination for Residues and Maximum Residue Limits) (England and Scotland) Regulations 2015

Medicine records were inspected and found to be adequately maintained.

Samples were taken to be analysed for veterinary residues.

Inspection under the Aquaculture and Fisheries (Scotland) Act 2007

The site was also inspected in accordance with the Aquaculture and Fisheries (Scotland) Act 2007 with respect to section 5 regarding containment and escapes.

On this occasion the site was found to be satisfactory.

Please contact myself or the duty inspector should you require any further information or have any queries regarding this report.



Signed:

Date: 07/03/2023

Fish Health Inspector

The Fish Health Inspectorate Service Charter detailing standards of service is available on the Marine Scotland website at <https://www.gov.scot/publications/fish-health-inspectorate-service-charter/>