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Edward Mountain MSP
Convener
Rural Economy and Connectivity Committee
The Scottish Parliament
Edinburgh
EH 99 1SP

19 January 2016

Dear Edward

PE1598: Protecting wild salmonids from sea lice from Scottish salmon farms

Many thanks for your further request for information in relation to the above petition.

As previously noted, Marine Scotland are conducting a 10-year programme of research looking at the interactions and effects of sea lice on wild salmon. The Scottish Aquaculture Research Forum funded project which you reference forms part of this programme of research and will compare the numbers and condition of returning salmon, half of which have been treated with a sea lice chemical. This will enable us to better understand the risk posed to wild salmon, which is dependant upon knowledge of the impact of different lice loads on salmon at both the individual and population level. The fish are treated with a veterinary pharmaceutical under development called Flux 100mg/ml. This is proprietary material and the formulation has not been disclosed to protect the commercial interests (e.g. obtaining patents or protecting intellectual property rights) of the company that are developing this.

The wider project consists of two avenues of research; to generate information on interactions and impacts of aquacultured origin sea lice on wild salmon populations; and to develop principles and tools which can help improve management of sea lice on farms and reduce levels in the environment.

Further information on the project can be found on the Marine Scotland Science webpage <http://www.gov.scot/Topics/marine/Salmon-Trout-Coarse/Freshwater/Research/Agint/sealice>. The information obtained over the course of this long term project will inform future policy to ensure that we continue to be able to support the growth of both a sustainable aquaculture sector and the recreational fisheries industry, through proportionate and fit for purpose regulation, which protects the wider environment on which they depend.

In relation to fallowing, and stocking densities, these are very much matters of best practice for the industry and are detailed within their Code of Good Practice which, as previously

mentioned, is independently audited. Marine Scotland's Fish Health Inspectorate also monitor and advise on such practices in relation to fish health and welfare. The farming of fish in offshore locations is something which the industry have indicated is the likely next step for future expansion and they are already developing new sites in more exposed locations.

In Scotland, a number of chemical treatments are available as part of the tool box of possible methods for managing sea lice. Products which are authorised for use in the UK includes those containing the active ingredients deltamethrin, azamethiphos, teflubenzuron, emamectin benzoate and hydrogen peroxide. With the exception of hydrogen peroxide, use of these chemicals is strictly monitored and regulated by the Scottish Environmental Protection Agency (SEPA), under The Water Environment (Controlled Activities) (Scotland) Regulations 2011. Hydrogen peroxide use is also monitored, however the quantity of product used is not regulated in the same way due to its rapid breakdown (into Hydrogen and Oxygen) and dispersal in the marine environment.

Fish farms maintain a veterinary health plan, as recommended in the industry's Code of Good Practice, which includes specific management procedures for sea lice. Each fish farm will also employ a number of fish health specialists, including veterinarians who are responsible for the prescription and administration of treatments and for the welfare of the fish within their care.

With regards to sea lice monitoring and reporting, as the committee is aware, sea lice are regulated under several pieces of fish health legislation which are enforced by Marine Scotland's Fish Health Inspectorate (FHI). This includes The Fish Farming Business (Record Keeping) (Scotland) Order 2008 which requires that specific records are kept in relation to staff sea lice training, sea lice counts, sea lice treatments and treatment co-ordinators. Fish farms are required to count sea lice on a weekly basis and records, including treatment records, must be made available to fish health inspectors for inspection. Fish farms monitor treatment efficacy and chemical resistance using bioassays and there is an obligation on fish farms to report any suspected lack of treatment efficacy to the Veterinary Medicines Directorate.

The new sea lice policy will allow the FHI to increase monitoring and surveillance of those sites which breach the agreed reporting levels. Previously sea lice management was assessed by fish health inspectors during on site inspections as part of the risk based surveillance programme carried out by FHI. These inspections will continue, however in addition, sea lice management will also now be assessed by monitoring sea lice levels and the effectiveness of any site specific action plans for sea lice control remotely, in response to reporting above the agreed levels. This will allow for more efficient and effective management of sea lice at an industry wide level, including taking enforcement action where necessary.

The reporting of site specific sea lice figures by the industry to the Scottish Salmon Producers Organisation provides data which is shared internally by the industry to monitor and assess sea lice management. This does not impact the FHI's ability to regulate for sea lice control as required by the Aquaculture and Fisheries (Scotland) Act 2007.

As you indicate in your letter sea lice regulation differs between salmon producing nations as do production levels, environmental conditions and environmental controls including the availability of different treatments. I am aware that officials considered the regulatory processes in different countries during the process of defining our new sea lice policy, and that they discussed the effectiveness of these policies, particularly with Norwegian

colleagues. I am aware that the committee is in the process of organising a visit to a fish farm. You may find it beneficial to meet with my officials to discuss the different sea lice regimes in context. This may also provide the committee the opportunity to discuss in detail any other areas where they might require more information.

Yours sincerely

A handwritten signature in black ink, reading "Fergus Ewing". The signature is written in a cursive style with a large loop at the end of the last name.

FERGUS EWING