

Proposal for a risk-based surveillance program of Swiss fish farms in accordance with the Council Directive 2006/88/EC of the European Union

N. Diserens¹, T. Wahli¹, D. Bernet², G. Schüpbach-Regula³, H. Segner¹

¹Centre for Fish and Wildlife Health, University of Bern, CH-3012 Bern, ²Inspectorate of Fisheries, Office of Agriculture and Nature, CH-3110 Münsingen, ³VPH-Institute, University of Bern, CH-3097 Liebefeld

Key words

Risk analysis - Risk assessment - Risk-factor - Aquaculture - VHS - IHN

Aim of the study

The aim of the study was to develop a model assessing the risk of Swiss fish farms to either get an infection by viral haemorrhagic septicaemia (VHS) and/or infectious haematopoietic necrosis (IHN) or to spread one of the diseases. To achieve this aim a clear definition of the term “aquaculture” and a register of all Swiss fish farms had to be established. Further, proposals for the inspection frequency for a risk-based surveillance had to be delivered.

Material and methods

To develop the model, a questionnaire asking for the relevant factors to establish the risk level was sent to all 357 known Swiss aquaculture farms. The factors included were defined according to published data and expert opinions. Based on the data received score values (null, low, medium, high) were attributed to each factor. Through the summation of the risk to receive and the risk to spread VHS and IHN, the individual risk level of farms could be defined as low, medium or high. This risk level determines the frequency for inspections of farms.

Results and significance

With the developed model and the information of the questionnaire, 6 fish farms were considered as having a low risk category, 175 as having a medium risk category and 176 as having a high risk category. This shift to the high risk level was due to the lack of information about a risk-factor (no information was quantified as high risk) that can only be collected through inspections of the farms. This means, inspections have to be accomplished to control the practicability of the model on the field.

For the application of the model, an Excel-file which calculates automatically the risk level with the entry of the parameters of the risk-factor was created. Furthermore, the created register of Swiss fish farm was made accessible on the website of the federal veterinary office.

Publications, posters and presentations

Diserens, N. (2011) Proposal for a risk-based surveillance program of Swiss fish farms in accordance with the Council Directive 2006/88/EC of the European Union. Dissertation, Vetsuisse-Fakultät, Universität Bern.

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Gemeinschaftstagung der Deutschen, Österreichischen und Schweizer Sektionen der EAAP. Krems, Österreich, 5.-9.10.2010 (+Vortrag).

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