Food and Agriculture Organization of the United Nations

SUSTAINABLE DEVELOPMENT GOALS

VIRTUAL COURSE

26 March to 15 April 2021

Design of an Active Surveillance for Tilapia Lake Virus (TILV) Disease and Its Implementation

TCP/INT/3707: Strengthening biosecurity (policy and farm level) governance to deal with Tilapia lake virus

Food and Agriculture Organization of the United Nations

SUSTAINABLE DEVELOPMENT GOALS

CHECKLIST 10

12 April 2021

Validation and quality assurance

Nihad Fejzic
nihad.fejzic@vfs.unsa.ba

Fernando Mardones
fomardones@gmail.com

TCP/INT/3707: Strengthening biosecurity (policy and farm level) governance to deal with Tilapia lake virus

Learning objectives

- To understand the requirements and criteria for Checklist 9

- To be able to integrate the principles of quality assurance to ensure that all components of surveillance system function properly and to be able to provide verifiable documentation of procedures and basic checks to detect significant deviations of procedures from those documents

How to achieve:

- Statistical estimation of the level of confidence (sensitivity of surveilance program)
- Pilot trials
- Expert/external evaluation (peer review)
- Audit and corrective measures determined and implemented

Validation is the process that determines the fitness of an surveillance system, which has been properly developed, optimised and standardised for a specific and defined objective.

Validation is done by:

- **statistical estimation** of the level of confidence (Se of surveillance program)
- **pilot trial**
- expert/external evaluation (peer review)

- Overestimation or underestimation of parameters of interests were most common problem in different surveillance.

- We need validation of surveillance to confirm its scientific value, confidence in system and its compliance with international standards.

- This step is done throughout the whole process from the design until the actual implementation.

Quality assurance (QA)

- Surveillance should incorporate the principles of quality assurance and be subjected to periodic auditing to ensure that all components of the system function and provide verifiable documentation of procedures and basic checks to detect significant deviations of procedures from those documented in the design.

- Administrative and procedural activities need to be done in order to avoid problems and if problems or mistakes occur, corrective measures can be introduced.

- These will guarantee good quality implementation of the surveillance plan

Quality assurance

- Included in surveillance program
- Audit and corrective measures identified and documented

Example of TiLV surveillance QA

- National surveillance team (NST) established;
- Training and education of NST on TiLV pathogen biology, pathology, diagnostics and surveillance;
- Data collection and a questionnaire described and explained clearly and common understanding achieved;
- Diagnostic laboratory accredited in line with ISO 17025, if possible; trained field and laboratory personnel;

Example of TiLV surveillance QA

- a clear standard operating procedures developed and used during implementation,
- aseptic technique procedures for minimizing contamination from potential areas of sample collection developed and made clear to the sampling teams;
- sampling teams closely supervised;
- and a pilot survey will be conducted as a sampling exercise.

Food and Agriculture Organization of the United Nations

SUSTAINABLE DEVELOPMENT GOALS

Thank you for your attention!

Nihad Fejzic
nihad.fejzic@vfs.unsa.ba

Fernando Mardones
fomardones@gmail.com

TCP/INT/3707:
Strengthening biosecurity (policy and farm level) governance to deal with Tilapia lake virus

This was also made possible with the support of the Norwegian Agency for Development Cooperation under the project GCP/GLO/979/NOR Improving Biosecurity Governance and Legal Framework for Efficient and Sustainable Aquaculture Production.

Norad