





Good management practices in fish health and welfare in the Mediterranean



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"One Health" perspective, the link between animal health and public health, the environment, food and feed safety, animal welfare, antimicrobial resistance and production and economic aspects

Revision of the animal welfare legislation will broaden its scope, make its enforcement easierand ultimately ensure a higher level of animal welfare.

Farmed fish will included

Recommendations and guidelines by WOAH, EFSA, DG SANTE, AAC, FAO,.... Certification schemes

The Context for Animal Health & Welfare in EU and Mediterranean AREA









Animal Health Law (AHL - Regulation (EU) 2016/429), provides a general legal framework and dictates harmonized principles for the entire animal health sector

Reg. (EU) 04/2019 on **Medicated Feed** and Reg. (UE) 06/2019 on **Veterinary Medicines Products** paying more attention on AMR

Control by public health authorities under the rules established by Regulation (EU) 2017/625 on "Official controls"

















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Erasmus+

Some Projects focused also on Fish Health & Welfare in the Mediteranean area









- Different fish species (due to physiological ethological characteristics, in some cases long biological and production cycles)
- Very different structural and managerial characteristics (micro enterprises, SMEs, ...) with different technologies and degrees of production intensification (from extensive to RAS)
- Evolving hydro-climate environment influencing the spread of diseases and other threats
- Emerging diseases
- Rules and laws are not always aligned
- Market trends

The production context



















MEDITERRANEAN MARINE FISH FARMING SECTOR

CODE OF CONDUCT











Depending on the structure of the aquaculture establishment considered:

- Health & biosecurity measures applied on the field can be very different and very variable.
- To assure the control of the factors, risks and pathway leading to the spread of pathogens and diseases, including emerging diseases, biosecurity measures need to be at the same time uniformly applied in all types of aquaculture production sites and have the involvement of all stakeholders concerned.
- Measures need to be adapted to site related risks analysis related to the structure of production, the production plan and the farming management and the environmental conditions.



Fish Farm GMPs for Health and Biosecurity measures







- a. Ensuring optimal environmental conditions to grow the fish.
- Adoption of a veterinary health plan based on prevention and vaccination to minimise the incidence and spread of diseases.
- Adoption and sharing among farmers, and staff training on good husbandry and management practices, including quarantining, vaccination, handling, feeding, transport, confinement, and harvesting.
- d. Encouraging the application of smart solutions and digital tools to enhance innovation and improve farm monitoring and production management.



Fish Farm GMPs for Health and Biosecurity measures





Responsible use of therapeutic agents always administered under veterinary control only where essential for disease treatment avoid the risk antimicrobial resistance and to improve animal welfare.



boost research, development and innovation, and to shape the global agenda

The focus for professional fish farming is on disease preven

Communication from the Commission to the European Parliament and the Council
Action plan against the rising threats from Antimicrobial Resistance https://bit.ly/3dBE4c0
A European One Health Action Plan against Antimicrobial Resistance (AMR) https://bit.ly.

Healthy animals produce safer food.

One example GMP: Reduction of AMR







- Farming practices
- Transport and handling
- Stunning and slaughtering
- Implementation and application of Operational Welfare Indicators (OWIs) and tools to measure and report on fish welfare.
- Inspection of behavioral and physical changes and mortalities, with prompt action if alterations are detected.
- c. Implementation of science-based, effective, safe stunning and slaughtering procedures, to minimise stress and suffering.

GMP for Ensure Fish Welfare

MANUALE
PER LA GESTIONE DEL CONTROLLO
DEL BENESSERE DEI PESCI
DURANTE IL TRASPORTO SU STRADA

REGOLAMENTO N. 1/2005 CE DEL CONSIGLIO DEL 22 DICEMBRE 2004 "SULLA PROTEZIONE DEGLI ANIMALI DURANTE IL TRASPORTO E LE OPERAZIONI CORRELATE"









- > How to spread Good Practices in such diverse contexts
- How to respond to the proliferation of certifications that impose regulations more suitable for B2B than for the sustainable development of aquaculture (e.g. antibiotic-free certifications)
- How to train and transmit information and knowledge to aquaculture operators but also to the public administrations responsible for control









Thank you!

... Questions?





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