

SOA15

Biosecurity measures to prevent and control AID on farm and during transport taking into account effects on AW

(OO5 Action 1)

PROJECT TITLE: Biosecurity measures

Priority area	Operational objective
Management of farm, during transport, at slaughter, and at sea	Develop guidelines and preventative tools to fight against AID on farm and during transport
Key words	Partner participation
Biosecurity; production animal – wildlife interface; cattle; fin-fish; pigs; poultry	DEFRA, AU, AUTH, DTU, EFSA, INRAE (ENVT, Oniris), IRTA, IZS - Teramo, IZSLER, NVI, SLU, SVA, UAB, UCLM, UCPH, UGent, UNIPD, UNITO, SURREY

Project summary

We establish expert networks, identify basic and local knowledge on biosecurity, quantify risks and consequences related to biosecurity, identify challenges with implementation of biosecurity measures and provide recommendations and training on implementation of biosecurity measures on the interface between production animals and wildlife in aquatic and terrestrial animals.

Project objectives	Outcomes and impacts
<p>The main aim of this action is to identify effective biosecurity measures that are applicable for several infectious diseases among terrestrial and aquatic animals, especially at the interface between production animals, and wildlife and vectors in EU and EEA. Specific objectives include:</p> <ul style="list-style-type: none"> • Establishment of a cross-sectorial and multidisciplinary network of experts and identify research priorities on biosecurity • Improvement of basic knowledge on biosecurity and local knowledge on the ecology of wildlife, fish and their pathogens, and the relation to various outdoor animal production systems • Integration of biosecurity measures and specific 	<ul style="list-style-type: none"> • Networks on external biosecurity and farm animal- wildlife interactions in terrestrial and aquatic production systems with experts from universities, industry and authorities • Annotated list of ten most relevant pathogens for farm biosecurity, by species or groups • Foresight reports and list of research priorities by terrestrial and aquatic production systems, based upon pathogen list and biosecurity measure reviews • Report from expert workshops on biosecurity • Reviews of biosecurity measures applied in terrestrial and aquatic animals according to species/groups, production system or target pathogens • Report from SWOT analysis and associated workshops • Report from scoping review of main pathogens of relevance in outdoor production systems. • Report on challenges with implementation of biosecurity practices in outdoor production systems • Report on major challenges and control measures for better biosecurity in RAS • Report on evaluation of efficiency of water disinfection systems for land based aquatic production systems • Spread model for FAST Diseases, including external biosecurity measures and SPF Systems

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pathogens systems in epidemiological mechanistic spread models for FAST diseases such as FMD and endemic diseases such as PRRS and *Mycoplasma bovis*. Subsequently, farmers' decision making will be accounted for.

- Assessment of on-farm real time monitoring for early detection of infected animals to limit spread of pathogens on farm
 - Use of environmental nucleic acids for monitoring of aquatic disease
 - Development or improvement of production and housing systems with focus on biosecurity and animal welfare.
 - Organisation of workshops for researchers, advisors, farmers, industry
 - Communication and dissemination of results from project activities.
- Spread model for endemic diseases, including external biosecurity measures and SPF Systems
 - Report on effect of external biosecurity measures for FAST diseases
 - Report on effect of external biosecurity measures for endemic diseases
 - Report on the impact of farmer's decision-making regarding external biosecurity
 - Annotated list of the most important interventions on external and internal biosecurity for selected pathogens
 - Report on effect of early detection to control respiratory diseases in cattle
 - Protocols for use of environmental nucleic acids for use for aquatic diseases
 - Reports with reviews on biosecurity in indoor and outdoor cattle, poultry and pig production in selected EU/EEA
 - Reports on indoor and outdoor biosecurity in selected cattle, poultry and pig farms in selected EU/EEA countries
 - Reports on stakeholders' perception of benefits, limitations and perspectives of biosecurity
 - Research proposals on basic knowledge and innovative ideas on external and internal biosecurity
 - Report on concepts of integration of disease prevention and control measures on farms
 - Report on concepts of integration of disease prevention and control measures on in aquaculture facilities
 - Reports from each stakeholder workshop held
 - Reports from each modelling workshop held
 - Guidelines for dissemination and communication of complex models.
 - Guidelines for minimal biosecurity requirements
 - Communications plan for the project
 - Presentations at national and international conferences
 - Scientific publications in peer-reviewed journals
 - Factsheets on biosecurity for outdoor production
 - Biosecurity courses held
 - Teams channel for internal communication and document sharing