



Deliverable D-JRP21-WP6.15

Workpackage 6

Responsible partner: VFL/EMU

Contributing partners: APHA, AGES/VMU,
IZSLER, ISS, WBVR, VRI, RIVM, BfR



GENERAL INFORMATION

European Joint Programme full title	Promoting One Health in Europe through joint actions on foodborne zoonoses, antimicrobial resistance and emerging microbiological hazards
European Joint Programme acronym	One Health EJP
Funding	This project has received funding from the European Union's Horizon 2020 research and innovation programme under Grant Agreement No 773830.
Grant Agreement	Grant agreement n° 773830
Start Date	01/01/2018 (BIOPIGEE 01/01/2020)
Duration	60 Months (BIOPIGEE 36 months)

DOCUMENT MANAGEMENT

JIP/JRP deliverable	D-JRP21-WP6.15 Biosecurity protocol on slaughterhouse provided		
Project Acronym	JRP21-FBZ3.1-BIOPIGEE		
Author	Tarmo Niine, Arvo Viltrop (VFL/EMU)		
Other contributors	BIOPIGEE T6.1.2b and T2.3 partners: APHA, AGES/VMU, IZSLER, ISS, WBVR, RIVM, VFL, VRI, BfR		
Due month of the report	M48		
Actual submission month	M48		
Type <i>R: Document, report DEC: Websites, patent filings, videos, etc.; OTHER</i>	R Save date: 10-Dec-21		
Dissemination level <i>PU: Public (default) CO: confidential, only for members of the consortium (including the Commission Services)</i>	PU This is the default setting. If this project deliverable should be confidential, please add justification here (may be assessed by PMT): Confidential until publication.....		
Dissemination <i>Author's suggestion to inform the following possible interested parties.</i>	OHEJP WP 1 <input checked="" type="checkbox"/> OHEJP WP 2 <input checked="" type="checkbox"/> OHEJP WP 3 <input checked="" type="checkbox"/> OHEJP WP 4 <input type="checkbox"/> OHEJP WP 5 <input checked="" type="checkbox"/> OHEJP WP 6 <input type="checkbox"/> OHEJP WP 7 <input type="checkbox"/> Project Management Team <input checked="" type="checkbox"/> Communication Team <input checked="" type="checkbox"/> Scientific Steering Board <input checked="" type="checkbox"/> National Stakeholders/Program Owners Committee <input type="checkbox"/> EFSA <input checked="" type="checkbox"/> ECDC <input checked="" type="checkbox"/> EEA <input type="checkbox"/> EMA <input type="checkbox"/> FAO <input type="checkbox"/> WHO <input type="checkbox"/> OIE <input type="checkbox"/> Other international stakeholder(s): Social Media: Other recipient(s): via publication		



BIOPIGEE

Biosecurity protocol on slaughterhouse provided

Participating countries

DE (BfR), EE (VFL/EMU), IT (IZSLER, ISS), AT (AGES/VMU), UK (APHA), CZ (VRI), NL (WBVR/RIVM)

Background

Salmonella and hepatitis E virus (HEV) are zoonotic pathogens that can lead to subclinical infections in pigs, and cause gastrointestinal infections in humans through the food chain. Biosecurity protocols are important tools to identify optimal and suboptimal practices on pig abattoirs that are related to the introduction and transmission of infectious pathogens and can thereby help to control the occurrence and spread of *Salmonella* and HEV. A questionnaire was developed to collect information on implication of identified best biosecurity practices to limit *Salmonella* and HEV contamination/cross-contamination in European abattoirs.

Objective

A slaughterhouse biosecurity protocol applied and evaluated in BIOPIGEE WP2 T2.3 will be disseminated to inform slaughterhouses about effective biosecurity measures in participating countries.

Methods

A literature review was compiled from online databases based on keywords: Slaughter, Biosecurity, Abattoir, Pigs, Salmonella, Hepatitis E virus. In total, 67 sources of information proved to be potentially useful (see deliverable D-JRP21-WP2.8). Based on gathered scientific information a short (up to 30 questions and not more than 60 minutes long) online survey was planned. Target audience for the survey was selected to be European slaughterhouse personnel responsible for biosecurity implementation.

An online survey (QuestionPro Survey Software, QuestionPro. Inc, Dallas, USA) was composed for European abattoirs and its link with a letter of invitation to collaborate was sent out by task partners to local slaughterhouses and industry bodies. The online survey was translated from English to Italian, German, Czech, Dutch and Estonian.

The questionnaire contained the following sections: General (no. of questions = 3), Transportation (n = 1), Lairage (n = 4), Scalding (n = 2), Singeing (n = 1), Evisceration (n = 4), Carcass splitter (n = 2), Decontamination (n = 1) and Chilling (n = 2).



Results and conclusions

Responses to the survey were received from 31 May till 14 October 2021. Results from the online survey indicate that there are considerable differences between the slaughterhouses in implementation of best biosecurity practices in European slaughterhouses. In many of them most effective biosecurity practices have not been implemented (e.g. decontamination with hot water or steam vacuum treatment; bung sealing with plastic bag during evisceration; vertical scalding) or practices that have been shown to increase bacterial contamination of carcasses are still used (e.g. pressure washing of carcasses at evisceration with cold water).

The produced questionnaire was adjusted to be used as an assessment tool in European slaughterhouses.

Future work

As next step current results lay ground for broad application of a compelling tool for self-assessment in European slaughterhouses – especially by providing ideas what more can they do in order to improve their biosecurity and whether the best practices are implemented.

Further research is needed to learn what are the drivers and limitations for slaughterhouses in implementing new biosecurity practices.

A publication of the questionnaire and the survey results in a scientific journal is planned.

This project has received funding from the European Union's Horizon 2020 research and innovation programme under Grant Agreement No 773830.