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Ministerial Conference

**Biosecurity and vaccination: essential tools in
prevention, control and eradication of animal diseases**

24 January 2024



On the 24th of January 2024 the Ministerial Conference on “*Biosecurity and vaccination: essential tools in prevention, control and eradication of animal diseases*” took place in Brussels. The conference was organised by Belgium, as President of the Council of the EU, in cooperation with the European Commission. Several Ministers, Chief Veterinary Officers and other important stakeholders attended the conference.

Morning session

An introduction, given by David Clarinval (*Deputy-Prime Minister and Belgian Federal Minister of Agriculture*), focused on the joint efforts and collaboration that will be required to face some of the most challenging animal health threats, such as HPAI and ASF, that we are currently facing in the EU and beyond. Aligning with the slogan “prevention is better than cure” this will require strong preventive tools like biosecurity and vaccination, that may be used complementarily.

During the session on biosecurity awareness, chaired by Ir. Herman Diricks (*CEO of the Belgian Federal Agency for the Safety of the Food Chain*), Pr. Jeroen Dewulf (*Full professor in Veterinary Epidemiology at the Faculty of Veterinary Medicine of Ghent University in Belgium*) presented on the importance of biosecurity in animal production. Biosecurity relates to both management, behavioural and physical measures. Improving biosecurity requires an overall approach looking at both external and internal biosecurity, where there is still much room for improvement in the application of fundamental practices, such as hand hygiene. Biosecurity should be the basis of any good animal health programme and a prerequisite to improving the level of biosecurity is the ability to quantify it. Jeroen Dewulf’s research group therefor developed a scoring system allowing for new insights into the application of biosecurity measures on farms. Research has found an association between improved biosecurity and a decrease in anti-microbial use, which is the biggest driver for anti-microbial resistance.

Experiences with biosecurity tools and its use by the veterinary services were shared for Belgium and Italy by its respective Chief Veterinary Officers, Dr. Chantal Rettigner and Dr. Ugo Della Marta. The unexpected outbreak of ASF in wild boar in Belgium in 2018 required immediate action towards improved biosecurity. A mandatory annual biosecurity audit was put in place in pig farms, and later on in poultry farms. The data are centralised and must be used by the farmer and his/her veterinarian to create a farm action plan towards improved biosecurity, and will also be used by the competent authority to organise its controls in a more risk-based manner.

In Italy, a comprehensive IT platform was created several years ago that gathers data on different aspects of animal health and welfare. One type of

collected data is on biosecurity which is entered through a questionnaire on a voluntary basis for pig and poultry farms. Moreover, data on AMU, animal health and diagnostics is also added to the platform. The output allows the competent authority to organise its controls in a more risk-based manner and to work towards the creation of farm identity cards which will encompass a broad range of analysed data. The evolution of biosecurity scores has shown a positive trend in both Belgium as Italy in the last couple of years.

The following session on the status of vaccination was chaired by Dr. Chantal Rettigner (*Chief Veterinary Officer of Belgium*).

Pr. Frank Verdonck (*Head of Unit Biological Hazards & Animal Health and Welfare (BIOHAW) at European Food Safety Authority (EFSA)*) presented the current situation of African swine fever and its evolution. Since its entry into the EU in 2014, experience has shown that ASF is a complex disease that appears in a heterogenous way in the EU. This relates to its presence and spread in both wild boar and domestic pigs. Luckily, there were admirable examples of successful control of outbreaks, as was the case in Belgium and the Czech republic. A significant decrease in both wild boar and domestic pig cases was observed for the first time in 2022. Biosecurity remains essential in the fight against ASF, but raising awareness, investing in education and communicating to all stakeholders are also key elements. Therefore, EFSA has previously launched a comprehensive communication campaign. In parallel, surveillance for early detection has to be robust and requires reliable data on wild boar populations. Currently, there is no effective and safe vaccine available for ASF, what is due to complex nature of the virus, emphasizing the need for further research.

Pr. Ian H. Brown OBE (*Scientific Services Director at the Animal and Plant Health Agency (APHA), United Kingdom*) shared the state of vaccination for HPAI and the policy possibilities in this area. In the fight against HPAI through vaccination, safe and effective vaccines are now available, as well as the necessary international frameworks and standards to support it. However, building confidence and lifting existing barriers will still require other questions to be addressed such as further improvement of vaccines through novel vaccine technologies with special emphasis on the DIVA strategy, refining surveillance approaches in a field setting in accordance with its aim and building trust and insurance with stakeholders.

Complementary to the previous presentation, Dr. Barbara Logar (*Unit Animal Health, DG SANTE, EC*) gave an update on the EU legislation concerning HPAI vaccination. Following article 46, 47 and 49 of part III of the Animal Health Law, the Delegated Regulation (EU) 2023/361 came into force in March 2023 laying down rules on the use of vaccines for prevention and control of category A diseases. It includes generally applicable rules on preconditions, strategies, general use and risk-mitigation measures besides disease-specific conditions. The latter are currently only described for vaccination for

HPAI as is the case of vaccination against NCD. For HPAI, requirements are defined related to the vaccines, the reinforced surveillance, risk mitigation measures and traceability. It requires the Member State concerned to perform an assessment and prepare a vaccination plan before vaccination can be implemented. For ASF there are currently no disease-specific conditions described as there are no safe and effective vaccines available.

Afternoon session

Dr. Francisco Reviriego Gordejo (*Head of Unit Animal Health, DG SANTE, EC*) chaired the following session in which two Member States shared their experiences on HPAI vaccination.

Wim Pelgrim, the Chief Veterinary Officer of the Netherlands, shared their experiences with HPAI. In 2021 till 2023, the Netherlands faced a high burden of outbreaks. To avoid mass slaughter associated with these outbreaks, the Netherlands have stepped up prevention against HPAI. Alongside this plan, a step-by-step approach to apply vaccination was developed. The goal is to apply vaccination of poultry with the smallest possible risk for both animal and public health, while reducing possible negative impacts on trade. This approach consists of 4 steps. The first step is already completed and consisted in testing vaccines in a high containment unit. This stage led to the identification of two vaccines which showed positive results. Even though these do not have clearance by the European Medicine Agency yet, those vaccines will be used in field trials during the second step of the plan. This was started in 2023 and will be ongoing until 2025 and consists of tests on the effectiveness of the vaccines under field conditions in laying hens throughout the production period. Initial results are encouraging. During the trial, four transmission experiments in a high containment unit will be performed and the first results are expected in the second half of 2024. The third step is a pilot project to gain experience with surveillance, trade consequences and application of vaccines. This pilot project is being prepared in strong cooperation with the poultry sector, takes into account the importance of the trade partnerships and should start in mid-2024, once the vaccines are available on the EU market. It will provide an opportunity to gain experience with vaccine application at hatchery, implementation of compulsory surveillance, registration, communication and impact of vaccination on trade. The last step is to launch a large-scale vaccination campaign from 2025 onwards.

Following this presentation, Dr. Emmanuelle Soubeyran, the Chief Veterinary Officer of France, shared the French experience with HPAI vaccination. France has experienced numerous large-scale outbreaks of highly pathogenic avian influenza in recent years. Following the various problems

caused by the disease, France decided in 2022 to launch an action plan to define a vaccination strategy and roll out vaccination from October 2023 on. This action plan consisted of five areas: effective and available vaccines; scenarios for defining the strategy; the vaccination campaign; international negotiations to limit the impact on the international trade and communication.

The plan is based on three pillars: biosecurity, vaccination and surveillance. It makes use of a DIVA strategy and focuses on the importance of maintaining international trade. The vaccination campaign was launched in October 2023. By December 2023, 9.7 million ducks had received their first dose of the vaccine. The current HPAI situation is much better than that observed last year with only 10 outbreaks compared to 345 last year during the same period. The same trend is observed in wildlife with fewer cases observed. As far as exports are concerned, only a few countries have stopped imports pending an in-depth risk analysis. These figures underline the success of this plan in terms of its implementation, monitoring and acceptance on the international stage.

The afternoon session ended with a round table discussion on Avian Influenza moderated by Em. Pr. Etienne Thiry (*Veterinarian and virologist – University of Liège*). The participants were David Clarinval (*Deputy-Prime Minister and Belgian Federal Minister of Agriculture*), Monique Eloit (*Director General of the WOAHA*), Emmanuelle Soubeyran (*CVO of France*), Wim Pelgrim (*CVO of the Netherlands*), Mary Jane Ireland (*CVO of Canada*), Francisco Reviriego Gordejo (*Head of Unit Animal Health, DG SANTE, EC*) and Louis Perrault (*representative of the poultry sector*).

The first question concerned the perception of Avian Influenza. Opinions differed on this issue. For the European Commission, the term "endemic" is not a legal term. Furthermore, this term is not appropriate for defining Avian Influenza. Rather, it is a seasonal disease, and should therefore be described as sporadic. According to WOAHA, the 'season' of Avian Influenza has now been ongoing for several years. Globally, there has been a very negative situation in previous years, with more outbreaks in new regions and new countries and an increasing number of species (wild birds and mammals) were infected. Wealthy countries, like EU Member States, might have ambitions for eradication, but globally speaking this doesn't apply everywhere. This disease moves around and borders cannot hold it back. In Canada, over the last two years, the animal health situation has been unprecedented. The disease has spread rapidly throughout the country and the disease is beginning to spread to other (mammalian) species. Canada's objective is to eradicate the disease by implementing appropriate measures. But it must be stressed that this is a disease that needs to be considered from a One Health perspective, given its zoonotic potential. The Dutch position lies between that of the European Commission and that of WOAHA. They currently consider AI to be endemic in wild birds. Whereas there used to be seasonal activity linked to the migration of wild birds, the virus is now present all year round in the country. However, in the case of poultry, we cannot define AI as

endemic. In fact, there are separate introductions that can be controlled.

The second question concerned the perception of the use of two components of avian influenza control: biosecurity and vaccination. According to the European Commission, biosecurity can control the disease efficiently in many cases on its own, but vaccination on its own cannot. The Belgian Minister of Agriculture stressed that biosecurity, vaccination and surveillance represent the three pillars of vaccination. According to the poultry sector representative, biosecurity sometimes has its limits. Beyond a certain level, there is no room for improvement. If biosecurity cannot be improved anymore, it can be strengthened by introducing vaccination as a complementary tool. For Canada, there is still room for improvement in biosecurity, and they are investing the efforts in this area. Canada is nevertheless considering the advantages and disadvantages of vaccination. In the French view, biosecurity remains the cornerstone of HPAI prevention. However, biosecurity has its limits for certain types of farming, such as free-range farming. There is still a lot of work to be done to improve biosecurity, and it has to be explained to consumers why all the measures need to be taken. The Netherlands joined this point of view. Biosecurity alone has not been able to prevent numerous outbreaks of avian influenza. The level of biosecurity to be implemented depends on the different production systems. In some cases, other tools such as vaccination are needed to deal with the problem. According to WOA, biosecurity, vaccination and surveillance together are to be considered as tools to fight against diseases. But we now need to go beyond discussion and take concrete action.

The third question concerned the social perception of vaccination. For France, various arguments led them to launch the vaccination campaign. The more the circulation of the virus is reduced, the lower the risk of exposure for humans. In this context, vaccination is beneficial. Among consumers, no negative feedback was recorded. The Netherlands are still in the test phase. Mass slaughter issues and the zoonotic risk have been highlighted in both political and societal debates. The way some decisions are taken and why these are necessary must be clearly communicated. According to the representative of the poultry sector, the consequences can be disastrous for farmers when their animals are culled or when they are situated in protection zones. Solutions must be proposed in order to ensure a future of this essential profession. Controlling this disease will have a positive effect on their profession. At the European level, new actions must be implemented to expand vaccination. We must remain cautious to not mix trade and health challenges. For the Commission, defining the zoonotic potential of HPAI is very difficult. To take measures accordingly is therefore also challenging. Since it is difficult to predict this potential, we should be careful not to send out the message that countries which are not vaccinating are thus not considering human health.

The last question concerned the future of the control of Avian Influenza. All participants agreed that biosecurity remains the most important preventive tool in the fight against Avian Influenza. But biosecurity has to be considered

with vaccination and surveillance as a whole. Furthermore, for some, vaccination can be harmonized and used at the EU level. Regarding the zoonotic potential of the disease, links between veterinary and human health departments need to be strengthened in order to meet the challenges for both human and animal health. The dialogue between developed countries must be supplemented by cooperation initiatives with developing countries. The problem must be tackled on a global scale in order to reduce the risk at the global scale. In a few years, vaccination against HPAI should become a usual tool in Europe. But it still requires a lot of work and cooperation is essential to reach this goal.

The conclusion of the Ministerial Conference was made by Claire Bury (*Deputy Director General, DG SANTE, EC*). It was concluded that biosecurity, vaccination and surveillance must be considered together to build a resilient livestock farming system to face the challenges of the future. It will also remain important to put our efforts into domestic animals but also into wildlife following a One Health approach.

