AVIAN INFLUENZA

CARIBBEAN ANIMAL HEALTH NETWORK

CaribVET Bulletin n°2 | August 2016 | Special biosecurity edition

AI threatening America again

By Pastor Alfonso, 29 Mar. 2016

Outbreaks of Avian Influenza virus (AIV) around the world over the past year have resulted in the death or destruction of more than 8 million of poultry. Particularly in America, the disease had high impact. In the United States (US) alone over the past year about 50 million poultry have either died from the disease or have been euthanized. The total cost of these disease outbreaks in the US alone was approximately 3.5 billion dollars and the crisis was considered "the worst and largest food animal disease event in history", by its Veterinary Authority. In Mexico AI, although limited to one or more zones, continues to occur as revealed a recent report to OIE announcing for new outbreaks. According to this report, two of the new outbreaks occurred almost a year before being reported, while the other two outbreaks coincided in states but at different counties, Puebla on 15 Feb 2016 in layers and 26 Jan 2016 in layers in Jalisco.

Caribbean countries remain connected through the migratory birds even outside the classical migration periods of autumn and spring, due to the use of the Caribbean for shorebirds (Charadriiformes) as nesting site during summer. Network of surveillance are of interest in areas with several countries in close proximity that allow wild waterfowl can travel back and forth AIVs. In particular within the America, some Caribbean countries (Dominican Republic, Haiti and Cuba) are noteworthy the proportion of total land area devoted to rice agriculture, which has been shown to be associated with AIV occurrence in several affected countries. According to that, strict biosecurity and surveillance must be maintained.

Editorial

By Desmond Ali

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AI situation in Cuba

By Jorge Luis Milian Darias, 29 March 2016

The emergency program for avian influenza (AI) in Cuba was first implemented in 1983 shortly after the diseases outbreak in Pennsylvania. Since then it has undergone continuous improvements including advanced procedures for diagnosis and surveillance. Suspected AI cases arising from passive and active components of surveillance are clarified by RT real-time PCR. An approach for risk-based active surveillance is currently implemented. It is focused on areas of the country identified as areas with the highest risk of exposure and spread of AI virus if it were introduced through waterfowl migration. Monitoring commercial and backyard poultry populations by haemagglutination inhibition assay, for H5 and H7 subtypes regularly, ensures early warning and is available in four regional laboratories.

Moreover, as part of the national strategy for sanitary disaster risk reduction, besides the development of response and recovery capabilities, those target prevention and preparedness are also capitalized.

Development of biosecurity material in CaribVET

By Patricia Bedford & Cedric Lazarus, May 2016

A series of workshops on biosecurity on poultry farms for poultry farmers, veterinarians and poultry extension officers was organized in 11 countries* to promote the adoption of improved on-farm biosecurity practices. CaribVET has prepared several materials including technical information to be used in each country:

Power point presentations with overview of AI epidemiology, HPAI risks factors, control and preventative measures, introduction to biosecurity principles, general biosecurity on poultry farms and writing a biosecurity plan,

Biosecurity Checklist for poultry farms, to indicate the current level of biosecurity on their farms,

Biosecurity Posters for display on poultry houses as a constant reminder to farm owners and workers of daily and weekly biosecurity best practices.

In addition there were also demonstrations of some basic biosecurity measures: proper procedures for the mixing of disinfectants and use of footbaths on farms, hand washing and the correct procedures for the disinfection of boots, farm tools and equipment, and the wheels of vehicles that enter and leave the farm.

To date, 10 workshops have been completed.

Risk-based surveillance for Avian Influenza in Cuba

By Pastor Alfonso, 27 May 2016

Risk-based surveillance (RBS) involves using the knowledge of risk factors to improve the probability that will find the disease or infection of interest. RBS for avian influenza (AI) in Cuba targets population strata more likely to be exposed, transmit infection or cause other important consequences. The main threat of AI virus introduction is considered the abundance of particular species of migratory waterfowls which stay or transit within the country and the potential direct or indirect contact with poultry. Other transmission media like poultry and poultry product importations are managed through risk assessment and subsequently a strict veterinary control at point of entry.

The RBS strategy reduces the cost with regard to random sampling and additionally enhancing the accuracy of surveillance by preferentially sampling strata. The implemented sampling strategy is based on the systematic investigation of the same poultry populations within areas identified, with a higher risk of introduction during waterfowl migration period. The sampling at regular intervals may allow, if the prevalence is under the detection limit, an increase in the prior prevalence or a further AI virus incursion to be revealed. The risk-targeted surveillance applied is expected to enhance disease detection opportunities, ensure early alert and promote opportune responses in case of AI virus incursion.

AI in the whole World since March 2016

LOCATION	VIRUS TYPE	SPECIES	OUTBREAKS	CASES
Mexico	H7N3	Poultry, psittacids	[illegible]	[illegible]
Canada	H5N2	Ducks	1	1
USA	/	/	0	0
South America	/	/	0	0

(as of 8 Aug. 2016)

National AI preparedness activities

Workshop in Trinidad & Tobago, April 2016

By Sharmine Melville

[illegible]

Animal disease recognition and response training workshop, St Lucia, March 2016

[illegible]

CPA perspectives

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Biosecurity guide for live poultry Markets - Summary

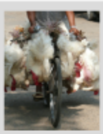
By Coline Vermandé, May 2016

To halt the persistence and potential transmission of zoonotic avian influenza viruses, the need to change live bird marketing practices was identified as a key intervention. Thus FAO, World Bank and WHO's built a biosecurity guide for live poultry markets intended to markets managers.

This guide provides options for improving biosecurity in live poultry markets, focusing on those areas that will have the greatest impact. It examines different scenarios highlighting how to improve market biosecurity so as to reduce the risk of disease spreading from bird to bird, or from birds to humans.

The well-illustrated guide is structured according to most common market situations (more than 25 are addressed in the guide): "ventilation in my market is poor", "poultry are sold on the floor", "Customers are allowed to take live poultry out of the market": "I don't implement poultry-free rest days in my market" etc. A brief analysis of the problems that can be directly relevant for markets managers is made and ways to resolve issues are proposed in a straightforward manner.

Two illustrated annexes detail how to decontaminate live bird markets and practical market decontamination.



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Editorial

By Desmond Ali

Global avian influenza outbreaks have highlighted the term Biosecurity and the need for improved biosecurity processes. It must be noted, however, that because of growing trade in agricultural commodities and personal travel, the uniformity of genetic sub-species, crop intensiveness and lowered gene diversity, biosecurity has become a key mandatory tool for agriculture and agribusiness which have become more susceptible to significant economic losses from disease outbreaks.

Biosecurity is first and foremost a management-based approach designed to prevent the introduction and spread of disease agents within a susceptible population. Biosecurity is both about hygiene and logistics and applies to people, plants and animals, equipment and vehicles.
Governments, international & regional organisations and supplier firms can aid and support by adding value but ultimately it is up to individual producers in the field to implement and adhere to strict biosecurity policies and procedures if they are to safeguard their investments.
We urge all in agriculture and agribusiness to develop and promote Standard Operating Procedures for biosecurity appreciating that such procedures must be dynamic not static.

Biosecurity is NOT only about avian influenza.

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Canada	H5N2	Ducks	1	1
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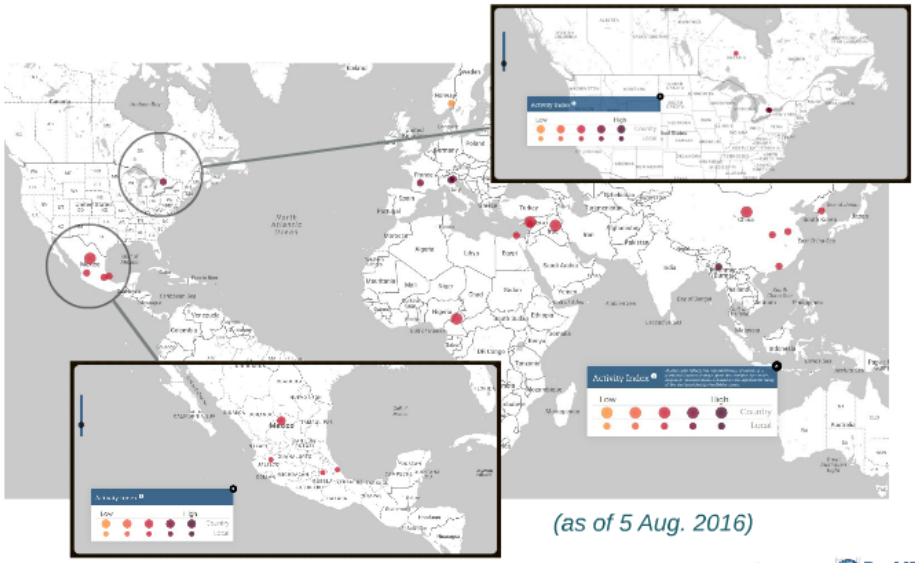
From 1st mar.2015 to 5th Aug. 2016 - source: http://www.oie.int/animal-health-in-the-world/web-portal-on-avian-influenza/



(as of 5 Aug. 2016)

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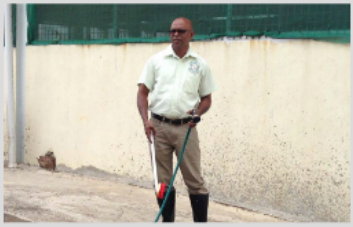
National AI preparedness activities

Workshop in Trinidad & Tobago, April 2016

By Sharmine Melville

This workshop featured not only presentations by facilitators with accompanying discussions and distribution of posters, but also a live demonstration of proper biosecurity practices.

It is the intention of the Ministry to create a video clip of said recommended biosecurity practices as one of our "phase two" or follow-up to the workshop, as relevant videotaping was carried out just prior to and during the workshop for this purpose. Another follow-up to the workshop involves farm visits to each farmer participant by members of the Poultry Surveillance Unit (PSU) of the Ministry to further assist participants with biosecurity recommendations and poultry disease surveillance and monitoring. The PSU also intends to distribute additional biosecurity posters, further raise awareness and make recommendations (using a checklist template) accordingly to farmers who were not present at the workshop.



Animal disease recognition and response training workshop, St Lucia, March 2016

By Lisa Musai

As part of the "One Health, One Caribbean, One Love" project, funded by the European Union, co-funded by the 10th European Development Fund SPS Project and implemented by the University of the West Indies (UWI)' a training workshop was held in Saint Lucia, aimed at strengthening the ability of the veterinary services and livestock producers to recognize, diagnose and respond to animal and zoonotic diseases. The ultimate goal of this workshop is to increase food security by decreasing the risk of livestock production losses due to foreign, endemic and zoonotic animal diseases.

The Animal Disease Recognition and Response workshop trained personnel of the veterinary services and selected livestock producers on specific priority animal diseases in poultry, small ruminants and swine. The workshop focused on exotic diseases in swine, tick bourne diseases in ruminants and highlighted the experience of the USA ...

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FAO and EID's Litterature review about biosecurity

By Pastor Alfonso, March 2016

The highly pathogenic avian influenza (HPAI) subtypeH5N2 affecting turkey and egg producing flocks in the upper Midwest in United States last year, has been considered the most severe emergency animal disease experienced by the United States. From March through to mid-June 2015, the HPAI subtype H5N2 infection was responsible for the depletion of 35 million laying hens, approximately 4 million replacement pullets and 7 million turkeys. The pathogen involved was a reassortant with the H5 genes derived from Eurasian avian influenza (AI) strains and the neuraminidase genes from AI isolates identified in North American waterfowl.

A recent letter to Emerging Infectious Diseases published in January 2016 summarized important findings, noting that the spread of the disease occurred from south to north which did not correlate to the typical direction of waterfowl migration, from west to east. Unlike the earlier outbreaks in poultry in Canada, the outbreaks in midwestern states, did not have corresponding high numbers of virus in wild bird populations in surrounding regions. “The combination of high poultry densities and timing of waterfowl migration have likely predisposed Minnesota and Iowa to outbreaks of avian influenza among poultry flocks. However, consistent with US Department of Agriculture findings, local factors have likely also contributed to the large number of outbreaks in these states.”
Waterfowl have a role mainly in primary AI virus incursion. However, biosecurity could be a critically important factor to limit disease spread...

Read more on

CPA perspectives

By Desmond Ali, 27 March 2016

The Caribbean Poultry Association organised a retreat which was held in Miami (for travel convenience) during the weekend 18-20 March 2016. The retreat was limited to the major producers in the main poultry producing countries, viz. Barbados, Belize, Guyana, Jamaica and Trinidad & Tobago and the CVO from those countries. The retreat was attended by seventeen persons of whom five were country CVO, the rest were from the industry. Among the matters on the informal agenda was an item dealing with AI Preparedness in the region. The industry representatives informed the retreat that based on the 2015 experiences in the USA, the regional industry have taken and are taking steps to improve biosecurity. The industry requested CaribVET, FAO and IICA as part of the SPS project to prepare a checklist for commercial farms like the one for backyard farms.The CVO present indicated upgrades to their AI Management Policies & Procedures. CVO and the industry agreed to work more closely together on this and other veterinary matter. To this end, the CPA will host a CVO Corner on their website to initiate the collaboration.

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