

Ref: VITT 1200/HPAI-MALAYSIA

HIGHLY PATHOGENIC AVIAN INFLUENZA IN POULTRY IN MALAYSIA

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Date approved: 10 August 2004

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1. SUMMARY

The Malaysian authorities reported an outbreak of highly pathogenic avian influenza (HPAI) in a free-range poultry flock in a village located in the state of Kelantan near the border with Thailand, on 20 August 2004.

In the past, the risk was assessed on a commodity-to-commodity basis and considered negligible. The additional risk arising from this outbreak is considered to be low. The UK has therefore followed EU safeguard measures and suspended imports of specified commodities likely to introduce infection from Malaysia.

The EU and the UK implemented similar safeguards on the import of specified commodities during the recent outbreaks of HPAI in South Africa, Asia, the United States of America (Texas) and Canada (Frazer Valley) in 2004 and the Netherlands in 2003. It is important to note that these safeguards appeared to be effective in preventing spread of the disease to the UK in these cases.

There is a background risk of introduction of avian influenza to the UK by migratory birds. This risk is difficult to quantify and is not associated with the outbreak in Malaysia. It is not possible to take action to reduce the level of this type of risk. It is considered that the level of background risk has not changed because of the outbreak in Malaysia.

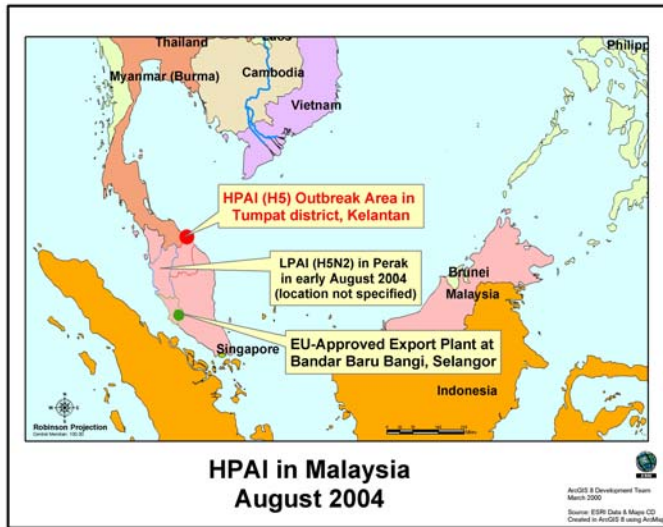
The risk of transmission of viable virus in non-commercial meat, illegally imported from Malaysia, is considered to be low. It is likely that the virus would be inactivated due to the pH change that occurs post-slaughter.

Defra and the European Commission are closely monitoring developments in the region and will re-assess the situation when further information becomes available.

2. HIGHLY PATHOGENIC AVIAN INFLUENZA IN MALAYSIA

2.1. Disease Report

The Malaysian authorities reported an outbreak of Highly Pathogenic Avian Influenza (HPAI) (H5) in a free-range chicken flock (approximately 60 birds) located in the state of Kelantan near the border with Thailand (Fig. 1) on 19 August 2004. This is the first report of presence of HPAI in Malaysia.



According to the report, it appears that the affected flock experienced a high morbidity (>75%) and mortality (100%). The disease was detected on 17 August with an estimated date of the first infection on 7 August 2004. No clinical signs were observed in free-range chickens (103), birds of mixed species (62) and ducks (8) reared within a 1 km radius of the affected flock.

The authorities reported that a 10km radius quarantine area was established, including movement control. All affected birds and the birds within a 1 km radius of the affected flock are reported to have been destroyed. Clinical surveillance is underway throughout the whole state of Kelantan.

Earlier this year Malaysia prohibited the importation of domestic and wild birds, and their products and by-products, from HPAI affected countries; and intensified surveillance for HPAI following the outbreaks in the south-east Asian countries (World Trade Organisation, 2004).

2.2. Avian influenza in Malaysia– historic information

At the beginning of August 2004, H5N2 virus was identified in ducks exported from a farm in Perak State, Malaysia to Singapore. However, this subtype was found to be of low pathogenicity (low pathogenic avian influenza), (FAO Technical Task force on Avian Influenza, 2004).

3. LEGAL TRADE – SITUATION BEFORE THE OUTBREAK

Prior to notification of this outbreak EU rules permitted imports of the following commodities from Malaysia.

3.1. Live birds

3.1.1. Captive birds

Captive birds may be imported from all countries that are members of the World Organisation for Animal Health (OIE), subject to veterinary certification that includes a requirement for a statement on freedom from avian influenza. That is, the disease must be notifiable; the birds must not come from areas subject to restrictions for avian influenza; freedom within a radius of 10km from the holding for at least 30 days.

The birds are subject to post-import quarantine that includes three veterinary visits with a clinical examination and testing for avian influenza.

TRACES, (the European Commission electronic system for notification of movements of live animals, their products and germplasm - within the European Union and from third countries) shows no imports of captive birds from Malaysia within the defined risk period. This is within the period starting six weeks before 17 August 2004, the date when the disease presence was first suspected. Six weeks is twice the maximum incubation period for avian influenza (21 day), as specified by the OIE.

3.1.2. Pet birds

Pet birds (i.e. those accompanying their owners) may be imported from countries outside EU. These birds are subject to veterinary inspection prior to export and must be found free from clinical signs of infectious and contagious diseases. The birds are also subject to post-import quarantine that includes at least two veterinary visits for clinical examination.

TRACES shows no records of imports of pet birds from Malaysia during the risk period.

3.2. Eggs

3.2.1. Specific pathogen free eggs

EU rules do not permit imports of specific pathogen free eggs from Malaysia.

3.2.2. Eggs for human consumption

Malaysia (Western Peninsular only) is on the EU third country list for import of eggs for human consumption. However, Malaysia is not on the list of EU third countries with approved residues monitoring plan. Therefore, EU rules do not permit the importation of eggs for human consumption from Malaysia.

3.2.3. Egg products

Egg products from poultry may be imported from Malaysia - Western Peninsular only. However, there are no agreed animal health conditions and no approved establishments. Therefore, EU rules do not permit imports of this commodity.

Official statistics records no such imports for 2004.

3.2.4. Composite products containing eggs

EU rules do not cover imports of composite products containing egg. They are subject to import rules set by the UK. Imports of these products are permitted only if they do not present a risk of transmitting the disease; for example, on the basis of processing conditions that would destroy the virus, and the low proportion of egg in the composite product.

3.3. Meat and meat products

3.3.1. Poultry meat & meat preparations

Malaysia (Western Peninsular only) is on the EU third country list for imports of fresh poultry meat. However, there are no agreed animal health conditions and no approved establishments. Therefore, EU rules do not permit the importation of poultry meat and poultry meat preparations from Malaysia.

3.3.2. Poultry meat products

Poultry meat products may be imported from Malaysia (Western Peninsular only) subject to veterinary certification. That is, these products may be prepared from poultry slaughtered in approved EU establishments outside Malaysia and processed in Malaysia. The processing must include a heat treatment to at least 70°C which would destroy the virus.

Official statistics record approximately 5,300 tonnes of these commodities imported from Malaysia between January to May 2004.

3.4. Raw pet food or feed material

EU rules do not permit imports of raw pet food, animal by-products for the production of pet food and flavoring for the production of pet food from Malaysia.

3.5. Feathers

Processed and unprocessed feathers may be imported, subject to veterinary checks upon import. Processed feathers must be accompanied by a commercial document stating that the processed feathers, or parts thereof, have been treated with a steam current or by some other method ensuring that no pathogens are transmitted.

Processed and unprocessed feathers are easily distinguished by physical inspection. All consignments of feathers are subject to a heightened level of veterinary checks at Border Inspection Posts.

Official statistics records no such imports for 2004.

3.6. Game trophies of birds

Game trophies that have undergone a complete taxidermy treatment may be imported and are not subject to any restrictions as such treatment would inactivate the virus.

Untreated game trophies may be imported from Malaysia but only the Western Peninsula and must be accompanied by health certification.

3.7. Poultry manure

3.7.1. Raw manure, processed manure and processed manure products

EU rules do not permit imports of unprocessed poultry manure from Malaysia.

3.7.2. Processed manure and processed manure products

EU rules do not permit imports of unprocessed poultry manure from Malaysia.

3.8. Pigs and pig meat products

There is potential for the spread of some types of avian influenza virus to pig populations. EU rules do not permit imports of pigs and pig meat products from Malaysia.

4. ASSESSMENT OF THE RISK TO UK ANIMAL HEALTH

On the basis of information on the outbreak of HPAI provided by the Malaysian authorities so far, the Veterinary Directorate presently considers that with regard to:

4.1. Live poultry

4.1.1. Captive birds

There is now no risk from legal trade - it has been banned as a result of an EU decision and a UK declaration. Any attempted imports would be stopped at the Border Inspection Post (BIP).

There is a negligible risk from legal trade prior to the ban - there were no imports during the risk period. Imports of captive birds are subject to quarantine and testing for avian influenza.

4.1.2. Pet birds

There is now no risk from legal trade - it has been banned as a result of an EU decision and a UK declaration. Any attempted imports would be stopped at the Border Inspection Post (BIP).

There is a negligible risk from legal trade prior to the ban – there were no imports during the risk period. Imports of pet birds are subject to pre-export inspection and post-import quarantine.

4.2. Eggs – other

4.2.1. Specific pathogen free (SPF) eggs

There is no risk from legal trade - the importation is not permitted under EU rules.

4.2.2. Eggs for human consumption

There is no risk from legal trade - the importation is not permitted under EU rules and a UK declaration.

4.2.3. Egg products

There is no risk from legal trade - the importation is not permitted under EU rules.

4.2.4. Composite products containing eggs

There is a negligible risk from the import of composite products with egg ingredients. These products are permitted only on the basis that they are subject to processing (heat-treatment) which is considered adequate in destroying the virus.

4.3. Meat and meat products

4.3.1. Poultry meat & Meat preparations

There is no risk from legal trade - the importation is not permitted under EU rules.

4.3.2. Poultry meat products

There is no risk from legal trade in poultry meat products - the specific EU rules require heat-treatment of such products that is sufficient to destroy the virus.

4.4. Raw pet food or feed material

There is no risk from legal trade - the importation is not permitted under EU rules.

4.5. Feathers

There is now no risk from legal trade unprocessed feathers - it has been banned as a result of an EU decision and a UK declaration. Unprocessed feathers are easily distinguished from processed feathers and any attempted imports would be stopped at the Border Inspection Post (BIP).

There is a negligible risk from legal trade prior to the ban - there were no imports during the risk period.

There is a negligible risk from legal trade in processed feathers – EU rules require that processed feathers must be accompanied by a commercial document stating that the processed feathers, or parts thereof, have been treated with a steam current or by some other method ensuring that no pathogens are transmitted.

4.6. Game trophies of birds

There is now no risk from legal trade in non-treated game trophies because it has been banned as a result of an EU decision and a UK declaration. Any attempted imports would be stopped at the Border Inspection Post (BIP).

There is a negligible risk from legal trade in non-treated game trophies prior to the ban because there were subject to health certification.

There is a negligible risk from legal trade in processed game trophies. These must meet the EU rules concerning taxidermy treatment which ensures the destruction of the HPAI agent.

4.7. Poultry manure

4.7.1. Raw manure, processed manure and processed manure products

There is no risk from legal trade – the importation of these commodities is not permitted under EU rules.

4.7.2. Processed manure and processed manure products

There is no risk from legal trade – the importation of these commodities is not permitted under EU rules.

4.8. Pigs and pig meat products

There is no risk from legal trade – the importation of pigs and pig meat products is not permitted under EU rules.

4.9. Arriving passengers

4.9.1. Infected individuals

There are no official reports of the disease in humans in Malaysia. During the recent outbreaks in the south-east Asian countries it is considered that there has been no significant evidence of human to human spread of the infection. There is no information on the risk of human to animal spread. However, this is likely to be negligible.

4.10. Fomite

The virus can remain viable for long periods in faecal material. Inhalation and ingestion is considered the main route of transmission from bird to bird, and between birds and mammals. There is the potential for spread of virus via faecal contamination on clothing and shoes.

Due to the distance of the UK from Asia, the majority of the movement of people is likely to be by air-travel, the nature of which ensures that heavy contamination of clothing and shoes is unlikely. Although the volume of passengers is high, the majority of these are either tourists or business people and thus unlikely to have come into close contact with agriculture or to return to the UK contaminated with poultry faeces. The heightened awareness due to the level of publicity the HPAI outbreaks in south-east Asian countries have received, together with Defra and industry advice to poultry farmers on disease and biosecurity, should ensure that anyone associated with poultry and who has travelled to the region, will be unlikely to break normal biosecurity arrangements at poultry farms or put their stock at risk. Thus the risk of transmission of the infection to the UK by this route is considered to be negligible.

4.11. Illegal imports

4.11.1. Illegal personal imports

Attempts to illegally import meat as personal imports have been recorded from Malaysia during the period from January – August 2004.

As with all disease agents, illegal imports from infected countries worldwide give rise to a constant, background risk of infection, subject to the survival of infectious agent in the illegally imported product.

The risk associated with the illegal personal import of poultry meat appears to be negligible, as the post-mortem pH change is sufficient to inactivate the virus. Refrigeration, which may reduce the effectiveness of this inactivation, is unlikely in illegally imported meat and makes detection by enforcement authorities more likely.

4.11.2. Illegal commercial imports

Large scale commercial illegal imports of poultry meat have not been recorded, but such activity is possible e.g. using false documentation.

There is a possibility that the current ban on exports to the EU from Malaysia may increase the pressure on producers to export illegally. However, the Malaysian slaughter policy is removing birds from the home market, reducing this pressure to export. Birds killed for disease control purposes will be very difficult to salvage and divert for meat.

Meat in storage or in transit must be certified to gain entry to the EU. There is no reason to think that the Malaysian authorities would certify meat which should not

be exported. It is possible that documents could be forged, but there are thorough documentary checks and heightened awareness at EU Border Inspection Posts (BIPs).

The traditional trade from Asia is reported to be for manufacture (pies and ready meals etc.) rather than fresh meat. The level of awareness of responsible businesses is high and they will be unlikely to buy illegal or doubtful imports.

Even if illegally imported meat was to evade checks, the risk is low because:

- a) Affected birds die quickly and are unlikely to be killed and processed in a slaughterhouse,
- b) Normal cooking, to prepare the meat for eating, inactivates the virus.

4.11.3. Illegal importation of eggs

Illegal imports of eggs have not been reported from this area. The available scientific evidence indicates that transmission of avian influenza does not occur through egg contents, but contamination of eggs shells with faeces may occur. However, eggs for consumption are expected to be physically clean, and should therefore, pose a negligible risk of transmission of HPAI.

4.12. Background risk associated with migrating birds

There is an on-going background risk of the introduction of avian influenza by migrating birds, especially waterfowl. Low pathogenic strains of avian influenza may be endemic, as in some bird populations in Europe. These strains may mutate spontaneously to high pathogenicity. This risk is low, but not negligible due to the large populations of migratory waterfowl and wild birds that over-winter in the UK. It is not possible to take action to reduce this risk, and it remains unchanged by this outbreak.

It is important to note that according to the British Trust for Ornithology Bird Migration Atlas, there is no migration of birds to Europe from the affected region in Asia. Thus the migration associated background arising from the current outbreaks in Asia is negligible.

5. CONCLUSION

The additional risk to UK animal health arising from this outbreak in Malaysia is considered to be low i.e. not negligible. Therefore, the imports of specified risk commodities are now banned.

Our level of preparedness was raised by the recent outbreaks of HPAI in South Africa, Asia, the United States of America (Texas) and Canada (Frazer Valley) in 2004 and the Netherlands in 2003. Similar measures to those currently put in place were effective in preventing spread of the disease to the UK in these cases.

There is a background risk of avian influenza introduction to the UK by migratory birds. This risk is difficult to quantify. However, it is considered that this risk remains unchanged due to the current outbreak in Malaysia.

The risk of transmission of viable virus in non-commercial meat, illegally imported from Malaysia is considered to be low. It is likely that the virus would be inactivated due to the pH change that occurs post-slaughter.

Defra and the European Commission are monitoring closely developments in the region.

6. REFERENCES

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