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HIGHLY PATHOGENIC AVIAN INFLUENZA

IN

ASIA

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1. SUMMARY

Outbreaks of Highly Pathogenic Avian Influenza (HPAI) have been confirmed in South Korea, Japan, Cambodia, Laos, Thailand, Hong Kong, Vietnam, China, Pakistan and Indonesia. The UK currently has no legal trade in live poultry from these countries. There is considered to be a negligible risk of transmission of the disease from Asia to the UK by other routes. Two sources of background risk of introduction of this disease to the UK exist, neither of which are specifically associated with these outbreaks in Asia:

(1) A low pathogenic strain of this virus, which may mutate to a highly pathogenic strain, is endemically present in migratory birds and waterfowl in Europe. There is no migration of birds to Europe from the affected region in Asia.

(2) The possibility for personal and commercial illegal import of birds, poultry meat and meat products.

2. HIGHLY PATHOGENIC AVIAN INFLUENZA IN ASIA

2.1. Disease Report

Highly Pathogenic Avian Influenza (HPAI) has been confirmed recently in South Korea, Japan, Cambodia, Laos, Thailand, Hong Kong, Vietnam and China. The situation is currently developing, and there are suspicions of disease other than in the countries where disease has been confirmed.

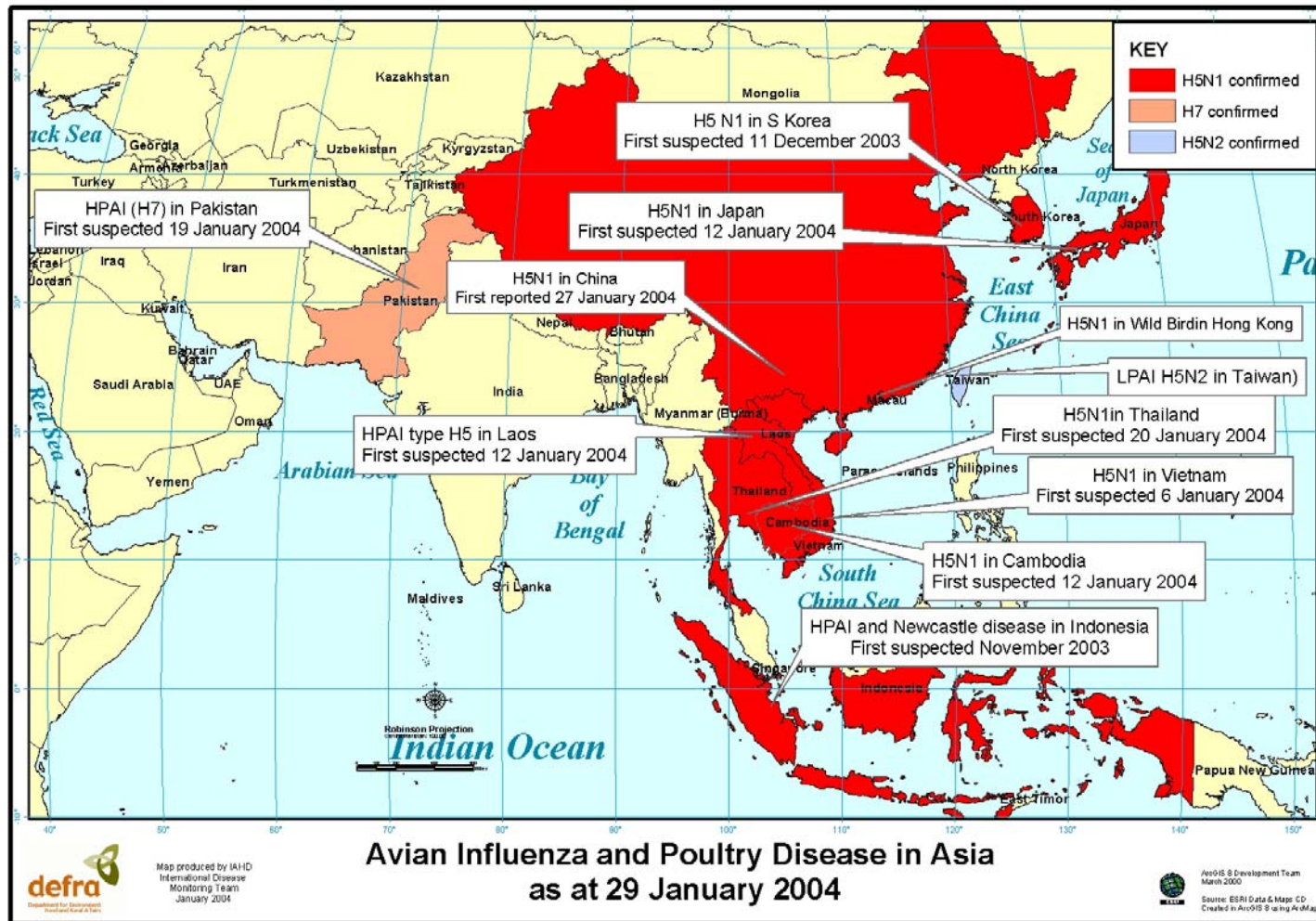
In all countries where the testing process has been completed, the type has been confirmed as Influenza type A, sub-type H5N1.

2.2. Timeline

- | | |
|-------------|--|
| South Korea | <ul style="list-style-type: none">- disease suspected 11 December 2003- disease reported to OIE on 12 December 2003- disease confirmed as Influenza A H5N1 15 December 2003 |
| Vietnam | <ul style="list-style-type: none">- estimated date of first infection 27 December 2003- disease suspected 06 January 2004- disease reported to OIE on 12 December 2003- disease confirmed as Influenza A H5N1 06 January 2004 |
| Japan | <ul style="list-style-type: none">- disease suspected 12 January 2004- disease reported to OIE 12 January 2004- disease confirmed as Influenza A H5N1 13 January 2004 |
| Cambodia | <ul style="list-style-type: none">- estimated date of first infection 11 January 2004- disease suspected 12 January 2004- disease reported to OIE 24 January 2004- disease confirmed as Influenza A H5N1 23 January 2004 |
| Hong Kong | <ul style="list-style-type: none">- disease suspected 19 January 2004- disease reported to OIE 26 January 2004- disease confirmed as Influenza A H5N1 21 January 2004 |
| Thailand | <ul style="list-style-type: none">- estimated date of first infection 19 January 2004- disease suspected 20 January 2004- disease reported to OIE 23 January 2004- disease confirmed as Influenza A H5N1 23 January 2004 |
| Laos | <ul style="list-style-type: none">- disease suspected 19 January 2004- disease reported to OIE 27 January 2004- disease confirmed as Influenza A type H5 – testing in progress |
| China | <ul style="list-style-type: none">- disease reported to WHO 27 January 2004- disease confirmed as Influenza A type H5N1 28 January 2004 |

- Pakistan
- estimated date of first infection 15 January 2004
 - disease suspected 19 January 2004
 - disease reported to OIE 27 January 2004
 - disease confirmed as Influenza A type H7 – 28 January 2004
- Indonesia
- estimated date of first infection 11 December 2003
 - disease suspected 15 December 2003
 - disease reported to OIE 02 February 2004
 - disease confirmed as Influenza – 03 February 2004

2.3. Map 1: Location of the recent outbreaks in E. Asia



3. LEGAL TRADE – CURRENT SITUATION

3.1. Live poultry

Under EU rules, imports of live poultry are not permitted from the affected countries.

3.2. Captive birds

The importation of captive birds from the affected countries in the region is banned by an EC Decision (2004/122/EC) implemented by a UK Declaration of 29 January 2004.

3.3. Pet birds

The importation of pet birds i.e. those accompanying their owner, from the affected countries in the region is banned by an EC Decision (2004/122/EC) implemented by a UK Declaration of 29 January 2004.

3.4. Poultry meat and meat products

Under EU rules, imports of poultry meat and meat products are not permitted from any of the affected countries in the region with the exception of Thailand. Poultry meat products from Thailand are permitted if they are certified as having been heat treated to a temperature in excess of 70 °C or as being produced from birds slaughtered before 01 January 2004. Poultry meat is permitted if it is certified as being produced from birds slaughtered before 01 January 2004.

3.5. Hatching eggs

Under EU rules, imports of hatching eggs are not permitted from the affected countries.

3.6. Eggs and egg products

Imports of egg products are not permitted under EU legislation. Composite products containing egg are not covered by EU law and are subject to import rules set by the UK. Imports of composite products are permitted only if they do not present a risk of transmitting the disease; for example, on the basis of processing conditions which would destroy the virus, and the low proportion of egg in composite products.

3.7. Feathers

The importation of feathers from the affected countries in the region has been banned by an EC Decision (2004/122/EC), implemented by a UK Declaration of 03 February 2004). This allows a derogation for feathers that are 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.

3.8. Game trophies of birds

Unprocessed game trophies of birds may only be imported from countries that are authorised to export fresh meat of the species concerned. EU rules require that unprocessed game trophies are only imported from establishments that are

located in areas free from animal disease. Thus, game trophies from the affected countries have been banned by EC Decision (2004/122/EC), implemented by a UK Declaration of 03 February 2004.

EU rules allow the importation of game trophies that have undergone a complete taxidermy treatment to ensure their preservation at ambient temperature. This process is sufficient to destroy the HPAI pathogen. These can be imported without restrictions for reasons of animal health.

There are a very limited number of imports of poultry game trophies. The most likely imports are destined for research or scientific / museum collections.

3.9. Raw manure, processed manure and processed manure products

3.9.1. Raw manure

The importation of raw, unprocessed poultry manure from the affected countries in the region has been banned by an EC Decision (2004/122/EC), implemented by a UK Declaration of 03 February 2004.

EU rules require that unprocessed manure is accompanied by a health certificate confirming that it does not originate from an area subject to disease control measures for avian influenza. Imports are permitted from listed third countries only.

3.9.2. Processed manure and processed manure products

EU rules require that processed manure and processed manure products originate from approved establishments and have been heat-treated to a minimum of 70°C for at least 60 minutes. This process is monitored by microbiological sampling.

Imports of processed manure are permitted from any country, but must come from approved establishments and be accompanied by a health certificate confirming that suitable treatment to achieve the prescribed microbiological standards has been carried out. However, there are currently no authorisations valid for the importation of these commodities from any country.

3.10. Pigs and pig meat products

Under EU rules, the importation of pigs and pig meat products are not permitted from the affected countries. There is potential for the spread of this type of avian influenza virus to pig populations. Action to protect against the spread of disease to and from pigs would be assessed on a case by case basis, including management factors, taking into consideration the strain of the virus and its potential to spread to pigs. There are currently no confirmed reports of infection in pigs.

4. ASSESSMENT OF THE RISK TO UK ANIMAL HEALTH

On the basis of current information on the outbreak of IAHD in Asia, the Veterinary Directorate presently considers that with regard to:

4.1. Legal trade in:

4.1.1. Live poultry

There is no risk from legal trade in live poultry – it is not permitted under EU rules.

4.1.2. Captive Birds

There is no risk from legal trade in captive birds – it is now banned as a result of an EC Decision (2004/122/EC) and a UK declaration of 29 January 2004. In the past, the risk from the importation of captive birds was considered to be negligible, as the volume of imported captive birds from Asia was low and captive birds were subject to 30 days quarantine, with compulsory testing for avian influenza and Newcastle disease.

4.1.3. Pet birds

Following the EC Decision (2004/122/EC) and a UK declaration of 29 January 2004, the importation of pet birds from all the affected Asian countries has been banned.

4.1.4. Poultry meat and meat products

There is no legal trade from countries other than Thailand – the risk from legal trade in poultry meat products from Thailand has been assessed as low (Defra risk assessment on HPAI in Thailand dated 22/01/04).

4.1.5. Hatching eggs

There is a no risk from legal trade – hatching eggs are not permitted under EU rules.

4.1.6. Eggs and egg products

There is negligible risk from legal trade – the importation of eggs and egg powder are not permitted under EU rules. Composite products with egg ingredients are permitted only on the basis that they do not present a risk of introducing disease, e.g. because of processing temperature.

4.1.7. Feathers

There is a negligible risk from legal trade in feathers – as a result of the EC Decision 2004/122/EC and a UK declaration of 29 January 2004, the import of raw (unprocessed) feathers is prohibited. 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.

4.1.8. Game trophies

There is a negligible risk from legal trade – there is a very limited trade in these commodities. The importation of non-treated game trophies is banned by the EC Decision 2004/122/EC and the UK Declaration of 03 February 2004, as such game trophies may contain non-treated meat and unprocessed feathers, or be contaminated by faeces. Processed game trophies may be imported provided that they meet EU rules concerning taxidermy treatment, which ensures the destruction of the HPAI agent.

4.1.9. Manure, processed manure and processed manure products

Raw poultry manure is banned by the EC Decision 2004/122/EC and the UK Declaration of 03 February 2004.

There is a negligible risk from legal trade in processed manure, as processing will destroy the agent and there are currently no countries with establishments authorised to process and export processed manure to the EU.

4.1.10. 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.

4.2. Arriving passengers

4.2.1. Infected individuals

Cases of disease in humans have been confirmed in Vietnam and Thailand amongst individuals with close contacts with poultry farms. It is considered that there has been no significant evidence of human to human spread in recent outbreaks.

There is no information on the risk of human to animal spread, however, based on the above, it is likely to be negligible.

4.2.2. 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. However, 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 this outbreak has 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.

4.3. Illegal imports

4.3.1. Illegal personal imports

Attempts to illegally import meat as personal imports have been recorded from all the affected countries in the region within the past twelve months, with the exception of Cambodia.

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.

4.3.2. 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 Thailand may increase the pressure on producers to export illegally. However, the Thai 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 Thai 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:

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

4.3.3. 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 egg 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.

4.4. 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 series of outbreaks is low. Other than Thailand, from which imports of raw meat and egg are now banned, there is minimal legal trade with the currently affected countries in Asia.

There is a background risk un-associated with the current outbreaks due to the migration of water-fowl and other birds to Europe and within Europe.

The risk of transmission of viable virus in non-commercial, illegally imported meat is low due to the pH change that occurs post-slaughter.

Our level of preparedness was raised by the recent outbreak of HPAI in the Netherlands in 2003, which is geographically closer and presented a greater potential for spread to the UK, although the risk was assessed as low on the basis of the export controls applied. It is important to note that similar measures to those currently in place were effective in preventing spread to the UK in this case.

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

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6. APPENDIX 1: SOURCES OF FURTHER INFORMATION ON HPAI

6.1. Defra, UK

<http://www.defra.gov.uk/animalh/diseases/notifiable/disease/avianinfluenza.htm>

6.2. The Health Protection Agency, UK

http://www.hpa.org.uk/infections/topics_az/influenza/flufaq.htm#avian

6.3. CDC, USA

<http://www.cdc.gov/search.do?action=search&queryText=%22avian+influenza%22&x=9&y=4>

<http://www.cdc.gov/ncidod/eid/vol4no3/webster.htm>

6.4. OIE, France

http://www.oie.int/eng/maladies/fiches/a_A150.htm

6.5. WHO Animal Influenza Network, UN

<http://www.who.int/csr/disease/influenza/influenzane트워크/animalinfluenza/en/>

6.6. The British Trust for Ornithology

The Migration Atlas: Movements of the Birds of Britain and Ireland (2002),
Wernham, C. (Ed), Pub. A & C Black, ISBN 0713665149.