Lumpy Skin Disease in Turkey (European side)
Preliminary Outbreak Assessment

Note: Defra’s International Disease Monitoring (IDM) team monitors outbreaks of high impact diseases around the world. Lumpy Skin Disease (LSD) is among those of major concern.

Disease Report

Turkey has reported to the EU Animal Disease Notification System outbreaks of Lumpy Skin Disease in Edirne region, on the European (Thrace) side of Turkey. The source of disease is not known at present. Disease control measures are in place including movement controls, culling infected animals and ring vaccination (see map below).

Turkey has been reporting disease regularly since 2013, but this is the first instance of a jump into the European side of the country. As the outbreaks are on the border with Greece, and Bulgaria also shares a border with Turkey in this area, there will be an increased risk for the region for spread in the coming weeks with increased vector activity and possible transhumance of animals and movement of wildlife. This would mirror the spread of sheep pox seen in previous years in this region.

Turkey is vaccinating against LSD using a sheep & goat pox vaccine. Vaccine efficacy studies will be carried out this June, but as of April 2015 over 1.6 million cattle had been vaccinated. Once vaccinated, the cattle may move after thirty days provided no further cases have been detected on the premises.

Situation Assessment

Lumpy Skin Disease (LSD) is a pox virus of cattle and buffalo which is transmitted through direct contact with infected animals, contaminated products, such as unprocessed skins and by biting insect vectors. Stomoxys spp. (stable flies), Culex spp. or Aedes spp. (mosquitoes), Tabanidae (horse flies) and Glossina spp. (Tsetse flies) have all been implicated in transmission, but as mechanical not biological vectors. Outbreaks therefore occur where fly density is high, during heavy rainfall or along river systems, but it is generally a slow spreading disease and it should be possible to control using culling, movement restrictions and biosecurity. It is a significant production disease in cattle; whilst the mortality rate is usually low (1-3%), the infection damages the hides and affects beef and milk production.
LSD is considered endemic in most parts of Africa but recently in 2013-14 the disease has spread widely in several Middle Eastern countries (Israel, Palestine, Jordan, Lebanon and Egypt). In particular, the political situation in Syria has led to large movements of refugees which has likely contributed to the spread of this as well as other diseases around the region. Turkey shares a border with the EU and the reports of outbreaks of the related disease, sheep pox as a result of likely movement of wild or pastoral animals across the Evros river into Greece, highlights the importance of this region for transboundary diseases. The most likely transmission route is movement of infected animals; whether this means control measures are not being observed, vaccination is not effective, or if there is undetected wider spread of disease is not known. However there are increased cattle exports from the EU to Turkey and although LSD is not a disease which is readily transmitted by fomites, other diseases are present in the region, including foot and mouth disease, are, so disinfection of returning livestock transport is paramount.

Movement of susceptible livestock for legal trade from the Middle East / North Africa region into the EU is not allowed, nevertheless the illegal movement is possible but the actual level is difficult to assess. Turkey is on the approved list for imports into the EU of processed products of animal origin such as skins and hides which can be dried. The virus can persist for months in untreated cattle skins, and dried or partially treated hides and skins may still harbour virus. However the hide from an infected animal (with correspondingly high viral contamination) would be poor quality because of the nature of the infection. Treated hides pose negligible risk and are allowed to enter the EU from any third country, subject to a 21-day separation prior to entry into the EU.

According to Regulation EU 142/2011 Turkey is not approved for the export of (fresh, salted, dried or pickled) cattle hides to the EU (as fresh meat must also be treated in accordance with Directive 2002/99/EC and the equivalent should be done for hides and skins). Hides and skins which have been tanned and / or further prepared do not require to be notified in the EU trade notification system (TRACES) system but must have a commercial document and represent negligible risk.

In addition, the likely contact between such products and cattle herds in the UK is mitigated by sensible biosecurity arrangements.

**Conclusion**

Although the risk of introduction of LSD into the UK remains very low and has not significantly increased as a result of these outbreaks in the European region, it highlights the general concerns about the region with respect to transboundary diseases and effectiveness of controls in place.

No approved vaccine is available in the EU for prevention of LSD, but rapid detection, movement restrictions and culling infected herds should control disease. Raising awareness with livestock keepers and veterinarians in regions at risk is also paramount.

We will continue to monitor the situation.
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References

All EU Legislation is available at the EUR-LEX website http://eur-lex.europa.eu/homepage.html

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