

Preliminary Outbreak Assessment

Lumpy Skin Disease in Libya

11 July 2023

Disease report

Lumpy skin disease (LSD) has been identified for the first time in Libya. Three outbreaks have been reported by the World Organisation for Animal Health (WOAH, 2023), all of which occurred on cattle farms in Al Jifarah and Tripoli in northwest Libya. The farms, which were located approximately 100km from Tunisia's eastern border, had 3-14 cattle (ProMed, 2023, WOAH, 2023). Across all 3 outbreaks, a total of 10 cases and 3 deaths have been reported. The first outbreak started on 8 May 2023 in Swanee, Al Jifarah and was confirmed on 8 June 2023 (WOAH, 2023). The second outbreak started in Janzour, Al Jifarah on 20 May 2023, approximately 11km from the first outbreak. The third outbreak occurred in Alzaytua, Tripoli, approximately 11km from Swanee, and started on 1 June 2023 (ProMed, 2023).



Map Prepared by IDM

Date: 14/07/2023

Absolute Scale: 1:3,523,215

Lumpy skin disease in Libya
from May - July 2023

0 60 120 180
Km

Situation assessment

LSD is a pox virus mainly affecting cattle and water buffalo, which is notifiable to the WOA (Eom, Lee and Yoo, 2023). The virus is mainly transmitted by insect vectors but also via direct contact and contact with infectious bodily fluids, such as semen, with one report of placental transmission (WOA, 2022). Mechanical transmission has been demonstrated under experimental conditions for *Aedes aegypti* mosquitoes and biting flies, such as *Stomoxys calcitrans* and *Haematopota* spp. (WOA, 2022). It is also highly likely that several other mosquitoes (such as *Culex mirificens*), biting flies (such as *Biomyia fasciata*), *Culicoides* and ticks (*Rhipicephalus appendiculatus* and *Amblyomma hebraeum*) may play a role in transmission under field conditions (WOA, 2022). LSD is generally considered a significant production disease in cattle, although the mortality rate is relatively low (typically 1-5%), infection damages the hides and affects beef and milk production (WOA, 2022).

LSD is endemic within most African countries, with Algeria, Morocco and Tunisia being the only countries where cases have not been reported (Eom, Lee and Yoo, 2023). Since 2012, LSD has spread through the Middle East, part of south-east Europe, the Balkans, Caucasus, Russia and Kazakhstan (WOA, 2022). Since 2019, it has also been reported in southeast Asia, including Taiwan, China and Thailand (Eom, Lee and Yoo, 2023). There has not been a case of LSD reported within the UK.

Epidemiological investigations are ongoing to determine the source of the LSD outbreak in Libya. However, according to a local media report, the Director General of Libya's National Centre for Animal Health has suggested that the disease was introduced via smuggling of infected cattle from Egypt, Sudan and Chad, where it has previously been reported (libyaalhadath.net, 2023). The Director General added that all live animals imported through Libya's ports are subject to a minimum 7-day quarantine period by law (libyaalhadath.net, 2023). He also announced the formation of a technical team to follow up on suspected cases of LSD, along with a comprehensive survey of all animal diseases, involving over 5,000 samples to be taken from each of Libya's cities (lywitness, 2023). Quarantine and animal movement restrictions have been implemented on affected premises, along with epidemiological and clinical monitoring around affected farms (WOA, 2023). Other control measures implemented include disinfection, traceability and control of vectors.

The proximity of the outbreaks reported in Libya to Tunisia's eastern border, raises the possibility of spread into Tunisia and other Maghreb countries via vector or live animal movements (ProMed, 2023). Vector movement was suggested to have been responsible for the introduction of LSD into Greece from Turkey (Defra, 2015). Due to the presence of foot and mouth disease in Libya, Libya is not currently a trading partner for live cattle. Nor is Libya a UK trading partner for other commodities which might act as potential entry pathways for LSD, including germplasm, meat and dairy products, hides/skins and susceptible exotic animal species, such as oryx gazelle

(WOAH, 2022). Due to the lack of trade in such commodities and the distance between the UK and affected areas of Libya (over 2000km), the risk of introduction of LSD into the UK from Libya is negligible.

Conclusions

The risk of introduction of LSD into the UK from Libya at present is negligible due to the distance between the UK and affected areas and the lack of trade in commodities which might act as potential entry pathways (live cattle, meat and milk products, germplasm, hides/skins and exotic animals). While control efforts have slowed disease spread in Europe, LSD is still an emerging disease in Asia, which can cause rapid spread and high disease burden in naïve populations. This highlights the importance of maintaining awareness of new introductions, updating contingency plans and considering vaccination as part of control programmes.

We will continue to monitor the situation.

Authors

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