

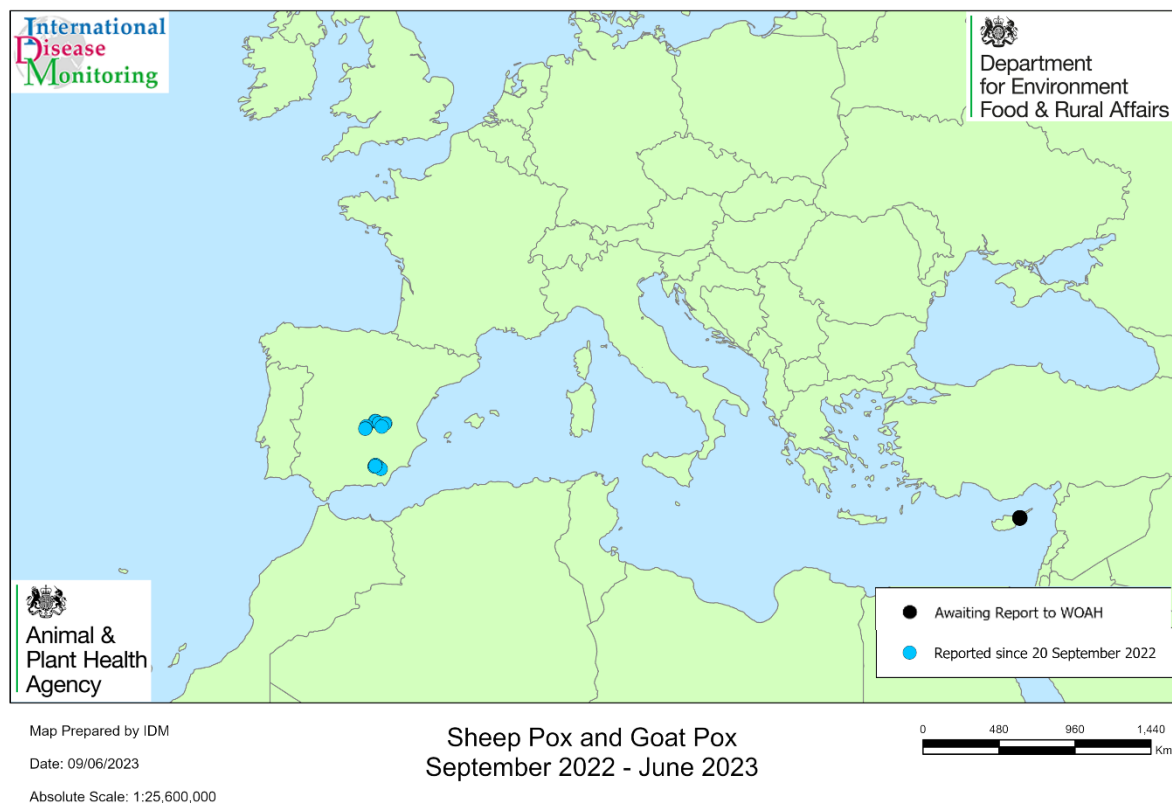
## Preliminary Outbreak Assessment #2

# Sheep and goat pox in Europe

6 June 2023

### Disease report

According to media reports in Cyprus on 31 May 2023, there were outbreaks of sheep and goat pox in the country (Cyprus Mail, 2023a). It was reported that 6 cases were detected at 2 livestock units in Famagusta in the east of the country, and subsequent cases were detected in livestock units in Engomi and Acheritou. The total number of cases was reported to be 35 animals, although that number was expected to rise.



**Figure 1:** Map showing Sheep and goat pox outbreaks reported on WOA since September 2022, including the outbreak in northern Cyprus in May 2023 that is yet to be reported.

According to the report, a movement ban has been implemented and the affected areas have been quarantined. In addition, control measures are reported to include on-site livestock inspections, disinfection of vehicles and vaccination has begun of animals in the north of the country (Cyprus Mail, 2023b).

## Situation assessment

This is the second report of SGP in a European Union Member State since the introduction of [SGP into Spain in September 2022](#). SGP is a viral disease that generally only affects sheep and goats. Usually, the disease is transmitted by direct contact between animals in pens, in groups, or in gatherings for example at pasture, in markets. It can also be transmitted through inhalation of aerosols of saliva, nasal, respiratory and conjunctival secretions. Transmission by indirect contact with contaminated environments and fomites, including wool and hair is possible, but less frequent than direct transmission (Sprygin et al. 2019). Indirect transmission through contaminated vehicles, bedding, fodder or animal products (such as wool) is also possible. Virus is also abundant in skin lesions and scabs and is viable for months in the environment (Kitching 2004; Bowden et al. 2008). SGPV can also be transmitted mechanically by biting insects such as stable flies (Bhanuprakash et al. 2006).

Currently, media reports of sheep pox outbreaks in Cyprus are limited to the north of the country. It is unclear where these outbreaks are, or the number, as they have yet to be reported to the World Organisation of Animal Health (WOAH). Vaccination of animals in northern regions using 20,000 vaccine doses supplied by Türkiye has reportedly begun, with vaccines ready to be deployed by the European Commission prepared to supply more if needed (Cyprus Mail, 2023b). Plans in the event that disease spreads to the south are prepared.

Since our last update detailing the first outbreak of SGP in Spain, there have been a further 29 outbreaks across 4 regions (Table 1). In September 2022, the first outbreaks were reported in Granada in Andalucía in the south of the country and in Cuenca in Castilla – La Mancha in central Spain. Between September and November 2022, there were 12 outbreaks on premises in Granada along with spread to one premises in the neighbouring region of Almería. All outbreaks were on breeding holdings for production of meat, and over 3,000 sheep and 167 goats were affected (PAFF 2022a). All Restriction Zones and Further Restriction Zones in Andalucía were lifted by 16 January 2023 although passive surveillance continued (PAFF, 2023a). In Central Spain, outbreaks have continued to be reported on a near-monthly frequency. In Cuenca there have been a total of 13 outbreaks and further spread to four premises in neighbouring Ciudad Real since February 2023. These were on meat production premises, fattening premises and at assembly centres with over 48,000 sheep and over 550 goats affected. The most recent outbreak in Cuenca occurred more than a month since the last outbreak in Ciudad Real and more than 4 months since the last outbreak in Cuenca, and lesions were thought to be over a month old. Unauthorised movements from this premises are suspected and an investigation is ongoing (PAFF 2023b). Further Restricted Zones (FRZs) remain in place for the entire Castilla – La Mancha territory except for the province of Guadalajara and will remain in place until 13 July (PAFF 2023b).

Only movements to slaughterhouses within zones and from FRZ to free zones are permitted, following clinical inspection and cleaning and disinfectant and sealing of trucks. Active surveillance in farms with epidemiological links to outbreaks, awareness campaigns, policing of animal movements by road and enhanced post-mortem inspection in slaughterhouses are ongoing.

**Table 1:** Sheep and goat pox outbreaks in Spain showing the number of WOA reports in each month from September 2022 to May 2023 and the outbreak locations.

|                             | Sep 2022 | Oct 2022  | Nov 2022 | Jan 2023 | Feb 2023 | Mar 2023 | Apr 2023 | May 2023 | Total     |
|-----------------------------|----------|-----------|----------|----------|----------|----------|----------|----------|-----------|
| <b>Andalucía</b>            |          |           |          |          |          |          |          |          |           |
| Almería                     |          |           | 1        |          |          |          |          |          | 1         |
| Granada                     | 2        | 7         | 3        |          |          |          |          |          | 12        |
| <b>Castilla - La Mancha</b> |          |           |          |          |          |          |          |          |           |
| Ciudad Real                 |          |           |          |          | 1        | 2        | 1        |          | 4         |
| Cuenca                      | 2        | 6         | 2        | 2        |          |          |          | 1        | 13        |
| <b>Total</b>                | <b>4</b> | <b>13</b> | <b>6</b> | <b>2</b> | <b>1</b> | <b>2</b> | <b>1</b> | <b>1</b> | <b>30</b> |

According to available ADIS summaries, there have been over 100 outbreaks of SPGP in Türkiye to date in 2023 (ADIS, 2023).

SPGP could be introduced to Great Britain through live animals, sheep skins and hides, and through sheep dairy products and wool contaminated with infected skin cells. However, the tanning process in skins and pasteurisation in dairy products will inactivate the virus.

Great Britain has not received any imports of live sheep and goats from Spain or Cyprus since our last assessment in September 2022. According to IPAFFs there have been 1,154 consignments of ovine cheese from Spain since September 2022, 26 of which were unpasteurised. There have been 231 consignments of ovine cheese from Cyprus since March 2023, but none of these were unpasteurised. There have been no imports of skins or hides from either country according to HMRC data, while there have been over 545 tonnes of wool imported from Spain. The export of untreated wool to Great Britain is currently prohibited.

## Conclusions

Multiple outbreaks of sheep pox virus have been reported in northern Cyprus in May 2023.

While no live sheep or goats have been imported from Cyprus or Spain, importation of wool occurs monthly from Spain. Based on the sporadic nature of the outbreaks in Spain and the limited trade allowed in live animals, the risk of introduction of SGP to the UK through all pathways is currently considered to be LOW.

## Authors

- Dr Sonny Bacigalupo
- Dr Lorna Freath
- Josef Bowen
- Dr Lauren Perrin

## References

ADIS (2023) Outbreaks per disease. Total outbreaks from 01/01/2022 to 26/05/2023. Available from: [https://food.ec.europa.eu/system/files/2023-05/ad\\_adns\\_outbreaks-per-disease\\_1.pdf](https://food.ec.europa.eu/system/files/2023-05/ad_adns_outbreaks-per-disease_1.pdf) (Accessed 08 June 2023)

Bhanuprakash, V., B.K. Indrani, M. Hosamani, and R.K. Singh. 2006. The current status of sheep pox disease. *Comparative Immunology, Microbiology and Infectious Diseases* 29 (1): 27–60

Bowden, T.R., S.L. Babiuk, G.R. Parkyn, J.S. Copps, and D.B. Boyle. 2008. Capripoxvirus tissue tropism and shedding: A quantitative study in experimentally infected sheep and goats. *Virology* 371 (2): 380–393.

Cyprus Mail (2023a) Sheep and goat pox outbreak detected in north with 35 animals infected so far (Update 3). Available from: <https://cyprus-mail.com/2023/05/31/sheep-and-goat-pox-outbreak-detected-in-north/> (Accessed 08 June 2023)

Cyprus Mail (2023b) All measures in place to prevent spread of goat and sheep pox. Available from: <https://cyprus-mail.com/2023/06/06/all-measures-in-place-to-prevent-spread-of-goat-and-sheep-pox/> (Accessed 08 June 2023)

Hamdi, J., H. Munyanduki, K.O. Tadlaoui, M. El Harrak, and O.F. Fihri (2021). Capripoxvirus infections in ruminants: A review. *Microorganisms* 9 (5): 1–16.

Kitching, R.P. (2004) Sheep and goat pox. In: Coetzer JAW, Tustin RC (eds). *Infectious Diseases of Livestock*. Second Edition, Volume 2, pp.1277-81. Oxford University Press Southern Africa, Capetown.

PAFF (2022a) Available from: [https://food.ec.europa.eu/system/files/2022-12/reg-com\\_ahw\\_20221215\\_sgpv\\_esp.pdf](https://food.ec.europa.eu/system/files/2022-12/reg-com_ahw_20221215_sgpv_esp.pdf) (Accessed 08 June 2023)

PAFF (2023a) Available from: [https://food.ec.europa.eu/system/files/2023-01/reg-com\\_ahw\\_20230117\\_sgpv\\_esp.pdf](https://food.ec.europa.eu/system/files/2023-01/reg-com_ahw_20230117_sgpv_esp.pdf) (Accessed 08 June 2023)

PAFF (2023b) Available from: [https://food.ec.europa.eu/system/files/2023-04/reg-com\\_ahw\\_20230425\\_pres-20.pdf](https://food.ec.europa.eu/system/files/2023-04/reg-com_ahw_20230425_pres-20.pdf) (Accessed 08 June 2023)

Plowright, W., MacLeod, W.G. and Ferris, R.D. (1959) The pathogenesis of sheep pox in the skin of sheep. *J. Comp. Path.*, 69, 400 – 413.

Sprygin, A., Y. Pestova, D.B. Wallace, E. Tuppurainen, and A.V. Kononov (2019) Transmission of lumpy skin disease virus: A short review. *Virus Research* 269: 197637.

Tuppurainen, E.S.M., E.H. Venter, J.L. Shisler, G. Gari, G.A. Mekonnen, N. Juleff, N.A. Lyons, K. De Clercq, C. Upton, T.R. Bowden, S. Babiuk, and L.A. Babiuk (2017). Review: Capripoxvirus diseases: Current status and opportunities for control. *Transboundary and Emerging Diseases* 64 (3): 729 –745

WOAH (20213) Technical Disease Card. Sheep and goat pox.

[https://www.woah.org/fileadmin/Home/eng/Animal\\_Health\\_in\\_the\\_World/docs/pdf/Disease\\_cards/SHEEP\\_GOAT\\_POX.pdf](https://www.woah.org/fileadmin/Home/eng/Animal_Health_in_the_World/docs/pdf/Disease_cards/SHEEP_GOAT_POX.pdf). (Accessed 20 September 2022)



© Crown copyright 2023

You may re-use this information (excluding logos) free of charge in any format or medium, under the terms of the Open Government Licence v.2. To view this licence visit

[www.nationalarchives.gov.uk/doc/open-government-licence/version/2/](http://www.nationalarchives.gov.uk/doc/open-government-licence/version/2/) or email [PSI@nationalarchives.gov.uk](mailto:PSI@nationalarchives.gov.uk)

This publication is available at <https://www.gov.uk/government/collections/animal-diseases-international-monitoring>

Any enquiries regarding this publication should be sent to us at [iadm@apha.gov.uk](mailto:iadm@apha.gov.uk)