Preliminary Outbreak Assessment #1

Bluetongue virus (BTV-4) in North Macedonia

22nd July 2020

Ref: VITT/1200 Bluetongue virus (BTV-4) in North Macedonia

Disease report

The first outbreak of BTV-4 in North Macedonia, since October 2014, was confirmed in sheep and goats on 09 July. Since then, a further twelve outbreaks have been reported across the west side of the country, affecting a large number of sheep and goats. Outbreaks of BTV-4 are also ongoing in southern Italy with 16 this year to date (see map). There was also a single outbreak of BTV-4 on the Greek island of Samos in April, in addition to the ongoing BTV-16 outbreak in that region, and a report in February of BTV-4 in a captive Black wildebeest in Malaga, Spain.

Bluetongue disease in Europe: January - July 2020
Situation assessment

In North Macedonia, fourteen outbreaks of BTV-4 have been reported since the beginning of July. Two outbreaks were confirmed on 09 July in the neighbouring municipalities of Drugovo and Makedonski Brod, on sheep and goat farms comprising 144 and 466 animals respectively. On both farms, less than ten animals tested BTV antigen positive by PCR, after the keepers noticed suspect clinical signs of bluetongue in the animals. On 17 July, a further twelve outbreaks were reported across six different municipalities, all in the west of the country. Six of these outbreaks were reported in the municipality of Gostivar, including one on a farm of 2,729 sheep and goats. Two outbreaks in the municipality of Resen represent the most southerly reports in North Macedonia so far, less than 10km from the border with Greece. Greece already has restrictions zones in place for BTV-4 and recently reported an outbreak in April.

These are the first outbreaks to be reported in North Macedonia since October 2014, when the country experienced a large number of BTV-4 cases affecting over 83,000 cattle, sheep and goats. The disease then was epidemiologically linked to disease outbreaks in neighbouring Bulgaria and Greece. For this current outbreak, only sheep and goats have been reported as being affected. BTV-4 (as with most other BTV serotypes), seldom causes clinical signs in goats, but some meat producing sheep breeds can become seriously affected, with up to 30 percent mortality being reported during past outbreaks (ProMED, 2020). The Faculty of Veterinary Medicine for the National Laboratory, in Skopje, is sequencing this current strain to compare it to the virus strain that was circulating in 2014 (OIE, 2020). Quarantining, zoning and movement restrictions have been applied. Vaccination for this strain is prohibited by national legislation as is treatment of affected animals, but vector control and vector surveillance is being applied.

Elsewhere in Europe, in southern Italy, sixteen outbreaks of BTV-4 have been reported since the beginning of the year. In addition, two outbreaks of BTV-1 were reported in Sardinia and Sicily in February and June. The whole of Italy is now a restricted zone for both serotypes 1 and 4. Following active surveillance in April, Greece reported an outbreak of BTV-4 in a sheep flock on Samos, an island close to the coast of Turkey. Greece is a restricted zone for BTV-4 only. Greece has also reported three outbreaks of BTV-16 in sheep and cattle on the island of Lesvos, and one on Samos between January and April. In February, Spain reported BTV-4 in a captive Black wildebeest (Connochaetes gnou) in Malaga, which is a region of Spain within the restriction zone for BTV-4.

BTV-8 in cattle was reported in one outbreak in France at the end of January, five outbreaks in Belgium between January and March, and two outbreaks in Switzerland in January and March.
Conclusion

The potential risk pathways for BTV-4 from southern Europe to the UK are through importation of infected livestock, rather than windborne incursion of infected midges. It remains to be seen how BTV-4 in southern Italy and Macedonia will spread over the summer months as the vector season takes off. There have been no recent imports from the affected areas of North Macedonia recorded on TRACES; however, albeit small, some risk always remains from illegal imports of animals or germplasm. The situation with respect to BTV8 on the continent remains the same. Thus, the risk of introduction of BTV-4 or BTV-8 to the UK is considered to be **LOW** (no change).

Livestock owners and field vets in the UK should note that an incursion of BTV-8 could result in trans-placental transmission and infection of foetuses in cattle and sheep. Bluetongue should therefore be considered as a possible differential when investigating poor fertility and offspring born with congenital brain malformations.

Livestock owners are strongly advised to source replacement stock responsibly and consult with their private veterinarians to put in place controls preventing the introduction of Bluetongue. Assurances should be sought from traders to ensure BTV-susceptible animals are fully protected prior to travel. This means that additional guarantees should be obtained certifying that the purchased animals have been correctly vaccinated and/or have built up sufficient immunity to protect them against the relevant BTV serotypes infections circulating in their region of origin.

We would also like to remind keepers that if they wish to transport show animals to an exhibition held in a BTV Restriction Zone and then return back to a free area, they will need to make sure the animals are vaccinated *against both virus serotypes* (BTV-4 and BTV-8) prior to travelling into the Restriction Zone.

We will continue to monitor the current situation.

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References

All disease reports are available from the OIE WAHIS database.

ProMED (2020)

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