

## Information note

### Schmallenberg virus

25 January 2012

#### General issues

- Circulation of a previously unknown virus has been reported from November 2011 to January 2012 in ruminants (cattle, sheep and goats) in Germany, the Netherlands, Belgium and the United Kingdom.<sup>1</sup>
- The virus has been provisionally named as "Schmallenberg" virus. The information available on the Schmallenberg virus genome suggests that this virus is part of the Simbu serogroup of the *Bunyaviridae* family, genus *Orthobunyavirus*. In particular, the three segments of the virus genome have been found genetically similar to three viruses of the Simbu serogroup: the Shamonda, Aino and Akabane viruses.
- Viruses of the Simbu group are mostly found in ruminants in Asia, Australia, Africa and the Middle East (Israel). Viruses of this Simbu serogroup have never been previously isolated in Europe.
- Simbu serogroup viruses are mainly transmitted by mosquitoes (*Culicidae*) or midges (*Culicoides*) with no direct transmission from animal to animal demonstrated except trans-placental transmission from a viremic dam to the foetus.
- Spread of disease from mainland Europe to Great Britain (East Anglia) has been tentatively related to natural movements of insects from the infected areas, following the same pattern of Bluetongue in 2008.
- The Schmallenberg virus has been associated with transient non-specific clinical signs of disease in adult cattle (fever, diarrhoea, reduced milk yield, etc.), which were observed in summer and early autumn 2011, and with congenital malformations (crooked necks, hydrocephalus with brain hypoplasia, scoliosis, arthrogryposis and stiff joints) in newborn animals, mainly lambs, observed in winter 2011-2012. Congenital malformations detected during the last weeks appear to be the consequence of virus circulation during summer and autumn 2011, while clinical signs in cattle (suggestive of recent infection) were observed until mid-November.
- Data recently gathered in The Netherlands suggest that the Schmallenberg virus has been the cause of a relatively small percentage of abortions and neonatal malformations in bovine animals in the country (only 2 out of 101 sera from cows that had aborted in September-October 2011 were positive to RT-PCR test).
- There is no evidence that the Schmallenberg virus could cause illness in humans. The European Centre for Disease Prevention and Control (ECDC) performed a preliminary assessment on the zoonotic risks of the Schmallenberg virus which indicates that "it is unlikely that this new Orthobunyavirus can cause disease in human but it cannot be excluded at this stage"<sup>2</sup>.

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<sup>1</sup> [http://ec.europa.eu/food/animal/diseases/schmallenberg\\_virus/docs/sv\\_statement\\_11012012\\_en.pdf](http://ec.europa.eu/food/animal/diseases/schmallenberg_virus/docs/sv_statement_11012012_en.pdf)

<sup>2</sup> [http://ecdc.europa.eu/en/publications/Publications/231112\\_TER\\_Risk\\_assessment\\_Schmallenberg\\_virus.pdf](http://ecdc.europa.eu/en/publications/Publications/231112_TER_Risk_assessment_Schmallenberg_virus.pdf)

- Several EU Member States have spontaneously implemented a suspicion-reporting procedure for abortions, stillbirths or congenital malformations in ruminants; this will allow to collect data to better understand the pathogenesis and epidemiology of this infection.
- The data available on the epidemiology and pathogenesis of the infection caused by the Schmallenberg virus (although limited) suggest that this infection is similar to other infections caused by members of the Simbu serogroup, such the Akabane.
- Schmallenberg virus can currently be detected through RT-PCR testing. Virus neutralisation test and indirect immuno-fluorescence are also available, but no serological test has been developed for large-scale testing, so far. No vaccines are currently available.
- The European Food Safety Authority (EFSA), the European Centre for Disease Prevention and Control (ECDC) and several laboratories and experts of the EU Member States are currently engaged in studies and investigations on this infection.

### ***Control and International trade issues***

- None of the infections and diseases caused by the viruses of the Simbu serogroup are included in the list of diseases subjected to international notification or standards on trade established by the OIE. The data available suggest that the Schmallenberg virus infection does not deserve a different approach from diseases like Akabane. .
- The affected EU Member States have, however, in full transparency notified the OIE the occurrence of the Schmallenberg virus in their territory, under the notification procedure for emerging diseases.
- The EU does not apply any trade restrictions in relation to the Schmallenberg virus as well as any other *Orthobunyavirus* on live animals, their meat, milk or animal by-products, as it does not consider that these goods pose a risk of transmission of these viruses.
- Based on the available data, the EU considers that restrictive measures against EU exports of ruminants (cattle, sheep and goats) and their products are not justified.

The EU will continue to keep third countries informed on developments on this issue.