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Evolution of the clinical expression of Bluetongue in Belgian cattle during year 2006 vs 2007

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In August 2006, Belgium notified its first cases of Bluetongue (BT), serotype 8, in cattle and sheep. The disease was also observed at this time in the neighboring countries. The resurgence of BT was observed in Northern Europe in 2007. The aim of the study was to compare clinical signs of BT observed in 2006 vs 2007 in Belgian cattle.

The description of clinical signs was based on the observation of 38 and 39 cows in 2006 and 2007, respectively. BT cases were only included if they were confirmed by one or both laboratory diagnostic tests (competitive ELISA test and/or RT-qPCR). The inventory of clinical signs was made with a standardised clinical form for BT. This form is divided into general, cutaneous, locomotor, digestive, respiratory, neurological and reproductive clinical signs. Case data were summarised to determine changes in clinical presentation of BT between 2006 and 2007. A Fischer's exact probability test was performed to compare ($P < 0.05$) the frequency of clinical signs between the two years.

Regarding general clinical signs, hyperthermia and tiredness were more often observed in 2007, compared to 2006. All clinical signs about skin and annexes were not significantly different between the two years. Locomotor signs such as prostration, incapacity to get up, reluctance to move, lameness and amyotrophy were more frequent in 2007. Loss of appetite, difficulties in grasping feed, salivation and drooling were the digestive signs more often observed in 2007. A purulent nasal discharge was the only respiratory sign more commonly observed in 2007. Apathy, generalised weakness and paresis or paralysis were more often encountered in 2007. The most important changes between the two years concerned reproduction. A higher incidence of abortion, premature calving and stillbirth was observed during 2007 outbreak.

The frequency of most of the clinical signs of BT was higher in 2007 in Belgian cattle. Confirmed cases of BT in Belgian cattle were only 296 in 2006 compared to 4187 in 2007. These data do not represent the real situation of BT infection because the farmers do not notify all cases. Nevertheless, it seems that the 2007 outbreak was more severe regarding the number of cases and the frequency of clinical signs. The mild winter and wet 2007 summer might have favored the persistence of the vectors.

Bluetongue – cattle – clinical signs – emergence – resurgence