

Bluetongue Disease: Impact of the vaccination 2008 on fertility in supervised dairy herds

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Key words

Bluetongue Disease, vaccination, side effects, conception at semination, abortion.

Aim of the study

The disease with serotype BTV-8 was first diagnosed in central Europe in summer 2006 and moved towards north. In October 2007 the first cases in Switzerland were diagnosed, not as expected in the southern, but in the northwestern part.

Starting may 2008, the first mandatory nationwide vaccination against bluetongue disease (BT) in Switzerland has been carried out.

In the course of time, unexpected effects on fertility and milk production due to vaccination were suspected.

In order to clarify eventual correlation, the data sets from 47 dairy herds, which are supervised by the 2 vetsuisse faculties Bern and Zurich, have been analyzed regarding vaccination side effects on fertility.

Material and methods

Available data out of the software Interherd was categorized in 3 periods, each of one year starting 1st November and ending 31st October. This allowed to clarify the potential association between vaccination and the following 4 fertility figures, in comparing 3 years as well as the year 2008 alone: Conception at first semination, overall conception at semination, semination interval and abortion.

Results and significance

Statistical analyses (Software S-Plus) showed that the vaccination was not significant associated with conception at first semination, overall conception at semination and semination interval (exceptions: conception at first semination if semination was done within 20 days of the second vaccination, and overall conception at semination if semination was done between 10 days to and 10 days after the second vaccination). When comparing 3 years, no significant difference in abortion was obvious. But statistical analyses of the vaccination year 2008 alone was not feasible due to lack of data.

Since abortion is the focused and most discussed question, its course should be followed up when vaccination 2009 is carried out. The results of this study don't show important correlation between vaccination and fertility figures.

Presentations

Kaufmann Th. (2009): Einfluss der Blauzungen-Impfung 2008 auf die Fruchtbarkeit in Milchviehherden mit Bestandesbetreuung - Zwischenresultate. Informationstagung des BVet vom 23. Januar 2009 zur Blauzungen-Impfung.

Kaufmann Th. (2009): Einfluss der BT-Impfung auf die Fruchtbarkeit in 47 Milchviehherden mit Bestandesbetreuung. Fortbildungsveranstaltung „Vetsuisse Nutztierabend“ der Vetsuisse-Fakultät Wiederkäuerklinik Bern vom 13. Oktober 2009.

Feyer D. (2009): Blauzungenkrankheit: Einfluss der Impfung 2008 auf die Fruchtbarkeit in Milchviehherden mit Bestandesbetreuung. Jahreskonferenz des BVet Monitoring und des VPH-Instituts der Vetsuisse Fakultät Bern vom 26. November 2009.

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