

Letters

EMERGING DISEASES



OPEN ACCESS

Testing for Schmallerberg virus

AS a screening method for detecting herd-level exposure to Schmallerberg virus (SBV), the bulk milk SBV antibody ELISA offered by Biobest Laboratories has proved popular. Results from this test suggest that the majority of herds in England and Wales have been exposed to SBV (Humphries and Burr 2012). Indeed, veterinary practices local to us have stopped routinely testing bulk milk tank samples as all herds tested have been positive. However, this testing method does not give an indication of the numbers of animals within a herd that have been exposed to the virus.

In this context, we would like to highlight results from the University of Nottingham's 200-head indoor dairy herd. This herd had a positive bulk milk tank test but only a 25 per cent seroprevalence (5/20 animals tested) for SBV. In contrast, seroprevalence in another herd, housed outdoors during the summer, six miles from the university's herd, had 76 per cent seroprevalence (13/17 animals tested).

The seroprevalence rates for the outdoor herd are consistent with those reported in cattle in Belgium (86 per cent) and the Netherlands (70 to 100 per cent) near the epicentre of the SBV outbreak in 2011/12 (Elbers and others 2012, Meroc and others 2012). The results for the indoor herd suggest that the majority of individuals within the herd will remain susceptible to SBV infection during the 2013 midge season. This low seroprevalence may well

be due to low midge exposure in indoor environments. This is also suggested by other reports of herds housed indoors with negative SBV bulk milk tank tests in regions with high SBV exposure rates (Case 2013) as well as suggestions made in the Belgian study that indoor housing of youngstock may be associated with the significantly lower seroprevalence seen in animals under two years of age.

With the likely introduction of a vaccine against SBV in 2013, veterinarians and farm managers will be weighing the costs and benefits of vaccinating herds and flocks. Knowledge of a herd's existing seroprevalence will be a critical factor in this analysis. Garnering this information may, however, be restricted by the cost of testing and there is a need to develop cheap pen-side tests for SBV that can be used to help make vaccination decisions for individual farms.

Rachael Tarlinton, Janet Daly, School of Veterinary Medicine and Science, University of Nottingham, Sutton Bonington Campus, Loughborough, Leicestershire LE15 5RD
e-mail: rachael.tarlinton@nottingham.ac.uk

Open Access This is an Open Access article distributed in accordance with the Creative Commons Attribution Non Commercial (CC BY-NC 3.0) license, which permits others to distribute, remix, adapt, build upon this work non-commercially, and license their derivative works on different terms, provided the original work is properly cited and the use is non-commercial. See: <http://creativecommons.org/licenses/by-nc/3.0/>

References

- CASE, P. (2013) Farm vets warn about 'trife' Schmallerberg virus. www.fwi.co.uk/articles/17/12/2012/136778/farm-vets-warn-about-39trife39-schmallerberg-virus.htm. Accessed February 8, 2013
- ELBERS, A. R., LOEFFEN, W. L., QUAK, S., DE BOER-LUIJTZE, E., VAN DER SPEK, A. N., BOUWSTRA, R., MAAS, R., SPIERENBURG, M. A., DE KLUIJVER, E. P., VAN SCHAİK, G. & VAN DER POEL, W. H. (2012) Seroprevalence of Schmallerberg virus antibodies among dairy cattle, the Netherlands, winter 2011-2012. *Emerging Infectious Diseases* **18**, 1065-1071
- HUMPHRIES, D. & BURR, P. (2012) Schmallerberg virus milk antibody ELISA. *Veterinary Record* **171**, 511-512
- MEROC, E., POSKIN, A., VAN LOO, H., QUINET, C., VAN DRIESSCHE, E., DELOOZ, L. & OTHERS (2012) Large-scale cross-sectional serological survey of Schmallerberg virus in Belgian cattle at the end of the first vector season. *Transboundary and Emerging Diseases* **60**, 4-8

doi: 10.1136/vr.f972