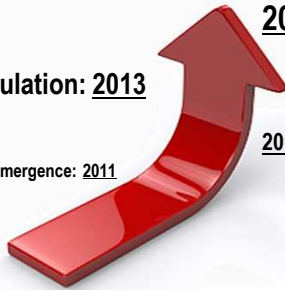


François CLAINE, Camille PREVOT, Damien COUPEAU, Laetitia WIGGERS, Benoît MUYLKENS, Nathalie KIRSCHVINK
Integrated Veterinary Research Unit, University of Namur, Namur Research Institute for Life Sciences (NARILIS), Belgium

Time-line of natural SBV infection in the research sheep flock of the University of Namur

No SBV circulation: 2013

(September) SBV emergence: 2011



2014: No SBV circulation

2012: Clinical evidences of SBV infection (January)
98.8% SBV seroprevalence (February)
SBV re-emergence (July – October)

To evaluate over years:

- the level of SBV seronegativity in *primiparous ewes*;
- the persistence of immunity in *multiparous ewes*.

Background

Objectives

Material & Methods

Discussion

« The percentage of SBV-susceptible animals increases yearly, thus promoting hypothetical novel SBV episode ».

- ✓ Existence of **long-term immunity** against SBV in **multiparous ewes**
- ✓ **Flock renewal** = **risk** of novel SBV episode
- ✓ **Other immunity factors ?**

Animals	Ewes (n=150)
Samples	Serum
Collection	At lambing in 2012 (n=50)* 2013 (n= 50)* 2014 (n=50)* * 30% constant rate of <i>primiparous ewes</i>
Analysis	Serum Neutralization Test (SNT)

Results

Figure 1

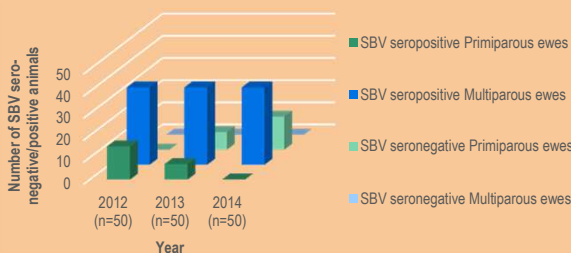


Fig.1: Evolution of SBV sero-negative/positive animals among primiparous and multiparous ewes having lambed in 2012 (n=50), 2013 (n=50) and 2014 (n=50).

- The number of SBV seronegative animals increased significantly from 2012 to 2014 ($p < 0.05$).
- Only primiparous ewes were detected SBV seronegative.

Figure 2

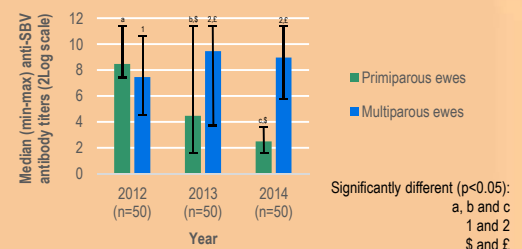


Fig.2: Evolution of anti-SBV antibody titers in primiparous and multiparous ewes having lambed in 2012 (n=50), 2013 (n=50) and 2014 (n=50).

Antibody titers are expressed as the dilution leading to 50% of virus neutralization (ED50).

- Anti-SBV antibody titers decreased significantly over years in primiparous ewes ($p < 0.05$).
- Anti-SBV antibody titers were significantly higher since 2013 in multiparous ewes ($p < 0.05$).