



Federal Agency for the Safety of the Food Chain

# Bluetongue in Belgium: Epidemiological situation

SCOFOCAH Brussels, 05-06 July 2011



# Outline

- **Outbreaks (2006 – 2011)**
- **Vaccination BTV8**
- **Entomological surveillance**
- **Surveillance 2009**
- **Surveillance 2010**
- **Surveillance 2011**



# Outbreaks (2006 – 2011)

2006	2007	2008	2009	2010	2011
695	6870	48 (including 25 imported animals)	0	0	0

- No clinical case in Belgium since 30 months
- Any outbreaks in adjacent Memberdstates since the beginning of 2010



# Vaccination BTV8

- Mandatory vaccination of cattle and sheep and voluntary vaccination of veal calves, goats and cervids in 2008-2009-2010.
- Vaccination by farm veterinarian.
- Registration of vaccinations in central database.
- Since January 2011, voluntary vaccination.



# Vaccination BTV8 - 2009

## Mandatory vaccination of cattle and sheep

	Cattle	Sheep	Goat	Total
Vaccinated animals	2.333.980	222.295	3.675	2.559.950
Vaccine doses	2.934.277	222.295	3.675	3.160.247
Population	2.670.292	209.322	51.406	2.931.020
% animals vaccinated	87	100	7	87



# Vaccination BTV8 - 2010

## Mandatory vaccination of cattle and sheep

	Cattle	Sheep	Goat	Total
Vaccinated animals	2.272.279	201.191	993	2.474.463
Vaccine doses	2.860.855	201.191	993	3.063.039
Population	2.613.642	204.629	60.030	2.878.301
% animals vaccinated	87	98	2	86



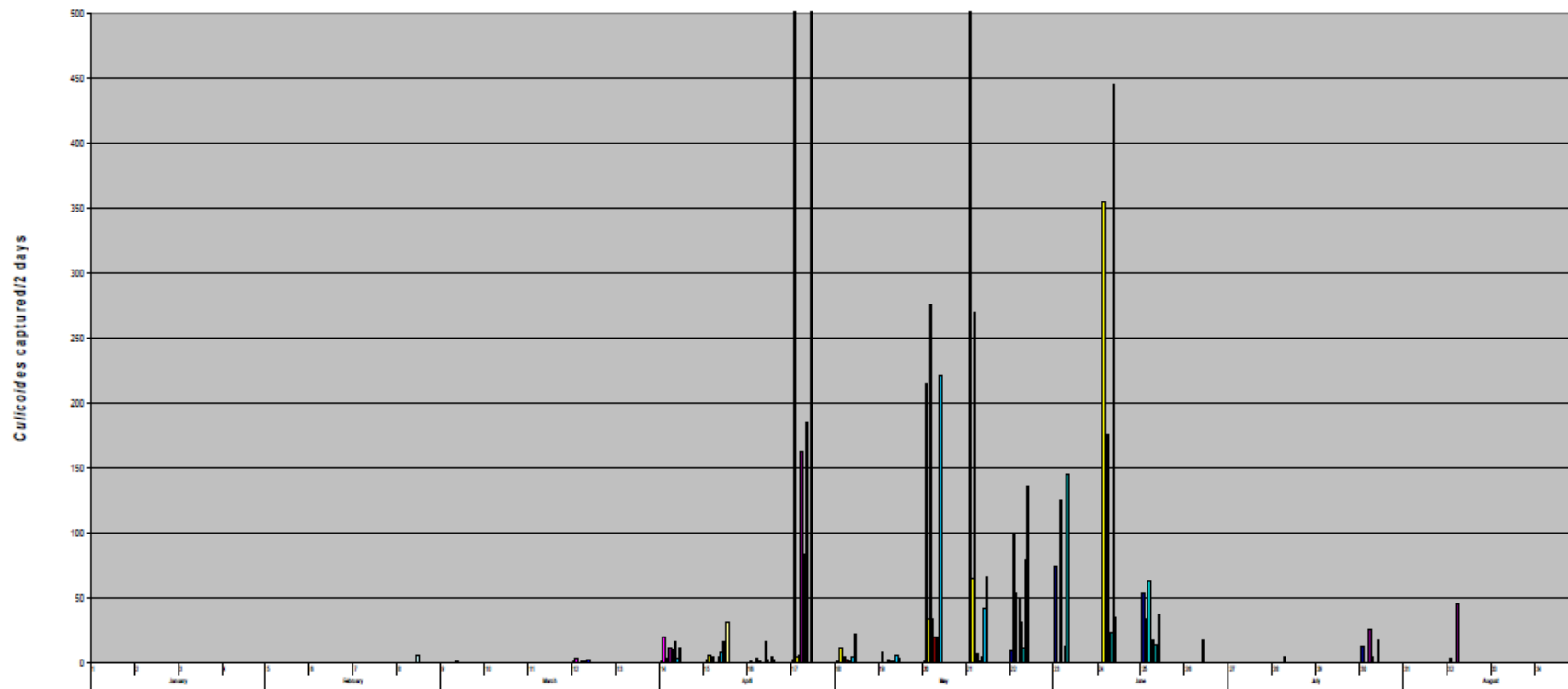
# Entomological surveillance 2010-2011

- 20 traps
- End of vector free season in 2010 : 3 May 2010
- Start of vector free season in 2010 : 1 December 2010
- End of vector free season in 2011 : 8 April 2011



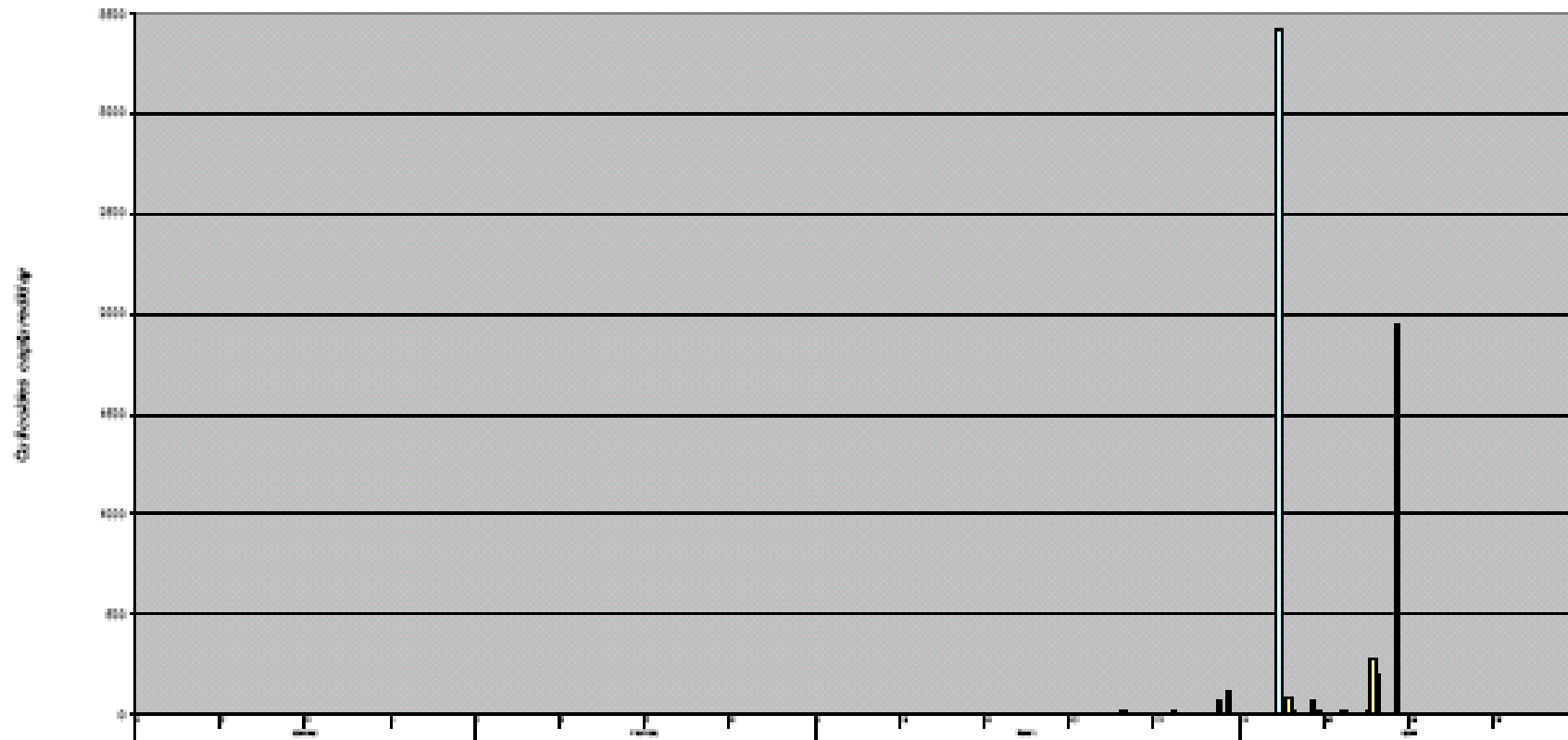
# Entomological surveillance 2010

Trapped *Culicoides* January - August 2010 (week 34)



# Entomological surveillance 2011

Trapped *Culicoides* January - April 2011 (week 15)



# Winterscreening 2008-2009

- 205 bovine farms sampled (blood+serum) in December 2008-February 2009.
- Stratified for age (10 animals 6-12 month, 10 animals 12-24 month).
- 7.270 Ab ELISA: 6.243 positive (86%).
- 5.805 RT-PCR: 155 (false?) positive (3 %).
- Animals with a positive RT-PCR result were not resampled and retested. Resampling for positive results began later.
- Conclusion: **no or very low level of viruscirculation in 2008**



# Suspicious in 2009

- 2.348 animals were tested by RT-PCR. **All were negative.**



# Winterscreening 2009-2010

- 916 bovine farms sampled (blood+serum) in December 2009-February 2010.
- Stratified for age (10 animals 6-12 month, 10 animals 12-24 month).
- 11.695 Ab ELISA: 8.012 positive (69%).
- 8.574 RT-PCR: 115 false positive (1,34 %).
- All animals with a positive RT-PCR result were resampled and retested. **All results were negative.**



# Suspicious in 2010

- In the beginning of 2010, a monitoring programme of abortion was launched (screening of pathogens in every abortion in cattle and small ruminants). BTV8 was also checked.
- On 4.600 "suspicious" (>90% abortion cases), 13 foetus (0,28%) were slightly RT-PCR positive (CT values: 37,4 – 39,9). These Abortions occurred in January and February 2010.
- No possibility to resample these cases.



# Sentinel surveillance 2010

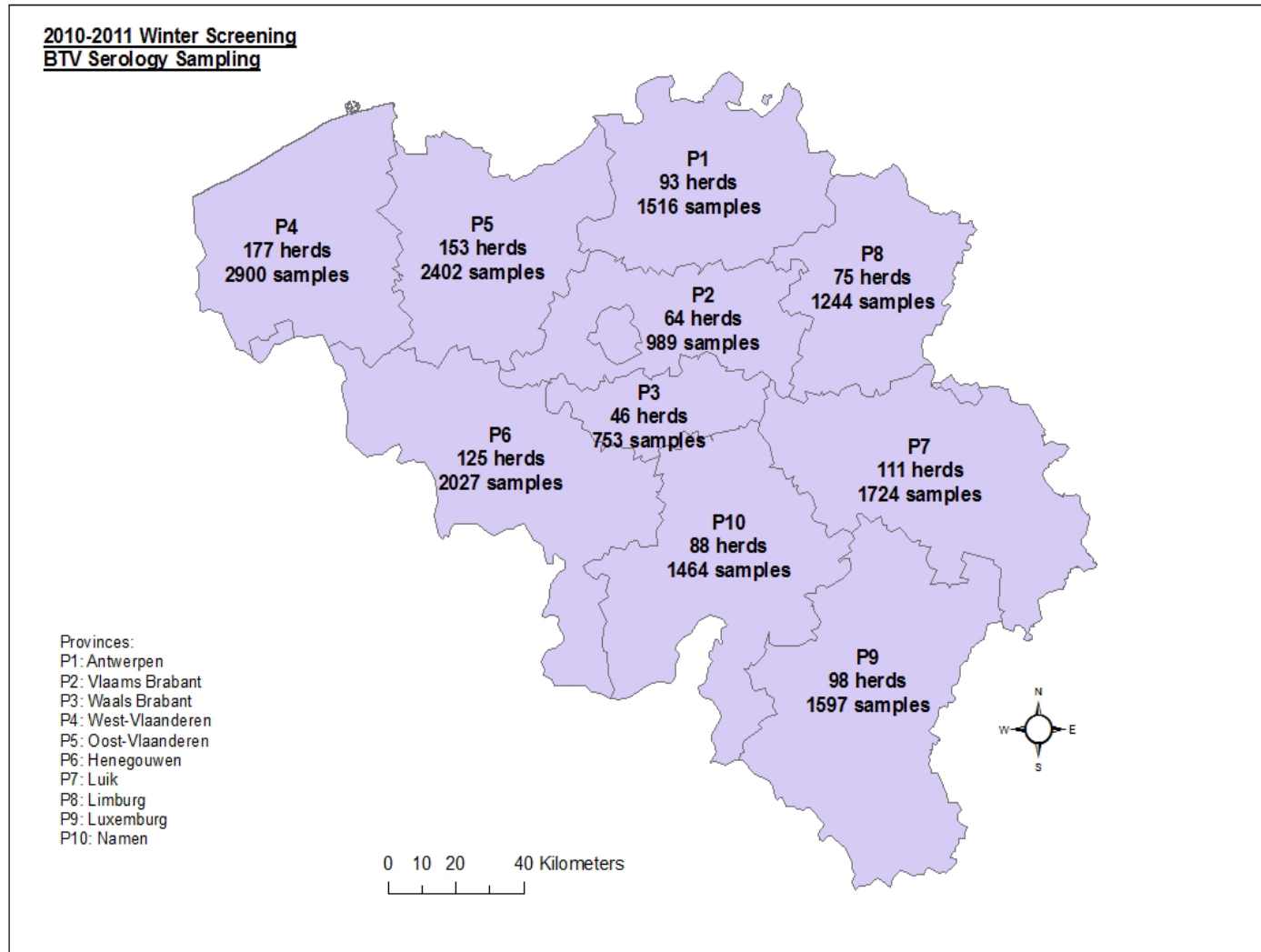
- To exclude viral circulation during the period of vector activity in 2010, additional surveillance was performed in October on sentinel herds.
- Testing of unvaccinated young (4-12 month) bovine animals in herds all over Belgium.
- 264 bovine farms sampled. 3.684 RT-PCR were performed.
- **All results were negative.**
- Conclusion: **no viruscirculation in 2010**



# Winterscreening 2010-2011

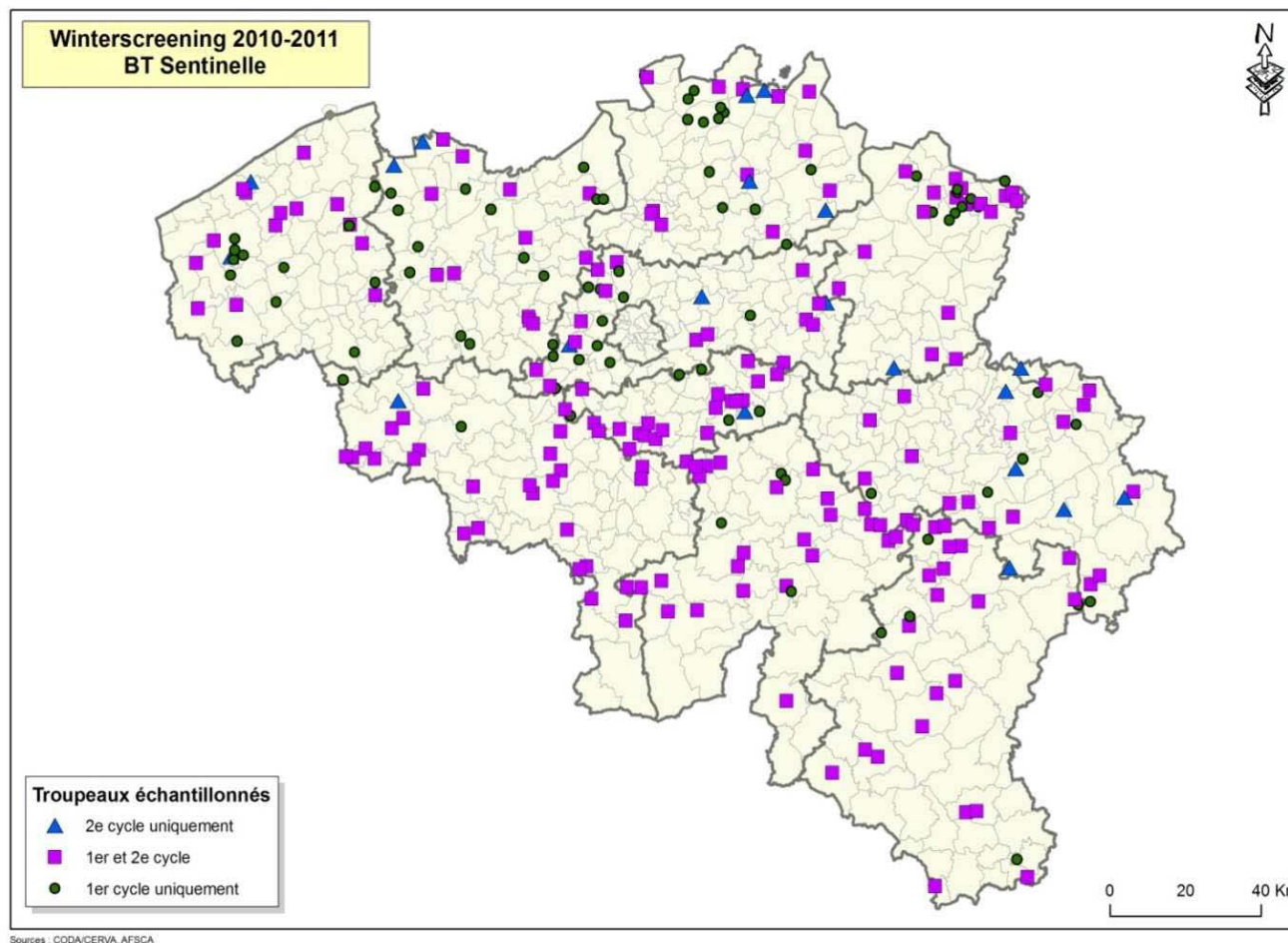
- 1.030 bovine farms sampled (blood+serum) in January 2009-March 2011.
- Stratified for age (10 animals 6-12 month, 10 animals 12-24 month).
- 16.616 Ab ELISA: 10.823 positive (65%).
- 2.150 RT-PCR (non vaccinated young animals in sentinel herds): 22 false positive (1,02 %).
- All animals with a positive RT-PCR result were resampled and retested. **All results were negative.**





*Figure 1: Number of herds and samples by province tested for antibodies against BTV in 2011.*





*Figure 2. Spatial distribution of the sentinel herds sampled during the monitoring of Bluetongue in October-November 2010 (first round) and in January-February 2011 (second round)*



# Suspicious in 2011

- 4.016 animals were tested (97% abortions).

**All were negative in RT-PCR.**



# Conclusions

- Conditions for lower risk zone (restricted zone with vaccination and without circulation of bluetongue virus) are fulfilled
- Free status achievable in the near future



# Website

[www.favv.be](http://www.favv.be)

[www.afsca.be](http://www.afsca.be)

Thank you for your attention

