



Federal Agency  
for the Safety  
of the Foodchain

# An outbreak of Bovine Brucellosis in Belgium

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# Outline

- **History of Bovine Brucellosis**
- **Outbreak**
- **Epidemiological investigation**
- **Contact farms**
- **Surveillance**
- **Conclusions**



# History of Bovine Brucellosis

- Numerous outbreaks in Belgium until 1987
- Intensified eradication programme (Directive 64/432/EC)
- Last outbreak in March 2000
- Official Bovine Brucellosis free status in 2003 (Decision 2003/467/EC)
- Risk based surveillance since 2009:
  - Systematic testing of all abortions
  - Random tests at purchase
  - Random tests in breeding herds without notified abortions
  - Repeated testing of bovines originating from non free regions



# Outbreak

- Mixed herd (breeding+ fattening) in the village Haccourt, municipality Oupeye, Province of Liège
- 104 bovines: beef cows, calves, fattening bulls





# Outbreak

- Timeline:
  - 17/11/2010: abortion in a cow born in 2007
  - 23/11/2010: samples arrived at the regional veterinary laboratory
  - 26/11/2010: positive serology (ELISA), sample sent to NRL
  - 29/11/2010: positive bacteriology, sample sent to NRL
  - 30/11/2010: confirmation of brucellosis by NRL, movement prohibition, sampling of all bovines older dan 12 months
  - 1/12/2010: outbreak is officially notified, start of epidemiological inquiry
  - 2/12/2010: confirmation by NRL: *Brucella abortus* biovar 3
  - 2/12/2010: order to slaughter the entire herd



# Outbreak

- Timeline:
  - 3/12/2010: results of serology: 2 cows and 8 fattening bulls positive
  - 6/12/2010: second abortion
  - 28/12/2010: all bovines are slaughtered
  - Cleaning and disinfection ongoing



# Epidemiological investigation

- Tracing on, tracing back
- Direct contacts (purchase, sale)
- Indirect contacts (veterinarians, used equipment, neighbouring farms)



# Epidemiological investigation

- Contact farms:
  - 2 cows sent to the Netherlands in February 2010
  - 2 contact farms in the Netherlands via veterinarian
  - 137 contact farms in Belgium: 27 high risk, 110 low risk



# Contact farms

- Movement restrictions
- Testing of all bovines over 12 months (SAW and ELISA)
- Positive sera are sent to NRL for confirmation
- Bovines with seropositive results confirmed by NRL are slaughtered for bacteriology
- High risk herds will be retested before the end of the winter season



# Contact farms

- Results (7/01/2011)
  - 104 herds already tested (>7 000 samples):
    - 86 herds: totally negative
    - 14 herds: 1 or more sera sent to NRL for confirmation
    - 4 herds: 1 or 2 seropositive animals confirmed by NRL (5 seropositive animals)
  - 1 herd: only calves under 1 year of age
  - 32 herds: testing is ongoing
  - Bacteriological tests (seropositive animals) are ongoing



# Surveillance

- General surveillance
  - Stimulation of notification of abortions
  - Testing of all dairy herds (10 000) in January 2011 (bulk milk ELISA)



# Conclusions

- Outbreak identified in an early stage of disease due to the risk based surveillance programme
- Contact farms identified, movement restrictions
- No secondary outbreaks confirmed so far
- Origin of infection not clear yet
- Epidemiological investigation and surveillance are ongoing



# Website

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

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

Thank you for your attention

