

# Detection of bovine brucellosis in two Austrian dairy herds and control measures applied

Follow-up report- Austria

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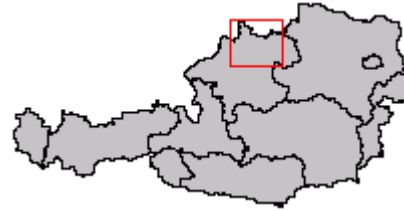
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# Chronology of notification on first affected farm

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- **Notification of suspicion** of Brucellosis in an Austrian dairy herd on **21 June** 2018
    - NRL reported antibody positive blood samples
  - On 21 June holding was inspected by official veterinarian and placed under **official restriction**
  - NRL confirmed **Brucella melitensis by PCR on 25 June 2018**

# Measures on first affected holding

- Dairy farm, district Rohrbach, Upper Austria (close to neighbouring district Urfahr-Umgebung)



- All animals (102 cattle) killed or slaughtered under official control
- Farm is empty since 2 July
- Cleaning and disinfection in progress

## Enhanced surveillance measures in affected districts

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- **All dairy farms (1429) in districts Rohrbach and Urfahr-Umgebung** were investigated by tank **milk serology** - all negative, **except one neighbouring farm (see next slide)**
- **146 goat/sheep/new world camelid farms and 29 mother cow farms** located in an area around affected holding were inspected and blood samples serologically analysed - all negative
- **34 mother cow farms** with suspicious symptoms (dead calves in 2018) in districts Rohrbach and Urfahr-Umgebung were inspected and blood samples serologically analysed - all negative
- **10 direct marketers** (milk, meat) in neighbouring communities were inspected and, if present, susceptible animals sampled - all serologically negative

# Second affected holding

- Dairy farm, district Rohrbach
- Direct neighbour of first affected farm, is serviced by the same veterinarian
- 53 cattle
- Serological tank milk examination was suspicious on 16 July
- All animals on holding were blood/milk sampled and serologically tested
  - **1 cow** was serologically positive on 20 July, no isolation of agent possible
  - Seropositive animal was culled together with its 4-month old sero-negative calf
  - Epidemiological investigation revealed that **veterinarian treated sero-positive cow for placental retention** on the same day after visiting the first affected farm for the same reason
  - Other animals on holding are repeatedly serologically negative
- The **milk** from the second affected farm has always been **pasteurized** (raw milk has never been marketed)
- Farm is **currently under official supervision** with restrictions regarding animal movement and milk selling (mandatory pasteurization)

# Epidemiological investigation in second affected holding

- Animal movement in 2018:
  - Only within Austria

**5 contact holdings** were identified; all contact holdings were inspected and samples taken from contact animals were serologically negative

- No Intra-Union trade

## Enhanced surveillance measures in holdings serviced by affected veterinarian

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- As epidemiological investigation revealed it is likely that infection of cow in 2<sup>nd</sup> holding is linked to visit by veterinarian treating on antigen-positive holding.
- Identification of identical agent in affected cattle herd and diseased veterinarian by NRL
- All farms with susceptible animals serviced by this veterinarian in 2018 (in total **164**) were controlled and serologically tested (all negative).

# 5 human infections reported

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- **Veterinarian** attending both affected holdings
  - was **hospitalized** in June due to a febrile illness; blood **cultures confirmed** infection with *Brucella melitensis*
  - it is highly likely that veterinarian contracted the disease during a visit on first affected holding – same agent identified
  - supervised farms in districts Rohrbach und Urfahr-Umgebung were put under enhanced surveillance (all with negative results, except 2<sup>nd</sup> affected cattle holding in close vicinity which was treated by this veterinarian)
- **3 family members of first affected farm**
  - farmer and one of his children (a second child is serologically positive only)
- **Companion of first veterinarian** showed suspicious clinical signs end of August and was **confirmed positive for *B. melitensis* beginning of September**; treatment of retentio secundinarum in first affected farm in May 2018



- Agent from affected cattle herd shows relation to isolate from Piemonte, but
  - relationship not very close
  - certainly not all isolates entered into database
- **Same agent isolated from antigen-positive cattle herd and humans, in all cases where agent could be isolated**
- High infection rate in antigen-positive cattle herd due to abortions in stable which allows free movement of animals
- Only minimal amounts of bacteria necessary to start infection
- **Involvement of veterinarian in transmission between the two positive cattle herds most probable**
- **Origin of agent still unclear**

# Further measures

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- All holdings at risk – including those visited by infected companion veterinarian – identified and checked with negative results.
- Conclusion meeting in October with all authorities and parties involved.

**THANK YOU**