Q-FEVER ON SMALL SHEEP AND GOAT FARMS IN THE PROVINCE OF UTRECHT

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Introduction

In the province of Utrecht, 124 human Q-fever cases were reported in 2009. Large farms with dairy goats seemed to be the main source for Q-fever, but the role of smaller farms (about 2000 in the province of Utrecht) was unclear.

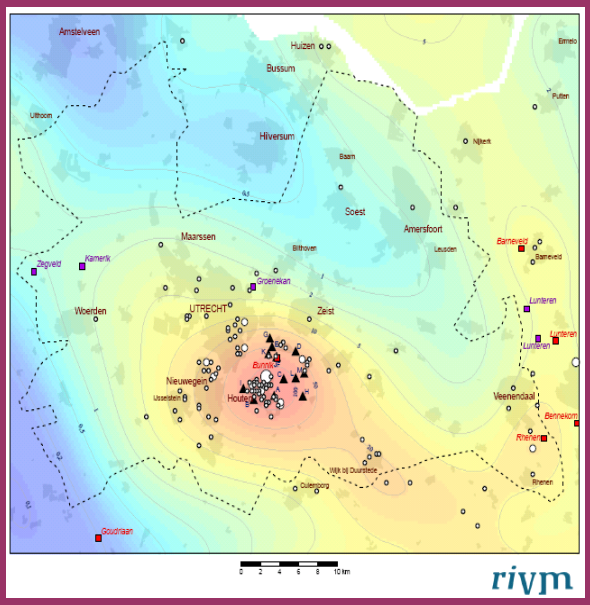
Aim

Investigate the prevalence of Q-fever in pooled milk samples from small farms with sheep and goats in the province of Utrecht.

Methods

- Prevalence survey
- 45 Farms (less then 50 goats or sheep) participated.
- Milk samples were collected per farm, each sample included at least 10 animals.
- Analysis was done by a multiplex real-time PCR (genomic targets *com1 and IS1111*).
- Questionnaire concerning the number of animals, abortion rate and Q-fever diagnosis amongst the farmer or his relatives.

Figure 1: incidence of Q-fever in the province of Utrecht 2009



Incidence: Q-fever patients per 100.000 inhabitants

Results

- Eight (17.8%) of the farms (mainly sheep) were located within the five km zone of a large bulk milk-positive dairy goat farm.
- Pooled milk samples from three farms tested positive (6,7%; 95CI:1.4-18.3), none within the five km zone.
- On five farms there was a history of human Q-fever among residents (11%; 95CI: 3.7-24.1):
- One farm within the five km zone and one farm with a positive milk sample.
- The presence of one or more goat on the farm increased the risk of testing positive (RR 10,9; 95CI: 1.1-104.2)

Conclusion

We conclude that the number of small farms tested positive for Q-fever in the province of Utrecht is small, with an increased risk for farms keeping goats.