

# Case studies: Tuberculation in pig herds suspected of infection with *Mycobacterium avium*

Oorburg, D.<sup>1,4\*</sup>

Wisselink, H.J.<sup>2</sup>, Van Solt-Smits, C.B.<sup>2</sup>, Hiller, A.<sup>3,4</sup>, Heres, L.<sup>4</sup>, Urlings, B.<sup>1,4</sup>

<sup>1</sup>Wageningen University, Animal Sciences Group, Wageningen, the Netherlands

<sup>2</sup>Central Veterinary Institute of Wageningen UR, Lelystad, The Netherlands

<sup>3</sup>University of Veterinary Medicine Hannover, Germany

<sup>4</sup>VION Food Group, Eindhoven, The Netherlands

\* Vion Food Nederland B.V., Boseind 10, 5281 RM Boxtel T. +31 (0) 411658550,

Fax +31 (0) 411658511, e-mail Derk.Oorburg@vionfood.com

## Abstract

*Mycobacterium avium*, both subspecies *hominissuis* (MAH) and subsp. *avium* (MAA), are considered a significant zoonotic hazard in pigs. Therefore special attention is given to detect the presence of this hazard in pigs during post mortem meat inspection. Herds delivered at slaughter were monitored on blood antibodies against MAH. Herds with an antibody response against a MAH infection were visited. Initially a questionnaire assessing relevant risk factors for MAH was applied. Additionally to the questionnaire in several herds intracutaneous tuberculation was carried. Positive results in tuberculation in 3 different herds in the Netherlands, Belgium and Germany are presented; two farms where compost was used and one farm where the pig holding was adjacent to a big broiler farm. Twice the presence of MAH and once MAA was bacteriologically confirmed. When the supply of compost was stopped in two herds no positive tuberculation was present anymore. The other herd with the adjacent broiler flock ceased its activities as a pig producer.

When preventive measures are an active part of daily farm management MAH can be controlled at farm level effectively. Screening blood of slaughter pigs on the presence of MAH antibodies can be used to identify true positive herds. Serological surveillance is presently applied in the newly developed supply chain meat inspection in Germany and The Netherlands.