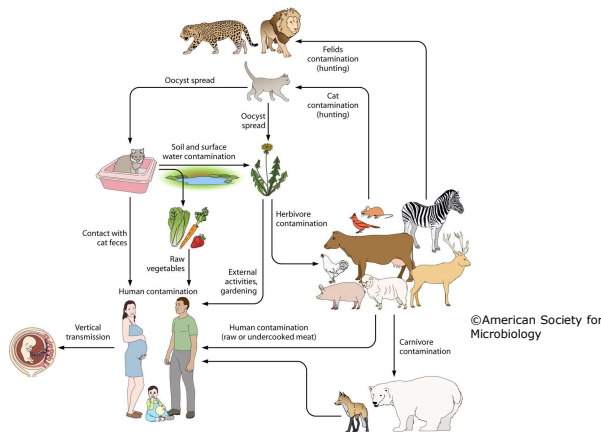


Association between within-herd seroprevalence and risk factors for *Toxoplasma gondii* in fattening pigs in The Netherlands

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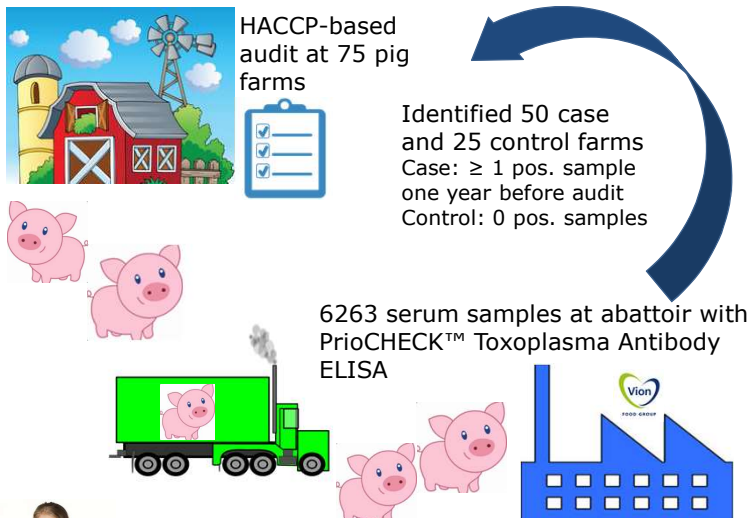
Background & Objectives

Toxoplasma gondii is a relevant foodborne pathogen ranking 3rd for its disease burden in Europe.



In the Netherlands, the contribution of pork to meatborne *T. gondii* infections is estimated to be 11%. EFSA advised to perform serological testing of pigs and on-farm audits on risk factors. In this study, the **objective** is to determine the association between within-herd seroprevalence and risk factors for *T. gondii* on fattening pig farms in the Netherlands.

Materials & Methods



Results

Variables analysed multivariably by backward elimination for association with the presence of *T. gondii* on 75 Dutch pig farms between 2015 and 2018 (univariable $P \leq 0.25$).

Risk Factor	N Farms	Prevalence (% Case)	OR (95%CI)	P-Value
Goats				
- Absent	67	64%	n.a.	0.176
- Present	8	88%		
Boots stable				
- Only inside	28	54%	n.a.	0.524
- Also outside	47	74%		
Prof. pest control				
- Yes	33	76%	n.a.	0.283
- No	42	60%		
Own cats at barnyard				
- Absent	42	60%	n.a.	0.850
- Present	33	76%		
Pigfeed accessible cats				
- Absent	49	53%	15.4	0.001
- Present	26	92%	(3.0-79.4)	
Pig drinking water				
- Tap water	34	59%	3.4	0.035
- Well	41	73%	(1.1-10.7)	
Pigfeed contains whey				
- Absent	52	60%	n.a.	0.429
- Present	23	83%		
Pig feed				
- Dry feed	37	54%	n.a.	0.069
- Wet/liquid feed	38	79%		

Discussion & Conclusion

The use of serological testing was valuable to guide and monitor the control of *T. gondii* in pork production.

Serological screening of Dutch intensive pig farms for *T. gondii* lead to the identification of pig farms where typical risk factors are present. Two significant risk factors were identified (see Table).

Perspectives

Analyse data using Bayesian statistics. Next to that taking also into account seasonal patterns. Changing farm management will likely contribute to reduction of the human disease burden and this is presently studied.

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