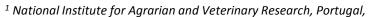
# Seroprevalence of *Toxoplasma gondii* in horses in Portugal

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### Introduction

The consumption of raw or undercooked meat containing *T. gondii* tissue cysts poses a risk of infection to humans. However, though horsemeat is consumed raw or underdone in many countries, the role of horses in the transmission of *T. gondii* to humans has been poorly addressed. The present study aimed to investigate the seroprevalence of *T. gondii* in horses from

Portugal.



### **Material and Methods**

A total of 385 animals from different geographical areas in Portugal were screened by an *in-house* Indirect Fluorescent Antibody Test (IFAT) at the cut-off dilution 1:50 and positive and doubtful results were confirmed by ELISA (ID Screen® Toxoplasmosis Indirect Multi-species) and the Modified Agglutination Test (MAT) (bioMérieux). Sera with a known origin (n=323) were from a total of 50 municipalities located in the North, Centre and South of Portugal.

#### **Results and Discussion**

**Seroprevalence** confirmed by:

**2**<sup>nd</sup> **test (ELISA or MAT)** - **3.4%** (95% CI: 2.0-5.7%)

2<sup>nd</sup> + 3<sup>rd</sup> test - 2.7 % (95% CI: 1.1-4.0%)

The present results indicate a low prevalence of T. gondii in horses in Portugal. However, since equids have been shown to harbour viable T. gondii parasites, the role of this meat-producing animal species as a source of infection should not be overlooked.

Table 1: IFAT, ELISA and MAT positive results and antibody titres

Analysis	IFAT	ELISA	МАТ	IFAT	MAT
nr.	IIAI	LLISA	IVIAI	titres	titres
159	Р	Р	Р	200	60
335	Р	Р	Р	200	1620
349	Р	Р	Р	200	40
42	Р	Р	Р	200	1620
158	Р	Р	Р	100	60
101	Р	Р	Р	50	40
346	Р	Р	Р	100	1620
306	Р	Р	D	50	D
213	Р	Р	Ν	100	N
294	Р	Р	N	100	Ν
360	Р	N	N	200	Ν
105	D	Р	Р	D	40
332	D	Р	D	D	D
319	D	Р	N	D	N

## Acknowledgements

The authors are specially grateful to Lucinda Marques and Maria do Carmo Ramos for assistance in sample preparation and organization at INIAV.



