SWINE PARASITIC PROFILE FROM A FREE-RANGE FARM IN THE TRANSYLVANIA AREA

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Introduction

- In Romania, swine breeding is an important tradition, the vast majority of pigs being raised in low input systems. Recently an increase in the number of free-range farms has been registered (Ichim, 2012).
- Parasitic diseases cause significant economic losses to pigs by reducing production, morbidity and mortality in livestock (Kochanowski et al., 2017)

Fig. 1. Picture showing a free-range farm.

Aim

- This study aimed to identify the swine parasitic profile, raised on a farm from Transylvania, characterised by a free-range breeding system.
- It will support future studies regarding the antiparasitic effects of some plants from the native flora.

Fig. 2. Plants with antiparasitic potential: *a-Calendula officinalis* , b-*Satureja hortensis L*, c-*Coriandrum sativum* , d-*Alium sativum* , e-*Cucurbita pepo*, *f-Artemisia absinthium.*

Materials and methods

A number of 30 faecal samples were collected from pigs of different ages. The coproparasitological examination was performed using the following methods: Willis, McMaster, Blagg, Henriksen, and active sedimentation methods as well as faecal cultures. The obtained data were centralized and processed in tables in the form of indicators of prevalence (P = %) and average intensity (I = CPG, OPG, EPG).

Fig. 2 All the materials necessary for the coproparazitological methods

Results

The coproparasitological examination performed, revealed parasitic infections with *Ascaris suum, Trichocephalus suis, Balantidium coli* and *Eimeria spp. / Isospora suis*. Prevalence and the average intensity of infections varied according to age and category of pigs. In suckling piglets, only *B. coli* (P = 40%, I = 400 CPG) and *Eimeria spp. /I. suis* (P = 90%, I = 1.000 OPG) were identified. In weaned piglets, *B. coli* (P = 40%, I = 300 CPG), *Eimeria spp. /I. suis* (P = 90%, I = 700 OPG), *A. suum* (P = 70%, I = 200 EPG) and *T. suis* (P = 60%, I = 800 EPG) were diagnosed. In sows, *B. coli* (P = 30%, I = 200 CPG) and *Eimeria spp. / I. suis* (P = 90%, I = 9.100 OPG) were identified.

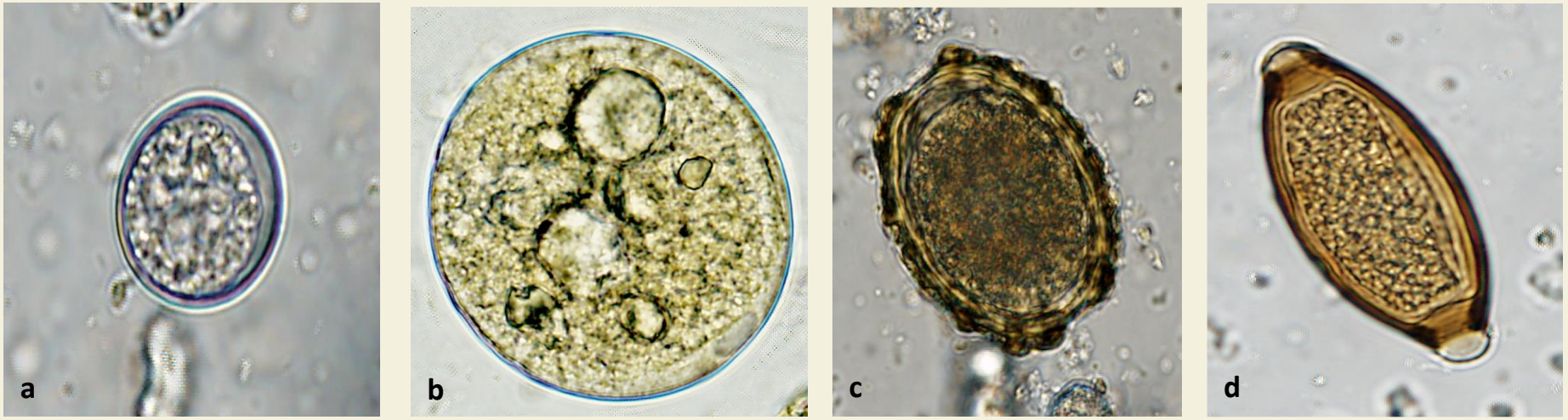

Fig. 4 a. b. c. d. Coproparasitological examination results: a-*Eimeria/ I. suis*, b- *B.coli,* c-*A. suum*, d-*T. suis.*

Discussions

Pigs category	Parasite	Prevalence %	Country	Autor
Suckling piglets	Coccidia*	31.4	Poland	Kochanowski et al., 2017
		88	South Africa	Nwafor et al., 2019
	B. coli*	28.6	Bangladesh	Dey et al., 2014
		2.6	Greek	Symeonidou et al., 2020
Weaned piglets	Coccidia*	7.1	Poland	Kochanowski et al., 2017
		75	South Africa	Nwafor et al., 2019
	B. coli*	52.4	Bangladesh	Dey et al., 2014
		13.5	Greek	Symeonidou et al., 2020
	A. suum*	63.9	South Africa	Nwafor et al., 2019
		28	Denmark	Pietrosemoli et al., 2020
	T. suis*	2.9	Poland	Kochanowski et al., 2017
		63.9	South Africa	Nwafor et al., 2019
Sows	Coccidia*	17.1	Poland	Kochanowski et al., 2017
		43.8	South Africa	Nwafor et al., 2019
	B. coli*	38.5	Bangladesh	Dey et al., 2014
		81.3	Greek	Symeonidou et al., 2020

Table 1. Prevalence from different countries using flotation method *

Conclusions

- Pigs raised in this free-range farm, had associated infections with *A. suum*, *T. suis, B. coli* and *Eimeria spp. / I. suis*.
- Prevalence and average intensity had high values but clinically, the pigs were asymptomatic.

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Thank you for your attention!