



Prevalence of endoparasites in ostriches (*Struthio camelus*) raised in selected states of northern Nigeria

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Introduction

- Ostrich farming has become an extended activity in places where these birds did not exist previously.
- However, little is known about the diseases that may affect these animals (Martinez-Diaz *et al.*, 2001) that are also known to be host to a number of parasites (McKenna, 2001).
- On health, welfare and economic grounds, the ostrich industry must operate on the basis of prevention being better than cure (Lister, 2003).
- Today, ostrich farms are considered to be among the most profitable agricultural projects (Shanawany, 1994).
- This paper therefore looks at the prevalence of some endoparasites in farmed ostriches in some selected states of northern Nigeria.

Materials and Methods

- Study was carried out on farms in Kano, Kaduna and Plateau states of northern Nigeria.
- Faeces were obtained during farm visits between May and September, 2004.
- Faecal samples were collected at random in the early hours of the morning using clean polythene bags and transferred into a plastic container containing 5ml of 10% formalin.
- A total of 121 ostrich faecal samples were collected and labelled accordingly.
- Parasitological examinations were performed using floatation and sedimentation methods (Soulsby, 1965).

Results

Table 1: Distribution of endoparasites by farm

Farm	Number and rate of isolation				Total number of samples
	Nematode	<i>Eimeria</i>	Mites	Negative samples	
I	0 (0.0)	3 (12.5)	1 (4.2)	20 (83.3)	24
II	3 (7.1)	6 (14.3)	4 (9.5)	29 (69.0)	42
III	0 (0.0)	2 (16.7)	0 (0.0)	10 (83.3)	12
IV	2 (25.0)	1 (12.5)	2 (25.0)	3 (37.5)	8
V	2 (33.3)	0 (0.0)	1 (16.7)	3 (50.0)	6
VI	0 (0.0)	1 (9.1)	3 (27.3)	7 (63.6)	11
VII	11 (61.1)	1 (5.6)	3 (16.7)	3 (16.7)	18
Total	18 (14.9)	14 (11.6)	14 (11.6)	75 (62.0)	121

Figures in parenthesis are in percentage

Table 2: Distribution of endoparasites by age

Age group	Number and rate of isolation				Total number of samples
	Nematode	<i>Eimeria</i>	Mites	Negative samples	
Chicks	0 (0)	7 (43.8)	2 (12.5)	7 (43.8)	16
Adults	18 (17.1)	7 (6.7)	12 (11.4)	68 (64.8)	105
Total	18 (14.9)	14 (11.6)	14 (11.6)	75 (62.0)	121

Table 3: Types of endoparasite eggs and their frequency of isolation

Egg type isolated	Number of cases	Frequency (%)
Trichostrongylid-type	8	25.0
Strongylate-type	5	15.6
<i>Amidostomum</i> eggs	5	15.6
<i>Eimeria</i> oocysts	14	43.8
Total	32	100.0

Significance of the results

- Identification of *Trichostrongyloid*-type eggs and *Strongylate*-type nematode eggs provide some strong circumstantial evidence for the existence of *Libyostrongylus douglassii*.
- Coprophagic behavior of ostriches especially during the rainy season probably makes them vulnerable to various endoparasites.
- Incidental finding of mites (*Cnemidocoptes gallinae*) and mite eggs in the faeces could be as a result of grooming of infested body.
- No nematode infection was recorded on chicks but infection with coccidia oocysts was a common finding in chicks.

References

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