

Appendix I

Frequency tables of 302 cattle examined at Elkadaro abattoir in Khartoum Khartoum State according to potential risk factors:

Appendix I, table 1: Age

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	<=3	268	88.7	88.7	88.7
	>3	34	11.3	11.3	100.0
	Total	302	100.0	100.0	

Appendix I, table 2: sex

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Female	9	3.0	3.0	3.0
	Male	293	97.0	97.0	100.0
	Total	302	100.0	100.0	

Appendix I, table 3: breed

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Local	289	95.7	95.7	95.7
	Cross	10	3.3	3.3	99.0
	Foreign	3	1.0	1.0	100.0
	Total	302	100.0	100.0	

Appendix I, table 4: body condition

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Poor	2	.7	.7	.7
	Good	300	99.3	99.3	100.0
	Total	302	100.0	100.0	

Appendix I, table 5: grazing

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Open	298	98.7	98.7	98.7
	Close	4	1.3	1.3	100.0
	Total	302	100.0	100.0	

Appendix I, table 6: origin

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Nyala	198	65.6	65.6	65.6
	Elfashir	7	2.3	2.3	67.9
	Ethiopia	3	1.0	1.0	68.9

White Nile	46	15.2	15.2	84.1
Eldien	48	15.9	15.9	100.0
Total	302	100.0	100.0	

Appendix II

Cross-tabulation of the prevalence of fasciolosis in 302 cattle examined at Elkadaro slaughterhouse according to potential risk factors:

Appendix II, table 1: Age

	Age	Total		
	<=3	>3		
Postmortem -ve	268	24		292
+ve	0	10		10
Total	268	34		302

Appendix II, table 2: Sex

	Sex	Total		
	Female	Male		
Postmortem	-ve	8	284	292
	+ve	1	9	10
Total	9	293		302

Appendix II, table 3: breed

	Breed	Total			
	Local	Cross	Foreign		
Postmortem	Negative	282	10	0	292
	Positive	7	0	3	10
Total	289	10	3		302

Appendix II, table 4: body condition

	B.C	Total		
	Poor	Good		
Postmortem	Negative	2	290	292
	Positive	0	10	10
Total	2	300		302

Appendix II, table 5: grazing

	Grazing	Total		
	Open	Close		
Postmortem	Negative	288	4	292

	Positive	10	0	10
Total	298	4		302

Appendix II, table 6: origin

		Origin					Total
		Nyala	Elfashir	Ethiopia	White Nile	Eldien	
Postmortem	Negative	197	7	0	40	48	292
	Positive	1	0	3	6	0	10
Total		198	7	3	46	48	302

Appendix II

Cross-tabulation of the prevalence of egg fasciolosis for 302 of cattle in Khartoum State , diagnosed by fecal examination according to potential risk factors:

Appendix II, table 1: Age

		Age		Total
		<=3	>3	
Fecal	Negative	268	29	297
	Positive	0	5	5
Total		268	34	302

Appendix II, table 2: sex

		Sex		Total
		Female	Male	
Fecal	Negative	9	288	297
	Positive	0	5	5
Total		9	293	302

Appendix II, table 3: breed

		Breed			Total
		Local	Cross	Foreign	
Fecal	Negative	286	10	1	297
	Positive	3	0	2	5
Total		289	10	3	302

Appendix II, table 4: body condition

		B.C		Total
		Poor	Good	
Fecal	Negative	2	295	297
	Positive	0	5	5
Total		2	300	302

Appendix II, table 5: grazing

		Grazing		Total
		Open	Close	
Fecal	Negative	293	4	297
	Positive	5	0	5
Total		298	4	302

Appendix II, table 6: origin

		Origin					Total
		Nyala	Elfashir	Ethiopia	White Nile	Eldien	
Fecal	Negative	198	7	1	43	48	297
	Positive	0	0	2	3	0	5
Total		198	7	3	46	48	302

Appendix III

Association between fasciolosis and potential risk factors using the Chi-square test:

Appendix III, table 1: Age

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	81.523 ^a	1	.000
Continuity Correction ^b	72.595	1	.000
Likelihood Ratio	46.628	1	.000
Fisher's Exact Test			

Linear-by-Linear Association	81.253	1	.000
N of Valid Cases	302		

Appendix III, table 2: sex

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	1.763 ^a	1	.184
Continuity Correction ^b	.146	1	.702
Likelihood Ratio	1.129	1	.288
Fisher's Exact Test			
Linear-by-Linear Association	1.757	1	.185
N of Valid Cases	302		

Appendix III, table 3: Breed

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	88.656 ^a	2	.000
Likelihood Ratio	21.906	2	.000
Linear-by-Linear Association	44.039	1	.000
N of Valid Cases	302		

Appendix III, table 4: Body condition

	Value	Df	Asymp. Sig. (2-sided)
Pearson Chi-Square	.069 ^a	1	.793
Continuity Correction ^b	.000	1	1.000
Likelihood Ratio	.135	1	.713
Fisher's Exact Test			
Linear-by-Linear Association	.069	1	.793
N of Valid Cases	302		

Appendix III, table 5:grazin

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	.139 ^a	1	.709
Continuity Correction ^b	.000	1	1.000
Likelihood Ratio	.271	1	.603
Fisher's Exact Test			
Linear-by-Linear Association	.138	1	.710
N of Valid Cases	302		

Appendix III, table 6:origin

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	107.962 ^a	4	.000
Likelihood Ratio	39.627	4	.000
Linear-by-Linear Association	6.132	1	.013
N of Valid Cases	302		

Appendix III

Association of different potential risk factors with fasciolosis diagnosed by fecal examination using chi-square test x 2

Appendix III, table 1: age

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	40.075 ^a	1	.000
Continuity Correction ^b	31.552	1	.000

Likelihood Ratio	22.532	1	.000
Fisher's Exact Test			
Linear-by-Linear Association	39.943	1	.000
N of Valid Cases	302		

Appendix III, table 2:sex

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	.156 ^a	1	.693
Continuity Correction ^b	.000	1	1.000
Likelihood Ratio	.305	1	.581
Fisher's Exact Test			
Linear-by-Linear Association	.156	1	.693
N of Valid Cases	302		

Appendix III, table 3:breed

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	78.718 ^a	2	.000
Likelihood Ratio	13.732	2	.001
Linear-by-Linear Association	40.373	1	.000
N of Valid Cases	302		

Appendix III, table 4:body condition

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	.034 ^a	1	.854
Continuity Correction ^b	.000	1	1.000
Likelihood Ratio	.067	1	.796
Fisher's Exact Test			
Linear-by-Linear Association	.034	1	.854
N of Valid Cases	302		

Appendix III, table 5:grazing

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	.068 ^a	1	.794
Continuity Correction ^b	.000	1	1.000
Likelihood Ratio	.134	1	.714
Fisher's Exact Test			
Linear-by-Linear Association	.068	1	.794
N of Valid Cases	302		

Appendix III, table 6:origin

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	88.821 ^a	4	.000
Likelihood Ratio	24.927	4	.000
Linear-by-Linear Association	4.044	1	.044
N of Valid Cases	g302		

Appendix IV

Questionnaire

To obtain information about fasciolosis in cattle and information regarding geographical localization and risk factors influencing the presence of the disease.

General information:

1. Name:

2. Gender:

3. Level of education:

Information about the fasciolosis risk factors:

1. Age:

Young ≤ 3 years ()

Old > 3 years ()

2. Sex:

Male ()

Female ()

3. Breed:

Local ()

Cross ()

Foreign ()

4. Body condition:

Good ()

Poor ()

5. Source of animal:

White Nile ()

Eldien ()

Elfashir()

Nyala ()

Ethiopia ()

6. Grazing:

Open ()

Close ()

7. Using anthelmintic:

Yes ()

No ()