

UDC 619:616.995.1

**DAMAGE FROM MIXED INFECTION CAUSED BY FASCIOLA SP.,
PARAMFISTOMA, DYKROTSELIYA AND GASTRO-INTESTINAL
STRONGYLATES ON COWS**

O.V. Kruchynenko * Candidate of Veterinary Science

Poltava State Agrarian Academy

The results of the impact of mixed infestations caused by Fasciola, Paramfistoma, Dykrotseliya and gastro-intestinal strongylates of milk production in cows. Established that mixed infestation causes economic damage economy that per infested animal is 756 UAH. In cows reduced milk yield by 10,3 %, which negatively affects the performance of business.

Keywords: mixed infestation, cattle, damage

Parasitic diseases continue to exercise significant influence on the economy of livestock [1-3]. The most common helminthiasis in cattle is Fasciolosis, paramfistomosis, dicroceliasis and gastro-intestinal strongylates [4]. Numerous studies have found that long-term parasitism of certain parasites and several species at the same time leads to deep and persistent metabolic disorders, manifested in retarded growth, loss of productivity, reduced tribal values, and sometimes death of the animals [4, 6]. In cattle parasitic diseases are often diagnosed as mixed (associate) infestation in which a pathogenic effect on animals increased, which is reflected in their performance. Thus, the mixed infestation caused by Fasciola, stronhilyata inflicts significant economic losses to farms. In particular, the cows reduced milk yield by 10,6 % and in young cattle increase body weight 45,36 % negatively displayed on economic indicators of economic activity [7].

The aim of the study was to assess the economic losses of cows mixed infestations caused by Fasciola, paramfistoma, dykrotseliya and gastro-intestinal strongylates.

Materials and methods. Influence of spontaneous mixed infestations on milk production of cows was studied for five months in the Open "Source" MTF with Ivashki Poltava region. As a result of helminthology research animals were divided into two groups: experimental and control. To this end, picked cows analogous to 10

goals, taking into account their age, body weight, physiological state and period of calving. Cows experimental group were spontaneously infested Fasciola, paramfistoma, dykrotseliya and gastro-intestinal strongylates. Cows in the control group were free from worms. Maintenance ration and feeding experimental and control groups of cows in the Open "Source" MTF with Ivashki was the same (Table 1).

Diet feeding cows

Number	Winter time	
1.	Straw	2 kg
2.	Hay	2 kg
3.	Silage	20 kg
4.	Haylage	10 kg
5.	Pulp	5 kg
6.	Molasses	0,8 kg
7.	Dert different	3 kg
8.	Sunflower	2 kg
9.	Salt	0,1 kg
Autumn time		
1.	Corn green mass	30 kg
2.	Straw	1 kg
3.	Silage	10 kg
4.	Dert different	3 kg
5.	Sunflower	1 kg
6.	Salt	0,1 kg

In the experimental and control groups was performed monthly records of milk production of cows within 5 months from November 2011 to March 2012. The results are processed statistically [5].

Results and analysis. For koproovoskopiks research showed cows eggs paramfistoma, dykrotseliya, fasciola and gastro-intestinal strongylates. In the control group EI = 100%. The intensity of infestation was different: paramfstoma $5,3 \pm 0,8$, dykrotseliya - $1,2 \pm 0,11$, fasciola - $3,3 \pm 1,1$ and stronhilyata $7,9 \pm 0,91$ copies eggs per 1 g of faeces. The results of the studies found that the whole experiment the average productivity of cows free of infestation was $12,3 \pm 0,3$ kg and infested - $11,04 \pm 0,4$ kg (Table 2). From a healthy cow for 150 days of observations were obtained in 1845 kg of milk, and infested by fasciola, paramfistoma, dykrotseliya and

stronhilyata – 1656 kg, 189 kg less. At the time of the research realizable price of 1 kg of milk was 400 UAH. Thus, the amount of shortfall of dairy products for five months of observations made $189 \times 4.0 = 756$ UAH.

Table 2

Effect of mixed infestations caused by Fasciola, paramfistomamy, dykrotseliyamy and stronhilyatamy of the digestive system (n = 10)

Month	Moon milk, kg month	
	Research	Control
November	12,7±1,4	12,9±0,9
December	11,9±1,3	13,1±0,8
January	10,8±1,2	12,6±1,5
February	10,1±1,04	11,5±1,01
March	9,7±0,9	11,2±1,3
On average	11,04±0,4	12,3±0,3

Loss on decline in milk production of animals as a result of their disease Fasciolosis, paramfistomozom, dicroceliasis and strongyloidosis digestive organs was determined by the formula:

$Z3 = M \times (VZ - V_{hv}) \times T \times C$, where

M - number of diseased animals (badland females), ch.;

VZ and V_{hv} - the average number of products (milk, meat) obtained respectively from healthy and sick animals in per head, kg;

T - duration of observation of the changing productivity of animals (quarantine period, distress, perehvoryuvannya) days;

C - the purchase price of a unit of output, UAH.

$Z3 = 10 \times (12,3 - 11,04) \times 150 \times 4 = 7560$ UAH.

Conclusions

Thus, the mixed invasion caused by Fasciola, paramfistoma, dykrotseliya and gastro-intestinal strongylates, causing significant economic damage economy, in per

infested animal is 756 UAH. In cows reduced milk yield by 10,3%, which negatively affects the performance of business. Prospects for further research is to determine warnings economic losses as a result of treatment of animals.

References

1. Абдулмагомедов С.Ш. Эффективность некоторых антигельминтиков при смешанных трематодозах крупного рогатого скота / С.Ш. Абдулмагомедов, А.А. Рашидов, А.Д. Алиев [и др.] // Российский паразитологический журнал, 2009. - № 3. – С. 90–92.

2. Дахно І.С. Епізоотологія, патогенез, етіотропна та імунокоригуюча терапія при фасціольозі і дикроцеліозі жуйних тварин: автореф. дис. ... доктора вет. наук: спец. 03.00.18 / І.С. Дахно – Х., 2001. – 36 с.

3. Дахно І.С. Терапевтична та економічна ефективність комбітрему на ранній стадії фасціольозної інвазії корів / І.С. Дахно, Г.П. Дахно, О.В. Кручиненко [та ін.] // Ветеринарна медицина України. – 2004. – №8. – С. 17–19.

4. Дахно І.С. Ефективність деяких антгельмінтиків при змішаних паразитозах великої рогатої худоби / І.С. Дахно, О.С. Клименко // Проблеми зооінженерії та ветеринарної медицини: 36. наук, праць ХДЗВА. – Х., 2006. – Вип. 13 (38). – С. 289–294.

5. Лапач С. Н. Статистические методы в медико-биологических исследованиях с использованием Excel / С. Н. Лапач, А. В. Чубенко, П. Н. Бабич. – К.: – Морион, – 2000. – 320 с.

6. Мазанний О.В. Фасціольозно-парамфістоматозна інвазія великої рогатої худоби (особливості епізоотології, діагностика та заходи боротьби): автореф. дис. ... канд. вет. наук: спец. 16.00.11 / О.В. Мазанний – К., 2006. – 20 с.

7. Сафиуллин Р.Т., Хромов К.А. Ущерб от смешанной инвазии коров и молодняка крупного рогатого скота, вызванной фасциолами и стронгилятами пищеварительного тракта / Р.Т. Сафиуллин, К.А. Хромов // Российский паразитологический журнал. – 2009. – №2. – С. 81–85.

