



ISSN Print: 2394-7500
ISSN Online: 2394-5869
Impact Factor: 5.2
IJAR 2019; 5(10): 305-306
www.allresearchjournal.com
Received: 03-08-2019
Accepted: 06-09-2019

Rakhimov M Yu
Scientific-Research Veterinary
Institute, Uzbekistan

Pulatov FA
Scientific-Research Veterinary
Institute, Uzbekistan

Effectiveness of deltamethrin against ectoparasites

Rakhimov M Yu and Pulatov FA

Abstract

The article studies the phenogram and the effectiveness of a 0.015% deltamethrin emulsion against dominant ectoparasites (*H. anatolicum*, *H. plumbeum*, Rh. Bursa, B. bovis) of cattle.

Keywords: Fauna, migration, dynamics, dominants, transmissive, vector, acaricide, drug, emulsion

Introduction

The study of the parasitoid activity of pyrethroid preparations against blood sucking ticks, which are considered ecto- and endoparasitosis and specific Vector distributors that are safe in regard to the environment, human and animal organisms, beneficial fauna and flora and that are in the current situation is being expected to migrate (spread out), immigrate (to pass from abroad) in the conditions of Uzbekistan zoocenosis, including zoobiocenosis (ecotop, ecoton, farm, private, private assistant) and other cattle breeding enterprises and creating the technology of localization of their the most effective, profitable and safe types and applying them in practice are the priority issues.

Due to the increase in migration of animals, the spread of ectoparasites is expanding. New biopathogenic ectoparasites spreading dangerous vector-borne diseases appear on farms. In this regard, cattle and sheep farms are experiencing more damage. In contrast, this complicates the problems facing veterinary science and practice. Therefore, one of the most important tasks facing veterinary science and practice is to combat the ectoparasites, which are widespread in the livestock farms and have major economic losses.

The purpose of research: Study Ing the fauna and the seasonal migration of parasitic ectoparasites in private livestock, cattle and livestock farms. Determining the effectiveness of new insectoaccharide drugs.

The method of rearch: The picked types of ectoparasites were examined by the archenoentomology laboratory in microscopic and morphosystematic checks, using manuals and diagnostic tables, including "Atlas of ixodic ticks", "The determinant of arthropods harmful to human health" and other special literature.

The result of the research: The research works were carried out in cattle of individual farms of ecotones and ecotopes of Tailak, Jomboy, Urgut, Payariq districts of the Samarkand region.

In January-March, when ecotopes examined 153 heads of private herds living in private farms, 143 of them were found to be infected with bovicola bovis (junior) ectoparasites, it makes 93.4 percent.

In April, 49 heads of cattle were tested for breeding cattle ectoparasites and 23 parasitic cannabis were found. Essentially, species belonging to Hyalomma (*H. anatolicum*, *H. plumbeum*, *H. detritus*), Rhipicephalus (Rh., bursa, Rh. turanicus) were found. 35 cases of bovicolosis (*Bovicola bovis*) have been diagnosed (table 1).

Corresponding Author:
Rakhimov M Yu
Scientific-Research Veterinary
Institute, Uzbekistan

Table 1: Seasonal phenogram of ectoparasites of cattle

Found Ectoparasit types	By months (ekz.)									
	I-III	IV	V	VI	VII	VIII	IX	X	XI	XII
<i>Hyalomma anatolicum</i>	-	+	++	++	++	++	+	+	-	-
<i>H. plumbeum</i>	-	-	++	++	++	++	+	+	-	-
<i>H. detritum</i>		+	+	++	++	++	-	-	-	-
<i>Rhipicephalus bursa</i>	-	+	++	++	++	++	+	+	-	-
<i>Rh. turanicus</i>	-	-	-	+	++	++	+	-	-	-
<i>Haemaphysalis sulcata</i>	-	-	+	+	+	+	-	-	-	-
<i>H. punctata</i>	-	-	+	++	++	+	+	-	-	-
<i>Dermacentor marginatus</i>	-	+	++	++	++	++	+	+	-	-
<i>Bovicola bovis</i>	++++	++++	++++	++++	+++	+++	++	++	+++	+++

Note: + - pcs, ++ - dozens, +++ - Hundreds, ++++ - thousands.

During the inspections in the conditions of breeders, ecotone and ecotopes of of Tailak, Urgut, Jomboy, Payariq districts of Samarkand region, the Ectoparasites such as *Haemaphysalis* (*H. sulcata*, *H. punctata*) and *Dermacentor marginatus* genera were identified as the main pathogen species of zooparasites in cattle.

The ectoparasites' extensiveness and intensity vary according to the season, climatic and economic conditions of the farm, livestock breeding grounds, and many other environmental factors. High humidity and comfortable temperatures in the building, the shortage of sunlight in the winter months, long fur, poor nutrition and keeping them in dense create favorable conditions for the development and

rapid spread of ectoparasites. As a result of epizootological investigations, it was defined that the level of appearance of ectoparasites on the body of cattle depends on the culture of livestock and the condition of the farm and the sanitary condition of the animals.

The testing experiments with the use of 5% of Deltamethrin produced in China in the form of a 0.015% solution was carried out against such ectoparasites as *Hyalomma anatolicum*, *H. plumbeum*, *Rhipicephalus bursa* and *Bovicola bovis* at different doses in the form of sprinkling. The experiments were performed in 72 infected cows in spontaneously (table 2).

Table 2: Results of the 5% deltamethrin drug test

№	Preparation Concentration (percent)	Cattle type	Number (head)	Type of parasite	Doze	Extense Effectiveness (percent)
1.	0,015	Cattle	23	<i>Hyalomma anatolicum</i> , <i>Rh. bursa</i>	500ml/b s.e. 1,5ml/b FTM	In 2 days 90%
2.	0,015	Cattle	20	<i>H. anatolicum</i> <i>Bovicola bovis</i>	600ml/b s.e. 1,8ml/b FTM	In 2 days 100%
3.	0,015	Cattle	17	<i>H. anatolicum</i> , <i>H. plumbeum</i> , <i>Rh. bursa</i>	1,5l/b s.e. 4,5 ml/b FTM	In 1 day 100%
4.	0,015	Cattle	22	<i>Bovicola bovis</i> <i>H. anatolicum</i>	1,5l/b s.e. 4,5 ml/b FTM	In 1 day 100%

The processed cattle was observed for 3 days. The temperature while applying the drug was 20 + 280 °C. During the observations, no negative changes were observed in the physiological condition of processed cattle (cows).

Conclusion

- In the conditions of breeders, ecotone and ecotopes of of Tailak, Urgut, Jomboy, Payariq districts of Samarkand region such type of wool ticks as - *Bovicola bovis*, ixodic ticks - *Hyalomma* (*H. anatolicum*, *H. plumbeum*, *H. detritum*), *Rhipicephalus* (*Rh. bursa*, *Rh. turanicus*), *Haemaphysalis* (*H. sulcata*, *H. punctata*), *Dermacentor marginatus* are formed as the main pathogenic agents in the body of the cattle.
- It was found out that deltamethrine preparation has 100% parasitocidal properties against ectoparasites (*Bovicola bovis*, *H. anatolicum*, *H. plumbeum*, *Rhipicephalus bursa*) when it was administered at a dose of 0.015% emulsion of 600-1500 ml /per head.

References

- Blagoveshinskiy DI. Determinant of fur ticks (Mallophaga) of domestic animals. USSR fauna. M.-L.: edition. AN USSR, 1940.

- Buklemishev VN. The determinant of arthropods harmful to human health.. State Publishing House of Medical Literature, Medgiz. Moscow, 1958.
- Agrinskiy NI. Insects and mites, which are harmful to agricultural animals. Moscow, 1962.
- Ruzimuradov A. Biological parasitism. Optimization of cattle breeding. Samarkand: GP. Zarafshan, 2010