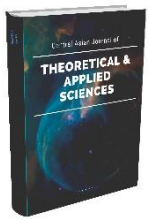

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Pyrethroids and Their Uses in Veterinary

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Abstract: *This article presents the opinions of researchers and scientists on the use of pyrethroids in agriculture and analyzes literature sources.*

Keywords: *National economy, animal husbandry, product, medicine, pyrethroid.*

Introduction.

One of the main tasks of our state is to provide the population with environmentally friendly and high-quality livestock products. Thanks to this, the state program "Ensuring food security in our country" and the President's reports at the international conference on the topic "Important resources for the implementation of the food program in Uzbekistan" are being implemented in the Republic performing these tasks serves

Modern pesticides also play a key role in the fight against ectoparasites that cause diseases in animals and poultry during the production of livestock products. The use of pesticides in livestock farming creates the basis for achieving economic efficiency, and therefore their production volumes are increasing from year to year.

Currently, pyrethroid preparations of the third generation of pesticides, widely used in veterinary practice, are not without danger to the environment and living organisms. Especially when they enter the atmosphere, water or soil, due to their accumulation (cumulation) in these places, the manifestation of their toxic-toxic effects, danger to human health, animal and plant life, and in general for all biodiversity in nature absolutely free. These pyrethroids, when ingested by warm-blooded animals and birds, cause acute, chronic and latent poisoning and, as a result, negatively affect the productivity and reproductive activity of animals. In this regard, it is of practical importance to carefully study the specific action of setovate, which belongs to the group of pyrethroids, and its assessment from a toxicological point of view.

The environmental danger of pesticides lies in the fact that most of them are artificial chemicals that are alien to living nature and do not completely decompose in the environment. An increase in the use of pesticides leads to the accumulation of their residues in the natural environment and an increase in their

quantity. As a result of their spread through the food chain, they can pass into living nature, cause unexpected negative consequences, and have a destructive effect on the world of animals and plants. They also pollute food, feed and water and have a negative impact on human and animal health and the ecology of life.

Wide range of pesticides, including pyrethroids:

As a result of its consumption, poisoning of animals and people occurs. In the 90s of the last century, 25 million UAH. cases of severe, acute poisoning have been recorded. According to the World Health Organization, toxic chemicals cause 20,000 deaths a year.

The largest number of acute poisonings with artificial pyrethroids was recorded by Chinese researchers (1580 cases for 1983-1997). According to the authors, these adverse events were more common with the use of deltamethrin, fenvalerate and cypermethrin.

American researchers also reported that pyrethroid poisoning is quite common. Accordingly, in the USA in 1996-2015. 3534 cases of poisoning with various pesticides were registered, of which 57% were acute and 43% were chronic. Many cases of poisoning have occurred as a result of the action of artificial pyrethroids, and poisoning with organophosphates and other drugs has rarely been observed. Of 876 poisoning cases treated in California from 1998–2015, 135 (16.2%) were found to be caused by cyanopyrethroids.

The literature provides information about many poisonings (acute, moderate, chronic) and shows that they arise as a result of exposure after the use of pesticides. However, although the negative rates of these effects are not very high, these cases were mainly observed with organochlorine, organophosphorus and carbamate pesticides.

According to N.I. Zhavoronkova et al., sevin, TMTD and sineb negatively affect the reproductive activity of animals. They enter the body of female and male animals in an amount of 0.005-0.01 LD50 for a long time with food, after which they exhibit selective effects, such as gonadotoxic, embryotoxic and teratogenic.

As a result of a large number of studies conducted on rats to study the further consequences of the action of organophosphorus pesticides, the presence of embryotoxic effects of thiophos and metaphos was established. In connection with the use of the drugs DDVF, TEPF and bazedine in laboratory animals, various disorders and cases of absorption into the fetal blood were observed. The embryotoxic effects of parathion, methyl parathion, malathion, diazinon, fosdrine, dimethoate and cystox were observed by these authors in special experiments [1].

Researcher L.K. Gerunova et al., according to the International Agency for Research on Cancer, fenvalerate and deltamethrin cause chromosomal changes in bone marrow cells. When these drugs were introduced into the body of rats, the development of thyroid tumors was accelerated [2].

According to A.I. Iskandarov and other researchers, artificial pyrethroids, such as supercypermethrin, cypermethrin, ambush, desis, lead to a decrease in the nonspecific protective activity of the animal body. Cypermethrin and Decis suppressed T-cell immunity in rats. under the influence of cypermethrin, the specific functional activity of the B-immune system decreased, while in dicis, on the contrary, its activity increased. Artificial pyrethroids increase the susceptibility of animals to salmonellosis [3].

Modern artificial pyrethroids are environmentally promising compared to other groups of pesticides, therefore they are one of the main means used to protect plants and animals from various pests and diseases. It is characterized by insectocaricidal activity, relatively low toxicity for warm-blooded animals and low activity in the external environment.

However, synthetic pyrethroids are biologically active compounds that pose a serious threat to all living things. These pesticides have a negative impact on the environment as a result of violation of established rules for their transportation, handling and use. The main problem is the lack of therapeutic agents used against humans and animals due to the use of artificial pyrethroids.

According to the researchers, the main apparent features of artificial pyrethroids are their neurotoxic effects.

Pyrethroid drugs are also considered xenobiotics not found in nature, therefore, for their widespread use in the agro-industrial complex of Uzbekistan, as well as in veterinary practice, it is urgent to study the harmful toxic properties of this group and rare drugs for introduction into the body of animals and find measures to eliminate them.

Conclusions: Thus, peritroids are very highly toxic drugs that are used for various purposes in veterinary medicine; one must be vigilant and careful when using them.

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