INSTRUCTIONS
for Use of the Veterinary Drug Letclosamect pour-on

1. General Information

1.1 The veterinary drug Letclosamect pour-on.

International non-proprietary names of active pharmaceutical substances: ivermectin (ivermectinum), closantel (closantelum).

Dosage form: solution for external use.

1.2 The veterinary medicinal product Letclosamect pour-on (hereinafter referred to as the product) is a clear solution ranging in color from yellow to brown.

1.3 Each 1.0 ml of the product contains 5 mg of ivermectin and 200 mg of closantel (as closantel sodium) as active ingredients, and excipients: polyethylene glycol, isopropyl alcohol.

1.4 The product is available in polymer containers of 100, 500, 1000, and 5000 ml.

1.5 The product should be stored and transported in the manufacturer's packaging in a place protected from direct sunlight at temperatures from 2°C to 25°C. Keep out of reach of children.

1.6 Shelf life of the product – 18 months from the date of manufacture under proper storage and transportation conditions. Do not use after the expiration date. Dispose of the product in accordance with legal requirements.

1.7 Dispensing conditions: without veterinary prescription.

2 Pharmacological Properties

2.1 The product belongs to the group of anthelmintic and antiparasitic agents and represents a combination of a macrocyclic lactone and a salicylanilide: ivermectin and closantel, respectively.

2.2 The product is effective against gastrointestinal nematodes (adults and fourth-stage larvae) *Ostertagia ostertagi, Haemonchus placei, Trichostrongylus axei, Trichostrongylus colubriformis, Cooperia spp., Oesophagostomum radiatum, Nematodirus helvetianus* (adults), *Strongyloides papillosus* (adults); pulmonary nematodes *Dictyocaulus viviparus* (adults and fourth-stage larvae); trematodes (adults and immature) *Fasciola hepatica*; ocular nematodes *Thelazia spp.* (adults); warble fly larvae of cattle *Hypoderma bovis, Hypoderma lineatum* (parasitic stages); lice *Linognathus vituli, Haematopinus eurysternus, Damalinia bovis*; mange mites *Chorioptes bovis, Sarcoptes scabiei, Sarcoptes bovis*.

2.3 Ivermectin in the product is an endectocide active against a wide range of internal and external parasites. Ivermectin is a macrocyclic lactone that acts by inhibiting nerve impulses in parasites.

The mechanism of action of ivermectin involves altering the flow of chloride ions through the membranes of nerve and muscle cells of the parasite. The main targets are glutamate-gated chloride channels and gamma-aminobutyric acid receptors. Changes in chloride ion flow disrupt impulse transmission, leading to paralysis and death of the parasites.
Closantel is a structural derivative of salicylanilides. Its mechanism of action involves altering phosphorylation processes and electron transport, disrupting metabolic processes and leading to parasite death.

2.4 Ivermectin is only partially metabolized. In cattle, only 1–2% is excreted in urine; the rest is excreted in feces, approximately 60% in unchanged form as metabolites or degradation products. Salicylanilides are poorly metabolized and are excreted mainly unchanged. About 90% of closantel in cattle is excreted unchanged in feces and urine.
2.5 The product is classified as moderately hazardous (Hazard Class III according to GOST 12.1.007-76).

3. Directions for Use

3.1 The product is used to treat cattle for trematodiasis, nematodiasis, ectoparasitosis, and mixed infestations.

3.2 The product is applied once topically to the animal's back skin, parting the hair, along the spine from the withers to the sacrum at a dose of 1.0 ml per 10 kg of body weight.

3.3 Caution should be exercised to avoid overdose. Overdose may lead to coordination disorders and blindness in animals. Use only in well-ventilated areas or outdoors.

3.4 The use of the product is contraindicated in animals with individual hypersensitivity to its components.

3.5 It is not recommended to shear animals before treatment in order to enhance absorption of the product.

3.6 Treated cattle should not have direct access to bodies of water for 14 days after treatment. Use the product away from water sources and apiaries. Treat animals in dry, sunny weather.

3.7 Due to the risk of cross-contamination, all animals in a group should be treated simultaneously, and treated animals should be kept separate from untreated ones during the entire treatment period.

3.8 The product is prohibited for use in lactating animals whose milk is intended for human consumption.

3.9 Slaughter of cattle for meat is permitted not earlier than 58 days after treatment. If animals are slaughtered before the specified period, internal organs must be destroyed, and the meat may be used as feed for carnivorous animals.

4. Precautionary Measures

4.1 When handling the product, observe personal hygiene, safety regulations, and use personal protective equipment (respirator, gloves).

4.2 Persons with hypersensitivity to the product's components should avoid direct contact with the product.

4.3 Containers from the product must not be reused for domestic purposes.

5. Claims Procedure

5.1 In case of complications after using the product, its use should be discontinued, and the consumer must contact the state veterinary institution in their region. Veterinary specialists of the institution will investigate compliance with all usage rules according to the instructions. If a negative effect of the product on the animal is confirmed, specialists will collect the necessary samples for laboratory analysis and send them to the state institution "Belarusian State Veterinary Center" for conformity verification at the address: Republic of Belarus, 220005, Minsk, Krasnaya St. 19A, Tel.: +375 17 290-42-75.

6. Manufacturer Information

6.1 Production Cooperative "Biogel".

Legal address: Republic of Belarus, 220035, Minsk, Timiryazeva St., 65, Office 313.

Production site address: Republic of Belarus, 222680, Minsk Region, Stolbtsy District, Derevnoye village.

Produced on request of the Private Production and Trade Unitary Enterprise "Letyal", Republic of Belarus, 220075, Minsk, Inzhenernaya St., 1E.

The instructions for use of the product were developed by employees of PC "Biogel" (L.E. Yanushevskaya) and Private Enterprise "Letyal" (A.N. Bezborodkin).