Animal health — concern for people

VETERINARY MEDICINES

CATALOGUE

Brovapharma®
German-Ukrainian Firm

DEVELOPMENT & MANUFACTURE OF VETERINARY MEDICINES
VETERINARY MEDICINES
CATALOGUE

QUALITY MANAGEMENT SYSTEM ACCORDING TO DSTU ISO 9001:2009
MANUFACTURE IS MODERNIZED IN COMPLIANCE WITH GMP

UKRAINE • 2018
About the company

BROVAPHARMA Ltd. was founded in 1992 with the participation of German investors. The enterprise manufactures veterinary products of high quality and it is the Ukrainian market leader in the number of registered products. On a regular basis the Company participates in international exhibitions and it has been given numerous awards and diplomas for the products’ quality. Particularly, the production has been awarded «Golden Fortuna», «The Symbol of proficiency», «The Best Domestic Product».

Variety of products

The Company manufactures more than 140 medicines for animals, including:
- antimicrobials
- antiparasitic
- vitamins and minerals complexes
- disinfectants
- narcotics, painkillers, antiinflammatory drugs
- drugs for reproductive organs and for udder treatment

The products are available in forms of sterile solutions for injections, water-soluble emulsions, powders, micropellets, pills, ointments, gels and others.
Basic value — our employees
One of the main advantages of BROVAPHARMA Ltd. is our professionals. Their scientific activities provide innovative developments and products of high quality. The Company employs doctors and candidates of science, develops cooperation with scientists from leading Ukrainian and foreign institutions, publishes textbooks and training manuals; about 70 dissertations are defended, more than 700 scientific papers are published, 40 patents are registered. The Company’s professionals work to ensure the environmental safety of livestock products, that becomes increasingly important for consumers around the world.

Network of distributors
Thanks to long-term relationship with partners the Company has a reliable network of distributors for efficient delivery of the products to our customers. The products branded BROVAPHARMA Ltd. are well-known to not only Ukrainian veterinarians, more than a third of the products are exported to 18 countries: Azerbaijan, Armenia, Belarus, Georgia, Egypt, Kazakhstan, Kirgizstan, Kuwait, Moldova, Sultanate of Oman, Qatar, Russia, Serbia, Singapore, Tadjikistan, Turkmenistan, Uzbekistan, UAE. For some other countries the registration procedures are almost accomplished — Vietnam, Morocco.

Scientific Research
The Company uses the best scientific developments in the field of veterinary medicine, providing the highest quality and environmental safety of animal products. Among the last novelties are — low-toxic insecticide Cyflur, hepatoprotective product Carsylin, multi-component disinfectant DezSan, eye-and-ear drops Cyflodex, feed additive Normotel, the drugs that are not excreted with milk — anthelmintic Trematozol, antibiotic Ceftioclin, water-soluble anthelmentics Kombitrem-emulsion, Trematozol, Rafenzol and Brovermectin 2%, environmentally safe disinfectant BROVADEZ-PLUS, vitamin complexes CEDA-vit, DAE-vit, Fos-Bevit, products containing only chelats (Microstimulin) or natural components (Apihealth, Nizhnodiy, Uzatimol, Fitocept).

Technical potential
Year by year BROVAPHARMA Ltd increases its capacity. The Company launched a new production and warehouse building with a total area of 3000 sq. m. The workshops of liquid, soft and solid dosage forms are equipped with modern equipment — lines with pharmaceutical technology Bottlepack®, production lines of powdered products in plastic packaging, multilayered packages «triplex», tablets in blister packs; gels, ointments and emulsions in tubes and syringe-dispensers, products in mono-doses. All processes fully comply with the standards and requirements of GMP (Good Manufacturing Practice). Construction of the administrative and warehouse building with a total area of 1 200 sq. m. was completed in 2018. The building includes office premises, warehouses for packing materials and finished products. In the near-term plans — launch of a new scientific-research and control laboratory.
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www.brovapharma.com  brovapharma
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|   |                            |                            | tylosin tartrate — 30, 49, 54, 55, 64, 65 |
|   |                            |                            | V |
|   |                            |                            | vicasol — 35, 36 |
|   |                            |                            | vitamin A — 35, 36, 92, 94 |
|   |                            |                            | vitamin B12 (cyanocobalamin) — 96 |
|   |                            |                            | vitamin B1 (nicotinamide) — 96, 102 |
|   |                            |                            | vitamin B2 (folic acid) — 96 |
|   |                            |                            | vitamin C — 92 |
|   |                            |                            | vitamin D3 — 92, 94 |
|   |                            |                            | vitamin E (a-tocopherol acetate) — 92, 94, 95 |
|   |                            |                            | X |
|   |                            |                            | xeroform — 30, 82 |
|   |                            |                            | xylazine hydrochloride — 109 |
|   |                            |                            | Z |
|   |                            |                            | zinc — 93, 98, 102 |
|   |                            |                            | zinc oxide — 80, 89 |
Brontel 5% solution for injections

1 ml of the medicinal product contains:
clozantel — 50 mg

Glass and polymer vials of 10, 20, 50, 100, 200 ml.

Description
Light yellow or light brown transparent liquid.

Pharmacological properties
Clozantel is a synthetic compound from the group of salicylanides. It inhibits and stops the transfer of electrons, changes the energy metabolism of parasites and causes their death. It has a wide spectrum of antiparasitic action, it is active against trematodes, nematodes, mites, lice, sheep's larva and larva of gadfly.

After intramuscular injection it is rapidly absorbed, the maximum concentration in the blood is reached in 12 hours and persists for 24-36 hours, and the therapeutic concentration — for 10-11 days. It is not biotransformed in the body and is excreted mainly unchanged with feces and in lactating cows — partly with milk.

Indications
Treatment and prevention of cattle, sheep, goats, dogs, cats in case of parasitic diseases caused by ecto- and endoparasites of different localization.

Contraindications
Do not prescribe to female animals in the last third of pregnancy.
Do not administer simultaneously with other antiparasitic medicinal products, organophosphorus and organochlorine compounds.

Administration and dosage
Treatment of animals against helminthiasis is carried out at the beginning of the stall period and in spring, before pasture, against hypodermatosis — immediately after the end of summer of gadflies or when nodules are found in spring.

The medicinal product is administered subcutaneously. Intramuscular injection is allowed for cattle. Injection more than 3 ml is divided into two parts and injected into different places.
Before group use, each lot of the medicinal product is pre-tested on a small number of animals. In the absence of complications, the treatment is carried out for all livestock.

Doses of the medicinal product for various animal species are given in the table.

<table>
<thead>
<tr>
<th>Animal species and types of diseases</th>
<th>Dose, ml/10 kg of body weight</th>
<th>Administration</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Cattle:</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>bunostomosis, haemonchosis, oesophagostomosis, strongylidiasis, chabertiosis, fascioliasis (sexually mature forms)</td>
<td>0.5</td>
<td>single dose</td>
</tr>
<tr>
<td>hypodermatosis (larvae of 1 and 2 stages), fascioliasis (mature and larvae older than 6 weeks)</td>
<td>1</td>
<td>single dose</td>
</tr>
<tr>
<td>scabies</td>
<td>2</td>
<td>2 doses with an interval of 7 days</td>
</tr>
<tr>
<td>larva of the meatfly</td>
<td>0.5</td>
<td>single dose</td>
</tr>
<tr>
<td><strong>Sheep, goats:</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>bunostomosis, oesophagostomosis, trichostrongyloidosis, chabertiosis, oestrosis, wohlfahrtiosis</td>
<td>0.5</td>
<td>single dose</td>
</tr>
<tr>
<td>fascioliasis (mature and larvae older than 6 weeks)</td>
<td>1</td>
<td>single dose</td>
</tr>
<tr>
<td>demodicosis, scabies</td>
<td>2</td>
<td>2 doses with an interval of 7 days</td>
</tr>
<tr>
<td><strong>Dogs:</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ancylostomiasis</td>
<td>1.5</td>
<td>single dose</td>
</tr>
<tr>
<td>demodicosis</td>
<td>1</td>
<td>2 doses with an interval of 7 days</td>
</tr>
<tr>
<td><strong>Cats:</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>otodectic mange</td>
<td>1-1.4</td>
<td>2 doses with an interval of 7 days</td>
</tr>
</tbody>
</table>

Warning
In some cases, there is a slight swelling of the injection site which disappears in 2-3 days without special treatment.
After the last administration of medicinal product, slaughter of animals for meat is allowed in 28 days, people can consume milk in 14 days. Meat obtained before the specified period is used only for feeding of carnivorous animals and making meat-and-bone meal, milk is fed to unproductive animals.

Storage
In a dry, dark place inaccessible to children at the temperature from +4 °C to + 25 °C.

Shelf life
2 years.
**Brontel 10%**  
solution for injection

1 ml contains:  
clozantel — 100 mg

Glass vials of 10 ml (10 pcs in a cardboard box),  
100 or 200 ml (1 pc in a cardboard box).

**Description**  
Clear, yellowish liquid

**Pharmacological properties**  
Clozantel is a synthetic compound from the group of salicylanides. It inhibits and stops transfer of electrons, changes energy metabolism of parasites and causes their death. Has a wide spectrum of antiparasitic action, is active against trematodes, nematodes, mites, lice, sheep's larva and larva of gadfly.

After intramuscular injection is quickly absorbed, the maximum concentration in blood is reached after 12 hours and persists for 24-36 hours, the therapeutic concentration — for 10-11 days. It is not biotransformed in the body and is excreted mainly unchanged with feces, and in lactating cows — partly with milk.

**Indications**  
Treatment and prevention of parasitic diseases in **cattle, sheep, goats, dogs, cats** caused by ecto- and endoparasites of various localization.

**Contraindications**  
Do not administer to females during the last third of pregnancy.  
Do not administer simultaneously with phosphorus-organic preparations.

**Administration and dosage**  
For group method, each batch of the drug is previously tested in a small number of animals. In case of the absence of complication the processing of the livestock is carried out.

The treatment is carried out at the beginning and the end of housing season; against hypodermatosis it is carried out immediately after the end of gad-fly period or in spring, if clinically indicated.

The drug is administered subcutaneously; intramuscular injection allowed only in cattle. Injection over 3 ml is divided into two portions and administered at different injection sites.

**Dosages for different animals are listed in the table:**

<table>
<thead>
<tr>
<th>Animal/Disease</th>
<th>Dose, ml/10 kg of b.w.</th>
<th>Application</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Cattle:</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>bunostomosis, haemonchosis, oesophagostomiasis, strongyloidiasis, chabertiosis, fascioliasis (mature forms)</td>
<td>0.25</td>
<td>once</td>
</tr>
<tr>
<td>Hypodermatosis (larvae of 1 and 2 stages), fascioliasis (mature forms and larva older than 6 weeks)</td>
<td>0.5</td>
<td>once</td>
</tr>
<tr>
<td>scurf</td>
<td>1.0</td>
<td>2 times, at an interval of 7 days</td>
</tr>
<tr>
<td>flesh fly larvae</td>
<td>0.25</td>
<td>once</td>
</tr>
<tr>
<td><strong>Sheep, goats:</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>bunostomosis, oesophagostomiasis, trichostrongylus, chabertiosis, oestrosis, wohlfahrtiosis</td>
<td>0.25</td>
<td>single</td>
</tr>
<tr>
<td>fascioliasis (mature forms and larva older than 6 weeks)</td>
<td>0.5</td>
<td>single</td>
</tr>
<tr>
<td>demodicosis, scurf</td>
<td>1</td>
<td>2 times, at an interval of 7 days</td>
</tr>
<tr>
<td><strong>Dogs:</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ancylostomiasis</td>
<td>0.75</td>
<td>single</td>
</tr>
<tr>
<td>demodicosis</td>
<td>0.5</td>
<td>2 times, at an interval of 7 days</td>
</tr>
<tr>
<td><strong>Cats:</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>otoacariasis</td>
<td>0.5-0.7</td>
<td>2 times, at an interval of 7 days</td>
</tr>
</tbody>
</table>

**Warning**  
In individual animals on the site of injection minor swelling may occur. It disappears without intervention in 2-3 days.

After the last drug administration slaughter for meat is allowed in 28 days, milk — 14 days. Meat and milk obtained earlier than the specified period is used to feed non-productive animals or for meat-and-bone meal tankage.

**Storage**  
Store in a dry, dark, unreachable for children place at the temperature from +5 °C to +25 °C.

**Shelf life**  
2 years.
Brontel-plus
solution for injection

1 ml contains:
clozantel — 50 mg
praziquantel — 50 mg

Glass vials of 100 or 200 ml (1 pc in a cardboard box)

Description
Transparent, yellowish liquid.

Pharmacological properties
Anthelmintic of a wide spectrum of action. Clozantel is a synthetic compound from the group of salicylanides. It inhibits and stops transfer of electrons, changes the energy metabolism of parasites and causes their death. Praziquantel is an anthelmintic from the group of pyrazinisoquinoline. It acts against pathogenic mammalian pathogens of trematodes: opisthorchiasis, metorchosis, clonorchiasis, schistosomiasis, paragonimosis, most larval cestodes of early stages.

Indications
It is indicated for animals affected by parasitoids caused by endo-and ectoparasites:
- sheep, goats:
  - strongulatosis of gastrointestinal tract — Bunostomum spp., Haemonchus spp., Nematodirus spp., Oesophagostomum spp., Trichostrongylus axei, Chabertia ovina etc, trematodes Fasciola hepatica, F. gigantica, Dicrocoelium lanceatum, Eurytrema pancreaticum;
  - larvae cestodosis — Anoplocephalidae (Moniezia spp.), Avitellinidae (Thysaniezia giardia, Avitellina centripunctata, Stilesia spp.);
- itch mites Psoroptidae, Sarcoptidae, Demodecidae, ixodic ticks.
- dogs:
  - ancylostomiasis Ancylostomatidae (Ancylostoma caninum, A. braziliense, Uncinaria stenocephala);
- itch mites Psoroptidae, Sarcoptidae, Demodecidae, ixodic ticks.
- tapeworm infections Taeniidae (Taenia spp., Echinococcus spp.), Dipyllidiidae (Dipyllidium caninum), Mesocestoididae (Mesocestoides spp.), Diphyllobothriidae (D. latum, D. minus).

Contraindications
Do not administer simultaneously with phosphorus-organic compounds.

Administration and dosage
The drug is administered subcutaneously, intramuscular injection is also acceptable. The dose per 10 kg of b.w. is:
- sheep, goats — 0.75-1 ml;
- dogs — 1.2-1.5 ml.
A dose over 4 ml is divided into two portions and is administered at different sites.
Each series of drug before administration is checked on a small number of animals. In case of the absence of complications — the drug is administered for all livestock.
Prophylactic treatment of sheep and goats is carried out at the beginning and at the end of confinement, and medical treatments are carried out if clinically indicated.
In case of strong infestation of sheep by acariformes Psoroptidae, Sarcoptidae, or sheep ked Melophagus ovinus, repeat treatment in 12-14 days. Brontel-plus, Brontel 10% or Brovermektin 1% should be used for that in recommended doses.

Warning
Minor swelling on the injection site may appear in some animals. It disappears without any special treatment in 2-3 days.
After the last drug administration slaughter for meat is allowed in 28 days, milk — 14 days. Meat and milk obtained earlier than specified period is used to feed non-productive animals.

Storage
Store in a dry, dark, unreachable for children place at the temperature from +5 °C to +25 °C.

Shelf life
2 years.
Brovadazol 20%  
powder for oral use

1 g contains: fenbendazole — 200 mg

Polymer packages of 100, 500, 1000 g.

**Description**
Micro granulated, white, odourless powder.

**Pharmacological properties**
Fenbendazole belongs to the group of benzimidazoles. It destroys microtubules of digestive cells and causes a neurotoxic effect in helminths. It has a disastrous effect on the larvae of different stages and destroys the integrity of the helminth eggs’ shells, so which they can not develop further.

**Indications**
For deworming of cattle, sheep and goats, pigs, horses, carnivorous and fur-bearing animals, geese, ducks, chickens, turkeys affected by nematodes (by mature and immature forms), some kinds of cestodes and trematodes and their eggs. Treatment of cyprinoid fish in bothriocephallosis.

**Contraindications**
Do not administer to animals simultaneously with antiphasciolosis drugs, as well as in 7 days after the treatment of animals by bromsalans.

**Administration and dosage**
The drug is mixed with the feeding stuff and given in morning feeding. The doses are indicated in the table below.

<table>
<thead>
<tr>
<th>Animal and name of helminthiasis</th>
<th>Dose, g/10 kg b.w.</th>
<th>Administration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cattle:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>dictyocaulosis, neascarosis, strongylatisis, strongyloidosis</td>
<td>0.4</td>
<td>one time</td>
</tr>
<tr>
<td>trichurosis</td>
<td>0.5</td>
<td>2 days</td>
</tr>
<tr>
<td>dicrocoeliosis</td>
<td>1</td>
<td>5 days</td>
</tr>
<tr>
<td>cysticercosis</td>
<td>1.25</td>
<td>3 days</td>
</tr>
<tr>
<td>paramphistomatidosis</td>
<td>0.75</td>
<td>5 days</td>
</tr>
<tr>
<td>Sheep and goats:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>neascarosis, protosstrongylatisis, strongyloidosis</td>
<td>0.25</td>
<td>one time</td>
</tr>
<tr>
<td>trichurosis</td>
<td>0.5</td>
<td>2 days</td>
</tr>
<tr>
<td>dicrocoeliosis</td>
<td>0.5</td>
<td>one time</td>
</tr>
<tr>
<td>larva cestodiasis: echinococcosis, coenurosis</td>
<td>2</td>
<td>3 days</td>
</tr>
<tr>
<td>dicrocoeliosis</td>
<td>1</td>
<td>3 days</td>
</tr>
<tr>
<td>Pigs:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ascarosis, metastrongylisis, trichocephalisis</td>
<td>0.5</td>
<td>twice with an interval of 12 hours</td>
</tr>
</tbody>
</table>

For fish: 0.25 kg of the product is mixed with 99.75 kg of the feeding stuff and then granulated. Therapeutic dose for water reservoir is 5% of the estimated fish weight. Daily dose is divided into 3-4 servings and brought to the feeding places every 2 hours during a day. Treatment course is 2 days.

**Warning**
After the last administration the slaughter of animals for meat is allowed in 10 days.
The use of internal organs (liver, lung, heart) in food is allowed in 20 days. Milk obtained from lactating animals can be used in 2 days after the last treatment. Fish for consumption is allowed in 10 days after deworming.

**Storage**
Store in a dry, dark place at the temperature from -30 °C to +30 °C.

**Shelf life**
3 years.
Brovadazol gel

gel for oral administration

1 ml contains:
fenbendazole — 150 mg

Syringe with dispenser of 30 ml (1 pc in a cardboard box).

Description
Homogeneous white gel.

Pharmacological properties
Fenbendazole belongs to the group of benzimidazoles. It destroys microtubules of digestive cells and causes a neurotoxic effect in helminths. It has a harmful effect on the larvae of different stages and breaks the integrity of the helminth eggs shells, after which they are not capable of further development.

Indications
It is indicated for treatment and prevention of invasive disease of horses caused by such pathogens as Ascaridae, Strongylidae, Strongyloididae, Oxyurata, Trihonematidae, Dictyocaulus spp., Parafilaria multipapillosa, Onchocerca cervicalis, Gasterophilus spp.

Contraindications
None.

Administration and dosage
1 ml of drug per 20 kg of body weight. Orally, directly into the mouth on the root of the tongue, one time by syringe. In case of diseases caused by larvae Trichostrongylus axei and Gasterophilus spp.: on root of the tongue twice with interval of 24 hours. Preventive deworming of horses is recommended every 3-4 months.

Warning
After deworming the slaughter for meat is allowed in 14 days. If meat is obtained before specified period, it must be fed to unproductive animals or used for production of meat-and-bone meal tankage.

Storage
Store in a dry, dark place at the temperature from +1 °C to +20 °C.

Shelf life
2 years.
**Brovadazol tablets**
tablets for oral administration

1 g (1 tablet) contains:
fenbendazole — 50 mg

Blister package of 10 tablets (1 or 3 blisters in a cardboard box).

**Description**
Flat cylindrical tablets of white or greyish-white colour.

**Pharmacological properties**
Fenbendazole belongs to the group of benzimidazoles. It destroys microtubules of digestive cells and causes a neurotoxic effect in helminths. It has a harmful effect on the larvae of different stages and breaks the integrity of the helminth eggs’ shells, thus they are not capable of further development.

**Indications**
It is indicated for deworming of cattle, sheep and goat, pigs, horses, carnivorous and fur-bearing animals, chickens, geese affected by nematodes (by mature and immature forms), certain types of cestodes and trematodes.

**Contraindications**
Do not administer to animals at the same time with antiphasciolosis drugs, as well as within 7 days after treatment of animals by bromsalanams.

**Administration and dosage**
Before use, the powder is mixed with the fodder and given at the beginning of the morning feeding. The following table indicates the recommended doses.

<table>
<thead>
<tr>
<th>Animal and name of helminthiasis</th>
<th>Dose, tabl. / kg of b.w.</th>
<th>Administration</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Cattle:</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>dictyocaulosis, strongylatosis, strongyloidosis</td>
<td>2</td>
<td>one time</td>
</tr>
<tr>
<td>dicroceliosis</td>
<td>6.6</td>
<td>one time</td>
</tr>
<tr>
<td>cysticercosis</td>
<td>5</td>
<td>3 consecutive days</td>
</tr>
<tr>
<td><strong>Sheep and goats:</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>mixed nematodes invasion</td>
<td>3</td>
<td>one time</td>
</tr>
<tr>
<td>monieiosis</td>
<td>2</td>
<td>one time</td>
</tr>
<tr>
<td>trichurosis</td>
<td>3</td>
<td>2 consecutive days</td>
</tr>
<tr>
<td>echinococcosis, coenurosis</td>
<td>8</td>
<td>3 consecutive days</td>
</tr>
<tr>
<td>dicroceliosis</td>
<td>4.4</td>
<td>2 consecutive days</td>
</tr>
<tr>
<td><strong>Pigs:</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ascarosis</td>
<td>1.5</td>
<td>2 consecutive days</td>
</tr>
<tr>
<td>trichurosis</td>
<td>2</td>
<td>twice a day</td>
</tr>
<tr>
<td>oesophagostomosis, strongyloidosis</td>
<td>2</td>
<td>one time</td>
</tr>
<tr>
<td>mixed invasion:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• piglets at the age from 2 till 8 weeks old</td>
<td>0.2</td>
<td>once a week</td>
</tr>
<tr>
<td>• breeding stock</td>
<td>1.5</td>
<td>twice a week</td>
</tr>
<tr>
<td><strong>Horses:</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>parascarosis</td>
<td>3</td>
<td>one time</td>
</tr>
<tr>
<td>strongylatosis</td>
<td>2</td>
<td>one time</td>
</tr>
<tr>
<td>foals at the age of 1-2 months strongyloidosis</td>
<td>1.6</td>
<td>2 consecutive days</td>
</tr>
<tr>
<td><strong>Fur-bearing and carnivorous animals:</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>mixed invasion</td>
<td>3</td>
<td>one time</td>
</tr>
<tr>
<td><strong>Chickens:</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ascariaasis, heterakidosis</td>
<td>2</td>
<td>one time</td>
</tr>
<tr>
<td><strong>Geese:</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>mixed invasion</td>
<td>8</td>
<td>one time</td>
</tr>
</tbody>
</table>

**Warning**
After the last administration the slaughter of animals for meat is allowed:
- cattle, sheep, goats and pigs — in 10 days;
- poultry — in 3 days.
The use of internal organs (liver, lung, heart) for food is allowed in 20 days. Milk of lactating animals can be used in 2 days after the last administration of the drug.

**Storage**
Store in a dry, dark place at the temperature up to +25 °C.

**Shelf life**
3 years.
Brovalevamisole 8% solution for injection

1 ml contains: levamizole hydrochloride — 80 mg

Glass vials of 10, 20, 50, 100 ml, polymer vials of 100 ml (1 pc in a cardboard box).

Description
Clear, colorless liquid without particulate matter with low characteristic smell.

Pharmacological properties
Levamisole hydrochloride is a synthetic compound from the group of imidazothials. The main exchange enzyme fumarate reductase inhibits the formation of ATP, paralyzes the nerve nodes, causes paralysis and death of nematodes in the first 12-24 hours after administration. In the animal’s liver, it is transformed into oxymercaptoethylphenylimidazolidine, which has an immunostimulating effect on animals and birds.

Indications
It is indicated for prevention and treatment of gastrointestinal and lung nematodosis caused by:
- pigs — Ascaris suum, Trichuris suis, Oesophagostomum dentatum, Metastrongyulus elongatus, M. pudendotectus, M. salmi, M. pulmonalis, M. tschauiricus, Ollulanus tricuspis, O. suis, Strongyloides ransomi;
- carnivores — Toxocara canis, T. catu, Toxascaris leonina, Uncinaria stenocephala, Anclylostoma caninum;
- poultry (chickens, geese, turkeys, pigeons) — Ascaridia galli, Heterakis gallinarum, Capillaria spp., Trichostrongylus spp.

Contraindications
Do not administer to females in the last third of pregnancy, breeding males in the breeding period, laying hens and emaciated animals. Do not administer simultaneously with pyrantel, morantel, organophosphorus agents, neostigmine.

Warning
Slaughter of animals and poultry is permitted in 7 days after the last administration, milk and eggs can be used for food purposes in 3 days. In the case of slaughter before the specified period, the meat is used to feed carnivorous animals or for the milk-and-bone tankage.

Storage
Store in a dry, dark place at the temperature from +1 °C to +25 °C.

Shelf life
3 years.

Administration and dosage
The doses and the routes of administration are indicated in the following table:

<table>
<thead>
<tr>
<th>Animal species</th>
<th>Dose, ml/10 kg of b.w.</th>
<th>Administration route</th>
<th>Administration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cattle</td>
<td>1</td>
<td>s/c (neck), i/m (anconeus muscle)</td>
<td>one dose should not exceed 30 ml, dose which is more than 15 ml should be divided into 2 injections and administered in different sites</td>
</tr>
<tr>
<td>Pigs</td>
<td>2.5 (per each next 50 kg, one time)</td>
<td>s/c (knee bend or area behind the ear), i/m</td>
<td>dose which is more than 10 ml should be divided into 2 injections and administered in right and left side</td>
</tr>
<tr>
<td>Sheep, goats</td>
<td>1 (up to 50 kg) 6 (more than 50 kg one time)</td>
<td>s/c</td>
<td>one time</td>
</tr>
<tr>
<td>Dogs</td>
<td>1</td>
<td>i/m, orally</td>
<td>one time</td>
</tr>
<tr>
<td>Poultry</td>
<td>3-4</td>
<td>orally with water</td>
<td>one time or this dose is divided for 3-4 days.</td>
</tr>
<tr>
<td>Pigeons</td>
<td>1 ml per 200 ml of drinking water</td>
<td>orally with water</td>
<td>3-5 days</td>
</tr>
</tbody>
</table>
Brovalevamisole 8% powder
powder for oral administration

1 g contains:
levamizole hydrochloride — 80 mg

Polymer packages of 25, 500 g.

Description
Powder of white or yellowish color, soluble in water.

Pharmacological properties
Levamisole hydrochloride is a synthetic compound from the group of imidazothialys. The main exchange enzyme fumarate reductase inhibits the formation of ATP, paralyzes the nerve nodes, causes paralysis and death of nematodes in the first 12-24 hours after administration. In the animal’s liver, it is transformed into oxymercaptoethylphenylimidazolidine, which has an immunostimulating effect on animals and birds.

Indications
It is indicated for prevention and treatment of gastrointestinal and lung nematodosis caused by:
- pigs — Ascaris suum, Trichuris suis, Oesophagostomum dentatum, Metastrongylus elongatus, M. pudendotectus, M. salmi, M. pulmonalis, M. tschauiricus, Ollulanus tricuspis, O. suis, Strongyloides ransomi;
- carnivores — Toxocara canis, T. catu, Toxascaris leonina, Uncinaria stenocephala, Ancylostoma caninum;
- poultry (chickens, geese, turkeys, pigeons) — Ascaridia galli, Heterakis gallinarum, Capillaria spp., Trichostrongylus spp.

Contraindications
Do not administer to females in the last third of pregnancy, for breeding males in tread period, to sick and emaciated animals. Do not administer simultaneously with pyrantel, morantel, organophosphorus agents, neostigmine.

Administration and dosage
The drug is administered orally with food or drinking water in the following doses:
- cattle, sheep, pigs, dogs — 1 g per 10 kg of body weight, one time;
- poultry — 3-4 g per 10 kg of body weight, one time; or divide the dose for using during 3-4 days;
- pigeons — 1 g dissolve in 200 ml of water and administer to the birds for 3-5 days instead of drinking water.

Warning
Slaughter of animals for meat is allowed in 7 days after the last administration, milk can be used for food purposes in 3 days. In the case of slaughter before specified period, the meat is used to feed unproductive animals or for the production of meat-and-bone meal tank-age, milk is used for unproductive animals.

Storage
Store in a dry place at the temperature from +1 °C to +25 °C.

Shelf life
3 years.
Brovalzen emulsion
emulsion for oral administration

1 ml contains:
albendazole — 75 mg

Polymer vials of 50, 100, 300, 1000 ml.

Description
White or gray, odorless emulsion.

Pharmacological properties
Anthelmintic with broad spectrum of action from the group of benzimidazoles. It inhibits protein (tubular) synthesis, as a result, infringement of the intake and intracellular transport of nutrients, exchange of substrates of substances (adenosine triphosphate and glucose), due to inhibition of fumarate reductase, mitochondrial reactions decrease, that causes the death of parasites.

Indications
It is indicated for treatment of cattle, sheep, goats, pigs, horses, dogs, cats, fur animals, chickens affected by mature trematodes Fasciola hepatica, Dicrocelium lanceatum, nematodes of the gastrointestinal tract and lungs Bunostomum spp., Sooreria spp., Dictyocaulidae spp., Haemonchus spp., Nematodirus spp., Ostertagias spp., Strongyloides spp., Trichostrongylus spp., Trichuris spp. etc. cestodes Avitellina centripumctata, Moniezia expansa, M. benedebia, Thysanieziagiardi.

Contraindications
Do not administer to female animals in the first third of pregnancy, to ewes during mating and in the first month after the withdrawal of lambs from the flock.

Administration and dosage
Before administering the drug is thoroughly shaken and is added to water or feed. Treating mixture is given once individually or by group method in the early morning feeding.
Ruminants are fed by mixture forcefully using rubber or plastic bottle. For other animal species the drug mixed is mixed with wet food or added to a third of the daily water norm and evaporated by a group method.
Doses are given in the table below.

<table>
<thead>
<tr>
<th>Animal species</th>
<th>Helminthiasis</th>
<th>Dosage ml / 10 kg of b.w.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cattle, nematodes, cestodes</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Cattle, trematodes</td>
<td>1.3-2</td>
<td></td>
</tr>
<tr>
<td>Sheep, goats, nematodes, cestodes</td>
<td>0.7</td>
<td></td>
</tr>
<tr>
<td>Sheep, goats, trematodes</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Pigs, nematodes, oesophagostomosis,</td>
<td>1.3 (repeat in 12-14 hours)</td>
<td></td>
</tr>
<tr>
<td>trichocephalosis</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Horses and other onehoofed animals,</td>
<td>0.7</td>
<td></td>
</tr>
<tr>
<td>nematodes, cestodes</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dogs, cats and fur-bearing animals,</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>nematodes, cestodes</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Chicks, nematodes</td>
<td>1.3</td>
<td></td>
</tr>
<tr>
<td>Chickens, nematodes</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

In case of fascioliasis in ruminants, the drug is used at any season of the year. Considering that albendazole is ineffective against fasciolae larvae, the first preventive deworming is carried out 2-2.5 months after the end of the pasture period, and the second one — no later than 10-15 days before the pasture.

Warning
After the last administration the slaughter of animals for meat is allowed: cattle, sheep, goats — in 7 days; pigs — in 10 days.
Using of internal animal organs (liver, lung, heart) is allowed in food: pigs — in 35 days; ruminants and chickens — in 20 days.
Milk of lactating animals can be used in 2 days after the last treatment.

Storage
Store in a dry dark place at the temperature from 0 °C to +30 °C.

Shelf life
3 years.
Brovalzen-250 tablets
tablets for oral administration

1 g contains active ingredient:
albendazole — 250 mg

Polymer blisters of 10 tablets (3 or 10 blisters in a carton box).

Description
Tablets of light yellow or orange color, rounded cylindrical shape.

Pharmacological properties
Anthelmintic with broad spectrum of action from the group of benzimidazoles. It inhibits protein (tubular) synthesis, as a result, infringement of the intake and intracellular transport of nutrients, the exchange of substrates of substances (adenosine triphosphate and glucose), due to inhibition of fumarate reductase, mitochondrial reactions decrease, that causes the death of parasites.

Indications
It is indicated for deworming of cattle, sheep, goats, pigs, dogs, cats, chickens affected by nematodes (by mature and immature forms) Anisakidae, Ancylostomatidae, Ascaridae, Dictyocaulidae, Oxyuridae, Protostrongylidae, Strongylidae, Syphacidae, Trichuridae, Trichonematidae, Trichostrongyliidae, certain types of cestodes Avitellinidae, Anoplocephalidae, Taeniidae and mature trematodes Fasciolidae, Dicrocoeliidae.

Contraindications
Do not administer to females in the first month after insemination.

Administration and dosage
The drug is administered one time before the beginning of morning feeding. For cattle and sheep the drug is administered to the root of the tongue or with food mixture. For poultry the dose is divided into a half and administered with a daily interval.

Doses are given in the table below.

<table>
<thead>
<tr>
<th>Animal</th>
<th>Helminthiasis</th>
<th>Weight of the animal, kg of b.w./1 g</th>
<th>Dose, g/10 kg of b.w.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cattle</td>
<td>nematodes, cestodes</td>
<td>40</td>
<td>0.3</td>
</tr>
<tr>
<td></td>
<td>trematodes</td>
<td>30</td>
<td>0.4-0.6</td>
</tr>
<tr>
<td>Sheep, goats</td>
<td>nematodes, cestodes</td>
<td>50</td>
<td>0.2</td>
</tr>
<tr>
<td></td>
<td>trematodes</td>
<td>40</td>
<td>0.3</td>
</tr>
<tr>
<td>Pigs</td>
<td>nematodes</td>
<td>25</td>
<td>0.4</td>
</tr>
<tr>
<td>Dogs</td>
<td>nematodes, cestodes</td>
<td>15</td>
<td>0.9</td>
</tr>
<tr>
<td></td>
<td>trematodes</td>
<td>10</td>
<td>1</td>
</tr>
<tr>
<td>Chickens</td>
<td>nematodes</td>
<td>25</td>
<td>0.4</td>
</tr>
</tbody>
</table>

When grazing the preventive and therapeutic deworming is conducted at the beginning and at the end of the period stall. In case of affection of ruminant animals with fascioliasis, the drug is used at any time of the year. Depending on intensity of infestation, the drug is used in the following doses per 10 kg of body weight:
• up to 4 fasciolae eggs (low level of infestation) — 1.3 g;
• 5-10 fasciolae eggs (moderate infestation) — 1.5-1.7 g;
• more than 10 fasciolae eggs (strong infestation) — 1.7-2 g.

Taking into account that albendazole is ineffective against fasciolae larvae, the first preventive deworming is carried out 2-2.5 months after the end of pasture period, and the second one — no later than 10-15 days before pasture.

Warning
After the last administration the slaughter of animals for meat is allowed: cattle, sheep, goats — in 7 days; pigs — in 10 days; poultry — in 2 days. Using of internal animal organs (liver, lung, heart): pigs — in 35 days, ruminants and poultry — in 20 days, milk of lactating animals can be drunk in 2 days after the last treatment.

Storage
Store in a dry, dark place at the temperature from −30 °C to +30 °C.

Shelf life
3 years.
Brovanol-C
suspension for oral administration

1 ml contains:
praziquantel — 15 mg
pyrantel pamoate — 45 mg

Polymer vials of 5, 10 ml (1 pc in a cardboard box, with pipettes).

**Description**
Suspension of light yellowish color.

**Indications**
Prevention and treatment of dogs and cats from three weeks of age suffering from nematodosis (toxocarosis, toxascariasis, uncinariosis, trichuriasis, ankylostomiasis), cestodosis (tapeworm infection, dipylidiasis, echinococcosis, duphyllobothriasis, mesocestoidosis) and mixed nematode- and cestode invasions.

**Pharmacological properties**
Combined anthelmintic preparation of a wide spectrum of action on round and tape helminths of all phases of development.

Praziquantel — a synthetic compound, a derivative of quinoline, breaks the permeability of cellular helminth membranes for calcium ions, which leads to suppression of glucose metabolism, destruction of the cellular membranes in parasites, their paralysis and death. Well absorbed in the digestive tract and reaches a maximum concentration in the blood plasma after 1-3 hours, bioavailability of praziquantel is about 80%. Metabolized in liver with formation of inactive metabolites, is excreted from the body with urine, partly with feces. Half-life is about 1.5 hours.

Pyrantel pamoate is a derivative of tetrahydropyrimidine, is active against nematodes of all forms of development, blocks transmission of nerve impulses in neuromuscular synapses by depolarizing the membranes of muscle cells, thereby causing paralysis of the muscular system of nematodes. Almost not absorbed from the intestine, because of which the anthelmintic effect is prolonged. It is excreted from body mainly in unchanged form (93%) with feces.

**Indications**
Prevention and treatment of dogs and cats suffering from nematodosis (toxocarosis, toxascariasis, uncinariosis, trichuriasis, ankylostomiasis), cestodosis (tapeworm infection, dipylidiasis, echinococcosis, duphyllobothriasis, mesocestoidosis) and mixed nematode- and cestode invasions caused by Toxocara canis, Toxocara mistax, Toxascaris leonina, Uncinaria spp., Trichuris vulpis, Ancylostoma spp., Echinococcus granulosus, Alveococcus multilocularis, Mesocestoides lineatus, Diphyllidium caninum, Diphyllobothrium latum, Multiceps multiceps, Taenia spp.

**Contraindications**
Hypersensitivity to the drug.
Do not administer to females in the first half of pregnancy and for two weeks after giving birth, to puppies and kittens under three weeks old, to emaciated and sick animals with infectious diseases.
Do not use simultaneously with piperazine and drugs that inhibit cholinesterase.

**Administration and dosage**
The drug is administered individually, once before the morning feeding with a small amount of feed, or administered forced on the root of the tongue with measuring beaker or syringe without a needle. Dosage: 1 ml per 3 kg of b.w.; for small animals — 0.33 ml (14-15 drops) per 1 kg of b.w.
Shake before use.
In case of severe invasion it is recommended to repeat deworming in 10 days.
Prophylactic deworming is conducted quarterly and in 12-14 days prior to vaccination.
No need to hold starvation diet or use laxatives.

**Warning**
In some animals complications possible due to intoxication: hives and itching in the area of the rectum, anxiety, diarrhea, vomiting less frequent.
These symptoms quickly disappear without further intervention.

**Storage**
Store in a dry, dark place, away from feed and food products, at the temperature of +4 °C to +25 °C.
After opening, keep the product in a fridge, use within 30 days.

**Shelf life**
2 years.
Brovanol M
tablets for oral administration

1 tablet contains:
- niclosamide — 92 mg
- oxibendazole — 12 mg
- levamizole hydrochloride — 16 mg

Blisters of 10 tablets (1 pc in a cardboard box).

Description
Flat, rounded cylindrical tablets of yellow color with slight characteristic smell.

Pharmacological properties
Antiparasitic drug of a wide spectrum of action. Niclosamide, when administered orally, is not absorbed from the gastrointestinal tract. Contacting with tape helminths, it inhibits oxidation-phosphorylolytic processes, leads to the weakening and rapid death of scolexes and segments of parasites that are partially digested and removed from the animals. Oxibendazole disrupts the metabolism of glucocides in nematodes, blocking the formation of ATP, which causes paralysis and death of parasites of all stages of development a few hours after administration of the drug. Levamisole enhances the nematocidal effect of oxybendazole, is an effective immunomodulator. With further vaccination contributes to formation of post-vaccination immunity of a high level.

Indications
It is indicated for the treatment and prevention of dogs and cats suffering from mixed invasions caused by larvae and adult helminthes of the digestive tract: ancylostomiasis (Ancylostoma sapipit), dog tapeworm (Dipylidium sapipit) diphyllobothriasis (Diphyllobothrium latum, D. minus), toxocariasis (Toxocara canis, T. cati), toxascaridosis (Toxascaris leonina), trichuriasis (Trichoctptalus vulpis and T. nutpia), taeniasis (Taenia hydatigena, T. multictps), uncinariosis (Uncinaria stenocphala), and some others. If the dogs are also affected by ectoparasites (fleas, lice, mites), it is recommended to use Brovanol plus instead of Brovanol M.

Contraindications
Intestinal atony.

Administration and dosage
Therapeutic dose for puppies and kittens — 1 tablet of Brovanol-M per 4 kg of b.w. This dose should be divided into a half and is administered with a daily interval. The first deworming of puppies is conducted before vaccination at the age of 4-5 weeks, kittens — 6 weeks of age. Subsequently prophylactic treatment at the indicated doses is preferably carried out every 3-4 months.

Warning
Do not exceed the indicated doses. Hives and itching in the rectum, restlessness, diarrhea, vomiting may appear in some animals with a strong invasiveness due to intoxication by digested pieces of helminthes. All these symptoms disappear quickly without special intervention.

Storage
Store in a dry, dark place at the temperature of +1 °C to +25 °C.

Shelf life
3 years.
**Brovanol plus**
tablets for oral administration

1 g of the product (1 tablet) contains:
- prasiquantel — 50 mg
- ivermectin — 2 mg
- levamisole hydrochloride — 38 mg

Polymer blisters of 10 tablets (1 pc in a cardboard box).

**Description**
Flat, round cylindrical tablets of white or grayish color with a low characteristic smell.

**Pharmacological properties**
Antiparasitic drug of a wide spectrum of action.
Prasiquantel inhibits muscle innervation and disrupts the membrane-throughput function of cells of cestodes and trematodes, which leads to their death.
Ivermectin enhances the binding of GABA (gamma-aminobutyric acid) to special receptors on the nerve endings of the parasite (nematodes, arachnids, insects and larvae of hornflies), blocking the innervation of the parasite and causing its paralysis and death.
Levamisole is an effective immunomodulator and, with further vaccination, promotes the formation of post-vaccination immunity of a high level.

**Indications**
It is indicated for treatment and prevention of dogs with diseases caused by skin parasites: fleas, lice, sarcoptes and ixodes mites, larvae and adult nemathelminthes, cestodes and some trematodes, namely: ancylostomiasis (Ancylostoma caninum), diphyllobothriasis (Diphyllobothrium latum, D. minus), dipylidiasis (Dipylidium caninum), toxocarosis (Toxocara canis, T. Cat), toxoascarosis (Toxascaris leonine), trichocehalosis (Trichocehalus vulpis, T. nutpia), teniasis (Taenia hydatigena, T. multiceps), uncinariasis (Uncinaria stenocephala), opisthorchiasis (Opisthochis tenuicolis, O. viverini, O. sinensis), paragonimiasis (Paragonimus westermani), mesocecestiosis (Mesocecestoides linattus, M. litteratus, M. corli, M. petrovi), dirofilariasis (Dirofilaria immitis, D. renens), echinococcosis (puberty forms only Echinococcus granulosus, E. multilocularis), etc.
In absence of skin parasites in animals, it is recommended to use Brovanol D for preventive deworming.

**Contraindications**
Do not administer to dogs of such breeds as collie, sheltie, bobtail and puppies up to six months of age.

**Administration and dosage**
Before administration the tablets are dispersed and mixed with one third of feed in the morning.
The treatment dose is 1 tablet per 10 kg of body weight.
For animals younger 1.5 years the specified dose is divided in two parts and is fed at daily interval.
In case of demodecosis it is advisable to repeat the treatment in same dosage in 10-12 days.
If skin parasites are absent, it is recommended to use Brovanol D for preventive deworming.

**Warning**
Do not exceed specified doses. The drug is administered only on the advice of a veterinarian.

**Storage**
Store in a dry, dark place at the temperature up to +25 °C.

**Shelf life**
3 years.
**Brovatriol**

tablets for oral administration

3 g (1 tablet) contain:
- triclabendazole — 165 mg
- albendazole — 330 mg
- praziquantel — 120 mg

Polymer containers of 10, 100 tablets.

**Description**
Tablets of green color, oval shaped

**Pharmacological properties**
Anthelmintic of a broad spectrum of action against mature and larval forms of cestodes Moniezia, Avitellina, Thysaniezia, all stages of trematodes Fasciola hepatica, F. gigantica, Dicrocoelium lanceatum, nematodes Dictyocaulus, Haemonchus, Ostertagia, Marshallagia, Trichostrongylus, Nematodirus, Cooperia, Oesophagostomum, Bunostomum, Chabertia, etc.

**Indications**
It is indicated for individual deworming of cattle, camels, buffaloes, yaks, sheep and goats affected by nematodes, cestodes and trematodes.

**Contraindications**
Do not administer to females in the first month after insemination or to weak and sick animals.

**Administration and dosage**
The product is put forcibly to the root of the tongue. In case of group deworming calculated number of tablets is powdered and mixed with a half of daily feed norm, then is fed during the morning feeding in the following doses:
- **cattle, camels, buffaloes, yaks** — 1 tablet per 40 kg of body weight;
- **sheep and goats** — 1/2 tablet per 23-25 kg, 1 tablet per 35-40 kg.

Preventive deworming of cattle is conducted twice a year (at the beginning of housing season and before grazing).

**Warning**
Personnel working with the drug must observe the rules of hygiene and safety.
Slaughter of animals for meat is allowed in 14 days after the last administration. Milk is allowed to use for human consumption in 2 days.

**Storage**
Store in a dry, dark place at the temperature up to +30 °C.

**Shelf life**
3 years.
Brovermectin 1% solution for injection

1 ml contains:
ivermectin — 10 mg

Glass ampules of 1 ml, glass vials of 10 ml (10 pcs in a cardboard box), class vials of 20, 50, 100 ml (1 pc in a cardboard box), polymer ampules of 100 ml (1 pc in a cardboard box).

Description
Clear, colorless or light yellow liquid without particulate matter with slight characteristic odor

Pharmacological properties
Ivermectin is a mixture of two semisynthetic derivatives of avermectins that belong to macrocyclic lactones. Stimulates release of neurotransmitter inhibition of gamma-aminobutyric acid (GABA), blocks transmission of nerve impulses through interneurons of the ventral nerve trunk of nematodes and neuromuscular junction of arthropods, causing paralysis and death of parasites.

Indications
It is indicated for treatment and prevention of animals suffering from invasive diseases caused by:
- **cattle:** diseases of gastrointestinal tract caused by nematodes and larvae of 4th stage — Nematodirus helvetianus, Ostertagia ostertagi, O. lyrata, Bunostomum trigonocephalum, B. phlebotomum, Haemonchus placei (including 3d srage), Trichostrongylus acei, T. Colubriformis, Cooperia pectinata; diseases of lungs caused by Dictyocaulus viviparus, cavitary helminthes — Setaria labiato-papillosa; skin helminthes — Paraphilaria bovicolai; larvae of subcutaneous gadfly — Hypoderma bovis, H. lineatum; itch mites — Psoroptes bovis; Sarcoptes bovis, Chorioptes bovis; mites — Demodex bovis; louse — Bovicola bovis; lice — Haematopinus eurysternus, Linognathus vituli;
- **sheep and goats:** nematodes of gastrointestinal tract — Burtostomum trigonocephalum, Haemonchus confront, Ostertagia circumcinta, Oesophagostomum venulosum, O. Columbianum; Chabertia ovina, Trichostrongylus axei; Trichostrongylus colubriformis, Trichuris ovis; air-breathing helminthes — Dictyocaulus filaria, Prolostrongylus rufescens; nasopharyngeal gadfly — Oestrus ovis; itch mites — Psoroptes ovis, Sarcoptes ovis, S. caprae, Chorioptes ovis, Ch. Caprae; louse — Bovicola ovis, B. caprae; lice — Linognathus ovillus, L. pedalis, L. caprae;
- **pigs:** nematodes of gastrointestinal tract — Ascaris suum, Oesophagostomum dentatum; Strongyloides ransomi; Trichuris suis; air-breathing helminthes — Metastrongylus spp.; kidney helminthes — Stefanurus dentatus, lice — Haemalopinus suis; mite — Sarcoptes suis, S. Parvula, Demodex phylloides;
- **horses:** nematodes of gastrointestinal tract — Ascaridae, Strongylidae, Strongyloidae, Oxyuridae, Trichonematidae, Spiruridae; air-breathing helminthes — Dictyocaulus spp.; skin helminthes — Parafilaria multipapillosa, Onchocerca cervicalis; gadfly larvae — Gasterophilus spp.; Rhinoestrus purpureus;
- **dogs:** nematodes of gastrointestinal tract — Toxocara canis, Toxascaris leonine, Ancylostoma caninum, Uncinaria stenocephala; mites — Sarcoptes canis, Notoedres cati, Otodectes suinitis, Cheyletiella jacuri, Demodex canis; lice — Linognathus setotus;
- **rabbits:** nematodes Passalurus ambiguus; mites — Psoroptes cuniculi;
- **poultry (chickens, turkeys):** mites — Knemidocoptes mutans, K. pilae, K. gallinae.

Contraindications
Do not administer to cows during lactation and at least 28 days prior to calving; dogs of small breeds; laying hens, as well as hidebound animals of all kinds. Brovermectin is not recommended for puppies up to the age of six months, dogs of such breeds as collie, bobtail or their hybrids.

Administration and dosage
The drug is administered subcutaneously in the shoulder blade, for pigs — in the middle of the neck, in the indicated doses:

<table>
<thead>
<tr>
<th>Animals</th>
<th>Dose, ml/10 kg of b.w.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cattle, sheep, goats, horses, rabbits</td>
<td>0.2</td>
</tr>
<tr>
<td>Pigs</td>
<td>0.3</td>
</tr>
<tr>
<td>Dogs</td>
<td>0.2-0.4</td>
</tr>
<tr>
<td>Poultry (chickens, turkeys)</td>
<td>0.1 (per 1 bird), 0.2 (if b.w. exceeds 5 kg)</td>
</tr>
</tbody>
</table>

When treating mange, demodicosis, chorioptosis the drug is administered repeatedly in 8-10 days. Injection over 5 ml is divided into 2 parts and injected into different areas of the body.

Warning
After administration, the slaughter of animals for meat is allowed in 28 days. In case of slaughter before specified period, the meat is used to feed unproductive animals or for the production of meat-and-bone tankage and the eggs are used for unproductive animals.

Storage
Store in a dry dark, unreachable for children place, at the temperature from +8 °C to +25 °C.

Shelf life
3 years.
Brovermectin 2%
solution for oral administration

1 ml contains:
ivermectin — 20 mg

Glass vials with droppers of 10 ml (1 pc in a cardboard box),
glass vials of 100 ml, polymer vials of 1 l.

Description
Clear, slightly yellowish liquid, with characteristic odor

Pharmacological properties
Ivermectin is a mixture of two semisynthetic derivatives of avermectins
that belong to macrocyclic lactones. Stimulates release of neurotransmitter
inhibition of gamma-aminobutyric acid (GABA), blocks transmission
of nerve impulses through the interneurons of the ventral nerve trunk of
nematodes and neuromuscular junction of arthropods, causing paralysis
and death of parasites.

Indications
It is indicated for therapeutic and prophylactic treatment of animals against
endo- and ectoparasites:
- **pigs**: mature and immature forms of nematodes Ascaridae, Metastrongylidae,
  Oligacanthohynchidae, Oullulanidae, Strongylidae, Trichuridae; mites Demodex phylloides, Sarcopistes parvula,
  S. suis; lice Haematopinus suis;
- **rabbits**: nematodes Oxyuridae, Strongyloidae, Trichostrongylidae; mites
  Psoroptes cuniculi, Cheyletiella parasitivorax, Listophorus gibbus; flea
  Spilopsyllus cuniculi;
- **poultry (chickens, turkeys, geese, ducks, pigeons, ostriches)**: mature
  and immature forms of nematodes Acanthocephalidae, Amidostomatidae, Ascaridae,
  Capillaridae, Dirofilaria, Heterakidae, Syngamidae, Tetrameresidae;
  cestodes Davaineata; mites Argas persis, Dermanyssus gallinae,
  Epidermoptes bilobatus, Knemidocoptes gallinae, K. mutans, K. pilae,
  Snyngphilus bipectinalus; slender louse and fleas Menopon gallinae,
  Menacanthus stramineus, Goniodes caponis, Echinocephalus gallinae,
  Ceratophyllum gallinae;
- **dogs**: nematodes of gastrointestinal tract Toxocara canis, Toxascaris leonina,
  Ancylostoma caninum, Uncinaria stenocephala; mites Sarcopistes
  canis, Notoedres cati, Otodectes cynotis, Cheyletiella jasguri, Demodex
  canis.

Contraindication
Do not administer to laying hens, eggs of which are consumed by people.

Administered with drinking water in the doses indicated in the table below:

<table>
<thead>
<tr>
<th>Animal</th>
<th>Dose</th>
<th>Administration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pigs</td>
<td>1 ml per 50 kg of b.w.</td>
<td>the dose is dissolved at 1/3 of daily norm of drinking water and fed during a day</td>
</tr>
<tr>
<td>Rabbits</td>
<td></td>
<td>the dose is divided into 5 parts, each of them is daily dissolved in 1/2 of daily norm of drinking water</td>
</tr>
<tr>
<td>Poultry (chickens, turkeys, geese, ducks, pigeons, ostriches)</td>
<td></td>
<td>the dose is dissolved at 1/3 of daily norm of drinking water and fed during a day</td>
</tr>
<tr>
<td>Dogs, cats</td>
<td>0.3-0.5 ml (or 7-10 drops) per 10 kg b.w.</td>
<td>on a veterinarian’s order</td>
</tr>
</tbody>
</table>

Treatment is conducted in the morning after switching off the watering system for 2 hours. In case of ectoparasites the treatment is repeated in one week.

Warning
After the last use of the drug, slaughtering of poultry for meat is permitted in 10 days, of pigs and rabbits — after 24 days. Meat obtained before the indicated term should be utilized or fed to unproductive animals depending on the veterinarian conclusion. People can eat eggs in 7 days. Eggs obtained during the treatment of laying hens are fed to unproductive animals.

Storage
Store in a dry dark place at the temperature from +4 °C to +25 °C.

Shelf life
2 years.
**Brovermectin gel**
gel for oral administration

1 ml contains:
- ivermectin — 4 mg

Syringe of 30 ml (1 pc in a cardboard box).

**Description**
Homogeneous, white semi-transparent gel.

**Pharmacological properties**
Ivermectin is a mixture of two semisynthetic derivatives of avermectins that belong to macrocyclic lactones. Stimulates release of neurotransmitter inhibition of gamma-aminobutyric acid (GABA), blocks transmission of nerve impulses through interneurons of the ventral nerve trunk of nematodes and neuromuscular junction of arthropods, causing paralysis and death of parasites.

**Indications**
It is indicated for treatment and prevention of horses and reindeers suffering from diseases caused by intestinal nematodes Ascaridae, Strongylidae, Strongyloididae, Oxyurata, Trihonematidae (Cyatomidae), Spiruridae, lung nematodes Dictyocaulus spp., nematodes Parafilaria multipapillosa, Onchocerca cervicalis, larvae Gasterophilus spp.

**Contraindication**
Do not administer to foals under the age of 4 months.

**Administration and dosage**
The product is administered by syringe directly into the mouth on the tongue root in a single dose.
The dose is 1 ml per 20 kg of b.w.

**Warning**
Slaughter of animals for meat is allowed in 28 days after the last treatment. If meat is obtained before specified period it must be fed to unproductive animals or for production of meat-and-bone meal tankage.

**Storage**
Store in a dry, dark place at the temperature from +1 °C to +20 °C.

**Shelf life**
2 years.
Brovermectin granulate
powder for oral administration

1 ml contains:
ivermectin — 3.5 mg

Polymer packages of 10, 50, 100 and 1000 g.

Description

Pharmacological properties
Ivermectin is a mixture of two semisynthetic derivatives of avermectins that belong to macrocyclic lactones. Stimulates release of neurotransmitter inhibition of gamma-aminobutyric acid (GABA), blocks transmission of nerve impulses through the interneurons of the ventral nerve trunk of nematodes and neuromuscular junction of arthropods, causing paralysis and death of parasites.

Indications
It is indicated for therapeutic deworming of animals affected by:
• pigs — mature and larval forms of nematodes Ascaridae, Metastrongylidae, Oligacanthohynchidae, Ollulanidae, Strongyloidae, Trichonematidae, Trichuridae, tick Demodexphylloides, Sarcoptes parvula, S. Suis and lice Haematopinus suis;
• poultry (chikens, turkeys, geese, ducks) — nematodes Acuaridae, Amidostomatidae, Ascaridae, Capillariidae, Dioctophymidae, Heterakidae, Syngamidae, Tetrameridae, tick Argas persicus, Dermanyssus gallinae, Epidermoptes bilobatus, Kremidocoptes gallinae, K. mutans, K. pilae, Syringophilus bipectinatus, wing louse, fleas Menopon gallinae, Menacanthus stramineus, Goniores hologaster, Lipeurus caponis, Echlinophaga gallinacean, Ceratophyllus gallina;
• rabbits — nematodes Oxyuridae, Strongyloidae, Trichoslstrongylidae; acarasis (ticks) of Psoroptes cuniculi, Cheyletiella parasitivorax, Listrophorus gibbus and fleas of Spilopsyllus cuniculi — which are the main transmitter of myxomatosis;
• dogs, cats — nematodes Anisacidae, Ancylostomidae, Ascaridae, Capillariidae, Filaridae, Groomosomatidae, Thelaziidae, Trichuridae, acarasis (ticks) of Ceyletiella jasguri, Demodex canis, Notoedres cati, Otodectes cynotis, Sarcoptes canis and skin parasites of such species as Ctenocephalides canis, Linognathus setotus, Trichodectis canis;
• cyprinoid fish — monogeneans, maxillopods Lernaea cyprinacea, Argulus foliaceus

Contraindications
Do not administer to the dogs of small breeds, and for puppies under the age of 6 months.

Administration and dosage
The drug is administered by group method of use.

<table>
<thead>
<tr>
<th>Animal</th>
<th>Dose, g/10 kg of b.w.</th>
<th>Administration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pigs</td>
<td>2</td>
<td>Period of growing. The dose is mixed with 7-day amount of feed, then the mixture is fed to animal within 7 days.</td>
</tr>
<tr>
<td>Dogs, cats</td>
<td>2</td>
<td>The dose is divided into 3 parts and fed with minced meat within 3 days. The drug is administered individually at the same dose.</td>
</tr>
<tr>
<td>Rabbits</td>
<td>1</td>
<td>The dose is mixed with 3-day amount of feed, then the mixture is fed to animal within 3 days. In case ectoparasites are detected, retreatment is conducted in a week. At the same time desinsection of farm premises is carried out.</td>
</tr>
<tr>
<td>Poultry</td>
<td>1</td>
<td>The dose is divided into 2 portions and used for 2 days. Wet mixture is prepared directly before feeding: feed stuff — 5 kg, Brovermectin granulate — 6 g (per every 100 kg of fish).</td>
</tr>
<tr>
<td>Cyprinoids</td>
<td>1.2</td>
<td></td>
</tr>
</tbody>
</table>

Warning
When mixing the drug with feed, it is important to ensure uniform mixing, which is achieved by stepwise (rising) introducing of the components. Slaughter of animals for meat is allowed in 15 days after the last use of the drug. Eggs for human consumption are allowed in 7 days after the last treatment.

Storage
Store in a dry dark place at the temperature from −10 °C to + 25 °C.

Shelf life
3 years.
Clozafen

tablets for oral administration

1 g of the drug contains:
oxyclozanide — 375 mg
fenbendazole — 225 mg

Polymer blisters of 10 tablets of 1 g (1 pc in a cardboard box),
plastic containers 10 tablets of 5 g.

Description
Blue oval tablets of 1 g and 5 g.

Pharmacological properties
Anthelmintic of a wide spectrum of action.
Oxyclozanide is an anthelmintic from the group of salicylanilides. It suppresses activity of succinate dehydrogenase and fumarate reductase, it breaks oxidative phosphorylation in cell mitochondria and ATP synthesis, which causes impairment of mobility, disturbance of energy processes and death of parasites. Oxyclozanide is effective against:
• trematodes of mature and larval forms of Fasciola hepatica, F. gigantica, Paramphistomum ichikawai, Liorchis scotiae, Dicrocoelium lanceatum, Eurytrema pancreaticum;
• cestodes Moniezia expansa, M. denedeni, Avitellina centripunctata, Stilesia globipunctata, S. hepatica, Thysaniezia giardia;
• larvae Hipoderma bovis, H. lineatum, Oestrus ovis, Crivellia silenus, Cephalopina titilator.

Fenbendazole — an anthelmintic from the group of benzimidazoles. It binds the structural protein (tubulin) of the microtubules of the cell frame, which leads to inhibition, division and secretory processes in parasite cells, as well as the absorption of glucose, which falls out as glycogen stores. Blocking of energy processes causes paralysis, death and removal of parasites from the body of animals. Fenbendazole is active against sexually mature and larval forms of gastrointestinal and nematodes. Due to the ovicidal effect, the contamination of pastures by helminth eggs decreases.

Oxyclozanide is slowly absorbed, the maximum concentration in the blood of sheep and cattle is observed after 24 hours. Almost completely (> 99%) binds to blood plasma proteins, is metabolized in the liver and up to 80% is excreted from the body with bile and feces, the rest — with urine, less than 0.1% — with milk. The half-life is about 7 days.

Fenbendazole is slowly absorbed and it is desirable that it stay in the rumen as long as possible. It is metabolized in the liver to sulfoxide derivatives identical with oxfendazole and benzimidazole, which again can return to the scar, where they are transformed into fenbendazole by the action of bacteria. This increases the bioavailability of fenbendazole in ruminants. Excreted from the body mainly with feces.

In cattle and sheep 6 days after oral intake, almost 35% of fenbendazole is excreted unchanged, about 5% — in the form of metabolites. A small amount of metabolized fenbendazole is excreted in the urine. Excretion in goats occurs twice as fast as in sheep.

Indications
It is indicated for deworming of cattle and small cattle, camels and buffaloes suffering from:
• trematodosis (acute and chronic fasciolosis, dicrocoeliasis, paramphistomatisis, eurytrematosis);
• nematodosis of gastrointestinal tract and lungs (haemonchosis, bunostomosis, esophagostomosis, nematodiosis, ostertagiosis, chabertiosis, cooperiosis, strongyloidosis, trichostrongylosis, trichocephalasis, neocariosis, dictyocaulosis, protosirognylosis, mulleriosis, cystocephalosis);
• cestodoses (avitellinosis, monieziosis, stylesiosis, thysanieziosis);
• en tomoses (hypodermatosis, oestrosis, dermatobiosis, crivelliosis, cephalopinosis).

Contraindications
It is not recommended for animals suffering from infectious diseases and for emaciated animals, males and females during the coupling period and for females in the first month of pregnancy.

Administration and dosage
Tablets are administered to animals once forcibly set to the root of the tongue before the morning before feeding in doses:
• cattle, buffaloes and camels — 0.5 g per 15-20 kg b.w. (1 tablet of 5 g per 150-200 kg b.w.)
• sheep and goats — 0.5 g per 10-20 kg b.w. (1/2 tablet of 1 g per 1 head of young animal weighing 10-20 kg, 1 tablet of 1 g per a head weighing 30-40 kg)

Warning
Slaughter of animals for meat is permitted no earlier than in 14 days after the last administration of the drug, milk can be used in food purposes no earlier than in 2 days after deworming. In the case of forced slaughter before the deadline the meat is disposed or is fed to unproductive animals according to the conclusion of a veterinarian. Milk received before the deadline can be drunk for young animals.

Storage
Store in a dry, dark place at a temperature from +2 °C to +25 °C.

Shelf life
2 years.
**Helmisan**  
gel for oral administration

1 ml contains:  
pyrantel pamoate — 300 mg  
praziquantel — 20 mg

Syringe-tube with dispenser of 30 ml (1 pc in a cardboardbox).

**Description**  
Homogeneous, light yellow gel, without characteristic smell.

**Pharmacological properties**  
Pyrantel pamoate refers to pyrimidine derivatives. Acts on round helminths (mature and larvae of the 4th stage) as a depolarizing muscle relaxant, which causes neuromuscular blockade, which leads to death of nematodes. Praziquantel is a derivative of the quinoline compound. Increases permeability of cell membranes for calcium ions in cestodes and trematodes, which leads to generalized muscle contraction, paralysis of helminths and their death. It causes vacuolization and damage to the epithelium of parasites, as a result they become sensitive to enzymes of the gastrointestinal tract.

**Indications**  
It is indicated for the treatment of hoofed animals helminthiasis (horses, ponies, Przewalski horses, koulans, etc.) caused by mono- or associated invasions:  
• nematodes of the gastrointestinal tract: Ascaridae, Strongylidae, subfamily of Strongilinae and Cytostominae (Trihonematinae), Strongyloidiidae, Oxyuridae, Spiruridae;  
• cestodes of Anoplocephalidae spp.;  
• larvae of Gasterophilus spp.;  
• trematodes of Schistosomatidae, Dicroceliidae.

**Contraindications**  
Do not treat clinically sick and emaciated animals, to females in the last week of pregnancy.

**Administration and dosage**  
The drug is injected with a syringe-tube on the tongue root, once. In case of infestations caused by the larvae of Trichostrongylus axei the drug is administered twice with an interval of 1 day. The therapeutic and preventive dose is 1 ml per 20 kg of body weight. Preventive deworming of adult horses is recommended to conduct regularly every 3-4 months. For deworming of wild animals the calculated dose of the drug is mixed with damped feed stuff and fed in the morning individually or by a group method.

**Warning**  
Slaughter of animals for meat and milk consumption is allowed in 7 days after the last administration. Meat obtained before the specified period is used only for carnivores feeding depending on the conclusion of a veterinarian.

**Storage**  
Store in a dry protected from direct sunlight, unreachable for children place at the temperature from +1 °C to +25 °C.

**Shelf life**  
2 years.
Ophtalmo-gel

gel for external use

1 g contains:
ivermectin — 2.5 mg
tylosin tartrate — 10 mg
xeroform — 10 mg

Syringe-tubes with pipette of 4 ml (1 pc in a cardboard box).

Description
Homogeneous transparent viscous yellow liquid.

Pharmacological properties
Complex preparation with bactericidal, anti-inflammatory, nematodicidal, acaricidal, insecticidal and repellent action.
Ivermectin refers to chemical group of macrocyclic lactones. Tylosin tartrate is an antibiotic of the macrolide group, enhances binding of GABA (gamma-aminobutyric acid) with special receptors on the nerve endings of the parasite, blocks nerve impulses, causes death of adult and adult forms of Thelaziidae nematodes, acariform mites Demodecidae, Psoropticidae, Sarcoptidae and winged insects Muscidae. It is active against individual species or microbial associations Mycoplasmataceae, Rickettsiaceae, Streptococcus spp., Staphylococcus spp. and other varieties of pathogenic microorganisms. Xeroform together with the antiseptic suppresses the secondary infection, and also provides anti-inflammatory and repellent action.

Indications
It is indicated for treatment of animals (cattle, dogs, cats, rabbits) affected by ophthalmologic diseases of parasite etiology: thelaziosis of cattle; blepharitis (scaly and ulcerative), conjunctivitis (acute catarhal, purulent, follicular), keratitis (surface); treadwheel-infectious conjunctivitis (rickettsial disease) or associative invasive-infectious (thelaziosis-microbial) etiology.
Treatment of dogs, cats and rabbits affected by otitis of parasite etiology (external ear: pinna, external auditory canal, middle ear): notoedric mange, otodectic mange, psoroptic mange, sarcoptic mange, chorioptic mange, cheyletiellosis.
Treatment and prevention of myiasis in cattle, sheep, dogs, cats, rabbits.

Administration and dosage
In case of cattle thelaziosis the head of the animal is fixed in such a way that the eye is above and Ophtalmo-gel is slowly administered by syringe-tube in the conjunctival sac at a dose of 0.8-1 ml, easily making a massage. Drug is used within 3-4 days for complete recovery.
In case of inflamed eyelids, their edges are cleared from scales and apply Ophtalmo-gel at them using tampons.
During the treatment of other ophthalmic diseases 5-7 drops of this drug are administered into the area of the inner corner of eye. This process is repeated 4-7 times with 12-hour intervals. If the blepharitis was caused by mites, the treatment is repeated 2-3 times in 10 days regardless of the results of the first course of treatment.
When treating otitis in animals the hair is cut inside the ear, remove the scales and using tampons apply Ophtalmo-gel on the affected skin 2 times a day. The treatment lasts 3-4 days for complete recovery. Both ears are treated simultaneously. If the disease was caused by mites in 8-10 days the treatment is repeated throughout the day.
To prevent volfartiosis fresh wounds of animals in the summer are smoothed by Ophtalmo-gel. Wounds, infected with larvae of flies, are treated 2 times a day until complete recovery (3-4 days).

Warning
None.

Storage
Dry, dark place at the temperature from +2 °C to +20 °C.

Shelf life
2 years.
Rybolik
powder for oral administration

1 g contains:
praziquantel — 35 mg
fenbendazole — 70 mg
levamisole — 20 mg

Polymer packages of 1 kg.

Description
Granulated powder from white to light yellow colour.

Pharmacological properties
Antiparasitic drug of a wide spectrum of action. Praziquantel is a quinoline derivative. Increases permeability of cell membranes for calcium ions in cestodes and trematodes, which leads to generalized muscle contraction, paralysis of helminths and their death. Fenbendazole inhibits enzyme system of helminths, causes a disturbance in energy metabolism and death of parasites. Levamisol inhibits enzyme acetylcholinesterase, affects neuromuscular system of parasites, causes a reduction in their muscles and paralysis. In addition, it gives an immunostimulating effect.

Under the action of the preparation, mature cestodes and their larvae leave the intestine of fish.

Indications
It is indicated for therapeutic and prophylactic deworming of carp fish and grass carp affected by helminthes:
• intestinal cestodosis: bothriocephalosis (Bothriocephalus opsariichydis, B. acheilognati, B. gowkongensis), cariosis (Khavia sinensis), caryophyleosis (Caryophyllaeus fimbriiceps);
• trematodes: Sanguinicola skrjabini, Postodiplostomum cuticola, Hysterothylacium trilobum Tetracercole spp.;
• nematodes: Skrjabillanus amuri and Philometroides lusania (larval stage).

Contraindications
None.

Administration and dosage
For deworming treatment the medicated-feed mixture is prepared: 1 kg of the drug (one package) is thoroughly mixed with 99 kg of feed (corresponding recipe for each age group of fish). Therapeutic (daily) dose of medicated-feed mixture for each pond is 1.5% of the estimated mass of the fish. Dose is divided into 5-6 equal portions, which are at an interval of 1-2 hours are applied to certain feeding sites during the day. Another feed is not recommended to apply during this day. If the fish was not fed by feed at all, before deworming it is necessary to teach a fish to feed and to feeding sites. Routine deworming of fingerlings is preferably carried out in August, and if necessary — in October.
Deworming of two-years old fish is carried out once in 4-5 weeks after the placement into the fishing ponds.
Spawners and heifer are treated in spring for 2-3 weeks before the predictable start of spawning. Regarding diagnostic indications the treatment of fish is carried out in any time of the growing season.

Warning
Fish capture for consumption is allowed in 21 days after deworming.

Storage
Dry, dark place at the temperature from −10 °C to +20 °C.

Shelf life
2 years.
**Trematozol**
emulsion for oral administration

1 ml contains:
oxyclozanide — 95 mg
pyrantel pamoate — 200 mg

Polymer vials of 50 (1 pc in a cardboard box), 1 l.

**Description**
Homogeneous, light yellow emulsion, without significant odor and taste.

**Pharmacological properties**
Anthelmintic of a wide spectrum of action.
Oxyclozanide is a synthetic compound from the group of salicylanilides. It inhibits and stops process of oxidative phosphorylation in trematodes, which changes the energy metabolism of parasites and causes their death. Pyrantel pamoate is a synthetic compound from the pyrimidine group. It causes depolarized neuromuscular blockade (paralysis) of parasites, as a result they are excreted from the intestines by peristalsis. Effective mainly against larvae and mature nematodes parasitizing the digestive tract — Neoascaris vitulorum, Bunostomum trigonocephalum, Trichostrongylus columbriformis, T. axei, Trichuris skrjabini, T. ovis, Chabertia ovina etc.

**Indications**
It is indicated for treatment and prevention of cattle, sheep and goats affected by helminthiasis caused by species of trematodes and nematodes sensitive to the active ingredients of the product.

**Contraindications**
Do not administer to emaciated animals. Do not administer to cows during the first month after insemination, to ewes of pairing period and during the first months after withdrawal of sheep from the flock.

**Administration and dosage**
Preventive and therapeutic deworming is held at the beginning of the housing season. The drug is administered once, with drinking water in the following doses per 10 kg of b.w.:
- **cattle** — 1 ml;
- **sheep and goats** — 0.75 ml.

**Warnings**
Carefully check the accuracy of dosing while group deworming.
After deworming of cattle, meat can be used for human consumption in 14 days, milk can be used in 1 day.

**Storage**
Store in a dry, dark place at the temperature from +5 °C to +25 °C.

**Shelf life**
3 years.
Azidin-vet
powder for injection solution

1 g contains:
diminazine aceturate — 438 mg
phenzone — 562 mg

Glass vials of 0.24, 2.4, 24 g.

Description
Yellow homogenous powder, odorless.

Pharmacological properties
Antibacterial preparation of a wide spectrum of action.
Diminazine aceturate — ion associate 4,4-(diazoamino)-dibenzamidine with
N-acetylglycinate — is active against Babesia, Trypanosoma, Theileria, also
has antibacterial and fungiostatic properties. It changes processes of aero-
bic glycolysis and synthesis of DNA of protozoan, which leads to their death.
Phenazone has analgesic and antipirinal properties, reduces vascular permeability.
After application, the drug protects the animals from re-invasion and recovery of activity of hemosporidial pathogens for 10-15 days.

Indications
Treatment and prevention of parasitic diseases of blood in cattle, sheep,
goats, horses, camels, dogs and cats — babesiosis, trypanosomiasis, thei-
leriasis.

Contraindications
Do not administer to animals with inflammatory processes in kidneys.

Administration and dosage
Before using the preparation, a solution of 7% is prepared. To do this, in a
bottle with a powder of 0.24, 2.4 or 24 g, add water for injection is 1.25, 12.5
or 125 ml, respectively.
The solution is administered intramuscularly or subcutaneously as follows:
• cattle, sheep, goats, horses and camels — 1 ml per 20 kg of b.w. (cor-
responds to 3.5 mg of diminazine aceturate per 1 kg of b.w.);
• dogs, cats — 0.1 ml of 3.5% solution (the content of the vial is dissolved
in a double volume of water for injection) per 2 kg of b.w.
If the general state of the animals doesn’t improve after single administra-
tion, the procedure is repeated in 24-30 hours in the same dose.
Upon detection of first cases of diseases, the drug is administered prophylactically to all livestock at a dose of 1 ml per 40 kg of b.w.

Warning
After administration some animals may experience anxiety, hypersaliva-
tion, polyuria. Antidote — glucose 40% solution intravenously and caffeine
solution subcutaneously.
Slaughter of productive animals for meat is permitted in 20 days. People
are allowed to consume milk in 3 days. Meat and milk obtained before the
specified period is fed to carnivores after heat treatment.

Storage
Store in a dry, dark place at the temperature from +8 °C to +20 °C.
Prepared solution store in a refrigerator and use within 14 days.

Shelf life
2 years.
Brovafom
powder for oral administration

1 g contain:
- furazolidone — 70 mg
- oxytetracycline hydrochloride — 30 mg
- metronidazole — 100 mg

Polymer packages of 10, 100 g, 1 kg.

Description
Light yellow powder, insoluble in water.

Pharmacological properties
Antimicrobial broad-spectrum drug.

Metronidazole belongs to the group of 5-nitroimidazole. Its mechanism of action consists in biochemical reduction of the 5-nitro group of metronidazole by intracellular transport proteins of anaerobic bacteria and protozoa. The restored 5-nitro group of metronidazole interacts with the DNA of the microbial cell, inhibiting synthesis of its nucleic acids, which leads to death of the microorganism. Effective against Trichomonas vaginalis, Gardnerella vaginalis, Giardia intestinalis, Entamoeba histolytica, Bacteroides spp. — Bacteroides fragilis, Bacteroides distasonis, Bacteroides ovatus, Bacteroides thetaiotaomicron, Bacteroides vulgatus, Fusobacterium spp., Veillonela spp., Eubacterium spp., Clostridium spp., Peptococcus spp., Peptostreptococcus spp.

Furazolidone is a synthetic antibacterial and antiprotozoal agent, a derivative of nitrofuran that blocks the enzyme system of bacteria susceptible to it, is active against Gardia, Vibrio cholerae, Trichomonas, Coccidia, E. coli, Enterobacter spp., Campilobacter spp., Salmonella spp.

Indications
It is indicated for treatment of disease caused by bacteria and protozoans sensitive to the active ingredients of the product:
- **dogs and cats** — diseases of digestive tract and prevention of surgical and obstetric complications;
- **fur-bearing animals (foxes, blue foxes, minks)** — enteritis, eimeriosis (liver coccidiosis);
- **pigeons** — histomoniasis, eimeriosis, salmonellosis, trichomoniasis.

Contraindications
Increased sensitivity to the active ingredients of the product. Do not administer to productive animals.

Administration and dosage
The product is administered with feed in the following doses:
- **dogs, cats** — 0.15-0.2 g per 1 kg of body weight 3 times per day, course of 4-7 days;
- **fur-bearing animals (foxes, blue foxes, minks)**:
  - adult animals: 0.2-0.25 g per 1 kg of body weight 3 times per day, course of 3 days;
  - young animals during weaning period: 1-1.5 g per 10 heads daily, course of 14 days;
- **pigeons** — 3-4 g per 1 kg of feed daily, course of 7-10 days.

Warning
None.

Storage
Store in a dry, dark place at the temperature from +4 °C to +25 °C.

Shelf life
3 years.
Brovitacoccid
powder for oral administration

1 g contains:
- amprolium hydrochloride — 125 mg
- vicasol — 2 mg
- vitamin A — 10 000 IU

Polymer bags of 10 g, 1 kg, polymer containers of 30 g.

Description
Micro-granulated powder of white or slightly yellow color, with characteristic odor.

Pharmacological properties
Amprolium hydrochloride inhibits development of coccidia at the stage of schizogony first and second generation, it is vitamin B1 antagonist, does not interfere with development of immunity against coccidiosis. Vicasol and vitamin A increase the functional capacity of the epithelium and reduce hemorrhage on the intestinal mucosa.

Indications
It is indicated for treatment and prevention of animals affected by eimerias:
- calves — E. bovis, E. cylindrical, E. ellipsoidae, E. zuernii, Cryptosporidium muris and C. parvus;
- sheep, goats — E. arloigni, E. faurei, E. intracata, E. ninaekohljakimovae;
- pigs — E. debliecki, E. scabra, E. spinosa, E. suis, Isospora suis;
- rabbits — E. magna, E. perfonas, E. stiedae;
- carnivores — Isospora canis, I. ohioensis, I. rivolta, I. felis;
- chickens — E. acervulina, E. maxima, E. necatrix, E. tenella;
- turkeys — E. adenoidees, E. meleagritmis;
- pheasants — E. colchii;
- geese — E. anseria, E. nocens, E. truncate;
- pigeons — E. labbeana.

Contraindications
Do not administer to laying hens and the puppies under one month of age.

Administration and dosage
The drug is mixed with the daily portion of water or feed. Dosages are indicated in the table:

<table>
<thead>
<tr>
<th>Animal/Disease</th>
<th>Dose, g</th>
<th>Application</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>per 10 kg of b.w.</td>
<td>per 1 l of water or 1 kg of feed</td>
</tr>
<tr>
<td>Calves:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>eimerias</td>
<td>1</td>
<td>5-10 days</td>
</tr>
<tr>
<td>cryptosporidiosis</td>
<td>1.5</td>
<td>5-10 days</td>
</tr>
<tr>
<td>prophylactics</td>
<td>0.4-0.5</td>
<td>21 days</td>
</tr>
<tr>
<td>Sheep, goats:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>treatment</td>
<td>4</td>
<td>5 days</td>
</tr>
<tr>
<td>prophylactics</td>
<td>0.6</td>
<td>21 days</td>
</tr>
<tr>
<td>Pigs:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>treatment</td>
<td>2.4</td>
<td>5 days</td>
</tr>
<tr>
<td>prophylactics</td>
<td>0.4</td>
<td>4-8 weeks</td>
</tr>
<tr>
<td>Dogs, cats:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>treatment</td>
<td>2</td>
<td>7-10 days</td>
</tr>
<tr>
<td>prophylactics (females)</td>
<td>6</td>
<td>10 days prior to parturation</td>
</tr>
<tr>
<td>Chickens, turkeys, geese, pigeons, pheasants:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>treatment</td>
<td>2</td>
<td>5-10 days</td>
</tr>
<tr>
<td>prophylactics:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• chickens up to 2 months</td>
<td>0.9-1</td>
<td>during whole growing period</td>
</tr>
<tr>
<td>• chickens up to 4 months</td>
<td>0.7</td>
<td></td>
</tr>
<tr>
<td>• before laying</td>
<td>0.4</td>
<td></td>
</tr>
<tr>
<td>• meat breed</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>• goslings, pigeons, pheasants</td>
<td>1</td>
<td>during whole period of possible invasion</td>
</tr>
</tbody>
</table>

Warning
Slaughter of animals for meat is allowed in 14 days after the last administration of therapeutic doses of the drug, poultry — in 7 day, or in 2 days after administration of the preventive dose.

Storage
Store in a dry, dark place at the temperature from +4 °C to +20 °C.

Shelf life
1 year.
Brovitacoccid
solution for oral use

1 ml contain:
amprolium hydrochloride — 125 mg
vicasol — 2 mg
vitamin A — 10 000 IU

Polymer vials of 10 ml, 1 glass and plastic vials of 50, 100, 250, 500 ml, 1 l.

Description
Liquid of yellowish-beige color, clear.

Pharmacological properties
Amprolium hydrochloride inhibits development of coccidia at the stage of schizogony first and second generation, it is vitamin B1 antagonist, does not interfere with development of immunity against coccidiosis. Vicasol and vitamin A increase the functional capacity of the epithelium and reduce hemorrhage on the intestinal mucosa.

Indications
It is indicated for treatment and prevention of animals affected by eimerias:
- calves — E. bovis, E. cylindrical, E. ellipsoidae, E. zuernii, Cryptosporidium muris and C. parvus;
- sheep, goats — E. arloigni, E. faurei, E. intracata, E. ninaekohljakimovae;
- pigs — E. debliecki, E. scabra, E. spinosa, E. suis, Isospora suis;
- rabbits — E. magna, E. perfonas, E. stiedae;
- carnivores — Isospora canis, I. ohioensis, I. rivolta, I. felis;
- chickens — E. acervulina, E. maxima, E. necatrix, E. tenella;
- turkeys — E. adenoeides, E. meleagrimitis;
- pheasants — E. colchii;
- geese — E. anseria, E. nocens, E. truncate;
- pigeons — E. labbeana.

Contraindications
Do not administer to laying hens and the puppies under one month of age.

Administration and dosage
The drug is mixed with the daily portion of water or feed. Dosages are indicated in the table:

<table>
<thead>
<tr>
<th>Animal/Disease</th>
<th>Dose, g</th>
<th>Application</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>per 10 kg of b.w.</td>
<td>per 1 l of water or 1 kg of feed</td>
</tr>
<tr>
<td>Calves:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>eimeriasis</td>
<td>1</td>
<td>5-10 days</td>
</tr>
<tr>
<td>cryptosporidiosis</td>
<td>1.5</td>
<td>5-10 days</td>
</tr>
<tr>
<td>prophylactics</td>
<td>0.4-0.5</td>
<td>21 days</td>
</tr>
<tr>
<td>Sheep, goats:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>treatment</td>
<td>4</td>
<td>5 days</td>
</tr>
<tr>
<td>prophylactics</td>
<td>0.6</td>
<td>21 days</td>
</tr>
<tr>
<td>Pigs:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>treatment</td>
<td>2.4</td>
<td>5 days</td>
</tr>
<tr>
<td>prophylactics</td>
<td>0.4</td>
<td>4-8 weeks</td>
</tr>
<tr>
<td>Rabbetds:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>treatment</td>
<td>2-2.5 (water)</td>
<td>4-5 days</td>
</tr>
<tr>
<td>prophylactics</td>
<td>1 (water)</td>
<td>21 days</td>
</tr>
<tr>
<td>Dogs, cats:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>treatment</td>
<td>2</td>
<td>7-10 days</td>
</tr>
<tr>
<td>prophylactics (females)</td>
<td>6</td>
<td>10 days prior to parturation</td>
</tr>
<tr>
<td>Chickens, turkeys, geese, pigeons, pheasants:</td>
<td>Dose, g/2 l of water or 1 kg of feed</td>
<td>Application</td>
</tr>
<tr>
<td>treatment</td>
<td>2</td>
<td>5-10 days</td>
</tr>
<tr>
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</tr>
<tr>
<td>• before laying</td>
<td>0.4</td>
<td>5-10 days</td>
</tr>
<tr>
<td>• meat breed</td>
<td>1</td>
<td>5-10 days</td>
</tr>
<tr>
<td>• goslings, pigeons, pheasants</td>
<td>1</td>
<td>5-10 days</td>
</tr>
</tbody>
</table>

Warning
Slaughter of animals for meat is allowed in 14 days after the last administration of therapeutic doses of the drug, poultry — in 7 day, or in 2 days after administration of the preventive dose.

Storage
Store in a dry, dark place at the temperature from +4 °C to +20 °C.

Shelf life
1 year.
Imcar-120
solution for injection

1 ml of the product contains:
imidocarb dipropionate — 120 mg

Dark glass bottles vials of 10, 50 ml.

Description
Clear sterile liquid of yellowish color.

Pharmacological properties
The active ingredient of the product, imidocarb dipropionate is a derivative of carbanilide, provides wide spectrum of antiprotozoal action against agents of hemosporidial infections in case of monoinfection or mixed invasion Babesia bovis, B. ovis, B. bigemina, B. colchica, B. equi, B. divergens, B. canis, B. caballi, Theileria annulata, T. sergenti, T. mutans, T. orientalis, T. ovis, T. recondita, T. hirci, T. tarandirangiferis, rickettsia of anoplasma genus Anaplasma marginale, A. centrale, A. ovis, A. phagocytophilum and of ehrlichia Ehrlichia canis, E. chaffeensis
Mechanism of antiprotozoal action of imidocarb is based on inhibition of aerobic metabolism of glucose and synthesis of pyroplasmides DNA that subsequently leads to their destruction.
After parenteral administration, the imidocarb is rapidly absorbed from the injection site and, with blood flow, penetrates to most organs and tissues of the body. At the same time, its maximum concentration in the blood is formed during the first 1-2 hours, and is kept at the pyroplasmostatic level for 4-6 weeks. Imidocarb accumulates mainly in the kidneys and liver. Over time, it is excreted from the body, mostly with urine.

Indications
The medicinal product is indicated for treatment and prevention:
• artiodactyls ruminants (cattle, buffaloes, sheep, goats, zebu, mouflons, fallow deers, camels) for babesiosis, theileriasis, anaplasmosis and its mixed invasions; solidungulates (horses, mules, donkeys) for babesiosis, nuttalliosis, anaplasmosis and its mixed invasions; dogs for acute, chronic and subclinical babesiosis, mixed invasions.
Babesiosis chemoprophylaxis — introduction of the drug immediately after discovery of the tick and to animals from the risk group (hunting dogs).

Contraindications
Do not administer to animals sensitive to the active ingredient of the drug. Do not use simultaneously with organochlorine and organophosphorus compounds, as well as with cholinesterase-inhibiting drugs. Do not use the drug within 4 weeks after vaccination with live vaccine against babesiosis or anaplasmosis.

Dosage and routes of administration
Shake well before use. Treatment and preventive care:
• cattle, buffaloes, zebu, camels (subcutaneously, once)
  – babesiosis — 2 ml per 100 kg of body weight;
  – anaplasmosis — 2.5 ml per 100 kg body weight;
  – mixed invasions — 2.5 ml per 100 kg of body weight;
  – prophylactic dose — 2 ml per 100 kg of body weight.
• sheep, goats, mouflons, fallow deers (intramuscularly once): babesiosis, anaplasmosis — 0.2 ml per 10 kg body weight.
• horses, mules, donkeys (intramuscularly):
  – Babesia caballi — 2 ml per 100 kg of body weight, two injections with 24 hours interval;
  – Babesia equi — 3 ml per 100 kg of body weight, course of 4 injections, with 3-days interval.
• dogs (subcutaneously, once): babesiosis — 0.3-0.5 ml per 10 kg of body weight, if necessary repeat in 14 days in a dose of 0.2 ml per 10 kg of body weight.
If blood-parasitic diseases are detected in animals which are kept in a group, Imcar-120 is administered to the entire population in a preventive dose, and the same doses are repeated: for cattle — in 6 weeks, for other animals — in 4 weeks.

Warnings
In recommended doses the product does not have a locally irritating effect, or cumulative, embryotoxic and mutagenic properties. However, with massive death of blood parasites and erythrocyte destruction, the intoxication may develop. In such cases intensive therapy with the introduction of infusion dosage forms, hepatoprotectors, symptomatic and antihistamines is required.
Due to possible pain reaction do not administer into one injection site more than 10 ml of the drug for large animals, and more than 2 ml — for small animals. Administration of antihistaminic agents is reasonable before the injection for the animals with clinical signs of babesiosis.
Slaughter of cattle for meat is allowed in 110 days, consumption of cow milk — in 7 days after the drug administration. Milk of milking sheep after at least one administration of the drug, is forbidden for human consumption.

Storage
Store in a dry, well-ventilated place, protected from direct sunlight at a temperature between from +5 °C to +25 °C. Opened vial should be kept in a refrigerator and used within 30 days.

Shelf life
2 years
Robencox
powder for oral administration

1 g contains:
robendine hydrochloride — 100 mg

Polymer packages of 6 and 500 g, paper bags of 20 kg.

Description
Powder of light-brown color.

Pharmacological properties
Robendine hydrochloride is a strong synthetic coccidiostatic acting on the eumeria in the stages of first and second generation schizons, selectively disrupts energy exchange of the cells of the eimerias, negatively affects process of nuclear fission, which leads to the death of parasites.
The drug is slightly absorbed in digestive tract and is quickly excreted from animals body. Thus, only 20-40% of the total dose that enters the body of chickens is absorbed and about 60-65% is excreted with feces. In rabbits, these indicators are 17 and 80% respectively.

Indications
It is indicated for the prevention and treatment of eimeriosis:
• broiler chickens — E. mitis, E. brunetti, E. tenella, E. acervulina, E. maxima, E. necatrix, E. praecox;
• turkeys — E. adenoeides, E. meleagritmis, E. gallopanovis;
• rabbits — E. magna, E. media, E. stiedae.

Contraindications
Do not administer to laying hens, producing eggs for human consumption. Do not use with feed antibiotics.

Administration and dosage
The drug is fed to broiler chickens and turkeys along with feed in a dose of 300-360 g/ton of feed (robendine hydrochloride 30-36 mg/kg of feed). For the preventive purposes the drug is fed to turkeys from the first days of life to the four-month old, for broiler chickens it is fed during the whole period of growing.
For rabbits the drug is fed with mixed feed during the fattening period in a dose of 500-660 g/ton of feed (robendine hydrochloride 50-66 mg/kg of feed).
The drug is compatible for use with vitamins and other feed additives used in poultry and rabbit breeding.

Warning
When working with the drug it is recommended to use protective clothing, respirator, gloves and goggles. In case of contact with eyes, wash them with plenty of water for 15 minutes. Slaughter of poultry and rabbits for meat is allowed in 5 days after the last administration of the drug. In the case of slaughter before the specified period the meat is used to feed carnivorous animals.

Storage
Store in a dark, dry place, away from children at the temperature from +4 °C to +25 °C. Prepared feed mixture should be stored at a room temperature and used within 3 months.

Shelf life
3 years.
**Theilersan**

solution 5% for injection

1 ml contains:
- buparvaquone — 50 mg

Dark glass bottles, polymer vials of 10, 20 and 50 ml.

**Description**
Clear cherry-red solution.

**Pharmacological properties**
Buparvaquon is a second generation hydroxynaphthoquinone, effectively inhibites plasmodial transport of theileria electrons in the ubiquinone (co-enzyme Q) zone and thereby depriving them of the main source of their energy. In turn, this leads to the release of oxygen electrons and production of free radical superoxide (O–2), which additionally causes stress in parasites. This leads to the violation of mitochondrial respiration and the cessation of vital activity of the theilerias parasitizing in the cells of the reticuloendothelial system and erythrocytes.

Theilersan effectively acts against all kinds of pathogens of theileriosis (in the stage of schizonts and pyroplasm), therefore, the prophylaxis is carried out with the entire livestock population, which could contact the sick animals.

**Indications**
It is indicated for treatment and prevention of *cattle* affected by theileriosis (coast fever, corridor disease, tropical thelaziosis, etc.) the agents of which are protozoa of the family Theileria: Theileria parva, T. mutans, T. annul ata and T. orientalis (sergenti).

**Administration and dosage**
Theilersan is used for intramuscular injection only (in neck area) in a dose of 2.5 mg of Buparvaquone per each kg of body weight, that is identical to 1 ml of the drug per 20 kg of body weight. A single dose provides the disappearance of clinical signs. In case of insufficient efficacy in individual animals, the dose must be repeated in 3 days.

The dose over 10 ml is divided in several portions and administered into different injection sites.

**Warning**
In some cases painless localized edema occurs on the injection site. It resolves usually in 40-60 hours without any treatment. Slaughter of animal for meat is permitted in 1.5 months after the last administration of the product, milk can be used for human consumption in 2 days after the injection.

**Storage**
Store in a dry, dark place at the temperature from 0 °C to +25 °C.

**Shelf life**
2 years.
Apihealth

gel for using in hives

1 g contains:
thymol — 250 mg
eucalyptus oil — 50 mg
menthol — 12 mg

Plastic containers of 50 g (10 pcs in a carton box), polymer tubes of 250 g, plastic containers of 1000 g.

Description
Gel of white or yellowish colour.

Pharmacological properties
The product contains phytogenous ingredients, it is safe for bees and does not affect the honey quality.
Thymol is obtained from an essential thyme oil (Thymus vulgaris) or by synthetic methods. It has a significant acaricide, bactericide, antiviral and fungicide effect.
Eucalyptus oil is obtained from the leaves of different species of eucalypts. Complex of active ingredients (essential oil, cineole — no less than 60%, pinene, other terpenoids, phenol aldehyde, triterpenoids) provides antiseptic action against a range of bacteria, viruses, protozoa, stimulates non-specific resistance to infection diseases.
Menthol — an organic substance, obtained from mint essential oil (Mentha piperita L.), has acaricide, antiseptic and phytoncide effects.
The complex of three active ingredients ensures wide therapeutic action against larvae of bee moth, varroatoasis pathogens, acarapidosis, mycosis (aspergillosis, ascospherosis), American and European foulbrood.

Indications
Treatment of bees suffering from varroatoasis, preventions of acarapidosis, aspergillosis, American and European foulbrood and larvae of bee moth.

Contraindications
None.

Administration and dosage
Container with the drug is placed in a hive, with 0.5-1 cm of free space between the surface of the container and the hive cover roof, or squeeze out 4-6 strips of the drug, applying evenly to the paper sheet A4. The container or a paper sheet should be placed on frames in the center of a hive.
The following doses are used:
• strong bee family — 50 g;
• nucleus or weak bee family — 25 g.
The container is removed in two weeks, and a new dose is placed in the hive. In spring and summer period the treatment should be ended 7 days prior to the beginning of the honey flow. In late summer and autumn, the treatment is conducted after honey is pumped out at the air temperature from +15 °C to 27 °C.

Warning
Staff contacting with the product should use protective clothing, avoid contact with skin or eyes. When work with the product is finished, wash the hands thoroughly with soap. If the drug contacted the skin, it should be washed off with soap and water. If the drug gets into the eyes, rinse them with a large amount of water. Do not inhale the drug!

Storage
Store in a dry place, out of reach of children, far from heating devices, away of food and animal feed at the temperature from +5 °C to +25 °C.
The product should be used within 20 days after its opening.

Shelf life
2 years.
Cyflur
solution 1% for external use

1 ml contains:
cyfluthrin — 10 mg

Polymer pipettes of 10 ml (4 pcs in a box),
polymer vials of 500 ml with dispenser of 10 ml.

Description
Transparent oily liquid of yellowish color.

Pharmacological properties
The product has a contact insecticidal and repellent effect. Cyfluthrin belongs to the group of synthetic pyrethroids of the second type, which disrupt the sodium channels of ectoparasitic nerve cells, which leads to a delay in membrane repolarization, inhibition of nerve impulses, impaired coordination of movements, paralysis and insect death. After application, a small amount of the drug is absorbed and ensures its long insect-acaricidal and repellent effect. The drug is low-toxic for warm-blooded animals and in recommended doses does not give a resorptive-toxic and irritating effect.

Indications
It is indicated for the protection of cattle in the pasture period and dogs during the activity of ectoparasites: zoophilic flies Haematobia stimulans, Lyperosia irritans, L. titilans, Stomoxys calcitrans, Musca autumnalis, M. larvipara, M. amica etc., blood-sucking mosquitoes Aedes, Anopheles, Culex, black flies Boophthora, Simulium, Schaeberlela, biting midges Culicoides, Forcipomyia, Zentoconops, gadflies Chrysops, Haematopota, Tabanus, botflies Hypoderma bovis, H. lineatum, horn flies, ixodic ticks, fleas Ctenocephalides canis, lice Linognathus setotos, louse Trichodectes canis etc.

Contraindications
Do not administer to calves with body weight less than 100 kg, the puppies until two months of age, female dogs in the first half of pregnancy.

Administration and dosage
The product is applied on dry, clean, undamaged skin, in the following manner:
- **cattle** — 5 ml per 1 animal up to 300 kg of body weight and 10 ml per 1 animal over 300 kg of body weight. The product is applied along the spine from the withers to rump at ambient temperature not higher than 25 °C. Within 3 hours after treatment, the animals must avoid contact with water. Dairy cows are treated immediately after the evening milking. The best protective effect is achieved when all livestock is treated simultaneously in spring on pasture, and the following re-treatments every 4-6 weeks.
- **dogs** — 1 ml per 10 kg of body weight, applied and rubbed into the skin on shoulder area, in the period of active ectoparasites. Repeat no earlier than 4 weeks after the previous application.

Warning
The staff contacting with the product must observe the general rules of hygiene and safety adopted for work with veterinary drugs. The treatment of animals should be carried out in overalls (bathrobe, hat, rubber boots, hygiene gloves). After finishing work, wash your hands with warm water and soap.

In case of accidental contact with the drug on the skin, mucous membranes or eyes, they should be rinsed with plenty of water. Meat and milk are used without restrictions, upon condition of use in recommended doses.

Storage
Store in the original package in a dry, well-ventilated place, protected from direct sunlight, inaccessible to children and animals, away from food and animal feed at a temperature from +8 °C to +25 °C. After opening of a vial, it should be tightly closed and used within 2 months.

Shelf life
2 years.
Cyflur-combi solution for external use

1 ml contains:
cyfluthrin — 45 mg
piperonyl butoxide — 10 mg

Polymer and glass vials of 10, 50, 100, 250 ml,
polymer containers of 1, 3, 5 l,
plastic vials of 100, 500 ml.

Description
Yellowish transparent oily liquid

Pharmacological properties
Cyflur-combi has strong long-term contact insects-acaricidal action on insects that parasitizes animals, farming premises and soil. Insects die in 15-20 min after the treatment.
Cyfluthrin belongs to the group of synthetic pyrethroids, binds to receptors on nerve cells and disrupts insect sodium channels of nerve cells, which leads to delays of membranes repolarization, inhibition of passage of nerve impulses, movement coordination disorders, paralysis and rapid death of insects.
Piperonil butoxide blocks the enzyme system, which is a catalyst for oxidation processes in the body of insects and also exhibits insecticidal effect. However, its main effect is increase of efficiency of pyrethrins and pyrethroids, particularly cyfluthrin.

Indications
For processing of animal premises, utility rooms, surrounding areas, insects harborage, for elimination of flies and their larvae, ixodes, parasitiformes, lice, wing louse, beetles, cockroaches, ants and other insects.

Contraindications
Do not apply on bird-feeder, bird-bath, surfaces that are in contact with poultry and feed!

Administration and dosage
The drug is used as a solution for coating the surface in places of reproduction and movement of insects, cesspools, places of animal recycling etc. by irrigation method using manual or automatic sprinklers.
Working solutions are prepared immediately before use, diluting in the water at the temperature of +20-25 °C, at a concentration of 1:500, 1:200 and 1:100 (corresponds to 0.2, 0.5 and 1% dilution).
Shake well before dilution, add water and mix thoroughly.
Application of working solutions on waterproof surfaces are carried a rate of 50 ml/m² or 100 ml/m² when applied to other surfaces. Surfaces are sprayed by the working solution with a distance of 20-40 cm, mainly in the late afternoon at a temperature below +25 °C.
With respect to most types of insects and mites 0.2% solution of the drug in water is used. To combat the flies and their larvae and ants use a 0.5% solution. In case of presence of beetles and cockroaches solutions of 1.0% are used.
Retreatments are held based on entomological indicators or in 3-4 weeks.
In households where there are chickens’ mites the first treatment is held immediately after poultry release from farming premises. The second – after finishing the cycle of cleaning, washing and disinfection.

Warnings
The staff contacting with the product must observe the general rules of hygiene and safety adopted for work with veterinary drugs.
During preparation and use of working solutions, personal protective equipment (gown, cap, rubber gloves, rubber shoes, sealed goggles and respirator) should be used. After finishing work, wash hands thoroughly with warm water and soap.
All work with the drug in the premises is carried out with open windows. After the work is finished, the premises are ventilated for at least 2 hours, until the smell disappears.
If the product gets on the skin, mucous membranes or eyes, rinse them with plenty of running water.
Do not use empty containers for household purposes!

Storage
Keep in a dry, well-ventilated, safe from direct sun light place, out of children reach, separately from food and feed stuff, at a temperature from +4 °C to +25 °C, and use within two months after opening the vial.

Shelf life
2 years.
EMULTION FOR EXTERNAL USE

1 ml contains:
alfametrin — 85 mg
piperonyl butoxide — 115 mg

Glass ampoules of 2 and 5 ml (10 pcs in a cardboard box);
glass vials of 50 ml;
polymer vials of 1 l,
polymer canisters of 5 l.

Description
Transparent oily liquid of light-yellow color with a slight pleasant characteristic smell.

Pharmacological properties
Contact combined insecticide affects the peripheral nervous system of insects and ticks at all phases of their development (larva, imago). It belongs to the third class of toxicity, it is moderately toxic for warm-blooded animals and poultry, but it is toxic to fish and bees.

Indications
It is indicated for prevention and treatment of animals (cattle, sheep, goats, horses, pigs, foxes, poultry) affected by parasites, sensitive to the components of the drug — Demodecidae, Psoroptidae, Sarcoptidae, Ixodidae, Argasidae, Dermanyssidae, louse Trichodectidae, wing louse Menoponidae, Philopteridae, Haematopinidae, Holopeuridae, Linognathidae, Muscidae, Calliphoridae, Sarcophagidae etc.

Contraindications
Do not treat clinically sick animals and females in the last week of pregnancy.

Administration and dosage
Working solutions for the treatment of animals are used mainly by spraying with different sprayers. Affected skin sections are rubbed by the solution (with brushes) during 40-50 sec. For small animals (sheep, dogs, foxes) the most efficient method is bathing. Working solutions are prepared immediately before use by adding a dose of the product to drinking (not chlorinated) water.
Aqueous solutions at the rate of 1:500 are used for desacarisation of livestock buildings (0.2 l/m²), and for disinfection (flies) — 1:50. This solution is is used for processing of up to 10% of the premises (doors, window sills, walls, etc.).

Dilution of 1:750 is used for treatment of animals infected by ticks of such families as Psoroptidae, Sarcoptidae, Heyletidae, Demodecidae and poultry infected by biting lice or by agents of syringophilosis etc. Dilution of 1:1000 is used for animals affected by pathogens of other ectoparasites. For a one-time treatment working solutions are used in the following doses:
- cattle, horses — 1-3 l per animal, and for the protection against midges — once a day in quantity of 0.2-0.3 l;
- pigs — 0.5-1 l per animal;
- chicken — 20 ml per bird;
- turkey — 60 ml per bird.
Geese and ducks are treated by deep, short-term immersion in a tank with working solution.
In case of animals infected by different mites of other families, the treatment is repeated in 9-12 days in the same dose.

Warning
All works associated with the drug and its solutions are carried out in overalls (gown, rubber apron, hat, rubber boots and gloves, goggles, respirator). It is forbidden to smoke, drink and eat while working with the drug. It’s necessary to wash hands and face with soap carefully, mouth rinse with water after finishing work. In case of drug penetration on the skin or mucous membranes these parts should be quickly washed with water. With the signs of intoxication (dizziness, nausea, general weakness) you should address the doctor.
Contaminated packaging by the drug is neutralized by 3-5% solution of sodium carbonate (within 5-6 hours), then it is washed with water.
Leaftover drug is neutralized by 5% solution of caustic alkali, aqueous suspension of slaked lime, or chlorine in the form of water suspension (1:3 and then is poured into a hole deeper than 0.5 m, located away from water sources and the places where the animals graze.
Slaughter of animals for meat is permitted in 14 days after the last use of the drug. Meat obtained before the specified period is used to feed carnivorous animals or for the meat-and-bone meal tankage.
There are no restrictions in using milk and eggs.

Storage
Store in a dark place, in the original package, at a distance from the heating elements, away from children and animals, away from food and feed at the temperature from −20 °C to +25 °C.

Shelf life
2 years.
**Ektosan-powder**

powder for external use

1 g contains:
- alfacypermethrin — 5 mg
- geraniol
- sulphur colloid

Polymer vials with sprayer of 35, 60 g, or polymer packages of 1 kg.

**Description**
Finely dispersed powder of grey colour with a light characteristic odor.

**Pharmacological properties**
Contact combined insecticide affects the peripheral nervous system of insects and ticks at all phases of their development (larva, imago). It belongs to the third class of toxicity, it is moderately toxic for warm-blooded animals and poultry, but it is toxic to fish and bees.

**Indications**
It is indicated for cattle, sheep, goats, horses, pigs, rabbits, dogs, cats, poultry (chickens, geese, ducks) affected by flies (gadfly, mosquitoes, gnat and others), wing louses Menoponidae, louses Trichodectidae, louses Haematopinidae, Holopeuridae, Linognathidae, lice Hyppoboscidae, flies Muscidae, fleas Siphonaptera, bugs, cockroaches, ticks Argasidae, Dermanyssidae, Ixodidae, larva of bomb fly Hipoderma bovis, H. Lineatum, sheep botfly Oestrus ovis, larva and mature blowfly Alphitobius diaperinus.

Also, for disinfection of livestock buildings, cages etc.

**Contraindications**
Do not treat lactating females and young birds at the age up to 10 weeks.

**Administration and dosage**
For the therapeutic purpose the powder is mainly used by method of individual powdering of animals at the rate of 100-200 g — for large animals and 20-50 g — for small animals. The drug is applied with a thin layer on skin and hair from head to tail root, as well as on the dewlap and internal body areas. During the process of its application, it is necessary to use a brush for rubbing powder into the skin (against the wool). Depending on the dominant pathogen of existing parasites, re-treatment of animals should be conducted in 7-14 days.

For prevention purpose the powder is applied to animals in a dose of 1.5-2 times less than therapeutic one. For sustainable repellent effect such kind of treatment should be repeated every 3-4 days for the entire period of the threat.

The processing of poultry houses in presence of birds in them is carried out by aerosol generator of cold mist. For single-stage birdcage placement the preparation is used at a ratio of 10 grams per square meter of the room and add 10% for each additional tier.

For individual treatment the preparation at a rate of 5-7 g per head is applied around the areas of falling feathers, near the cloaca and under the wings.

If prophylaxis is carried out in protected from rainfall areas, the bathing mixture can be prepared: dry sand or chalk — 4 kg, vegetable ash — 1 kg, Ektosan-powder — 100 g.

**Warning**
All works with the drug must be conducted by using overalls (gowns, aprons, headgear, rubber gloves). When working with aerosol generators: goggles, respirator). It is necessary to wash hands with the soap and water carefully.

**Storage**
Store in a dry dark, well-ventilated place, out of reach of children at the temperature from 20 °C to +25 °C.

**Shelf life**
2 years.
Ektosan-spot-on
solution for external use

1 ml contains:
- alfacypermethrin — 65 mg
- piperonyl butoxide — 300 mg

Polymer vials with dropper of 33 ml (1 pc in a cardboard box).

Description
Clear, oily liquid of light-yellow color with a characteristic smell.

Pharmacological properties
The combination of two insecticides, alphacypermethrin and piperonyl butoxide, blocks ion channels of parasite nerve cells. Disruption of transport of potassium and sodium ions in membranes of neurons causes depolarization, increased relaxation of neurotransmitters and neuromuscular blockage in ectoparasites. In recommended doses, the drug provides protection against flying insects and mites for 28 days, from fleas — up to 90 days.

Indications
It is indicated for prevention and treatment of horses, camels, dogs affected by ectoparasites sensitive to active ingredients of the product, — bloodsucking flying insects (botflies, mosquitoes, midges and other kinds of gnus), fleas, flies, agrases, gamazoids, and ixodic ticks etc.

Contraindications
Do not administer to animals hypersensitive to the active ingredients of the product, clinically sick and weak animals, foals and puppies under the age of 3 months, suckling mares during the first two months after birth, animals of other species.

Administration and dosage
Solution (2-3 ml per 1 application site) is applied on the skin in areas of the neck, withers, dewlap, thighs, and around the tail, as follows:
- horses, camels — 33 ml per animal;
- young animal with weight up to 200 kg — 1.5 kg per 10 kg of b.w.;
- dogs up to 15 kg — 1.5 ml (between the shoulders);
- dogs weighted 15-30 kg — 3 ml (between the shoulders and around the tail);
- dogs over 30 kg — 4.5 ml (between the shoulders, around the tail and along the chine).

The treatment is recommended to conduct in the evening to exclude the possibility of stay of animals exposed to direct sunlight for 10-15 hours.

Warning
Avoid getting the drug on damaged skin, eyes and mucous membranes of animals.

After processing you should limit manipulations with animals and during the day avoid getting water or detergent on the treated skin. If unable to achieve this, worth a re-processing, but no earlier than in 7 days.

It is necessary to wear gloves. Smoking is prohibited. Upon completion of work, wash hands with soap and water.

Storage
Store in the original package, in a dry, dark place at the temperature up to +25 °C.

Shelf life
2 years.
Fipren
solution for external use

1 ml of the product contains:
fipronil — 100 mg
S-methoprene — 90 mg

PE pipettes of 0.5 or 1 ml (4 pcs in a carton box).

Description
Transparent liquid of yellowish color or colorless.

Pharmacological properties
Fipren — combined topical insectoacaricide, acts on fleas Ctenocephalides spp. at all development stages, louse Felicola subrostratus, Trichodectes canis, ixodic ticks Dermacentor variabilis, Rhipicephalus sanguineus, Ixodes scapularis, Ixodes ricinus, Ixodes holocyclus, Haemaphysalis longicornis, Haemaphysalis flava, Haemaphysalis campanulata, Haemaphysalis leachi, Amblyomma americanum, mosquitoes Aedes aegypti, mites Sarcoptes scabiei var. canis, other ectoparasites affecting dogs, cats, ferrets.
Fipronil belongs to the insecto-acaracides of the phenylpyrazole group. It blocks selectively action of GABA chlorine-ion channels in nerve cells membranes of arthropods, and leads to disorder of nerve impulse transmission, convulsion and death of ectoparasites.
S-methoprene is an analogue of the juvenile hormone, which acts as a regulator of insect growth and suppresses their growth and morphological development in the stages of the egg, larva and pupae due to antagonism with the ecdysone responsible for the growth and development of the larva. S-methoprene and fipronil together with its metabolite fipronil-sulphone are well distributed in animal wool within 24 hours after application. The concentration in the wool decreases over time, but the drug is detected even in 60 days after application.
Ectoparasites die mainly due to contact with the drug: fleas — within 24 hours, mites and lice — within 48 hours. The drug acts effectively against fleas at all stages of their development for 8 weeks, against ticks — for a minimum of 4 weeks after application.
Fipren refers to low-toxic substances for warm-blooded animals and at recommended doses does not give skin irritant, resorptive-toxic, embryotoxic and teratogenic effects.

Indications
Treatment and preventive care of myiasis in dogs, cats, ferrets caused by fleas, ticks, lice, louse; acariasis caused by Parasitiformes and Sarcoptes canis.

Contraindications
Do not administer to animals sensitive to the active ingredients of the drug, affected by infective diseases, weak or emaciated animals, puppies or kittens under 8 weeks age, dogs up to 2 kg of body weight, ferrets under 6 months old, productive animals.
Do not administer simultaneously with insectoacaricides.

Administration and dosage
The drug is applied by dropping pipette directly on clean dry skin of the animal at the upper back area to prevent licking off.

<table>
<thead>
<tr>
<th>Animal species and body weight, kg</th>
<th>Dose per an animal, ml</th>
<th>Unit dose of the active ingredients per an animal, ml</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>fipronil</td>
<td>S-methoprene</td>
</tr>
<tr>
<td>Dogs:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2-7</td>
<td>0.5</td>
<td>50</td>
</tr>
<tr>
<td>8-15</td>
<td>1</td>
<td>100</td>
</tr>
<tr>
<td>16-22</td>
<td>1.5</td>
<td>150</td>
</tr>
<tr>
<td>23-30</td>
<td>2</td>
<td>200</td>
</tr>
<tr>
<td>31-45</td>
<td>3</td>
<td>300</td>
</tr>
<tr>
<td>46-60</td>
<td>4</td>
<td>400</td>
</tr>
<tr>
<td>Cats, ferrets:</td>
<td>0.5</td>
<td>50</td>
</tr>
</tbody>
</table>

For dogs over 60 kg the dose is calculated as 0.067 ml per 1 kg of body weight. Avoid contact with water (rain, bath) after the product is applied. Next treatment can be carried out at least 4 weeks later.

Warnings
The general hygiene and safety rules adopted for working with veterinary drugs should be observed when working with the product. The animals are treated with using of rubber gloves. After processing, wash your hands thoroughly with warm water and soap. If the product gets on the skin, mucous membranes or eyes, rinse them with plenty of running water. Within 24 hours after applying the drug, the animal’s coat may be oily or glued. At this time, it is prohibited to pat the pets, sleep with them, allow children to play with the pets. Sometimes mild itching, hair loss, redness of the skin may occur on the sites of the product’s application. In cases of increased individual sensitivity and the appearance of allergic reactions, the drug should be washed off with water and detergent and, if necessary, antihistamines are prescribed.

Storage
Keep in the original package, in a dry place, protected from direct sunlight, out of children’s and animals’ reach, far from heating devices, separately from food and feed, at a temperature from +2 °C to +30 °C.

Shelf life
2 years.
Amoclanide
powder for oral administration

1 g contains:
amoxicillin trihydrate — 200 mg
clavulanate potassium — 50 mg

Polymer packages of 10 and 500 g;
polymer containers of 25 capsules of 0.5 g each
(1 pc in a cardboard box).

Description
Powder of yellowish color

Pharmacological properties
Bactericidal drug of wide-spectrum action.
Amoxicillin trihydrate — semisynthetic penicillin, refers to beta-lactam antibiotics, inhibits the synthesis of bacterial cell walls by inhibiting transpeptidase and carboxypeptidase, which leads to disturbance of osmotic pressure and death of microorganisms at the developmental stage. It is destroyed under the action of beta-lactamases, which are biosynthesized by a number of bacteria resistant to it, as a result of which the activity spectrum of preparations based on a single amoxicillin significantly narrows.
Potassium clavulanate is a beta-lactam, structurally related to penicillins, has a slight antibacterial effect, but irreversibly inhibits a number of beta-lactamases, prevents inactivation of amoxicillin and provides its antibiotic activity against bacteria, usually resistant to amoxicillin and other penicillins and cephalosporins.
Both components are absorbed from the digestive tract, regardless of the time of consumption and the quality of the feed and penetrate into all organs and tissues of the body, where antibacterial concentrations are created that last 12 hours, are excreted mainly by the kidneys.

Indications

Contraindications
Hypersensitivity to penicillins, severe disorders of kidney function. Do not administer to horses, rabbits, cavies, hamsters, chinchillas and small herbivores.
Do not administer to laying hens eggs of which are used for food purposes.
Do not use simultaneously with chloramphenicol, lincosamides, tetracyclines, macrolides, sulfanilamides.

Administration and dosage
The drug is administered orally with drinking water or feed. The dilution of the drug in water is prepared immediately before use. Two hours before and during the whole treatment drinking water supply is stopped. The drug is used in the following doses:
- poultry — 1 g of drug per 10 kg of body weight with drinking water;
- for chickens and broilers up to 10 days of age — 12.5 g of the drug per 100 l of drinking water, course of 3-5 days;
- for the older poultry — 25 g of drug per 100 l of water during 3-5 days;
- pigs — 0.2-0.5 g of drug per 10 kg of body weight with feed, milk or drinking water twice a day with a 12-hour intervals during 3-5 days. In case of severe disease, in the first day of treatment the dose can be increased twofold;
- dogs, cats — 0.5 g of drug per 10 kg of body weight twice a day during 5-7 days in a mixture of minced meat or fish or other feed. In difficult cases, and in case of severe disease in the first 2 days of administration, the dose can be increased twofold, and the treatment is continued until full recovery.

Warning
While proper administering and dosage side effects are usually not observed. In some hypersensitive animals allergic reactions may appear.
Slaughter of poultry for meat is allowed no earlier than in 2 days and pigs — in 3 days after the last administration of the drug. In the case of slaughter before the specified period, the meat is utilized or fed to unproductive animals, depending on the conclusion of a veterinarian.

Storage
Store in a dry, dark place, away from children at the temperatures from +10 °C to +25 °C.

Shelf life
2 years.
Apramycin sulphate 50%
powder for oral administration

1 g contains:
apramycin sulphate — 500 mg.

Polymer packages of 10, 100, 500 g.

Description
Powder from light-yellow to brownish color.

Pharmacological properties
The antibiotic of the aminoglycoside group acts against gram-negative and
certain gram-positive bacteria, inhibiting synthesis of protein in microor-
ganisms by irreversible binding to the 30S subunit of the ribosomes.
Not active against anaerobic microorganisms.

Indications
It is indicated for:
• calves (up to six weeks of age): the treatment of animals suffering from
gastroenteritis caused by microorganisms Escherichia coli, Salmonella
spp., Pseudomonas spp., Streptococcus spp., Staphylococcus spp. and
Proteus spp.;
• piglets (up to the age of 120 days): treatment of animals suffering from
gastroenteritis, dysentery, edema disease caused by microorganisms Es-
cherichia coli, Salmonella spp., Pseudomonas spp., Streptococcus spp.,
Staphylococcus spp., Proteus spp., Bordetella bronchiseptica, Campylo-
bacter spp. and Brachyspira hyodysenteriae;
• lambs (up to six weeks of age): the treatment of animals suffering from
gastroenteritis caused by microorganisms Escherichia coli, Salmonella
spp., Pseudomonas spp., Streptococcus spp., Staphylococcus spp. and
Proteus spp.;
• chicken-broilers, replacement laying hens: diseases caused by Esche-
richia coli, Pseudomonas spp., Streptococcus spp., Staphylococcus spp.
and Proteus spp.;
• rabbits: the treatment of animals suffering from mucoid enteropathy and
colibacillosis.

Contraindications
Do not administer to animals with hypersensitivity to apramycin or other
aminoglycosides. Do not use simultaneously with β — lactam antibiotics
due to the decrease of antibacterial activity and other aminoglycosides be-
cause of the possible increase of nephrotoxicity.

Administration and dosage
Orally with drinking water.
For calves and lambs — with milk or milk replacer 1 time per day during 5-7
days in the following doses:
• calves (up to six weeks of age) — 40-80 mg of drug per 1 kg of body
weight;
• piglets (up to the age of 120 days) — 15-25 mg of drug per 1 kg of body
weight, or 250-500 mg per 1 l of drinking water;
• lambs (up to six weeks of age) — 20 mg of drug per kg of body weight;
• chicken-broilers, replacement laying hens — 50-100 mg of drug per 1 kg
of body weight or 0.5-1 g per 1 l of drinking water;
• rabbits — 20-30 mg of drug per kg of body weight or 100-200 mg of drug
per 1 l of water.
To prepare the solution: 5-10 parts of liquid (water, milk or milk replacer) are
added to the calculated daily dose of the drug, then allow the solution to
settle for 3-5 minutes, stir and prepare the required concentration.
When using with water, it is recommended to mix the dose of the drug with
one third or half of daily requirement of drinking water. The solution must
not be prepared in rusty metal containers as iron ions reduce the activity
of the antibiotic.

Warning
After administration, the slaughter of animals for meat is allowed in 7 days.
The meat obtained before specified period is used to feed unproductive
animals. Meat of piglets, lambs and rabbits is used without restrictions.

Storage
Store in a dry, dark place, away from children, at the temperature from +4 °C
to +25 °C.
Water solution should be used within 3 days, milk solution — within 1 day.

Shelf life
2 years.
Bi-septim
powder for oral administration

1 g contains:
- tylosin tartrate — 150 mg
- oxytetracycline hydrochloride — 150 mg
- ascorbic acid — 200 mg

Polymer packages of 10, 500 g.

Description
The powder of light yellow color, soluble in water.

Pharmacological properties
Vitamin C increases resistance to infections, speeds up metabolism, is an antioxidant.
When administered orally, oxytetracycline is rapidly absorbed. After 30 minutes, its concentration in the serum is almost 60% of the therapeutic, the maximum concentration in the blood serum is achieved in 2-3 hours. Oxytetracycline is almost not metabolized in body — about 60% is excreted in urine unchanged, the rest is excreted with bile.
Tylosin is well absorbed from digestive tract, creating bacteriostatic levels in blood and tissues. Metabolized mainly in liver, excreted mainly with urine and bile.

Indications
It is indicated for treatment of young and adult poultry (chickens, turkeys, ducks, geese) suffering from the diseases of the gastrointestinal tract and respiratory complications of bacterial and viral diseases caused by microorganisms that are sensitive to oxytetracycline and tylosin.

Contraindications
Hypersensitivity to tylosin and oxytetracycline.
Do not use simultaneously with cephalosporins, penicillins, erythromycin and sulfonilamides.
Do not use for laying hens, eggs of which are used for human consumption.

Administration and dosage
Orally in a dose of 1 g of drug per 1 l of drinking water or feed — 2 g of drug per 1 kg of feed, treatment course — 3-5 days.

Warning
Slaughter of poultry for meat is allowed in 15 days after the last administration. Meat obtained before the specified period is utilized or used for unproductive animals feeding according to the conclusion of a veterinarian.

Storage
Store in a dry, dark place at the temperature from +4 °C to +25 °C.

Shelf life
2 years.
Brovafom new
powder for oral administration

1 g contains:
- colistin sulphate — 500 000 IU
- oxytetracycline hydrochloride — 35 mg
- trimethoprim — 27 mg

Polymer package of 10, 20, 100 g; 1 kg.

Description
Light yellow powder, soluble in water.

Pharmacological properties
Complex antimicrobial preparation of a wide spectrum of action. Oxytetracycline is a bacteriostatic antibiotic, when interacting with ribosomes disrupts protein synthesis and reduces the permeability of the cytoplasmic membrane of microorganisms, acts against gram-positive and gram-negative microorganisms — Streptococcus spp., Clostridium spp., Corynebacterium spp., Brucella spp., Haemophilus spp., E. coli, Pasteurella spp., Klebsiella spp., Erysipelothrix spp., Fusobacterium spp., Salmonella spp., protozoans, mycoplasma Mycoplasma spp., rickettsiae Rickettsia spp., chlamydia Chlamydia. Forms metabolites in a small amount, from the body is excreted in the urine, bile and milk.

Colistin, an antibiotic from the polymyxin group, acts on the gram-negative microorganisms E. coli, Salmonella spp., Pasteurella spp., Haemophilus spp., Bordetella spp. It binds phospholipid A of cell membranes and neutralizes the effect of endotoxin of bacteria, which leads to destruction of membrane structure. The permeability of the cell membrane changes immediately after contact with the drug. From the gastrointestinal tract is absorbed in a small amount, so high concentrations of the drug are observed in different parts of it. It is excreted from the body by the kidneys in the form of active metabolites.

Trimethoprim acts against Gram-positive bacteria Staphylococcus spp., Streptococcus spp., Clostridium spp., Corynebacterium spp., Gram-negative bacteria of E. coli, Salmonella spp., Klebsiella spp., Proteus spp., Pasteurella spp., Bordetella spp. etc. Blocks protein synthesis in bacteria, inhibits bacterial reductase, which converts dehydrofolic acid to tetrahydrofolic acid, which is necessary for the synthesis of purines and nucleic acids. It binds to blood plasma proteins by 70%, high concentration of trimethoprim is observed in the secretion of bronchial glands, prostate gland and bile. The half-life in blood plasma is 8-10 hours, after 72 hours it is excreted in urine by 66.8%.

Indications
It is indicated for treatment of diseases caused by Gram-positive and Gram-negative agents:
- pigs: dysentery, colibacillosis, pasteurellosis, salmonellosis, as well as diseases of the digestive tract and respiratory system;
- calves and lambs (aged up to six weeks): enteritis, diseases of respiratory system;
- rabbits: enteritis, diseases of respiratory system;
- poultry (chicken-broilers, replacement chickens, turkeys, peasants, geese, ducks): mycoplasmosis, colibacillosis, pasteurellosis, diseases of respiratory system.

Contraindications
Do not administer to animals with hypersensitivity to the drug, with impaired liver and kidney function, to ruminants with functionally developed proventriculus. Do not administer to laying hens, which eggs are used in food.

The drug is incompatible with hydrocortisone, heparin, decenoic acid,cephalosporins, aminoglycosides and amphotericin.

Administration and dosage
Oral administration in the following doses:
- pigs, poultry (group method) — 1 kg per 1000 l of drinking water, or 1.5-2 kg per 1 ton of mixed feed for 3-5 days;
- rabbits — 1 to 1.5 g of drug per 1 l of drinking water for 3-5 days;
- calves and lambs (aged up to six weeks), piglets (individually) — 0.5 g per 10 kg of body weight, 2 times a day for 5-7 days.

Warning
Slaughter of animals for meat is allowed in 10 days after the last administration of the drug, poultry — in 7 days. Meat obtained before the specified period is utilized or used for feeding non-productive animals.

Storage
Store in a dry dark, unreachable for children place at the temperature from +8 °C to +25 °C.

Shelf life
3 years.
Brovamulin-100
powder for oral administration

1 g contains:
tiamulin hydrogen fumarate — 100 mg

Polymer containers of 20 g, polymer packages of 1 kg.

Description
Water-soluble powder of white color, with light specific odor.

Pharmacological properties
Tiamulin is a semisynthetic antibiotic that belongs to the pleuromutilin group and acts bacteriostatically. The mechanism of action is to combine with the 50S ribosomal subunit of bacteria, which causes a violation of protein synthesis in the bacterial cell. The drug is active against most Gram-positive cocci, including Staphylococcus spp., Streptococcus spp., mycoplasmas Mycoplasma hypopneumoniae, M. hyorhinis, M. synoviae, M. hyosynoviae, Ureoplasma spp., spirochete Serpulina hyodysenteria, S. innocens. Has a low activity against Gram-negative microorganisms, except Haemophilus spp. and some strains of E. coli, Klebsiella spp. After oral administration, it is well absorbed from the digestive tract. Approximately 85% is absorbed, the maximum concentration in blood is observed after 2-4 hours after taking the drug. Tiamulin is well distributed throughout the body, its highest concentration is in the lungs. Metabolized, forming about 20 metabolites, some of which have antibacterial activity. About 30% of metabolites are excreted in urine, the rest — with feces.

Indications
It is indicated for prevention and treatment of animals in diseases caused by microorganisms sensitive to tiamulin:
• pigs — dysentery, enzootic pneumonia, leptospirosis, pleuroneumonia and arthritis;
• poultry (laying hens, broilers, turkeys) — chronic respiratory mycoplasmosis, infectious sinusitis, infectious sinovitis.

Contraindications
Do not administer to animals with hypersensitivity to tiamulin, pregnant sows in the first month of pregnancy, boars, laying hens laying hens during the egg-laying period. It is forbidden to use products containing monensin, narasin or salinomycin for less than 7 days before and after the treatment with tiamulin.

Administration and dosage
The drug is administered with drinking water or mixed fodders mainly by a group method. When preparing a medicinal-feed mixture, the product should be thoroughly mixed with fodder. Such a mixture can be stored and used within a month. Doses of the drug for various animal species are given in the table.

<table>
<thead>
<tr>
<th>Animal specie</th>
<th>Dose of the drug, g/100 kg of feed</th>
<th>Dose of the active ingredient, mg/1 kg b.w.</th>
<th>Administration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pigs:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>acute dysentery:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• piglets up to 50 kg</td>
<td>100-120</td>
<td>5-6</td>
<td>3-4 days</td>
</tr>
<tr>
<td>• pigs over 50 kg</td>
<td>60-80</td>
<td>3-4</td>
<td>5 days</td>
</tr>
<tr>
<td>• acute respiratory diseases</td>
<td>200</td>
<td>10</td>
<td>7-10 days</td>
</tr>
<tr>
<td>Chicken-broilers, laying hens, turkeys:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>treatment</td>
<td>400</td>
<td>20</td>
<td>3-5 days</td>
</tr>
</tbody>
</table>

When using with drinking water, the daily therapeutic dose is:
• pigs — 1 g per 1 l of water;
• poultry — 1 g per 2 l of water.

Before preparation of the therapeutic solution, concentrate is prepared: the calculated amount of the drug is placed in plastic or enamel ware and filled with water at a temperature of +40-45 °C in a ratio of 1:10 and mixed. The mixture is added to the daily water norm.

Warning
Slaughter of animals for meat is allowed in 5 days after the last treatment. Meat obtained earlier than the specified period is utilized or is fed for unproductive animals, depending on a conclusion of a veterinarian.

Storage
Store in a dry, dark place at a temperature from +4 °C to +25 °C.

Shelf life
3 years.
Brovaseptol concentrate
powder for oral use

1 g contains:
sulfadimethoxin sodium salt — 300 mg
sulfadiazine sodium salt — 300 mg
trimethoprim — 120 mg

Polymer packages of 5, 25 g, 1 kg.

**Description**
Homogeneous powder of light-yellow color with light characteristic smell, water-soluble

**Pharmacological properties**
The combined antibacterial preparation of a wide spectrum of action. Sulfonamides and trimethoprim (a derivative of diaminopyrimidine) block enzymes in two consecutive stages of the biosynthesis of folic acid in a bacterial cell, which leads to suppression of bacterial growth, cessation of their reproduction and death. The combination of active ingredients in the preparation reduces the likelihood of the emergence of resistant forms of pathogenic microflora. Acts against Gram-positive and Gram-negative bacteria Staphylococcus spp., Streptococcus spp., Neisseria spp., Clostridium spp., Listeria monocytogenes, Corynebacterium spp., E. coli, Salmonella spp., Klebsiella spp., Proteus spp., Citrobacter spp., Pasteurella spp., Bordetella spp., Enterobacter spp., Yersinia enterocolitica, Chlamydia spp., Vibrio cholerae etc., some protozoans Pneumocystis carinii, Coccidia, Toxoplasma. Sulfanilamides are quickly distributed throughout the body, their therapeutic concentration is maintained in serum for 25 hours. Their concentration in kidneys is higher, and in skin, liver and lungs is lower than in blood plasma. Trimethoprim is rapidly distributed throughout the body, its maximum concentration is reached 4 hours after injection. Concentration in lungs, liver and kidneys is higher than in blood plasma. Sulfonamides and trimethoprim are excreted by kidneys through glomerular filtration and tubular secretion. A small amount is metabolized in liver and is excreted with bile.

**Indications**
It is indicated for treatment of calves and lambs (up to 6 weeks of age), horses, pigs, rabbits, dogs and cats, poultry (chickens, turkeys, ducks, geese) suffering from the diseases of the digestive tract (gastritis, enteritis, dyspepsia), respiratory organs (tonsillitis, tracheitis, pharyngitis, pneumonia, pleurisy) and genitourinary system (puerperal sepsis, cystitis, urethritis, endometritis), postoperative complications, as well as animals suffering from mastitis, actinomycosis, erysipelas, dysentery, diplococcus, enterotoxaemia, eimeriosis, colibacillosis, pasteurellosis, pullorosis, edematous disease, mycoplasmosis, salmonellosis.

**Contraindications**
Hypersensitivity to the drug. Do not administer to animals with impaired renal function and liver, ruminant animals with functionally formed proventriculus. Do not administer to laying hens, eggs of which are used as food.

**Administration and dosage**
Orally with drinking water or feed in a dose — 0.3-0.35 g of drug per 10 kg of body weight one or two times a day.
For poultry and rabbits the dose is 1 g per 3 l of water, the course of treatment — 4-6 days. Veterinarian, depending on the intensity of the disease and the clinical condition of the animals, may increase the dose of the first administration for 30-50% and extend the course of treatment for 2-3 days.

<table>
<thead>
<tr>
<th>Animal species</th>
<th>Body weight, kg</th>
<th>Age, week</th>
<th>Daily dose, g per 100 l of water</th>
<th>Daily dose, g per 100 kg of feed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sucking piglets</td>
<td>under 10</td>
<td></td>
<td>35-50</td>
<td>120-150</td>
</tr>
<tr>
<td>Weaned piglets</td>
<td>11-25</td>
<td>25-35</td>
<td>25</td>
<td>65-80</td>
</tr>
<tr>
<td>Breeding pigs</td>
<td>26-100</td>
<td>35-45</td>
<td>35-45</td>
<td>80-110</td>
</tr>
<tr>
<td>Sows</td>
<td>over 150</td>
<td></td>
<td>150-180</td>
<td></td>
</tr>
<tr>
<td>Chickens, turkeys,</td>
<td></td>
<td>1-8</td>
<td>17</td>
<td>34</td>
</tr>
<tr>
<td>geese, ducks (young poultry)</td>
<td></td>
<td>9-18</td>
<td>25</td>
<td>50</td>
</tr>
<tr>
<td>Broiler chickens</td>
<td>1-4</td>
<td>15-18</td>
<td>30-33</td>
<td></td>
</tr>
<tr>
<td></td>
<td>5-8</td>
<td></td>
<td>25</td>
<td>42</td>
</tr>
</tbody>
</table>

**Warning**
Slaughter of calves, sheep, pigs, rabbits for meat is allowed in 4 days, of poultry — in 2 days.

**Storage**
Store in a dark place, out of children reach at the temperature from +8 °C to +25 °C. Prepared solution should be used within 1 day. If it’s stored in the fridge — within 3 days.

**Shelf life**
2 years.
Brovaseptol injectable powder for injection

1 g contains:
- sulfadimetoxin sodium salt — 300 mg
- sulfadiazine sodium salt — 300 mg
- trimethoprim — 120 mg
Includes a vial of sodium chloride 0.9%

Glass vials of 3.3 and 6.6 g (including a sterile bottle of sodium chloride 0.9% of 8 and 16 ml, respectively).

Description
Homogeneous powder of light-yellow color with light characteristic smell.

Pharmacological properties
The combined antibacterial preparation of a wide spectrum of action. Sulfonamides and trimethoprim (a derivative of diaminopyrimidine) block enzymes in two consecutive stages of the biosynthesis of folic acid in a bacterial cell, which leads to suppression of bacterial growth, cessation of their reproduction and death. The combination of active ingredients in the preparation reduces the likelihood of the emergence of resistant forms of pathogenic microflora.


Sulfanilamides are quickly distributed throughout the body, their therapeutic concentration is maintained in serum for 25 hours. Their concentration in kidneys is higher, and in skin, liver and lungs is lower than in blood plasma.

Trimethoprim is rapidly distributed throughout the body, its maximum concentration is reached 4 hours after injection. Concentration in lungs, liver and kidneys is higher than in blood plasma.

Sulfonamides and trimethoprim are excreted by kidneys through glomerular filtration and tubular secretion. A small amount is metabolized in liver and is excreted with bile.

Indications
It is indicated for treatment of cattle, sheep, horses, pigs, rabbits, dogs, cats and poultry (chickens, turkeys, geese, ducks) suffering from the diseases of the digestive tract (gastritis, enteritis, dyspepsia), respiratory organs (tonsillitis, tracheitis, pharyngitis, pneumonia, pleurisy) and genitourinary system (puerperal sepsis, cystitis, urethritis, endometritis), postoperative complications, as well as animals suffering from mastitis, actinomycosis, erysipelas, dysentery, diplococcus, enterotoxaemia, eimeriosis, colibacillosis, pasteurellosis, pullorosis, edematous disease, mycoplasmosis, salmonellosis.

Contraindications
Hypersensitivity to the drug. Do not administer to animals with renal or hepatic impairment.

Administration and dosage
Drug is diluted with sodium chloride solution 0.9%, and administer intramuscularly in the following doses:
- cattle, sheep, horses, pigs — 0.6-0.8 ml per 10 kg of b.w.;
- dogs, cats — 0.1-0.15 ml per 1 kg of b.w.;
- poultry (chickens, turkeys, geese, ducks), rabbits — 0.1 ml per 1 kg of b.w.
For large animals intravenous or intraarterial administration is allowed. The drug is administered 3-5 times at intervals of 24-36 hours during 5 days. If clinical symptoms remain, the course continues for 2 more days.

Treatment of young poultry, pigs and rabbits can be carried out orally with drinking water. For that to the daily requirement of drinking water is added the drug in a dose of 1 ml per 0.9-1.2 l of water or 1 g of powder per 3 l of water.

Injection over 10 ml (for small and young animals) and 20 ml (for large and mature animals) is divided into two or more parts and injected in different sites.

Warning
Do not dilute with novocaine.
Slaughter for meat is allowed in 10 days, milk is allowed to use in food in 10 days.

Storage
Store in a dark place, out of children reach at the temperature from 0 °C to +25 °C.
Prepared solution should be used within 1 day, or within 3 days provided storage in a fridge.

Shelf life
2 years.
Brovaseptol powder
powder for oral use

1 g contains:
sodium sulfathiazole — 80 mg
sulfaguanidine — 70 mg
trimethoprim — 30 mg
oxytetracycline hydrochloride — 45 mg
tylosin tartrate — 25 mg

Polymer packages of 12 g, 36 g, 100 g, 500 g.

Description
Light yellow powder, slightly soluble in water.

Pharmacological properties
Sulfathiazole is an antimicrobial bacteriostatic agent, active against Gram-positive and Gram-negative bacteria — E. coli, Shigella spp., Klebsiella spp., Vibrio cholerae, Clostridium perfringens, Corynebacterium diphtheriae, Yersinia pestis, Chlamydia spp., Actinomyces israelii, Toxoplasma gondii.
Sulfaguanidine is an antimicrobial bacteriostatic sulfonamide substance that inhibits dihydropteroate synthetases, which leads to a disruption in the synthesis of tetrahydrofolic acid necessary for the synthesis of purines and pyrimidines.

Contraindications
Do not administer to animals with hypersensitivity to sulphathiazole, tylosin, oxytetracycline, sulfaguanidine, trimethoprim, as well as with liver and kidney diseases. Do not use for milk cows and laying hens, whose milk and eggs are used for human consumption.

Administration and dosage
Orally with feed.
Treatment of pigs, poultry and rabbits is primarily conducted by the group method by uniformly mixing the daily amount of feed with the drug at the following doses (up to 100 kg of feed):
• pigs — 300-350 g;
• poultry, rabbits — 400 g.
Daily dose for all types of animals is 1.0-1.2 g per 10 kg of body weight. The daily dose is administered in two steps, treatment course is 3-6 days. Depending on the state of the disease the first dose may be increased for 30-100%, treatment course may be extended for 1-2 days.

Warning
Slaughter of animals and poultry for meat is allowed in 8 days after the last treatment. Meat obtained before specified period is fed for unproductive animals depending on a conclusion of a veterinarian.

Storage
Store in a dark place, out of children reach at a temperature from +4 °C to +25 °C.

Shelf life
2 years.

Indications
It is indicated for treatment of animals affected by diseases of the digestive tract, respiratory and urogenital systems, namely:
• calves (up to 3 months age) — treatment of animals suffering from gastroenteritis, salmonellosis, pasteurellosis;
• pigs — treatment of animals suffering from enzootic pneumonia, arthritis, dysentery, edema disease, erysipelas, salmonellosis, pasteurellosis;
• sheep (up to 3 months age) — treatment of animals suffering from septiemia, eimeriosis;
• rabbits — gastroenteritis, colibacteriosis, pasteurellosis, pneumonia;
• poultry (chickens, turkeys, ducks, geese) — panleukopenia, cholera, salmonellosis, mycoplasmosis, rhinitis.
Brovaseptol tablets
tablets for oral administration

1 g (1 tablet) contains:
- sodium sulfathiazole — 80 mg
- sulfaguanidine — 70 mg
- trimethoprim — 30 mg
- oxytetracycline hydrochloride — 45 mg
- tylosin tartrate — 25 mg

Polymer blisters of 10 tablets (3 pcs in a cardboard box).

Description
Flat, cylindrical tablets of light-yellow color.

Pharmacological properties

Sulfatiazole is an antimicrobial bacteriostatic agent, active against Gram-positive and Gram-negative bacteria — E. coli, Shigella spp., Klebsiella spp., Vibrio cholerae, Clostridium perfringens, Corynebacterium diphtheriae, Yersinia pestis, Chlamydia spp., Actinomyces israelii, Toxoplasma gondii.

Sulfaguanidine is an antimicrobial bacteriostatic sulfonamide substance that inhibits dihydropteroate synthetases, which leads to a disruption in the synthesis of tetrahydrofolic acid necessary for the synthesis of purines and pyrimidines.


Trimethoprim is a chemotherapeutic agent that acts against Gram-positive bacteria Staphylococcus spp., Streptococcus spp., Clostridium spp., Corynebacterium spp. etc, Gram-negative bacteria E. coli, Salmonella spp., Klebsiella spp., Proteus spp., Pasteurella spp., Bordetella spp. etc., inhibits bacterial reductase that converts dihydrofolic acid to tetrahydrofolic acid, which is necessary for synthesis of purines and nucleic acids.

Indications
It is indicated for treatment of animals and poultry affected by the diseases of the digestive tract, respiratory and urogenital systems, namely:
- calves (up to 3 months age) — treatment of animals suffering from gastroenteritis, salmonellosis, pasteurellosis, vibriosis;
- pigs — treatment of animals suffering from enzootic pneumonia, arthritis, dysentery, edema, erysipelas, salmonellosis, pasteurellosis;
- sheep (up to 3 months age) — treatment of animals suffering from septicemia, eimeriosis;
- poultry (chickens, turkeys, ducks, geese) — treatment of birds affected by typhus, cholera, salmonellosis, mycoplasmosis, rhinitis.

Contraindications
Do not administer to animals with hypersensitivity to sulphathiazole, tylosin, oxytetracycline, sulfaguanidine, trimethoprim, as well as for animals suffering from liver and kidney diseases. Do not use for ruminants with functionally developed proventriculus, for laying hens whose eggs are used for human consumption.

Administration and dosage
Orally with dry or moistened feed, tablets must be preliminary crushed. For all animal species daily dose of the drug is 1-1.5 g (1-1.5 of tablet) per 10 kg of body weight. The daily dose is set in two steps. Depending on clinical signs of the disease the dose may be increased for 30-100%. Course of treatment is 4-5 days (until the complete disappearance of symptoms). The treatment may be prolonged for 1-2 days.

Warning
Slaughter of animals and poultry for meat is allowed in 8 days after the last treatment. Obtained meat by the specified period is utilized or fed for unproductive animals depending on the conclusion of a veterinarian.

Storage
Store in a dark, dry place out of children reach, at a temperature from +4 °C to +25 °C.

Shelf life
2 years.
Ceftioclin

suspension for injection

1 ml contains:

cephiofur hypochloride — 50.0 mg

Dark glass vials of 10 ml (10 pcs in a cardboard box),
50, 100 ml (1 pc in a cardboard box).

Description
Homogeneous, sterile, light-yellow suspension.

Pharmacological properties
Ceftiofur hydrochloride is an antibiotic of the third generation from the
group of cephalosporins with a broad spectrum of antibacterial action. The
mechanism of action is to inhibit the synthesis of the bacterial cell wall.

Indications
It is indicated for treatment of diseases cused by Gram-positive and Gram-
negative microorganisms, including those producing beta-lactamase —
Pasteurella haemolytica, Pasteurella multocida, Haemophilus somnus,
Streptococcus agalactiae, S. dysgalactiae, S. bovis, Escherichia coli, Fusobacterium necrophorum and Bacteroides melaninogenicus, Haemophilus
somnus, Actinobacillus pleuropneumoniae, Salmonella cholerasuis and
Streptococcus suis:
• cattle: treatment of acute post-partum endometritis, necrobacteriosis,
respiratory diseases;
• pigs: respiratory disease and the treatment of other infections.

Contraindications
Individual sensitivity of animals to ceftiofur and other beta-lactam anti-
biotics.

Application and dosage
Shake well before administration:
• cattle — subcutaneously or intramuscularly, once a day in a dose of 1 ml
per 50 kg of body weight (equivalent to 1 mg of ceftiofur per 1 kg of body
weight). Period of treatment — 3-5 days for respiratory diseases, not less
than 3 days for necrobacteriosis, 5 days for endometritis;
• pigs — intramuscularly, once a day, in dose of 1 ml per 16 kg of body
weight (3 mg of ceftiofur per 1 kg of body weight) for 3-4 days.

Warning
Do not mix with other drugs in one syringe.
Slaughter of animals for human consumption is allowed in 8 days (cattle)
and 5 days (pigs) after the last treatment. Meat obtained before the speci-
fied period is utilized or used for feeding of unproductive animals, depend-
ing on the conclusion of veterinarian.
The duration of excretion for milk is not available.

Storage
Store in a dry, dark place at the temperature from +4 °C to +25 °C.
After opening the drug should be stored at the temperature from +4 °C to
+8 °C and used within 15 days.

Shelf life
2 years.
**Ceftiokur**

powder for injections

1 vial contains:
cestiofur sodium sterile — 0.5, 1 or 4 g.

Glass vials of 0.5 g (1 pc in a cardboard box);
1 g (2 pcs in a cardboard box) or 4 g.

**Description**

Powder from white to brown color.

**Pharmacological properties**

Antibiotic of III generation from the group of cephalosporins with a wide spectrum of bactericidal action against Gram-positive and Gram-negative microorganisms, including species that produce beta-lactamase.

The mechanism of action is to inhibit the synthesis of the bacterial cell wall.

**Indications**

It is indicated for:

- **cattle**: treatment of respiratory diseases caused by Pasteurella (Mannheimia) haemolytica, Pasteurella multocida, Histophilus somni, and animals suffering from postpartum endometritis and acute interdigital necrobacillosis;
- **pigs**: treatment of respiratory diseases caused by Actinobacillus (Hae-mophilus) pleuropneumoniae, Pasteurella multocida, Salmonella choleraesuis and Streptococcus suis;
- **horses**: treatment of respiratory diseases caused by Streptococcus zoono-epidemicus bacteria;
- **sheep and goats**: treatment of respiratory diseases caused by Pasteurella (Mannheimia) haemolytica and Pasteurella multocida;
- **dogs**: treatment of animals suffering from arthritis, as well as diseases of the respiratory system, urinary tract and skin caused by Escherichia coli and Proteus mirabilis;

**Contraindications**

Do not administer to animals with hypersensitivity to cestiofur.

**Warning**

Slaughter of animals for meat is allowed in 24 hours (cattle), 48 hours (pigs), 21 days (chicken and turkeys) after the last treatment.

**Storage**

Store in a dry dark place, away from children at the temperature from +2 °C to +8 °C.

Prepared solution must be stored: at the temperature +20-25 °C not longer than 12 hours; at the temperature +2-8 °C — not longer than 7 days.

**Shelf life**

2 years.

**Administration and dosage**

Before using, dissolve the contents of the vial of 0.5, 1.0 or 4.0 g in 10, 20 or 80 ml of sterile water for injections, respectively. The water should be preheated to the room temperature. 1 ml of the solution should contain 50 mg of cestiofur.

The doses for different animal species are indicated in the table.

<table>
<thead>
<tr>
<th>Animal species</th>
<th>Dose, ml/kg b.w.</th>
<th>Dose of cestiofur mg/kg b.w.</th>
<th>Dose of one-time injection*</th>
<th>Administration route</th>
<th>Treatment course</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cattle</td>
<td>1 / 50</td>
<td>1</td>
<td>15</td>
<td>s/c or i/m</td>
<td>3-5 days</td>
</tr>
<tr>
<td>Pigs</td>
<td>1 / 16</td>
<td>3-5</td>
<td>10</td>
<td>i/m</td>
<td>3 days</td>
</tr>
<tr>
<td>Horses</td>
<td>2-3 / 50</td>
<td>3</td>
<td>10</td>
<td>i/m</td>
<td>once a day, no longer than 10 days</td>
</tr>
<tr>
<td>Sheep, goats</td>
<td>0.2-0.4 / 10</td>
<td>1</td>
<td>5</td>
<td>s/c or i/m</td>
<td>3-5 days</td>
</tr>
<tr>
<td>Dogs:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• respiratory diseases</td>
<td>0.6 / 10</td>
<td>3.3</td>
<td></td>
<td>s/c</td>
<td>5 days</td>
</tr>
<tr>
<td>• skin diseases</td>
<td>0.4-0.8 / 10</td>
<td>2.2-4.4</td>
<td></td>
<td>s/c</td>
<td>8-10 days</td>
</tr>
<tr>
<td>• diseases of urinary tract, purulent wounds, polyarthritis</td>
<td>0.8 / 10</td>
<td>4.4</td>
<td></td>
<td>s/c</td>
<td>8-10 days</td>
</tr>
<tr>
<td>One-day chickens</td>
<td>0.2 / head</td>
<td>0.08-0.2 / head</td>
<td>0.2</td>
<td>s/c**</td>
<td>once</td>
</tr>
<tr>
<td>One-day poults</td>
<td>0.2 / head</td>
<td>0.2-0.5 / head</td>
<td>0.2</td>
<td>s/c **</td>
<td>once</td>
</tr>
</tbody>
</table>

* Injection exceeding the indicated values should be divided and injected into different sites. ** May be injected simultaneously with vaccine against Marek’s disease.
Ciflodex

suspension, drops for eyes and ears

1 ml contains:
ciprofloxacin hypochloride — 4.5 mg
dexamethasone sodium phosphate — 1 mg

Polymer vials with dropper of 10 ml (1 pc in a cardboard box).

Description
White suspension.

Pharmacological properties
Combined chemotherapeutic agent, combines broad-spectrum antibiotic from the group of fluoroquinolones (ciprofloxacin) and glucocorticosteroid (dexamethasone), has antibacterial, anti-inflammatory, antiallergic and desensitizing properties.

Ciprofloxacin acts bactericides by inhibiting DNA gyrase and suppressing synthesis of bacterial DNA. Active against gram-negative microorganisms during rest and splitting — Escherichia coli, Salmonella spp., Shigella spp., Proteus spp., Citrobacter spp., Klebsiella spp., Enterobacter spp., Vibrio spp., Campylobacter spp., Hafnia spp., Providencia stuartii, Haemophilus spp., Pasteurella multocida, Pseudomonas spp., Gardnerella spp., Neisseria spp., Moraxella catarrhalis, Acinetobacter spp., Brucella spp., gram-positive microorganisms in splitting process — Staphylococcus spp., Streptococcus pyogenes, Streptococcus agalactiae, Corynebacterium diphtheriae, Listeria monocytogenes and other pathogens — Chlamydia spp., Mycoplasma spp., Mycobacterium spp. Well absorbed, after 60 minutes its concentration in tear fluid is 4.98 μg/ml, and in fluid of the anterior chamber of the eye — 2.59 μg/ml. Half-life from the anterior chamber of the eye is 2 hours. When instilled in an eye, the concentration of ciprofloxacin in blood does not exceed 2.5 ng/ml, when instilled in ears — the maximum concentration in blood is reached after 15-90 minutes and is approximately 0.1% of the concentration of ciprofloxacin administered orally at a dose of 250 mg.

Dexamethasone is a synthetic fluorinated glucocorticosteroid with anti-inflammatory, antiallergic and antiproliferative action. Reduces the permeability and proliferation of capillaries, local exudation, cellular infiltration, phagocytic activity, collagen deposition and fibroblast activity, inhibits the formation of scar tissue and inflammation. Anti-inflammatory effect after instillation lasts 4-8 hours. With topical application, systemic absorption is low. After instillation into eyes, dexamethasone penetrates well into the epithelium of the cornea, conjunctival cells and into the fluid in the anterior chamber of the eye, its maximum concentration of 30 ng/ml is achieved after 2 hours, the elimination half-life is 3 hours. When used in ears, the maximum concentration in blood is reached after 15-90 minutes and is approximately 14% of the concentration of dexamethasone administered orally in a dose of 5 mg.

Indications
It is indicated for the treatment of dogs, cats, small exotic and decorative animals (fancy rabbits, hamsters, rats, mice, guinea pigs, parrots, reptiles) in case of acute and chronic infectious and inflammatory diseases of eyes and ears of bacterial, chemical or traumatic origin, including:
• conjunctivitis, blepharitis, keratitis, keratoconjunctivitis, iridits, iridocyclitis, ulcer and erosion of eye cornea, diseases of the eye after the injury or the ingress of foreign bodies or corrosive compounds, as well as during preoperative and postoperative periods;
• otitis, otorrhea, including those caused by outside interference.

Contraindications
Do not administer to animals with hypersensitivity to the active ingredients of the drug. Do not use for viral and fungal lesions of eyes and ears, along with non-steroidal anti-inflammatory drugs, theophylline, amphotericin and other drugs that excrete calcium, do not administer in the day of vaccination.

Administration and dosage
The drug is dripped into the conjunctival sac in the amount of 1-2 drops 2-4 times a day (in the complicated cases it is recommended to drip 1-2 drops every 2-3 hours), or into the auditory canal 1-4 drops depending on the weight of the animal 2-3 times per day.
If there is a significant purulent or muco-purulent discharge, pre-hygienic treatment of the eyes or ears is carried out: drip 3-4 drops of the drug and remove the discharge by sterile gauze pad. After this drip 1-2 drops of the drug and conduct the appropriate course of treatment.
Duration of treatment is 5-10 days until full recovery.

Warning
When dripped into the eyes, local irritation, itching, watery eyes may appear; rarely — allergic reactions, and in case of long-term use — secondary glaucoma may develop, as well as steroid cataract.

Storage
Store in a dry, dark place, away from children at the temperature from +10 °C to +25 °C.
Shelf life after first opening (selection) is 30 days.

Shelf life
2 years.
Coldoks VR
water-soluble powder for oral administration

1 g contains:
doxycycline hyclate — 200 mg
colistin sulphate — 2 400 000 IU

Polymer package, containers, cans of 5, 10, 50, 100, 500 g;
3, 5, 10 kg.

Description
Light yellow powder, soluble in water.

Pharmacological properties
The half-life of the body of cattle is 6-19 hours, pigs — 7 hours, broilers — 13-17 hours. Unlike other tetracyclines, it is excreted from the body mainly unchanged, mainly with bile.

Colistin, an antibiotic from the polymyxin group, acts on the gram-negative microorganisms E. coli, Salmonella spp., Pasteurella spp., Haemophilus spp., Bordetella spp. It binds phospholipid A of cell membranes and neutralizes the effect of endotoxin of bacteria, which leads to destruction of membrane structure. The permeability of the cell membrane changes immediately after contact with the drug. From the gastrointestinal tract is absorbed in a small amount, so high concentrations of the drug are observed in different parts of it. It is excreted from the body by the kidneys in the form of active metabolites.

Indications
Treatment of calves, lambs, kids under the age of 2 months, pigs, poultry (broiler chickens, young stock, turkeys) for gastrointestinal diseases and respiratory organs caused by microorganisms sensitive to the active ingredients of the drug.

Contraindications
Do not administer to animals with hypersensitivity to the drug, with impaired liver and kidney function, to ruminants with functionally developed proventriculus. Do not administer to laying hens, which eggs are used in food.
Do not use simultaneously with antibiotics of the penicillin group, cephalosporins, quinolones and cycloserine, as well as with sodium bicarbonate, preparations containing iron, aluminum, magnesium, since they worsen absorption of the product.

Administration and dosage
Before each use, the drug is mixed with drinking water or feed, the course is 4-5 days. The doses are indicated below:
• calves, lambs, goatlings under the age of 2 months — 0.25 g per 10 kg of body weight, 2 times a day with water, feed, milk or its substitute;
• pigs — 500 g per 1000 l of water or 500 kg of feed;
• poultry under the age of 2 months (broilers, young stock, turkey poults) — 250 g per 1000 l of water;
• poultry older than 2 months (replacement young, turkeys) — 500 g per 1000 l of water.

Warning
The staff contacting with the drug must observe the rules of hygiene and safety adopted for work with veterinary medicinal products.
Slaughter of poultry for meat is allowed in 7 days after the last administration of the drug, pigs — in 8 days, calves, lambs, goatlings — in 14 days. Meat obtained before the specified period is utilized or used for feeding non-productive animals.

Storage
Store in a dry dark, unreachable for children place at the temperature from +15 °C to +25 °C.

Shelf life
2 years.
Ftorfenlic 10
solution for oral use

1 ml contains:
florfenicol — 100 mg

Glass vials of 10 ml (10 vials in a carton box), polymer vials of 100 ml with measuring spoon, polymer vials of 1000 ml.

Description
Liquid of yellowish color, transparent.

Pharmacological properties
Florfenicol is a thiamphenicol derivative, with hydroxyl group replaced by a fluorine atom. Active against pathogens producing acetyltransferase and resistant to chloramphenicol, it provides a bacteriostatic and bactericidal effect by binding in the protoplasm of the bacterial cell with the ribosomal subunit of 70S-bacteria, blocking the enzyme peptidyl-transferase, which leads to disruption of aminoacid transport and further stopping of protein synthesis at the ribosome level in microorganisms. After oral administration, the bioavailability of florfenicol is: in pigs — 88%, in poultry — at least 55%. A high level of antibiotic concentration is observed in the lungs, kidneys, muscles, intestines, heart, liver, spleen and blood serum. The maximum concentration in the blood is reached in an hour, the therapeutic concentration is preserved in the organs and tissues for 24 hours. It is excreted from the body in unchanged form and in the form of metabolites: in birds mainly with feces, in pigs — with urine and partly with feces.

Indications
- poultry (chicken-broilers, breeding hens, rearing flocks, turkeys) — co-lobacteriosis, staph infection, pasteurellosis, as well as diseases of the respiratory and gastrointestinal tract;
- pigs — hemophilic and actinobacillus pleuropneumonia, atrophic rhinitis, disease by Glessor (hemophilic polyserositis), pasteurellosis, diplococcoid septicemia, streptococcal and staphylococcal infections, mycoplasmosis, secondary infection as a result of viral disease, and other diseases of the respiratory and gastrointestinal tract.

Contraindications
Do not prescribe to animals with hypersensitivity to florfenicol, to breeding sows in the period of pregnancy, farrowing and lactation, to boars intended for reproduction, to laying hens. Do not administer simultaneously with thiamphenicol or chloramphenicol.

Administration and dosage
Orally with drinking water at the following doses:
- broiler chickens, breeding stock, replacement chickens, poult — 0.2 ml of the drug per 1 kg of body weight or 1 ml of the drug per 1 l of drinking water;
- chickens and turkeys older 1 month of age — 2 ml of the drug per 1 l of drinking water daily for 3 days, but in difficult cases and at salmonellosis — 5 days;
- pigs — 1.0-1.5 ml of the drug per 10 kg of body weight (1.0 ml of the drug per 1 l of drinking water) for 5-7 days.

Warning
Slaughter of animals and poultry for meat is permitted in 2 days (poultry) and 1 day (pigs) after the last treatment.

Storage
Store in a dry, dark, place, inaccessible to children at the temperature from +5 °C to +25 °C. Shelf life after the 1st opening of a vial — 14 days, water solution of the drug should be used within 24 hours.

Shelf life
2 years.
Ftorfenlic 30
solution for injection

1 ml contains:
florfenicol — 300 ml

Dark glass vials of 50, 100 (1 pc in a cardboard box).

Description
Clear, sterile liquid with a yellowish tint.

Pharmacological properties
Florfenicol is a thiamphenicol derivative, where the hydroxyl group is replaced by a fluorine atom. Active against pathogens producing acetyltransferase and resistant to chloramphenicol, it provides bacteriostatic and bactericidal action by binding in the protoplasm of a bacterial cell with the ribosomal subunit of 70S bacteria, blocking enzyme peptidyl transferase, which leads to disruption of amino acid transport and further stopping protein synthesis at the ribosome level in microorganisms. After parenteral administration, it is rapidly absorbed and penetrates most organs and tissues (lungs, kidneys, muscles, intestines, heart, liver, spleen). The maximum concentration in blood serum is reached after 30-90 minutes, the therapeutic concentration is maintained for a minimum of 48 hours. It is excreted from body in unmodified form and in the form of metabolites mainly with urine, partly with feces.

Indications
It is indicated for treatment of cattle and pigs suffering from diseases caused by Gram-positive and Gram-negative microorganisms:
• **cattle** — infectious respiratory diseases caused by Pasteurella multocida, Klebsiella pneumonia, Streptococcus pneumoniae, Haemophilus somnus, interdigital phlegmons (purulent lesions of hooves, interdigital necrobacillosis, infectious pododermatitis) caused by Fusobacterium necrophorum and Bacteroides melaninogenicus, as well as in case of infectious keratoconjunctivitis caused by Moraxella bovis;
• **pigs** — infectious respiratory diseases, especially pleuropneumonia caused by Actinobacillus pleuropneumoniae and/or Haemophilus parasuis, Pasteurella multica, M. hyopneumoniae, M. hyorhinis and atrophic rhinitis.

Contraindications
Hypersensitivity to florfenicol. Do not administer to farrowing sows, heifers in the first third of pregnancy, bulls, breeding boars and lactating animals whose milk is used for food purposes.

Administration and dosage
**Cattle:**
• intramuscularly — in the middle of the neck in a dose of 1 ml per 15 kg of body weight, treatment course — injections with an interval of 48 hours;
• subcutaneously — 2 ml per 15 ml of body weight, once.
  The dose of the drug administered in one injection site should not exceed 10 ml.

**Pigs:** intramuscularly in the neck in a dose of 1 ml per 20 kg of body weight, twice in 48 hours.

Warning
While proper administering and dosage side effects are usually not observed. In some hypersensitive animals redness, swelling near the anal region and soft feces that do not affect the physiological state of the animals may appear which do not require the use of drugs.

Do not use simultaneously with tiamfenicol and chloramphenicol mixing in the same syringe with other drugs, as well as its contact with water. Dry syringes and injectors are used only.

Slaughter of cattle for meat is allowed in 34 days after the last intramuscular administration and in 42 days after subcutaneous one, and the meat of pigs is allowed to use for food purposes in 21 days after the last administration.

In the case of slaughter before the specified period the meat is utilized or fed to unproductive animals, depending on the conclusion of a veterinarian.

Storage
Store in a dry, dark place, away from children at the temperature from +5 °C to +25 °C.

Shelf life
2 years.
Oxyprol
solution 20% for injection

1 ml contains:
oxotetracycline dihydrate — 200 mg

Dark glass vials of 10 ml (10 pcs in a cardboard box) 20, 50 or 100 ml.

Description
Homogeneous, clear, light yellow solution.

Pharmacological properties
Oxytetracycline, an antibiotic of the tetracycline group, inhibits synthesis of proteins by binding to the 30S ribosomal subunit of microorganisms sensitive to the drug, thus prevents the connection of ribosomes with aminoacyltransfer RNA. It is believed that oxytetracycline binds back to the 50S subunit of the ribosome and changes the permeability of the cytoplasmic membrane of sensitive microorganisms.

After administration of the drug, the maximum concentration of oxytetracycline dihydrate in blood plasma is reached after 2-3 hours and is maintained for 72-96 hours. Oxytetracycline binds to plasma proteins more than 80%, distributed throughout the body, entering the heart, kidneys, lungs, muscles, pleural fluid, bronchial secretion, sputum, bile, salivary, synovial and ascitic fluid, intercellular space and vitreous humor, in a small amount — in saliva, eye fluid and milk. The drug penetrates the placental barrier, poorly penetrates into the cerebrospinal fluid, but when meningitis, its content in the cerebrospinal fluid can reach a therapeutic level. Elimination period in cattle — 4.3-9.7 hours, in pigs — 6.7 hours, in sheep — 3.6 hours. Excreted mainly unchanged in the urine through the kidneys and with bile through the digestive tract.

Indications
It is indicated for treatment of diseases caused by Gram-positive microorganisms Staphylococcus spp., Streptococcus spp., Erysipelothrix spp., Clostridium spp. etc., Gram-negative ones Pasteurella spp., E. coli, Salmonella spp., Bordetella bronchiseptica, Haemophilus parasuis, Actinobacillus pleuropneumoniae, protozoan Protozoa, mycoplasma Mycoplasma spp., rickettsia Rickettsia spp., chlamydia Chlamydia sensitive to oxytetracycline:
• cattle: actinomycosis, anaplasmosis, brucellosis, leptospirosis, clamidiosis, bronchopneumonia, pneumonia, necrobacteriosis, septic state, inflammatory processes in joints, skin, udder, uterus. Auxiliary therapy at the treatment of infectious keratoconjunctivitis;
• sheep, goats: pasteurellosis, infectious ilirt, foot rot, umbilical sepsis, infections of respiratory organs, digestive tract, urinogenital;
• pigs: atrophic rhinitis, swine erysipelas, leptospirosis, mycoplasmiosis, pasteurellosis, clamidiosis, dysentery, infections of joints, respiratory organs, digestive tract and urinogenital system, MMA syndrome;
• rabbits: infectious rhinitis, mycoplasmiosis, bacterial infections of respiratory organs, digestive tract, mucous membranes, wound infections;
• turkeys: colibacillosis, pullorosis, respiratory mycoplasmiosis, ornithosis, and also bacterial infections of digestive tract.

Contraindications
Increased individual sensitivity to oxytetracycline.
Do not administer to animals suffering from kidneys and liver diseases.
Do not administer to horses, dogs, cats.
Do not use simultaneously with penicillins, cephalosporins, quinolones, sulfonamides, phenylbutazone.

Administration and dosage
The drug is administered intramuscularly by deep injection, once.
Dose for cattle, pigs, sheep, goats is 1 ml/10 kg of body weight (20 mg of oxytetracycline/1 kg of body weight).
Dose per 1 animal for newborn piglets is as follows:
• 1-st week — 0.3 ml;
• 2-nd week — 0.4 ml;
• 3-rd week — 0.5 ml;
for elder pigs — 0.1 ml/1 kg of body weight.
Rabbits and turkeys — 0.25 ml of drug/1 kg of body weight.
Injections of over indicated doses should be divided into two portions and injected to different areas:
• cattle — 20 ml;
• calves, sheep, goats — 5 ml;
• pigs — 10 ml.

Warning
Solution of adrenaline, caffeine, antihistamines or corticosteroids must be administered immediately to animals with symptoms of allergy.
Slaughter of animals for meat and milk consumption is allowed in 21 and 7 days respectively. Meat and milk obtained before the specified period are utilized or fed for unproductive animals depending on the conclusion of a veterinarian.

Storage
Dry, dark, unreachable for children place at the temperature from +5 °C to +20 °C.
Opened vial should be stored in a refrigerator and used within 20 days.

Shelf life
2 years.
Saroflox
powder for oral administration

1 g contains:
sarafloxacin hydrochloride — 100 mg

Polymer bags and containers of 10, 500 g.

Description
Powder of white or light yellow color, soluble in water.

Pharmacological properties
Antibacterial preparation of a wide spectrum of action. Sarafloxacin is an antibiotic of the third generation of fluoroquinolones group, whose mechanism of action is due to inhibit the activity of DNA gyrase (type II topoisomerase in Gram-negative bacteria and type IV topoisomerase in individual Gram-positive bacteria), to ensure DNA replication in the nuclei of microbial cells and their further division, resulting in microorganisms do not reproduce.

Acts against Gram-positive and Gram-negative microorganisms, including those resistant to beta-lactam antibiotics, tetracyclines, macrolides and aminoglycosides: E. coli, Salmonella spp., Pasteurella spp., Haemophilus spp., Staphylococcus aureus, Streptococcus spp., Mycoplasma spp., Campylobacter spp., Klebsiella spp., Bordetella spp., Clostridium spp., Yersinia spp., Pseudomonas spp., Enterobacter spp., Ornithobacterium spp. and others. Sarafloxacin is one of the main programs in the treatment of birds with colibacillosis and salmonellosis. It is twice as active against Gram-positive microorganisms and four times more active against Gram-negative microorganisms than norfloxacin, and is more active against anaerobes than ciprofloxacin.

Quickly absorbed from the digestive tract into the blood and penetrates into all organs and tissues of the body. Bioavailability in broilers after oral administration is 59.6±13.8%. The maximum concentration in the blood is reached after 1.5-3 hours after application. The half-life in broilers is 3.89±1.19 hours. In bird’s liver sarafloxacin is metabolized in insignificant amounts to sulfamine and glucuronide compounds. The biological half-life is 30.13 hours. It is excreted mainly with feces and urine, mainly unchanged.

Indications
Treatment of poultry (chickens, broilers, rearing flocks, young hens, turkeys) in case of diseases of colibacillosis, salmonellosis, necrotic enteritis, septicemia, staphylococciosis, streptococciosis, mycoplasmosis, hemophilia, pasteurellosis, secondary bacterial infections in case of viral diseases, as well as diseases of respiratory organs, gastrointestinal tract, urogenital system caused by microorganisms sensitive to sarafloxacin.

Contraindications
Do not administer to animals with increased sensitivity to sarafloxacin. Do not administer concurrently with theophylline, caffeine, chloramphenicol, thiamphenicol, fluorophenicol.

Dosage
Before use, the powder is dissolved in water and is given orally at a dose of 0.5 g of the drug per 10 kg of weight, the course — 3 days. In case of salmonellosis, the course can be extended to 4-5 days. Depending on the daily rate of water consumption, the dose is 25-50 g per 100 l.

During treatment, the poultry should receive only drinking water that contains the drug.

Warning
When using the drug in recommended doses side effects and complications are not observed.

Drinkers with the drug for poultry are placed in the places protected from the sun.

After the last use of the drug, slaughter of poultry for meat is allowed in 4 days. Meat received earlier than the specified period, is disposed or fed to unproductive animals, depending on the conclusion of the veterinarian.

Storage
In a dry, dark place at the temperature of +8 °C to +15 °C.

After opening the container, the drug should be stored in the refrigerator and used within 30 days, and the aqueous solution of the drug — within 24 hours.

Shelf life
2 years.
**TimTil**
solution for injection

1 ml contains:
tiamulin hydrogen fumarate — 87.5 mg
tylosin tartrate — 62.5 mg

Glass ampules of 10 ml (10 pcs in a cardboard box),
glass vials of 20, 50, 100 ml.

**Description**
Clear yellowish liquid.

**Pharmacological properties**
Combined antibacterial preparation of a wide spectrum of action against the causative agents of bacteriosis, mycoplasmosis, rickettsiosis, spirochetosis, treponematosis and chlamydiosis, affecting cattle, pigs, sheep, goats.


Tylosin is an antibiotic from the macrolide group, suppresses protein synthesis in bacteria by binding to ribosomes, is active against Gram-positive bacteria Actinomycos spp., Bacillus anthracis, Clostridium spp., Corynebacterium spp., Streptococcus spp., E. coli, Erysipelothrix rhusiopathiae, Gram-negative Brucella spp., Fusobacterium spp., Haemophilus spp., Pasteurella spp., Salmonella spp., Treponema spp., Bordetella bronchiseptica, Proteus mirabilis etc., some strains of Mycoplasma spp., Chlamydia spp., Ureaplasma spp., Rickettsia spp.

**Indications**
It is indicated for treatment of disease caused by microorganisms sensitive to tiamulin and tylosin:
- **pigs** — with prophylactic purpose against such diseases as: erysipelas, dysentery, ileitis, leptospirosis, listeriosis, campylobacteriosis, colibacillosis, pasteurellosis, salmonellosis, infectious gastroenteritis, enterocolitis, spirochetym, atrophic rhinitis, enzootic pneumonia and mycoplasmosis arthritis;
- **cattle, sheep and goats** — affected by bronchopneumonia dysentery, peritonitis, metritis, umbilical sepsis, purulent arthritis, footrot, brucellosis, leptospirosis, obstetric complications and surgical infections.

**Contraindications**
Increased individual sensitivity to tylosin and tiamulin. Do not administer for sows in the first month after insemination. Do not use simultaneously with penicillins, cephalosporins and lincomycin because of antibacterial effect reduction. For pigs it is forbidden to use drugs containing monenzin, narazine, salinomycin at least 7 days before and after treatment.

**Administration and dosage**
The drug should be heated to +25-30 °C before administration. Intramuscularly for all kind of animals in a dose of 1 ml per 10 kg of body weight once a day during 3-5 days. In case of enzootic pneumonia, mycoplasmosis arthritis in pigs specified dose must be increased for 25-50%.

After the treatment of pigs affected by dysentery or ileitis the treatment should be repeated in 7-10 days (TimTil or other antimicrobial product for oral administration).

**Warning**
In individual animals at the injection place a small edema, erythema, pruritus may appear, which disappear without intervention within 2-3 days after the end of treatment.

Slaughter of animals for meat and the use of their milk for human consumption is allowed in 10 days after the last treatment. Before the specified period the meat can be fed to unproductive animals or used for making meat-and-bone meal tankage (depending on a conclusion of a veterinarian).

**Storage**
Dry, dark, at the temperature from +5 °C to +25 °C.

After first opening the product must be used within 20 days provided storage at the temperature from +2 °C to +6 °C.

**Shelf life**
3 years.
TimTil-250
solution for oral use

1 ml of the medicinal product contains active ingredients:
tiamulin hydrogen fumarate — 145 mg
tylosin tartrate — 105 mg

Polymer ampules of 10 ml (10 pcs in a cardboard box),
glass vials of 100 ml, polymer vials of 1 l.

Description
Transparent solution of yellowish color.

Pharmacological properties
TimTil-250 is a combined medicinal product.
Tiamulin is a semisynthetic antibiotic from the pleuromutilin group. It acts bacteriostatically against gram-positive (Erysipelotrix spp., Staphylococcus spp., Streptococcus spp., Listeria monocytogenes, Corynebacterium pyogenes) and gram-negative bacteria (Pasteurella spp., Klebsiella pneumoniae, Campylobacter coli, Lawsonia intracellularis, Fusobacterium necrophorum); mycoplasmas (M. bovis, M. hyopneumoniae, M. hyorhinis, M. synoviae, M. hyosynoviae, Ureaplasma spp., etc.); leptospira (Leptospira spp.); spirochetes (Serpulina hyodysenteriae, S. innocens); treponemes (T. hyodysenteriae) and chlamydia (Chlamydia spp.).
Tylosin is an antibiotic from the macrolide group. Its bacteriostatic action is based on suppression of bacterial synthesis of proteins due to binding to ribosomes. Tylosin is active against gram-positive (Actinomycos spp., Bacillus anthracis, Clostridium spp., Corynebacterium spp., Streptococcus spp., E. coli, Erysipelothrix rhusiopathiae) and gram-negative microorganisms (Brucella spp., Fusobacterium spp., Haemophilus spp., Pasteurella spp., Salmonella spp., Treponema spp., Bordetella bronchiseptica, Proteus mirabilis, etc.) and it suppresses the effects of some strains of Mycoplasma spp., Chlamydia spp., Ureaplasma spp. and Rikettsia spp.

Indications
Treatment and prevention of animals and poultry from diseases caused by Gram-positive, Gram-negative and other microorganisms sensitive to tiamulin and tylosin:
• poultry (chickens, turkeys, geese, ducks and youngsters of the specified species) — bronchitis, mycoplasmosis, escherichiosis, pasteurellosis, as well as diseases of the gastrointestinal tract and respiratory organs;
• pigs — erysipelas, dysentery, ileitis, leptospirosis, listeriosis, campylobacteriosis, colibacillosis, pasteurellosis, salmonellosis, infectious gastroenteritis, spirochaete enterocolitis, atrophic rhinitis, enzootic pneumonia, actinobacillary pleuropneumonia and mycoplasmic arthritis.

Contraindications
Hypersensitivity to tiamulin and tylosin.
Do not administer to pregnant sows during the first stage of pregnancy (during the first month), breeding boars, laying hens during egg-laying.
Do not administer concomitantly with penicillins, cephalosporins and lincomycin. Do not administer the products, made on the basis of polyether ionophores (monensin, narasin, salinomycin etc.) at least 7 days before and after the course of treatment.

Dosage
Orally with drinking water at a dose:
• poultry (chickens, turkeys, geese, ducks and youngsters of the specified species) — 1 ml of the medicinal product per 1 l of drinking water for 3-5 days. For young poultry (preventively), the medicinal product is drunk in a dose of 0.5 ml of the medicinal product per 1 l of drinking water daily from 1 to 5, and then from 18 to 20 days of life;
• pigs — 0.8 ml of the medicinal product per 10 kg of body weight per day for 3-5 days. When pigs are ill with enzootic pneumonia, mycoplasmic arthritis — this dose is increased to 1.0-1.2 ml of the medicinal product per 10 kg of body weight. After treatment of pigs with dysentery or ileitis, in 8-10 days it is advisable to repeat the treatment with TimTil-250 or other antimicrobial medicinal products for oral administration (Brovamulin-100, Brovamulin-plus, etc.).

Warning
Slaughter of animals and poultry for meat is allowed in 10 days after the last treatment. If meat is obtained before specified period, it must be fed to unproductive animals or utilized depending on a conclusion of a veterinarian.

Storage
Dry, dark place at a temperature from +5 °C to +25 °C.
After the opening of a vial the product must be kept in a refrigerator and used within 20 days.

Shelf life
3 years.
Tylosin 20% solution for injections

1 ml contains:

- tylosin tartrate — 200 mg

Glass ampules of 10 ml (10 pcs in a cardboard box).
Glass vials of 20, 50, 100 ml.

Description
Viscous, homogenous liquid of light-yellow color.

Pharmacological properties
Antibiotic from the group of macrolides, suppresses protein synthesis. Quickly absorbed and reaches a maximum concentration in body tissues in an hour. The therapeutic concentration remains in the body for 20-24 hours. Excreted mainly with urine and bile, during lactation — with milk.

Indications
It is indicated for treatment of cattle, sheep, goats, pigs, dogs, cats and rabbits suffering from bronchoalveolitis, pneumonia, arthritis, dysentery, mastitis, postoperative and post birth infections, secondary bacterial infections in case of viral diseases, respiratory diseases and diseases of digestive tract, caused by gram-positive microorganisms Staphylococcus spp., Streptococcus spp., Bacillus anthracis, Corynebacterium spp., Clostridium spp., Listeria spp., Erysipelothrix spp., by some strains of gram-negative microorganisms — Haemophilus spp., Pasteurella spp., Brucella spp., by rickettsia Rickettsia spp., by spirochete Spirochaetes, by mycoplasma Mycoplasma gallisepticum, Mycoplasma synoviae, Mycoplasma meleagridis etc.

Contraindications
Do not administer to animals with hypersensitivity to tylosin, impaired liver function, tylosin resistance or cross-resistance to other macrolide antibiotics. Do not administer simultaneously with penicillins, cephalosporines, lincomycin.

Administration and dosage
Before administration the solution is heated to a temperature of +25-30 °C. The drug is administered intramuscularly 1 time per day, the course of treatment — 3-5 days. Doses per 10 kg b.w are as follows:
- **cattle** — 0.2-0.5 ml;
- **sheep, goats** — 0.3-0.6 ml;
- **pigs** — 0.5 ml;
- **dogs, cats** — 0.15-0.5 ml
- **rabbits** — 0.6-1.2 ml.

In case the injection exceeds the indicated values, is divided into two or more parts and is injected in different sites:
- **adult cattle** — 20 ml;
- **calves, sheep, goats** — 10-15 ml;
- **pigs, piglets** — 5-10 ml.

Warning
Slaughter of animals for human consumption is allowed in 8 days after the last treatment, milk — in 3 days. Meat and milk obtained earlier than the specified period is utilized or is used for feeding of unproductive animals, depending on a conclusion of a veterinarian.

Storage
Store in a dry, dark place, away from children at the temperature from +5 °C to +25 °C.

Shelf life
2 years.
Broestrofan
solution for injection

1 g contains:
cloprostenol sodium salt — 0.25 mg

Ampoules of 2 ml (10 ampoules in a cardboard box).

Description
Clear colorless liquid.

Pharmacological properties
Cloprostenol is a synthetic analogue of prostaglandin F2-alpha, which during the luteal phase of the sexual cycle causes regression of the yellow body in females and promotes the growth and development of follicles.

Indications
It is indicated for:
• cows, heifers: strengthening of parturation; acceleration of uterus involution; for retention of afterbirth; therapy of endometritis in combination with antimicrobial agents; regression of persistent yellow body; stimulation and synchronization of estrus during the period of insemination;
• sows — for augmentation of parturation and synchronization of farrows;
• mares — for stimulation of estrus and regression of persistent yellow body;
• female dogs and cats — for complex therapy of chronic endometritis and abortion.

Contraindications
When the administration for females in the first third of pregnancy there is a high probability of abortion.

Administration and dosage
Intramuscular and subcutaneous administration.
Cows, heifers:
• in case of parturation complications — 2 ml / 400 kg of b.w. For each 50 kg of b.w. the dosage is increased for 0.3 ml.
• in case of functional disorder of ovaries — 2 ml / 3-3.5 days before wishful term of insemination. If there are no signs of sexual heat a repeated administration is applied on the 11th day after the first injection. In 3-3.5 days double insemination is applied.

Female sheep, sows — 0.5-0.7 ml
Mares — 1 ml, the term for coupling is on 4-6th day.
Female dogs — 0.2-0.3 ml.
Female cats — 0.1 ml, to cause an abortion 3-5 injections are administered with an interval of 12 hours.

Warning
Overdose can cause diarrhea, vomiting, anxiety, hypersalivation.

Storage
Store in a dry, dark place at the temperature from +5 °C to +20 °C.

Shelf life
2 years.
Brovamast C
suspension for intracisternal use

5 ml (one syringe) contain:
cloxacillin benzathine — 600 mg

Syringe of 5 ml (12 pcs in a cardboard box);
glass vials of 50, 100 ml.

Description
Oily, light yellow suspension.

Pharmacological properties
Cloxacillin benzathine is a synthetic compound derived from the isoxazolyl penicillin group. Prevents synthesis of the outer shell of the cell membrane of microorganisms, has bactericidal properties. It acts against Gram-positive bacteria Staphylococcus aureus, Streptococcus agalactiae, Str. uberis, Str. dysgalactiae, Corinebacterium pyogenes, Clostridium perfringens and Gram-negative bacteria Neisseria spp.

Indications
It is indicated for non-milking cows affected by subclinical and clinical mastitis.

Contraindications
Do not administer to animals sensitive to cloxacillin benzathine. Do not administer to animals the calving of which will start less than 28 days.

Administration and dosage
The product is used on the first day after the cows starting. For the prevention of diseases into every part of the udder the drug is administered with 5 ml of the drug. The contents of the vial (tubes) is heated to the body temperature and is shaked to obtain a homogeneous mixture. The drug is slowly administered intracisternally. Immediately after this the udder is massaged from up to down, displacing the drug to the higher part of the udder. Preventive dose is 5 ml into each part of the udder.

Warning
Slaughter of animals for meat is allowed in 28 days after the last administration, milk can be consumed in 96 hours. Milk and meat obtained earlier than the specified term are fed to unproductive animals or utilized (depending on the conclusion of a veterinarian).

Storage
Store in a dry, dark place out of children reach at the temperature from +4 °C to +20 °C.

Shelf life
1.5 years
**Brovamast 1D**
suspension for intracisternal use

10 ml (one syringe) contain:
- cloxacillin sodium — 300 mg
- neomycin sulphate — 150 mg
- prednisolone — 10 mg

Syringe of 10 ml (12 pcs in a cardboard box),
glass vials of 50 ml, 100 ml.

**Description**
Oily suspension of white or light cream color.

**Pharmacological properties**
Cloxacillin is a broad-spectrum bactericidal antibiotic from the group of semisynthetic penicillins, it is active against gram-positive bacteria that cause mastitis, *Streptococcus* *agalactiae*, *Streptococcus dysgalactiae*, *Streptococcus uberis*, resistant and penicillin-sensitive staphylococci and *Corynebacterium pyogenes*.

Neomycin sulfate belongs to the group of natural aminoglycosides, which are formed by actinomycetes. Antibiotic of a broad spectrum of antimicrobial action, active against Gram-negative bacteria and cocci of *E. coli*, *Salmonella*, *Shigella*, *Meningococcus*, Gram-positive microorganisms *Staphylococcus aureus*, *Streptococcus agalactiae*, *Streptococcus dysgalactiae*, *Enterococcus*. The bactericidal action of the antibiotic is due to inhibition of protein synthesis of microbial cells.

Sulfatiazole sodium refers to sulfonamides resorptive action, has a high antimicrobial activity against *streptococcus*, *meningococcus*, *Escherichia coli*, *Salmonella*, *Pasteurella*, etc.

Prednisolone is a dehydrated analog of hydrocortisone, has anti-inflammatory, desensitizing, anti-allergic, anti-shock, antitoxic effect. Induces formation of a special class of proteins — lipocortins, which have anti-edematous properties, and also reduces the activity of hyaluronidase and helps to reduce permeability of capillaries.

**Indications**
It is indicated for treatment of acute and subacute mastitis of microbe etiology in cows.

**Contraindications**
Do not administer to animals sensitive to the drugs of penicillin and aminoglycoside series.

**Administration and dosage**
After careful milking of affected quarter of udder and udder aseptic treatment the drug in an amount of 10 ml is slowly administered into the milk channel by a syringe or catheter. Before administration the drug is heated to the body temperature, and is actively shaked to obtain a homogeneous mixture. After the administration a quarter of udder is massaged to distribute it evenly throughout the tank. Treatment course is 2-3 days.

**Warning**
Slaughter of animals for meat is allowed in 7 days after the last administration. Milk for human consumption can be used in 48 hours after the last treatment. Milk and meat obtained earlier that the specified period is fed to unproductive animals or utilized (depending on the conclusion of a veterinarian).

**Storage**
Store in a dry dark place, out of children reach at the temperature from +4 °C to +25 °C.

**Shelf life**
1.5 years.
Brovamast 2D
suspension for intracisternal use

10 ml (1 syringe-tube) contain:
cloxacillin sodium — 300 mg
neomycin sulphate — 150 mg
sodium sulfathiazole — 500 mg

Syringes-tubes of 10 ml (12 pcs in a cardboard box),
glass vials of 50, 100 ml.

Description
Oily liquid of white or light cream-color.

Pharmacological properties
Cloxacillin is a broad-spectrum bactericidal antibiotic from the group of semisynthetic penicillins, it is active against gram-positive bacteria that cause mastitis, streptococcus Streptococcus agalactiae, Streptococcus dysgalactiae, Streptococcus uberis, resistant and penicillin-sensitive staphylococci and Corynebacterium pyogenes.
Neomycin sulfate belongs to the group of natural aminoglycosides, which are formed by actinomycetes. Antibiotic of a broad spectrum of antimicrobial action, active against Gram-negative bacteria and cocci of E. coli, Salmonella, Shigella, Meningococcus, Gram-positive microorganisms Staphylococcus aureus, Streptococcus agalactiae, Streptococcus dysgalactiae, Enterococcus. The bactericidal action of the antibiotic is due to inhibition of protein synthesis of microbial cells.
Sulfatiazole sodium refers to sulfonamides resorptive action, has a high antimicrobial activity against streptococcus, meningococcus, Escherichia coli, Salmonella, Pasteurella, etc.

Indications
It is indicated for treatment of milking cows affected by serous, catarrhal, fibrinous, purulent or subclinical mastitis.

Contraindications
Do not administer to animals sensitive to the drugs components.
Do not use the drug more than 5-7 days.

Administration and dosage
After careful milking of affected part of udder and udder aseptic treatment the drug in an amount of 10 ml is slowly administered into the milk channel by a syringe or catheter. Before administration the drug is heated to the body temperature of animal and is actively shaked to obtain a homogeneous mixture. After administration the udder is massaged to distribute the drug evenly throughout the tank. Course of treatment 2-3 days.

Warning
Slaughter of animals for meat is allowed in 7 days after the last administration. Before the specified period the milk and meat is fed to unproductive animals or utilized (depending on the conclusion of a veterinarian). Term to use milk for human consumption is set in 72 hours after the last treatment.

Storage
Store in a dry, dark place, away from children at the temperature from +4 °C to +25 °C.

Shelf life
1.5 years
Cefmetrin

suspension for intrauterine administration

30 ml (1 syringe-tube) contain:
cefapirin benzathine — 640 mg

Plastic syringe-tubes of 30 g (1, 10 pcs. In a cardboard box, assembled with catheter and gloves).

Description
Liquid of white or cream color, with specific smell.

Pharmacological properties
Cefapirin has a wide range of action on Gram-positive and Gram-negative bacteria Arcanobacterium pyogenes, Staphylococcus spp., Streptococcus pyogenes, Streptococcus dysgalactiae, Streptococcus uberis, Pasteurelia spp., Proteus mirabilis, Proteus vulgaris, Fusobacterium spp., Escherichia coli, Klebsiella spp., Neisseria spp., Salmonella spp., Shigella spp., Clostridium perfringens, Haemophilus influenzae and other pathogens that accompany chronic and subacute forms of endometritis in cows. Inactivates penicillin-binding proteins (PSB), which are located on the inner membrane of the bacterial cell wall and participate in the terminal stages of cell wall collection, as well as when it changes during growth and division. Their inactivation prevents the cross-linking of the peptidoglycan chains which are necessary for strength of the cell wall. This weakens the cell wall and leads to the lysis of bacterial cells. It is resistant to penicillinase and retains activity under aerobic and anaerobic conditions. After injection into the uterine cavity, it easily penetrates into the endometrium, where it remains in bactericidal concentration for at least 24 hours. At the same time, it practically does not enter the bloodstream and has no systemic effect. Therefore, the maximum concentration in the blood plasma is only 0.11-0.44 µg/ml. Excreted from the body mainly with the urine in an unchanged form and in the form of a metabolite — desacetylcefapirin, which also has antibacterial activity.

Indication
Treatment of cows with chronic and subacute forms of bacterial etiology endometritis.

Contraindications
Do not administer to animals with hypersensitivity to the active ingredients of the drug. Do not use simultaneously with other intrauterine antibiotics.

Administration and dosage
Before introduction of the drug, sanitize the external genital organs and the root of the tail of the cow. If necessary, the uterus is freed from inflammatory exudate. The syringe tube is shaken vigorously, connected to the catheter, the cervix is fixed rectally, the catheter is carefully inserted through the cervix into the uterus, and the contents of the syringe tube are squeezed out (30 ml). The manipulation is carried out once and, if necessary, repeated after 7-14 days. Introduction of Dinotrom (or other drugs based on F2α prostaglandins) 3-4 days before the use of Cefmetrin, significantly increases the effectiveness of treatment and eliminates the need to repeat it (especially with pyometra).

Warnings
Slaughter of cows for meat is allowed after 48 hours after the last administration of the drug. Meat obtained before the specifies period, disposed of or fed to unproductive animals, depending on the conclusion of a veterinarian. Milk of cows can be consumed without restrictions.

Storage
In a dark dry place, out of reach of children, at the temperature from +2 °C to +25 °C.

Shelf life
2 years.
Dinotrom
solution 0.5% for injections

1 ml contains:
dinoprost tromethamine — 5 mg

Glass vials of 5 ml (10 pcs in a cardboard box).

Description
Clear, colorless, sterile liquid.

Pharmacological properties
Dinoprost tromethamine is a synthetic analogue of prostaglandin F2α in the form of salt with tromethamine, it causes morphological and functional regression of the yellow body, activates smooth muscles of the uterus, vessels, bronchi and gastrointestinal tract, causes relaxation and cervical dilatation. Parenteral administration of the drug causes estrus, as well as in animals with a normal estrous cycle, and also with a prolonged persistence of the yellow body. It causes contraction of the uterine muscles in pregnant females, thus leads to miscarriage.

Rapidly decomposes in the body with formation of dinoprost (prostaglandin F2α). The half-life of this compound and excretion from the blood is only a few minutes. After 1-2 passes through the lungs and the liver, the active ingredient of the drug completely decays. Its metabolites are rapidly eliminated from the body and do not accumulate in the tissues, but minor remnants of the drug are stored at the injection site for up to 24-48 hours.

Indications
It is indicated for treatment of animals:
- **cows** — functional corpus luteum in the absence of sexual inclination, pyometra, chronic metritis, synchronization of sexual cycle and the time of ovulation; calving stimulation and interruption of pregnancy;
- **mares** — treatment of endometritis (in the complex therapy), stimulation of sexual cycle and the time of ovulation, stimulation of parturation or abortion;
- **sows** — stimulation of farrowing or acceleration of abnormal abortion, reducing the time from weaning to estrus and the time from weaning to insemination of sows in case of sexual inclination delay.

Contraindications
Do not administer to animals that have increased sensitivity to the active ingredient, to pregnant animals (except abortion), to animals with diseases of the cardiovascular system, gastrointestinal tract or respiratory organs in the acute or subacute form.

Administration and dosage
The drug is administered intramuscularly. The doses are indicated in the table below.

<table>
<thead>
<tr>
<th>Species, dose, purpose of administration</th>
<th>Administration</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Cows</strong>: single dose — 5 ml of Dinotrom (25 mg of dinoprost tromethamine)</td>
<td>sub-estrus, persisting yellow body, synchronization of sexual cycle one time, insemination is carried out in 48-72 hours</td>
</tr>
<tr>
<td></td>
<td>interruption of pregnancy twice 35 days after calving with an interval of 10-12 days, insemination is carried out in 78 hours after the second injection, or in two steps — in 72 hours and 90 hours after the second injection.</td>
</tr>
<tr>
<td></td>
<td>stimulating of calving one time, after 270-days period of pregnancy, calving occurs in 1-8 days (after an average of 3 days)</td>
</tr>
<tr>
<td></td>
<td>pyometra, metritis, endometritis one time, in case of chronic form — repeat in 10-12 days</td>
</tr>
<tr>
<td><strong>Mares</strong>: single dose — 1 ml of Dinotrom (5 mg of dinoprost tromethamine)</td>
<td>synchronization of estrus, treatment of sub-estrus and anestrus, caused by persisting yellow body between 4 and 13 days of cycle, mating or insemination is carried out after the first symptoms of estrus</td>
</tr>
<tr>
<td></td>
<td>stimulating of calving before the 35 day of pregnancy, or between 90 and 120 days of pregnancy</td>
</tr>
<tr>
<td></td>
<td>metritis one time</td>
</tr>
<tr>
<td><strong>Sows</strong>: single dose — 2 ml of Dinotrom (10 mg of dinoprost tromethamine)</td>
<td>stimulation of farrowing one time, before the morning feeding, 2-3 days prior the estimated farrowing day, farrowing occurs within 33 hours, to speed up the excretion of litter residues and stimulate estrus 2-3 days after farrowing, repeat the injection</td>
</tr>
</tbody>
</table>

Warning
Side effects are usually not observed in cows in therapeutic doses. Horses sometimes have a decrease in rectal temperature and sweating. These phenomena are temporary and do not affect animals negatively. Sometimes increase of the frequency of heartbeats occurs, as well as rapid breathing, stomach disorders, minor violations of coordination of movements and the desire to lie down.

Some pregnant sows may have a short-term increase of body temperature, rapid breathing, loose defecation, hypersalivation and frequent urination, redness of skin and anxiety. Pigs arch their back, dig the ground, rub their sides and gnaw the cages. These manifestations, as a rule, disappear within an hour after the injection.

The drug is not effective within 5 days after ovulation.

Storage
Store in a dry, dark place, out of reach of children, at the temperature from +15 °C to +25 °C. Opened vial should be used within 1 month.

Shelf life
2 years.
Gisterlic
tablets for intrauterine use

7.5 g (1 tablet) contains:
sulfadiazine sodium salt — 3975 mg
kanamycin sulfate — 50.25 mg
oxytetracycline hydrochloride — 50.25 mg

Polymer packages of 1 tablet (6 or 8 pcs in a plastic container).

Description
Light brown, flat tablets of oval-oblong form.

Pharmacological properties
Antimicrobial, antiseptic and veterinary preparations for intrauterine use. Pharmacological properties of the drug are caused by the peculiarities of total interaction of three antibiotic components and excipients complex. Sulfadiazine, which refers to sulfanilamides, because of its structural similarity to PABA (para-aminobenzoic acid) inhibits the bacterial enzyme responsible for the biosynthesis of dihydrofolic acid that is a precursor of folic acid in the bacterial cell. Oxytetracycline hydrochloride by inhibiting the activity of ribosomes of bacteria leads to disruption of protein synthesis. Through the formation of chelate compounds with bivalent metal cations, it inhibits a number of metabolic processes in microbial cells. Kanamycin sulfate belongs to the group of aminoglycoside antibiotics. It penetrates the cell membrane and irreversibly binds to specific receptor proteins on the 30S ribosome subunit. It violates complex formation between matrix (information) RNA and 30S ribosome subunit. As a result, in the cell biosynthesis of defective proteins and polirybosom collapse occur and it loses the ability to synthesize protein. It violates the structure and function of the cytoplasmic membrane, causing a rapid loss of microbial cells. Auxiliary foaming components provide drug distribution throughout the uterus and complete antibiotic substances contact with mucous membrane.

Indications
It is indicted for the prevention and treatment of cows suffering from acute endometritis, metritis, cervicitis and vulvovaginitis caused by A. pyogenes, Streptococcus spp., Staphylococcus aureus, E. coli, Proteus spp., Klebsiella spp. etc., as well as for the rehabilitation of the uterus after the removal of detained litter.

Contraindications
Hypersensitivity to the drug.

Administration and dosage
Intrauterine administration.
• prophylactically in a dose of 7.5-10 g of drug one time during the first days after calving;
• therapeutically in a dose of 12.5-15 g of drug daily for 2-3 consecutive days.

Warning
Hypersensitive animals may have allergic reactions. Slaughter of animals for meat is allowed in 2 days after the last administration. In the case of slaughter before the specified period the meat can be used for the production of meat- and-bone meal tankage. Milk can be consumed in 2 days after the last administration of the drug. Milk obtained before the specified period can be used for animal feeding after heat treatment.

Storage
Store in a dry, dark place, out of children reach at the temperature from +4 °C to +25 °C.

Shelf life
3 years.
Gonalin
solution for injection

1 ml of the product contains:
gonadorelin acetate — 0.05 mg

Glass ampules of 2 ml (10 ampoules in a carton box),
glass vials of 10 ml (1 vial in a carton box).

Description
Colorless clear sterile liquid.

Pharmacological properties
Gonadorelin acetate is a synthetic analogue of the polypeptide gonadotropin releasing hormone of hypothalamus, which causes increased secretion of gonadotropins by the pituitary gland, in particular follicle-stimulating hormone (FSH) and to a greater extent the luteinizing hormone (LH) involved in the development and ovulation of follicles in the ovaries of female animals. It is rapidly absorbed and reaches a maximum concentration in the blood plasma after 15-30 minutes after injection. The half-life is 8-20 minutes. Metabolized in blood plasma, kidney and liver, is excreted mainly with urine in the form of peptide fragments and aminoacids.

Indications
Regulation of the reproductive function in farm livestock and pets.

Contraindications
Do not administer to animals with hypersensitivity to active substances of the product, during pregnancy, with acute diseases, as well as exhausted animals and prepubescent animals. Do not administer simultaneously with other hormonal medications. Simultaneous use of the chorionic gonadotropin hormone HCG (HCG) can lead to ovarian hyper-reaction.

Administration and dosage
The product is administered in the following doses (per 1 animal):
• **Cattle** (intramuscularly):
  - follicle persistence, ovulation delay — 2 ml, 2 hours prior the artificial fecundation and 2 hours after it;
  - synchronization of ovulation — 1 ml, after the synchronization of heat period;
  - stimulation of ovarian function in the postpartum period — 1 ml, on 12th day after the calving.
  - treatment of ovarian (follicular) cysts — 2-3 ml;
  - estrous synchronization of cow insemination in combination with cloprostenol, according to the following scheme:
    1. injection of Gonalin — 2 ml;
    2. injection of Broestrofan (0.5 mg of cloprostenol) — 2 ml, on 7th day after the injection of Gonalin;
    3. injection of Gonalin — 2 ml, in 48 hours after the cloprostenol injection. Insemination of cows is carried out between 8 and 24 hours after the second injection of Gonalin, regardless of the presence of visible signs of estrus.
• **Pigs** (intramuscularly or subcutaneously): synchronization of ovulation, boost of breeding efficiency — 0.5-1 ml (breeding sows), 1-1.5 ml (replacement young pigs).
• **Mares** (intramuscularly): anestus, non-cyclic estrus, stimulation of ovulation — 2 ml.
• **Female dogs** (intramuscularly): stimulation of ovulation — 0.5-1 ml, onetime dose.

Warnings
Do not mix with other pharmacological products in one syringe. The personnel in contact with the product must comply with the hygiene and safety rules adopted for working with veterinary drugs. Meat and milk obtained from the animal during the treatment period, can be used for human consumption without any restriction.

Storage
Keep in a dry dark place, out of reach of children, at a temperature from +2 °C to + 20 °C.
After opening of a vial, the product should be kept in a refrigerator and used within 28 days.

Shelf life
2 years.
## Oxytocin

**solution for injection**

1 ml contains:
- synthetic oxytocin — 10 IU

Glass ampules of 5 ml (10 pcs in a cardboard box),
glass vials of 100 ml.

**Description**
Transparent colorless liquid.

**Pharmacological properties**
Oxytocin is the hormone of the posterior lobe of the pituitary gland of the protein-peptide structure, stimulates the smooth musculature of the uterus, increases the contractile activity and uterine tone.

**Indications**
It is indicated for the females of domestic animals (cows, mares, sheep, goats, sows, dogs, cats) in case of prolonged parturition (hypotension, atony of the uterus); postpartum uterine bleeding; retention of afterbirth; to stimulate postpartum self-purification processes of uterus; in combination with other chemotherapeutic agents — for therapy of endometritis; sows for the treatment of agalactia and to improve production of milk.

**Contraindications**
None.

**Administration and dosage**
Subcutaneously or intramuscularly, in the following doses:
- cows, mares — 3-6 ml;
- sheep, goats — 1-1.5 ml;
- sows — 2-3 ml;
- female dogs — 0.5-1 ml;
- female cats — 0.2-0.3 ml.
If necessary, for more rapid reaction the administration of a glucose solution is possible. In this case, the dose of oxytocin is decreased for 30%.

**Warning**
Do not administer in case of slightly open uterine cervix or malposition.
Oxytocin causes increased reduction of the myometrium. Pregnant uterus is more sensitive to the drug than non-pregnant. The effect of oxytocin is increased with the duration of pregnancy and peaks during childbirth. High sensitivity is maintained for several days after birth.
Oxytocin also affects the secretion of milk (increases the release of prolactin hormone of the anterior pituitary) and its allocation (due to excitation of myoepithelial elements of lacteal gland).
A solution of oxytocin can be used with many commonly intravenous solutions and along with the following drugs: netilmicin sulfate, sodium bicarbonate, tetracycline hydrochloride, sodium thiopental, verapanamil hydrochloride. Oxytocin is not compatible with such drugs as: fibrinolysin, noradrenaline, metherasine, sodium warfarin.

**Storage**
Store in dark, cool place at the temperature from +3 °C to +12 °C. Do not freeze. Transportation (duration up to 3 days) is allowed at the temperature up to +25 °C.

**Shelf life**
2 years.
Sexanet
 suspension for oral administration, drops

1 ml contains: 
megestrol acetate — 40 mg

Polymer vials with dropper of 5, 10, 100 ml
(1 pc in a cardboard box).

Description
Homogeneous suspension of yellowish color.

Pharmacological properties
Megestrol acetate — a synthetic progestagen, blocks secretion of follicle-stimulating and luteinizing gonadotropic hormones that produce the anterior lobe of the pituitary gland. The lack of these hormones inhibits the maturation of follicles in the ovaries of females and ovulation, stops heat, reduces sexual desire. Affects endometrium of the uterus and causes its secretory phase, which inhibits implantation of the embryo and provides a contraceptive effect. In males, it blocks synthesis of testosterone, thus reduces sexual activity and associated anxiety, agitation and aggressive behavior.

Quickly absorbed in the intestines and 3 hours after application reaches the maximum concentration in the blood. Metabolized in a liver and excreted from body for 1-2 days in the form of metabolites in the urine.

Indications
It is indicated for female cats and female dogs to prevent sexual heat and/or prevention of unwanted pregnancies.
It is indicated for male cats and male dogs to suppress sexual desire, as well as adjustment of undesirable behavior (hyper excitability, aggressiveness, propensity for wandering, etc.). It is indicated for female pigs in order to prevent sexual heat and/or synchronization of estrus.

Contraindications
Do not administer to animals with diseases of the reproductive system (pyometra, metritis, endometritis, etc.), tumors, breast cancer, diabetes as well as to immature, pregnant or lactating animals. Do not administer the drug if after the sexual heat more than 3 days have been passed and to the young animals in the first sexual heat because of the complexity of determining the start of the cycle.

Administration and dosage
It is administered orally with food or forcibly directly into the mouth to the root of the tongue. The doses are indicated in the table.

<table>
<thead>
<tr>
<th>Animal species, the purpose of administration</th>
<th>Dose, drops/ml</th>
<th>Administration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Female pigs:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>synchronization of sows</td>
<td>4 / 0.125 *</td>
<td>14 days</td>
</tr>
<tr>
<td>synchronization of replacement gilts</td>
<td>8 / 0.25 *</td>
<td>10-14 days, the phase of sexual arousal occurs usually in 42-43 days after discontinuation of therapy</td>
</tr>
<tr>
<td>prevention of sexual arousal in pigs for fattening</td>
<td>8 / 0.25 *</td>
<td>10-14 days, therapy should be started in 2 weeks after last sexual arousal</td>
</tr>
<tr>
<td>Female cats:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>prevention of estrum</td>
<td>4 / 0.125</td>
<td>1 time every 2 weeks (no longer than 18 months)</td>
</tr>
<tr>
<td>to stop estrum</td>
<td>2 / 0.0625</td>
<td>once a week (no longer than 18 months)</td>
</tr>
<tr>
<td>contraception</td>
<td>4 / 0.125</td>
<td>in the first day after mating</td>
</tr>
<tr>
<td>Female dogs:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>prevention of estrum</td>
<td>4 / 0.125 *</td>
<td>daily, therapy should be started 7-10 days before the beginning of estrus, no longer than 4 weeks</td>
</tr>
<tr>
<td>to stop estrum</td>
<td>8 / 0.25 *</td>
<td>first 3 days from the time of sexual arousal</td>
</tr>
<tr>
<td>contraception</td>
<td>4 / 0.125</td>
<td>next 7 days</td>
</tr>
<tr>
<td>Male cats:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sedation against sexual arousal</td>
<td>8 / 0.25 *</td>
<td>first 5 days from the time of sexual arousal</td>
</tr>
<tr>
<td>Male dogs:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sedation against sexual arousal</td>
<td>4 / 0.125</td>
<td>5-7 days, repeat once a week</td>
</tr>
<tr>
<td>contraception</td>
<td>4 / 0.125 *</td>
<td>next 7 days until sedation</td>
</tr>
</tbody>
</table>

* per 10 kg of b.w.

Warning
Prolonged use of the drug can cause the change of character, breast enlargement, increased appetite and increased body weight of the animal.
Slaughter of animals for meat (pigs) is allowed in 14 days after the last treatment. The meat received before the deadline is disposed of fed to unproductive animals according to a conclusion of the doctor of veterinary medicine.

Storage
Store in a dark, dry place out of the reach of children at the temperature from +4 °C to +25 °C. Opened vial should be used within 1 month provided storage at the temperature from +4 °C to +8 °C.

Shelf life
2 years.
Sulphacef
suspension for intracisternal administration

10 ml (1 syringe-tube) contain:
cefquinome sulphate — 89 mg (equal to 75 mg of cefquinome)

Plastic syringe-tubes of 10 ml.

Description
Liquid of white or yellowish color.

Pharmacological properties
Cefquinome is an antibiotic from the group of cephalosporins of the 4th generation. A bactericidal effect on gram-positive and gram-negative, aerobic, facultative-anaerobic and anaerobic microorganisms E. coli, Pseudomonas spp., Staphylococcus aureys, Streptococcus spp. (incl. S. dysagalactiae, S. agalactiae, S. epidermidis, S. Uberis), as well as Proteus spp., Bacteroides spp., Fusobacterium necrophorum. The mechanism of action is based on destruction of the cell membrane of dividing bacteria, due to specific inhibition of penicillin-binding proteins (PCB). Resistant to extended-spectrum beta-lactamase and highly effective against anaerobes.
When administered intracisternally, it is poorly absorbed into the blood, a high concentration is formed in the tissue of the udder. Partially (less than 5%) binds to plasma proteins and is relatively rapidly excreted from the body unchanged in the urine (half-life is 2-2.5 hours).

Indications
It is indicated for treatment of clinical and subclinical mastitis in milking cows.

Contraindications
Do not administer to animals sensitive to cephalosporins.
Do not exceed the intervals between injections of the drug.
Do not use simultaneously with other antibacterial drugs.

Administration and dosage
Draw milk from the affected quarter of the udder and disinfect the nipple before using the drug. The syringe tube (10 ml) is preheated to +30-35 °C, the cap is removed and the cannula is inserted into the milk channel of the nipple. The contents of the syringe are completely squeezed into the affected quarter of the udder, then pinch the top of the nipple and massage. Course — 3 injections with an interval of 12 hours.

Warnings
Slaughter of animal is allowed in 2 days after the last administration of the drug, milk can be used for human consumption in 3 days (6 milkings). Milk obtained earlier that the specified period can be fed to animals after heat treatment.

Storage
Store in a dry dark place, out of reach of children, at the temperature from +4 °C to +25 °C.

Shelf life
2 years.
Camphor oil 10%  
oil for external use

1 ml contains:  
camphor — 100 mg

Dark glass vials of 100 ml.

Description  
Clear, yellow oil with camphor smell.

Pharmacological properties  
Camphor oil is applied externally as an anti-inflammatory, analgesic and antiseptic. The drug has a pronounced bacteriostatic action against coccal forms of microorganisms. When applied to the skin, it causes a short-term sensation of cold (the temperature at the application site does not decrease, but slightly rises), which is replaced by a sensation of heat and pain relief. Acting locally, camphor causes flushing of the skin, and with prolonged exposure reduces the sensitivity of nerve endings, slows down the movement of white blood cells and their migration from the blood vessels. Well absorbed by skin and mucous membranes. When resorption stimulates respiration and the cardiovascular system.

Indications  
It is indicated for treatment of cattle, horses, sheep, goats, pigs, dogs, cats suffering from various skin diseases. It is recommended for the treatment of rheumatic diseases of muscles, suppurative tendovaginitis, abscesses, fistulas, bruises. It is also used for the protection of animals during the activity of midges.

Contraindications  
Do not administer to animals sensitive to camphor.

Administration and dosage  
The drug is applied externally after the hygienic treatment of the affected area of the body by rubbing or applying using tampons and applications from two to four times a day until symptoms disappearance.

Warning  
Do not administer to animals before slaughter for meat.

Storage  
Store in a dry, dark place at the temperature from +2 °C to +25 °C.

Shelf life  
2 years.
Fitosept ointment for milking
ointment for external use

1 ml contain:
calendula tincture — 0.2 ml
buckthorn oil — 0.05 ml

Polymer tubes of 100 g.

Description
Ointment of yellow color, creamy with a characteristic smell.

Pharmacological properties
The combination of natural phytocomponents, does not contain antibiotics, hormones and other synthetic compounds. It has an aseptic and anti-inflammatory effect, strengthens local blood circulation, activates skin nutrition, which promotes healing of microtraumas, protects the skin from weathering, exposure of sun and frost, and removes irritation from insect bites.

Indications
It is indicated for treatment and prevention of cows and mares from micro-trauma, cracks and nipple erosions. Prevention of mastitis and hygienic care of the udder. Treatment of hands (gloves) during labor induction and obstetric and gynecological procedures.

Contraindications
None.

Administration and dosage
After milking and udder health treatment the drug is rubbed into the udder and teats in a small amount (up to 1 cm). the ointment is applied on the affected skin in small amount and is lightly rubbed 1-2 times a day until recovery. Into the wound the ointment is introduced with the help of drainages, tampons or gauze bandages that are changed after 1-2 days until complete recovery.

Warning
Personnel in contact with the preparations must keep to the requirements of safety and hygiene.

Storage
Store in a dark, protected from sunlight place at the temperature from +2 °C to +20 °C.

Shelf life
2 years.
Fungicidal-acaricidal ointment «Yam»
ointment for external use

1 g contain:
birch bark oil — 100 mg
turpentine oil — 70 mg
sulfur — 100 mg
salicylic acid — 20 mg
zinc oxide — 100 mg
lysol — 60 mg

Polymer tubes of 20, 50, 90 g, plastic containers of 250 g.

**Description**
Stiff, greasy ointment from light gray to dark gray color, has a characteristic smell.

**Pharmacological properties**
The drug with pronounced fungicidal, bactericidal and ectoparasitic properties.
Birch bark oil has antiseptic, antiparasitic, local irritating, astringent and drying effect.
After contact of sulfur with moisture, alkalis and organic substances, sulfuric anhydride, hydrogen sulphide, oxygen and sulfuric alkalis are formed, acting keratoplastically and keratolytically, which is due to antiparasitic and antimicrobial properties of sulfur.
Salicylic acid after local application irritates the skin and promotes rejection of keratinized cells of the epithelium. Strengthens granulation on the wound surface, acts bactericidal, antitoxic, fungicidal.
Zinc oxide gives an astringent, drying and disinfectant effect.
Lysol has an anti-inflammatory, bactericidal and insecticidal action.

**Indications**
It is indicated for treatment of cattle, sheep, goats, horses, pigs, dogs, cats, rabbits, chickens affected by trichophyton, eczema, dermatitis and other skin diseases; hoof lesions at necrobacillosis, foot rot in sheep; sarcoptosis (mange).

**Contraindications**
None.

**Administration and dosage**
Apply a thin layer of an ointment and rub into affected areas of skin and 2-4 cm around them without preliminary removal of husks and hair fibre shear. Affected areas are treated 1-2 times daily until removal of husks. As a rule, in 7-10 days affected areas are got free from husks and hair growing is observed.
After the treatment course is finished, a control microscopic examination of the scrapings is carried out. When the pathogens are found, treatment is continued.

**Warning**
None

**Storage**
Store in a dry, dark place, away from children, at the temperature from 0 °C to +25 °C.

**Shelf life**
2 years.
Ichthyol ointment 10%
ointment for external use

1 g contains:
ichthyol — 100 mg

Polymer tubes of 50, 90 g, polymer containers of 250 g.

Description
Creamy texture, dark-brown ointment with a characteristic smell of ichthyol.

Pharmacological properties
The drug has anti-inflammatory, local anesthetic and light antiseptic effect. When applied to wounds, it narrows peripheral blood vessels, reduces exudation and accelerates regenerative processes.

Indications
It is indicated for treatment of cattle, horses, sheep, goats, pigs, dogs, cats affected by dermatitis, abrasions, eczema, cellulitis, arthritis, tendovaginitis, chilblains, thermal and chemical burns.

Contraindications
None.

Administration and dosage
Apply a thin layer of an ointment on the affected areas of skin after aseptic treatment 1-2 times a day. If necessary, use gauze dressings. The duration of treatment is due to the nature of the disease.

Warning
The staff contacting with the product must observe the general rules of hygiene and safety.

Storage
Store in a dark place at the temperature from +2 °C to +25 °C.

Shelf life
5 years.
**Liniment balsamic by Vyshnevsky**
ointment for external use

1 g contains:
- birch bark oil – 30 mg
- xeroform – 30 mg

Polymer tubes of 50, 90 g.

**Description**
Liniment of creamy texture, from light yellow to dark brown color, with a strong characteristic smell.

**Pharmacological properties**
The combination of active ingredients of the drug provides a pronounced antiseptic, insecticidal and deodorizing effect, stimulates blood circulation of peripheral vessels, regeneration of the epidermis, accelerates healing process of wounds.

**Indications**
It is indicated for treatment of cattle, horses, sheep, goats, pigs, dogs suffering from various diseases of the skin and mucous membranes, especially chronic granulating wounds, eczema, decubitus, scabies, herpes, inflammation of fungal necrotic processes of hooves and claws.

**Contraindications**
Acute weeping eczema.
Do not administer to cats.

**Administration and dosage**
Liniment is applied by a thin layer to the affected skin or is introduced into the wound via drains, swabs and gauze bandages, which are changed every 1-2 days. The duration of treatment is determined by the nature of the disease.

**Warning**
The staff contacting with the product must observe the general rules of hygiene and safety.

**Storage**
Store in a dark place at the temperature from +5 °C to +25 °C.

**Shelf life**
5 years.
MolSan
microgranulated powder

1 g of the medicinal product contains:
- sulfonol — 450 mg
- sodium lactate — 186 mg

Polymer buckets of 0.5, 1, 2 kg.

Description
White, microgranulated powder.

Pharmacological properties
Sulfonol is a mixture of sodium salts of alkylbenzenesulfonic acids, refers to synthetic surface-active substances of anion-active type. Aqueous solutions of sulfonol have strong detergent and emulsifying properties, provide effective cleaning of animal skin from contamination.
Sodium lactate moisturizes the skin, has keratolytic and buffering effect, activates the reproduction of epidermal cells.
The medicinal product enhances the respiration of skin cells, has antioxidant and bactericidal properties, narrows the expanded pores.

Indications
Daily hygiene, moisturization and sanitation of the skin of udder and nipples of cows before milking, washing milk equipment and utensils.

Contraindications
Not available.

Administration and dosage
0.2% solution of the medicinal product is prepared before each milking, diluting 2 g of powder in 1 l of warm water. The working solution is used in two ways:
1. Wet a multi-use napkin. By one side of the napkin carefully wipe the nipples, and if necessary, wipe the skin of the udder too, squeeze the napkin and by the back-side of it wipe nipples dry. The used napkins are folded into a separate container, rinsed in warm water, squeezed and soaked in fresh working solution until the next milking.
2. Using sprayers put the medicinal product on the nipples and contaminated skin of the udder, wipe with a disposable napkin.
To wash and sanitize the milking equipment and utensils use a solution of 0.4-0.5% (4-5 g per 1 l of warm water).

Warning
The staff contacting with the product must observe the general rules of hygiene and safety.

Storage
In a dry place, protected from direct sunlight, at a temperature from 0 °C to +25 °C.

Shelf life
1 year.
Nizhnodiy
gel for udder

1 g contains:
- pine needle extract — 5 mg
- Polymer vials of 250 ml with pump.

Description
Homogeneous, light green mass of cream consistency with a slight odor of pine needles.

Pharmacological properties
The action of the drug is conditional upon interaction of substances of natural origin.
Due to the content of carotenoids, vitamins C, B₁₁, B₂, B₆, PP, H, folic acid, micro- and macro-elements — Na, Ca, K, Mg, Mn, Fe, Zn, Cu, Co, Se, phospholipids, bioflavonoids, natural antiseptics and coagulants, linoleic and oleic acids, the drug gives a long protective and aseptic effect, stimulates local blood circulation, nourishes the skin, promotes regeneration and restoration of the epidermal barrier functions, heals microtraumas, protects the udder skin from the harmful effects of the environment, supports its natural elasticity.

Indications
As hygienic means for:
- systematic care of teats of milking female cattle;
- facility of mechanical or hand milking;
- soothing the skin of cows teats, especially for hard-milking cows;
- the prevention of fissures and other injuries of the skin of the udder, especially while grazing in rainy weather or regimen in cold and windy days;
- for the treatment of the veterinary specialists hands (gloves) in case of parturation or other obstetric and gynaecological procedures.

Contraindications
None.

Administration and dosage
Before each milking after cleaning and drying of the udder, Nizhnodiy in a small amount (1-2 clicking of pump) is applied to the surface of each teat and gently rubbed the gel directly into the skin surface. For heifers and hard-milking cows such a procedure is desirable to conduct before and after milking.

Warning
Avoid getting into the milk.

Storage
Store in a dry, dark place at the temperature from +5 °C to +25 °C.

Shelf life
1.5 year.
Ranoiode
powder for external use

1 g contains:
- iodoform — 40 mg
- sulfaguanidine — 50 mg
- trimethoprim — 10 mg

Polypropylene vials with powder-spray-nozzle of 50 g, polymer containers of 100 g.

Description
Yellowish powder.

Pharmacological properties
Combination of sulfonamides and trimethoprim, with prolonged antimicrobial effect.
Iodoform decomposes under action of light, air, tissue enzymes, microorganisms, secreting molecular iodine. Iodine has an antimicrobial, repellent, deodorizing, absorbable effect, contributes to granulation and cleansing of wounds. Iodine albuminates are formed on the surface of the wound, which gives an astringent and anesthetic effect, relieves receptor irritation.
Trimethoprim is a chemotherapeutic drug that has a bacteriostatic action against Gram-positive and Gram-negative microorganisms E. coli, Enterobacter spp., Proteus spp., Klebsiella spp. Inhibits bacterial reductase, which converts dehydrofolic acid to tetrahydrofolic acid, which is necessary for the synthesis of purines and pyrimidines.
Fillers give a drying effect, help to reduce exudation and accelerate processes of regeneration of damaged tissues and wound healing.

Indications
It is indicated for treatment of horses, cattle, sheep, goats, pigs, dogs, cats, blue foxes, minks, poultry (chickens, geese, ducks) suffering from folliculitis, dermatitis, eczema, as well as infected wounds, wet eczema, venous ulcers, difficult healing wounds, inflammation of the external auditory meatus, chafing of skin folds, after opening of hematomas, abscesses, fibromas, furunculus, abscesses; it is also prophylactically after surgery (castration, removal of tumors, etc.) caused by microorganisms sensitive to sulfaguanidine, trimethoprim and iodoform.

Contraindications
Increased individual sensitivity to the active ingredients.
The drug is incompatible with ammonia, oxidizers and acids.

Administration and dosage
Exterrnally. Previously cleaned skin lesions are powdered and 2-3 cm around them and then a bandage is applied. Treatment is performed one time per day until complete recovery.

Warning
For external use only. Avoid contact with eyes and mucous membranes. During the work with the product it is forbidden to smoke, drink and eat. After the end of treatment wash your hands thoroughly with warm soapy water.

Storage
Dry, dark place, away from children, at the temperature from +4 °C to +30 °C.

Shelf life
3 years.
Streptocide ointment 10%
ointment for external use

1 g contains:
- streptocide — 100 mg
- petrolatum — 900 mg

Polymer tubes of 50 g (1 pc in a cardboard box), 90 g.

Description
Ointment of creamy texture, white with a yellowish tinge, with a specific odor

Pharmacological properties
Streptocide is a sulfonamide, has a broad spectrum of antimicrobial action, is active against Streptococcus spp., Clostridium spp., Corynebacterium spp., E. coli, Salmonella spp., Klebsiella spp., Proteus spp., Pasteurella spp., Bordetella spp. etc. Almost inactive against staphylococci.
Streptocid acts bacteriostatic, preventing the use of para-aminobenzoic acid by microorganisms for synthesis of dihydrofolic acid, which is involved in synthesis of pyrimidine bases of DNA and RNA of microbial cells.

Indications
It is indicated for treatment of cattle, horses, sheep, goats, pigs, dogs, cats with infected wounds, ulcers, burns, frostbites, decubitus, suppurative inflammations on the skin, fissures of skin, teats of udder, furunculosis, pyoderma caused by microorganisms sensitive to streptocide.

Contraindications
Hypersensitivity to streptocide.

Administration and dosage
After mechanical cleaning of wound the ointment is applied by a thin layer directly on the damaged skin or on the gauze bandage 1-2 times a day until complete healing.

Warning
None.

Storage
Store in a dark place, away from children, at the temperature from +5 °C to +25 °C.

Shelf life
3 years.
Tricillin
powder for external use

6 g (1 vial) contain:
benzylpenicillium-natrium/calium — 500 000 U
streptomycin sulphat — 500 000 U
streptocide white — 5 g

Glass vials of 6 g.

Description
White fine powder with specific odor.

Pharmacological properties
Combined drug with a wide spectrum of antimicrobial action against Gram-positive microorganisms Streplococcus spp., Staphylococcus spp., Clostridium spp., Bacillus spp., Corynebacterium diphtheriae, Gram-negative E. coli, Salmonella spp., Shigella spp., Yersinia spp., Klebsiella spp., Haemophilus influenzae, Neisseria gonorrhoeae, Neisseria meningitidis, Francisella tularensis, Brucella spp., Proteus spp., Pasteurella spp., Bordetella spp., anaerobe Escherichia coli, as well as Proteus spp., Klebsiella spp., Enterobacter spp., Corynebacterium diphtheriae, Neisseria spp., Peptostreptococcus spp., Clostridium spp., Listeria monocytogenes, Treponema, Borrelia, Leptospira. Benzylpenicillin is a bactericidal antibiotic from the group of natural penicillins that prevents formation of peptide bonds by inhibiting activity of trans-peptidase, violates the late stages of synthesis of the cell wall peptidoglycan, which leads to lysis of dividing cells. Streptomycin — an aminoglycoside antibiotic with a broad spectrum of antimicrobial action, binds to the 3OS-subunit of the bacterial ribosome, which leads to suppression of protein synthesis in microorganisms. Streptocide refers to sulfonamides, acts bacteriostatic, preventing use of para-aminobenzoic acid by microorganisms for synthesis of dihydrofolic acid, which is involved in synthesis of the pyrimidine bases of DNA and RNA of microbial cells.

Indications
It is indicated for prevention and treatment of cows suffering from thelaziosis, keratoconjunctivitis, as well as post-partum complications, various wounds of the skin, caused by microorganisms sensitive to penicillin, streptomycin and streptocide.

Contraindications
Do not administer to animals sensitive to the active ingredients of the drug. Do not administer to animals with impaired liver and kidney function.

Administration and dosage
If detention of the afterbirth is observed in cows, the drug is used 12-24 hours after calving. Before the introduction of the drug, sanitize the external genital organs, the root of the tail, released part of the placenta, and conduct the aseptic treatment (with sodium hypochlorite solution, rivanol, etc.). The veterinarian exposes the arm to the shoulder and treats it as before the operation, according to the general surgery instructions, puts on a sterile rubber or polyethylene obstetric glove and injects 6 g of the drug intrauterinely and 2 g in the vagina under the placenta. Then, conduct sanitary and aseptic processing of the external genital organs, released part of the placenta daily; inject 2 g of the drug under the placenta and into the vagina, daily. Intrauterine drug is administered every 48 hours at the same dose until complete separation of the placenta. If the afterbirth is not separated within 3 days from the start of the treatment, it is removed manually, then 6 g of the drug is administered, after 48 hours the drug is re-administered at the same dose. In complicated births and trauma of the birth canal, 3 g of the drug is prophylactically administered to the uterus.

Warning
Slaughter of animals for meat is allowed in 7 days after the last administration of the drug, milk — in 3 days. Milk and meat obtained earlier that the specified period must be utilized or fed to non-productive animals depending on a conclusion of the veterinarian.

Storage
Store in a dry, dark place at the temperature from +4 °C to +20 °C.

Shelf life
2 years.
Uzatimol
ointment for external use

1 g contains:
- propolis — 100 mg
- thymol — 1 mg

Polymer tubes of 50 g.

Description
Dense, homogeneous, gel-like mass from light yellow to yellow-brown color with characteristic smell.

Pharmacological properties
Combination of propolis and thymol with a wide spectrum of action.
Propolis, due to the content of vegetable resins, balms, essential oils, tannins, aromatic unsaturated acids, minerals, microelements and vitamins, provides antimicrobial, antiviral, antifungal, analgesic, anti-inflammatory and regenerative action.
Thymol shows antimicrobial, expressed fungistatic and antiviral properties, prevents and slows down development of inflammatory processes of infectious etiology.

Indications
It is indicated for treatment of cattle, sheep, goats, horses, pigs, dogs, cats and wild animals suffering from skin lesions (wounds, fissures, cuts, scratches, injuries, rashes, itching, erosions, ulcers, burns, frostbites, fungal diseases, eczema, furunculus, carbuncles); as well as purulent necrotic processes in the area of hooved crack and base of hooves skin; erosions and ulcers in the mucous membranes of nose and lips; inflammation of the eyelids, vaginitis, vestibulitis, cervicitis and cervical erosion.

Contraindications
None.

Administration and dosage
Prior to application of ointment an affected area should be processed with aseptic means.
In case of minor skin lesions and on mucous membranes of lips or nasal passages the ointment is spread by a thin layer 2-3 times a day until the recovery.
In complicated cases, the bandages, wraps and plugging of ointment are used. On the place of lesion a gauze pads soaked in warm ointment are bandaged and then fixed dressing with hygroscopic layer is bandaged. Change of dressings are conducted in 2-3 days. Deep wounds are treated by gauze pads soaked in ointment.
In case of vaginitis, vestibulitis, cervicitis and cervical erosion the swabs soaked in ointment are injected into the vagina 2 times a day, pre-washed its oral by saline or disinfectant solution.

Warning
None.

Storage
Store in a dark, dry place at the temperature from +5 °C to +25 °C.

Shelf life
2 years.
Zink ointment 10%
ointment for external use

1 g contains:
- zinc oxide — 100 mg

Polymer tubes of 50, 90 g, polymer containers of 250 g.

Description
White ointment with a yellowish tinge of creamy texture and a characteristic smell.

Pharmacological properties
Anti-inflammatory agent of local action, has drying, astringent and adsorbing properties. Forms albuminates and denatures proteins. When applied to the affected skin, it reduces exudation, inflammation and irritation of tissues, forms a protective barrier from irritative agents.

Indications
It is indicated for treatment of cattle, horses, sheep, goats, pigs, dogs, cats suffering from dermatitis, eczema, decubitus, skin lesions (burns, cuts). Has drying, astringent and absorbent action. When applied to the affected area reduced the exudation, inflammation and irritation of tissues, forms a protective barrier from irritating factors.

Contraindications
None.

Administration and dosage
The product is used externally, after cleaning and drying the affected area. Ointment is applied thinly to the affected skin 1-2 times a day. The amount of ointment depends on the lesion volume. In case of the treatment of burns and wounds — gauze bandage with ointment is applied. The duration of treatment is due to the nature of the disease.

Warning
Avoid contact the ointment with eyes and on the surface of wounds. The staff who works with the product must comply with the basic rules of hygiene and safety for working with veterinary drugs.

Storage
Store in a dry, dark place at the temperature from +2 °C to +25 °C.

Shelf life
3 years.
**Brovaferan-100**

solution for injection

1 ml contains:
- ferric dextran complex — 100 mg

Glass vials of 10; 20; 100 ml.

**Description**
Liquid of reddish-brown color.

**Pharmacological properties**
The complex compound of iron hydroxide and low-molecular dextran replenishes iron deficiency, stimulates the hematopoietic system, raises hemoglobin level, promotes an increase in the number of red blood cells and improves the livability of young animals.

**Indications**
It is indicated for treatment and prevention of iron deficiency in animals, especially in piglets and calves.

**Contraindications**
Do not administer to animals with signs of acute deficiency of vitamin E and selenium.

**Administration and dosage**
Before use, the preparation is heated to the animal’s body temperature and injected deeply intramuscularly into the thigh or neck area. Preventive dose is injected once (per 1 animal):
- sows (3-4 weeks before farrowing) — 10 ml;
- 3-4 days-old piglets — 1.5-2 ml;
- 5-6 days-old calves — 8-10 ml;
- 3-5 days-old lambs — 2-3 ml;
- minks — 0.3-0.5 ml.
For animals with signs of anemia, the drug is administered in therapeutic purposes 2-3 times at weekly intervals in the same doses.

**Warning**
A little swelling may occur at the injection site, then it disappears within a few days.
Antacids slow down the absorption of iron.
Simultaneous use with acetohydroxamic acid reduces the effectiveness of both drugs, when used with iron preparations accumulation of iron in liver may occur.
Simultaneous use with tetracycline agents reduces their effectiveness, they can be administered at intervals of 2-3 hours.

**Storage**
Store in dry, dark place at the temperature from +3 °C to +25 °C. Avoid freezing of the drug.
The medicinal product should be used within 24 hours after opening the vial.

**Shelf life**
3 years.
Brovaglukin
solution for injection

1 ml contains:
calcium gluconate — 280 mg
magnesium hypophosphite — 53 mg
choline chloride — 4 mg

Glass vials of 100, 200 ml.

Description
Sterile, clear solution of light-yellow color.

Pharmacological properties
The drug normalizes exchange of calcium, phosphorus and magnesium in a body.
Calcium ions accelerate process of blood coagulation and increase density of blood vessels, prevent development of edema, provide anti-inflammatory action and reduce allergic manifestations.
Phosphorus has a general stimulating effect, activates enzymatic processes.
Magnesium provides metabolism of proteins and carbohydrates and increases the reactivity of the neuromuscular system.
Choline chloride stimulates metabolism of phospholipids.

Indications
It is indicated for pre- and postpartum decubitus, retention of afterbirth, parturient paresis, hypocalcemia, rickets, osteomalacia, tetany, allergic conditions, bleeding, toxemia, ketosis and other metabolic disorders in cattle, horses, sheep, goats, pigs, dogs, cats.

Contraindications
None.

Administration and dosage
Before administration the drug is mixed with the same quantity of glucose solution 40%, preheat to the animal’s body temperature.
Administered intramuscularly or intravenously.
The doses per 10 kg of b.w. are as follows:
• cattle: 5-10 ml;
• horses: 3-7 ml;
• goats and sheep, pigs: 3-5 ml;
• cats and dogs: 3 ml.
The product is administered once a day, treatment course 1-3 days (depending on disease state).

Warnings
When intravenous administration, anxiety with spasmodic muscular contractions may occur in the animal, it disappears after discontinuation of administration.

Storage
Store in a dry, dark place at the temperature from +4 °C to +25 °C.

Shelf life
2 years.
CEDA-vit
emulsion for oral administration, feed additive

1 ml contains:
- vitamin A — 50 000 ± 10% IU
- vitamin D₃ — 5 000 ± 10% IU
- vitamin E — 50 ±10% mg
- vitamin C — 100 ± 5% mg

Dark glass vials of 10 ml (10 pcs in a cardboard box), 50, 100 ml (1 pc in a cardboard box) and polymer vials of 1 l.

Description
Liquid of light yellow color

Pharmacological properties
The product contains vitamins A, D₃, E and C in physiologically reasonable proportions, promotes normalization of metabolism, prevention of hypovitaminosis, as well as complications developing against their background. Vitamin A is involved in oxidation-reduction reactions. By inhibiting the activity of insulin, it affects carbohydrate and fat metabolism, activates metabolism of calcium and magnesium, and is a part of the lipid layer of cell membranes. Vitamin D₃ plays a leading role in metabolism of calcium and phosphorus from the moment of absorption from the intestine and to excretion from the animal’s body, influencing formation and development of the skeleton. Vitamin E is an antioxidant that prevents oxidation of fatty acids, provides stability and activity of the epithelium of the mucous membranes of the reproductive system, GI tract and conjunctiva. Vitamins A, D₃ and E together increase general resistance of the animal organism, improve their condition, prevent rickets and osteomalacia. Vitamin C — a powerful antioxidant, plays an important role in redox processes, activates the synthesis of collagen and procollagen, steroid hormones and catecholamines, exchange of folic acid and iron. Regulates process of formation and clotting of blood, normalizes permeability of capillaries, has anti-inflammatory and anti-allergic effect.

Indications
It is indicated for feeding animals and poultry in periods of increased nutrient requirements, especially for high-performance animals in stressful situations, in case of productivity decrease, transportation, conducting veterinary manipulations, change of feed composition, high temperatures, for lactating and pregnant animals (in the second half of pregnancy only), especially at reproductive function disorder, in combination therapy in case of infectious and parasitic diseases. CEDA-vit prevents the occurrence of the rachitis, osteomalacia, increases female fertility and survival of young animals and poultry. It is used as an aid to increase resistance to a variety of toxins and to enhance immune responses.

Contraindications
None.

Administration and dosage
Orally with water or feed, one time every 3-4 weeks in a dose (ml/10 kg of body weight):
- cattle, horses — 0.3-0.5 ml;
- calves, foals — 0.4-0.5 ml;
- sheep, goats — 0.5-1.0 ml;
- breeding sows — 0.3-0.7 ml;
- piglets — 1.0-1.5 ml;
- dogs, cats — 0.3-0.6 ml;
- fur-bearing animals and rabbits — 1.0-1.5 ml.
A single dose of feed additive is better to divide into three portions and give to animals for three consecutive days.
For poultry it is better to give it with drinking water or with feed during 3 or 4 days course every month in a dose (1 ml per 100 l of drinking water or per 100 kg of feed):
- laying hens and pullets — 30-50 ml;
- chickens — 25-30 ml;
- turkeys, geese — 60-70 ml;
- poultets, goslings — 35-40 ml;
- ducks — 25-50 ml;
- ducklings — 20-35 ml.
If necessary, these doses may be increased in two — three times.

Warning
During dilution, CEDA-vit must be stirred when added to water and not vice versa.
Feed additive must be shaked well before using.

Storage
Store in a dry, dark place at the temperature from +5 °C to +25 °C.

Shelf life
1 year.
Cobacine
solution for oral administration, feed additive

1 ml contains (in a chelate in the form of succinate ±5%):
- cobalt — 0.4 mg
- zinc — 0.8 mg
- germanium — 0.08 mg

Glass and polymer vials of 10, 100, 200, 500 ml.

Description
Liquid of yellowish color, transparent

Pharmacological properties
Combined mineral feed additive, contains essential elements — cobalt, zinc and germanium in a chelate form of succinates, which are high-bioavailable.
Cobalt increases egg production of mother bee — up to 19% above the norm of usual brood, the number of bees is also increased up to 30% and their vital functions are activated.
Thanks to cobalt ions in organic, bioavailable form, the drug stimulates the reproductive function of mother bee and bees performance. Thus, the optimal development of bee colonies is accelerated and their productivity is increased.
Zinc is involved in the metabolism of nucleic acids and protein synthesis. Being associated with the action of enzymes, hormones and vitamins in part, it greatly affects the basic life processes: reproduction, growth and development of the body, carbohydrate and energy metabolism.
Germanium promotes excretion of toxins and eliminates the negative impact of environmental factors. Germanium has a wide range of biological effects, prevents aging and death of cells. This element plays an important role in the formation of resistance in the body and is able to recover and prophylaxis wide range of diseases.

Indication
It is used in the spring for weak and medium strength of bee colonies in order to optimize and accelerate their development to the period of honey yield. During the first half of summer it is used for highly developed bee families to create layering. During the second half of summer it is fed to maintain egg production of mother bee and strength of bee colonies.

Contraindications
None

Administration and dosage
Dissolve 5.0 ml of the drug to 1.0 l of warm (+30-35 °C) sugar syrup (sugar-water in the ratio 1:1) and mix thoroughly. 500 ml of syrup per one bee family 3-5 times at intervals of 3-5 days.

Warning
Do not exceed recommended doses. Control dosages to avoid hypervitaminosis, when use simultaneously with other feed supplements.

Package

Storage
In a dry place at the temperature from +5 °C to +30 °C.

Shelf life
2 years.
DAE-vit
emulsion for injection

1 ml contains:
vitamin A — 100 000 IU
vitamin D₃ — 40 000 IU
vitamin E — 20 mg

Vials of dark glass of 20, 100 ml.

Description
Liquid of light yellow or amber color.

Pharmacological properties
Fat-soluble vitamins A, D₃ and E in a physiological ratio provide a complex effect on animals — normalize the metabolism, are effective in the treatment and prevention of hypovitaminosis and complications developing against their background.
The combination of vitamins A, D₃ and E increases the resistance of the animal organism and prevents the occurrence of rickets and osteomalacia.

Indications
Treatment and prevention of A and D-hypovitaminosis in farm and small home animals, of alimentary and secondary osteodystrophy, postnatal hypocalcemia and hypophosphatemia, pre- and postnatal long lie, alimentary dystrophy, retention of afterbirth, subinvolution of uterus, bone fractures.
The drug is used in diseases which are accompanied by violation of the absorption and metabolism of vitamins A and D, calcium and phosphorus (gastroenteritis, hepatodystrophy, hepatitis, ketosis, glomerulonephritis, deficiency of manganese, cobalt, strontium).
It is indicated in periods of increased need for nutrients, especially for animals in highly stressful situations, as well as the decline in productivity, which appear due to transport, veterinary measures, changes in the composition of food, high temperatures; pregnancy (only in the second half) and during lactation, disorders of the reproductive function; at infectious and parasitic diseases; decreases in productivity, gain weight and grow animals, declining fertility and hatching eggs weakening of shell eggs.

Contraindications
Do not administer simultaneously with corticosteroid hormones, glycosides and tetracyclines.

Administration and dosage
Shake well before use.
Preventively the drug is administered intramuscularly or subcutaneously once every 7 days (5-6 injections for cows, 3-5 injections for other animals).
Therapeutically the drug is administered intramuscularly once in 5 days until the recovery (5-8 injections), then in the future (if necessary) the drug is administered in prophylactic doses. For hens it is fed orally with water or food for prophylactic and therapeutic purposes within 2-3 weeks.
Doses in accordance to content of vitamin D are indicated in the table:

<table>
<thead>
<tr>
<th>Animals</th>
<th>Dose, ml/per animal</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>preventive care</td>
</tr>
<tr>
<td>Dry cows</td>
<td>1.8-2</td>
</tr>
<tr>
<td>Milking cows</td>
<td>3</td>
</tr>
<tr>
<td>Young cattle (per 100 kg b.w.)</td>
<td>1.1-2</td>
</tr>
<tr>
<td>Seed bulls (per 100 kg b.w.)</td>
<td>2.2-5</td>
</tr>
<tr>
<td>Pregnant mares</td>
<td>1-1.2</td>
</tr>
<tr>
<td>Lactating mares</td>
<td>1.5</td>
</tr>
<tr>
<td>Foals at the age of 6-12 months</td>
<td>0.5</td>
</tr>
<tr>
<td>Horses at the age of 1-2 years</td>
<td>0.7</td>
</tr>
<tr>
<td>Sows at the second half of pregnancy</td>
<td>0.4-0.5</td>
</tr>
<tr>
<td>Lactating sows</td>
<td>0.5-0.6</td>
</tr>
<tr>
<td>Piglets with weight 10-50 kg</td>
<td>0.15-0.2</td>
</tr>
<tr>
<td>Pregnant ewes</td>
<td>0.2</td>
</tr>
<tr>
<td>Lactating ewes</td>
<td>0.3</td>
</tr>
<tr>
<td>Lambs, goatlings at the age of 4-6 months</td>
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</tr>
<tr>
<td>Goats</td>
<td>0.15-0.2</td>
</tr>
<tr>
<td>Rabbits</td>
<td>0.1</td>
</tr>
<tr>
<td>Dogs</td>
<td>0.1-0.2</td>
</tr>
<tr>
<td>Hens (orally)</td>
<td>0.05</td>
</tr>
</tbody>
</table>

Warning
While using the drug animal rations for calcium, phosphorus, zinc, cobalt, copper and manganese must be balanced.
Meat and milk can be consumed without restrictions.

Storage
Store in a dry, dark place in the packaging of manufacturer at a temperature from +4 °C to +15 °C.
Shelf life after first opening of the vial — 30 days.

Shelf life
2 years.
EvitSel
emulsion for injection

1 ml contains:
- a-tocopherol acetate (vitamin E) — 100 mg
- selenium (Se citrate) active ingredient — 0.3 mg

Glass vials of 10, 20, 50, 100 ml. Polymer vials of 1 l, polymer cans of 5 l.

Description
Emulsion of white color.

Pharmacological properties
Vitamin E and selenium — natural highly active antioxidants with different mechanisms of action, effectively complement each other, counteracting release of free radicals and preventing their destructive effect on cell membranes.

Vitamin E prevents oxidation of lipids in cell membranes by inhibiting the creation of hydrogen peroxide. Later selenium by hydroxylation participates in creation of glutathione peroxidase and is able not only to convert hydrogen peroxide into less dangerous alcohols, but also to prevent appearance of free radicals. Vitamin E stimulates synthesis of many enzymes, is involved in the metabolism of nucleic acids and prostaglandins, improves tissue respiration, stimulates synthesis of proteins, protects against oxidation of vitamin A, inhibits synthesis of cholesterol and normalizes lipid content in blood.

Selenium participates in formation of more than 30 essential hormones, enzymes and other biologically active substances, stimulates erythrocytopoiesis, improves saturation of cells with oxygen.

Vitamin E with selenium indirectly activate protective functions of cellular and humoral immunity and immune system of whole organism, increase reproductivity of animals by improving sperm formation in males, the activity of uterus and recovery of normal function of the ovaries in females after childbirth.

Indications
It is indicated for all species of farm animals to enhance the specific and non-specific resistance, as well as for the prevention or treatment of diseases, that may be developed in case of deficiency of tocopherol and selenium: hepatic dystrophias, muscular dystrophy, white muscle disease, infertility, embryonic mortality, abortion, postnatal complications, ketosis, toxicosis (intoxication), growth inhibition etc.

Contraindications
None.

Administration and dosage
Intramuscular or subcutaneous administration in doses:
- females of cows, horses, pigs, sheep and goats: 1 ml per 50 kg of b.w. twice with a 30 days interval; last injection prior to 30 days before coming parturation;
- breeding males: in a dose of 1 ml per 50 kg of body weight prior to the month of the beginning of active breeding period, with followed two repeats every three weeks;
- calves and foals: 0.5 ml per 40 kg of body weight;
- suckling piglets: 1 ml per the animal prior to the week of weaning;
- lambs: 0.3 ml per the animal in the first week of life, and repeat in two weeks after the first dose of 0.5 ml.

Orally with drinking water:
- chickens: 5 ml per 10 l of drinking water;
- turkeys: 0.5 ml per 10 l of drinking water;
- young poultry (chickens, poults, ducklings, goslings): in the first week after hatching — 1 ml per 1.5 l of drinking water during 3-5 days.

Injection over 10 ml should be divided and administered into different sites.

Warning
In some animals at the injection site slight swelling may occur. It disappears within 2-3 days without intervention.

Storage
Store in a dry, dark place at the temperature from 0 °C to +25 °C.

Shelf life
2 years.
**Fos-Bevit**  
**solution for injection**

1 ml contains:  
- butafosfan — 100 mg  
- *vitamin B*₂ (*nicotinamide*) — 5 mg  
- *vitamin B*₉ (*folic acid*) — 1.5 mg  
- *vitamin B*₁₂ (*cyanocobalamin*) — 0.05 mg

Vials of dark glass of 10 ml (10 pcs in a cardboard box), polymer vials of 1 and 5 l.

**Description**  
Clear liquid of pink color.

**Pharmacological properties**  
The complex preparation based on butophosphamide and three vitamins of group B exerts a tonic effect, normalizes metabolic and regenerative processes, stimulates protein, carbohydrate and fat metabolism, increases resistance of the organism to unfavorable environmental factors, infections and toxins, promotes growth and development of animals and poultry. Butafosfan is an organic compound of phosphorus, stimulates synthesis of proteins, normalizes liver function, increases the nonspecific resistance of the organism, promotes formation of bone tissue, normalizes the level of hydrocortisone in stress. It is not accumulated in body and does not give side effects, as stimulants and inorganic phosphorus. Nicotinamide stimulates production of nicotinadenine-dinucleotide phosphate (NADP) and nicotinadenine-dinucleotide (NAD), thus regulates most redox reactions, normalizes many types of metabolism, in particular, energy. Participates in metabolism of proteins, fats, amino acids, purines, tissue respiration, glycogenolysis, helps to resist infectious diseases, has detoxification properties, quickly spreads in tissues and passes through the placental barrier. In liver, it is metabolized to N-methylnicotinamide, methyl pyridonecarboxamides, glucuronide and glycine complex, excreted by kidneys. Folic acid is one of the enzymes for the synthesis of amino acids, it is present in the exchange of choline, it is reduced in the body to tetrahydrofolic acid, a coenzyme that participates in many metabolic processes. Promotes the synthesis of amino acids, nucleic acids, pyrimidines, purines, stimulates process of hematopoiesis (partially erythropoiesis), is necessary for the normal formation and maturation of megaloblasts. Cyanocobalamin activates the metabolism of carbohydrates, proteins and lipids, promotes the synthesis of labile groups in formation of choline, methionine, nucleic acids, creatine, accumulation of compounds with sulfhydryl groups in erythrocytes, stimulates bone marrow function necessary for normoblastic erythropoiesis, normalizes liver and nervous system function, penetrates through the placental barrier, activates the blood coagulation system, in high doses increases thromboplastic activity and prothrombin activity. Together with folic acid is necessary for formation of erythrocytes in the bone marrow. It binds to proteins by 90%, excreted by kidneys and with bile.

**Indications**  
It is indicated for horses, cattle, sheep, goats, dogs, cats, fur-bearing animals, chickens suffering from metabolic disorders, vitamin deficiencies, as stimulating and tonic one to boost organism resistance to diseases of various etiologies including infectious diseases and intoxication, for improving the growth and development of animals, and in combination with other medicines at deficiency of calcium and magnesium in childbirth, as well as for treatment and prevention of postpartum complications during rehabilitation period after diseases and operations, stresses, for normalization of blood and liver function, on considerable physical exertion and increased physical activity of horses (2-3 days prior to the competitions).

**Contraindications**  
None.

**Administration and dosage**  
The drug is administered once a day during 4-5 days intramuscularly, subcutaneously or intravenously (inject slowly) in the following doses per 10 kg of b.w.:
- horses, cattle — 0.1-0.3 ml;  
- foals, calves — 0.5-1 ml;  
- pigs — 0.2-0.5 ml;  
- piglets — 0.5-1.5 ml;  
- sheep, goats — 0.5-1 ml;  
- lambs, goatlings — 0.5-1.5 ml;  
- dogs, cats and fur animals — 0.5-2 ml.  
For poultry the drug is administered orally with drinking water during 4-5 days. The doses per 1 l of water are as follows:
- laying hens, broilers — 2-3 ml;  
- chickens, young poultry — 1-1.5 ml.  
The drug is administered in a half-dose in critical cases, and for weak animals. Second course of treatment is conducted in 8-15 days if necessary.

**Warning**  
The injection dose more than 10 ml of drug is divided to several portions and injected into different sites.

**Storage**  
Store in the original package, in a dry, dark place at the temperature from +4 °C to +25 °C.

**Shelf life**  
3 years.
Avesstim
solution for oral administration

1 ml contains:
morpholinium 2-[5-(pyridine-4-il)-1,2,4-triazole-3-iltio]acetate — 20 mg

Glass vial of 20, 100 ml, polymer vials of 1 l.

Description
Clear, colorless solution.

Pharmacological properties
Morpholinium 2-[5-(pyridin-4-yl)-1,2,4-triazol-3-iltio] acetate is a triazole derivative. In optimal doses, it activates individual biochemical processes in cells, has antioxidant, immunomodulating, anti-inflammatory, hepatoprotective and detoxifying effects, normalizes metabolism. The drug strengthens a specific immune response to the introduction of vaccines, increases the overall resistance to diseases of viral etiology. 24 hours after the last application, the active substance is excreted from the body and is not found in the blood plasma.

Indications
The drug is indicated for chicks, rearing flocks of laying hens, poults, ducklings, goslings, quails to improve the overall organism resistance, activation of specific immune response to the vaccine, weakening of post vaccinal complications as well as for nonspecific prophylaxis of viral diseases and mixed respiratory diseases.

Contraindications
Do not use for poultry, eggs of which are used for human consumption.

Administration and dosage
For one-day young birds the drug is administered by aerosol in hatchers after hatching is finished. The drug is diluted at the rate of 1 portion of drug per 9 portions of sterile or boiled cooled water (working solution). 10 ml of working solution per one standard hatcher is dispersed for 5 minutes with a total exposure of 30 minutes.

To enhance the specific immune response the drug is added to the drinking water to be drunk for two days before and two days after the inoculation at the rate of 0.025 ml of drug per 1 kg of body weight for 1 day.

To enhance the general organism resistance of young birds and in case of respiratory disease the drug is administered by aerosol using generators of cold fog at the rate of 1-2 ml of drug per 1 m³ of area with an exhibition of 40 minutes. It should be conducted daily during 3-5 days.

Warning
Slaughter of poultry for meat or transfer of young birds to farming premises is allowed in 28 days after the last administration of the product. Meat or eggs obtained earlier than the specified period, must be disposed of fed to non-productive animals depending on conclusion of a veterinarian.

Storage
Store in a dry dark place at the temperature from +1 °C to +25 °C. An aqueous solution of the drug should be used on the date of dilution.

Shelf life
2 years.
Microstimulin
solution for oral administration, feed additive

1 ml of the feed additive contains the active ingredients in the form of citrate chelate:
- iron — 1.5 mg
- iodine — 0.015 mg
- cobalt — 0.01 mg
- magnesium — 2 mg
- manganese — 1.5 mg
- copper — 0.3 mg
- molybdenum — 0.0005 mg
- selenium — 0.003 mg
- chromium — 0.0005 mg
- zinc — 1 mg

Polymer vials of 10, 50 ml with dropper (1 pc in a cardboard box), polymer vials of 1 l.

Description
Liquid of yellow-green color, transparent.

Pharmacological properties
Combined mineral feed additive contains essential elements — iron, iodine, cobalt, magnesium, manganese, copper, molybdenum, selenium, chromium, zinc, in chelated form of citrates, which have a high degree of bioavailability.

Microelements additives participate in oxidation-reduction reactions, affect the activity of enzymes, promote the induction of gamma-interferons, activate cellular respiration, normalize metabolism, increase nonspecific resistance and adaptogenicity of the animal organism, positively influence the productivity, reproduction and safety of animals.

Indications
Microstimulin is administered to animals and poultry in periods of increased demand for essential elements, especially in stressful situations and keeping under adverse conditions, in case of decrease in productivity, the intensity of growth and development, changing the composition of the feed; to stimulate metabolism, increase non-specific resistance, strengthening the immune system, nonspecific prevention of bacterial and viral diseases, for enhancing immune responses in diseases of different etiologies, enhance the immune response to the vaccine; after long-term use of antibiotics, protecting the body from poisoning and adaptation to adverse environmental conditions.

Administration and dosage
The product is administered orally with water or feed, course of 3-5 days. The doses are indicated in the table:

<table>
<thead>
<tr>
<th>Animal species</th>
<th>Doses</th>
<th>Administration</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>With water or food, ml per animal:</td>
</tr>
<tr>
<td>cattle, horses</td>
<td>10</td>
<td>5 days prior to the change of feed, 3-4 days</td>
</tr>
<tr>
<td></td>
<td></td>
<td>before vaccination or regrouping</td>
</tr>
<tr>
<td>young cattle, foals</td>
<td>2</td>
<td>5 days prior to the change of feed, 3-4 days</td>
</tr>
<tr>
<td></td>
<td></td>
<td>before vaccination</td>
</tr>
<tr>
<td>sows and boars</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>piglets rearing</td>
<td>1.5</td>
<td></td>
</tr>
<tr>
<td>pigs for fattening</td>
<td>2.5</td>
<td>3-4 days before vaccination or transfer to fattening</td>
</tr>
<tr>
<td>sheep, goats</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>lambs, goatlings</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>cats and dogs of small breeds</td>
<td>0.1-0.2</td>
<td>5 days before vaccination</td>
</tr>
<tr>
<td>dogs</td>
<td>0.3-0.4</td>
<td></td>
</tr>
<tr>
<td>rabbits, fur-bearing animals</td>
<td>1</td>
<td>5 days before vaccination</td>
</tr>
<tr>
<td>laying hens, pullets</td>
<td>1.25</td>
<td>5 days before inoculation and 3 days after vaccination</td>
</tr>
<tr>
<td>turkeys, ducks, geese, chicken-broilers</td>
<td>1</td>
<td></td>
</tr>
</tbody>
</table>

Warning
Shake well before use.
Use non-chlorinated water, without any residues of chlorine or other disinfectant.
Unused solution should be disposed in accordance to current requirements.

Storage
Store in a dark place at the temperature from +5 °C to +25 °C.
Shelf life after first opening (selection) is 30 days, water solution must be used within 48 hours.

Shelf life
2 years.

Contraindications
None.
**Methionine** — is an essential amino acid that provides metabolic, hepato-lipid-lowering, choleretic, hepatoprotective and lipolytic actions. It activates the metabolic actions of transmethylation, being the “donor” of methyl groups. It shows protective effect. It is donor of moving methyl group required for the synthesis of choline. Participates in the exchange of sulfur-containing amino acids, in the synthesis of epinephrine, creatinine and other biologically important compounds, activates the action of hormones, vitamins (cyanocobalamin, ascorbic and folic acid), enzymes, proteins, reduces the concentration of cholesterol and increases the concentration of blood phospholipids. Eliminates some toxic substances by methylation.

**Indications**
It is indicated for cattle, horses, pigs, sheep, goats, poultry, dogs, cats, fur-bearing animals to stimulate metabolism, improve metabolism in the liver, reducing the risk of fatty liver, detoxification and normalization of liver function, increase overall resistance of organism, reduce the negative impact of stress during regrouping, hypothermia, transportation, vaccination, intensive chemotherapy, changes in diet and welfare. The feed additive improves the feed conversion by improving the digestibility of forage, stimulation of digestion and assimilation of nutrients.

**Contraindications**
Do not administer to animals with a high sensitivity to the active substances. Do not use with antibiotics of the tetracycline group and oral vaccines.

**Administration and dosage**
Orally, individually or by group method, with drinking water or with feed in the following doses (per 10 kg of body weight per a day):
- cattle, horses — 0.7-1 ml;
- calves, foals — 1-1.5 ml;
- pigs — 1-2 ml;
- piglets, sheep, goats — 0.5-1 ml;
- young goats, lambs — 0.4-1 ml;
- dogs, cats, fur-bearing animals — 1.0-1.2 ml; for treatment of babesiosis and leptospirosis — 3 ml;
- poultry (including pigeons and decorative birds) — 1-2 ml per 1 l of drinking water.

Daily dose can be divided into two parts and given with an interval of 10-12 hours, course — 5-10 days, if necessary or in case of liver disease — 15-20 days.

**Warnings**
Personnel contacting with the product should observe general rules for sanitary and hygiene. Do not exceed recommended doses. In case of significant overdose in animals, loss of appetite, disorder of the digestive tract may be observed due to the choleretic effect of the feed additive. The unused product is disposed of in accordance with applicable requirements.

**Storage**
In a dark place at the temperature from +5 °C to 25 °C. After opening the vial, use the drug within 30 days, the aqueous solution of the drug — within 24 hours.

**Shelf life**
2 years.
BI-SALT
powder for oral and external use

1 g contain:
sodium sulfate anhydrous — 900 mg
sodium hydrocarbonate — 100 mg

Polymer packages of 100, 400 g, 1 kg,
polyethylene packages of 10 kg.

Description
Powder of white color, hydroscopic

Pharmacological properties
Aqueous solution of the drug activates secretory function of gastrointestinal tract, has anti-inflammatory, hepatoprotective, choleretic, pancreatic and diuretic action, positively affects lipid and carbohydrate metabolism. In small doses and with prolonged use, sodium compounds activate secretion, motility and peristalsis of the stomach and intestines, improve appetite and digestion processes in animals, and accelerate metabolism.

At a higher concentration (an aqueous solution of 3-8%), the drug has a laxative effect, which occurs 5-7 hours after application or later if the stomach is full of fodder masses. With laxative action of the drug, absorption from the intestine is reduced, which contributes to the removal of toxic substances from it. Washing of purulent wounds with hypertonic solution activates the outflow of lymph, accelerates elimination of toxins, purification and healing of wounds.

Indications
Indicated for all types of animals (cattle, sheep, goats, horses, pigs, dogs, foxes, blue foxes, chickens, geese, ducks) for better digestion, especially in complex treatment: infectious diseases or invasive etiology; postpartum complications; hyperpeptic gastritis; rumen acidosis; chronic hepatitis; dystrophy of liver, etc.

It has laxative effect in hypotension and atony of proventriculus, enterospasms, overeating. The product helps removing toxins or toxic substrates from the gastrointestinal tract; it also intended for distracting action during exudative inflammation.

1-2% water solution of the product is used for proventriculus washing (ruminants) or stomach (horses, dogs), for cleansing enemas.

In the form of hypertonic solution: for treatment of purulent wounds.

Contraindications
Internal bleeding, suspected intestinal obstruction, decline of renal function.

Administration and dosage
Water solution is given to the animals forcibly by oral administration. The doses are indicated in the table.

<table>
<thead>
<tr>
<th>Kind of animals</th>
<th>Dose (g /10 kg of body weight)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>for improving of digestion</td>
</tr>
<tr>
<td>Cattle</td>
<td>0.7-0.8</td>
</tr>
<tr>
<td>Sheep, goats</td>
<td>0.9-1</td>
</tr>
<tr>
<td>Horses</td>
<td>0.4-0.5</td>
</tr>
<tr>
<td>Pigs</td>
<td>0.2-0.3</td>
</tr>
<tr>
<td>Dogs</td>
<td>0.2</td>
</tr>
<tr>
<td>Foxes, blue foxes</td>
<td>0.2</td>
</tr>
<tr>
<td>Chickens</td>
<td>1-1.2</td>
</tr>
<tr>
<td>Geese, ducks</td>
<td>0.9-1</td>
</tr>
</tbody>
</table>

Warning
In case of using the drug as a laxative agent, you must consider the reduction of resorptive properties of other medical preparations administered orally.

Storage
Store in a dry place, at the temperature from –30 °C to +30 °C.

Shelf life
5 years.

www.brovafarma.com.ua
Hellebore tincture
solution for oral and external use

1 ml contains
protoveratrine — 1.3 g
hydroalcoholic mixture — up to 1 ml
(70% vol. on anhydrous alcohol)

Glass vials of 10, 100 ml.

Description
Light brown liquid with a specific smell.

Pharmacological properties
After oral use of the drug, its alkaloids irritate the mucosa, reflexively enhance the motor activity of forestomach in ruminant animals, and cause vomiting in dogs and pigs.
At external application the drug provides an ectocidal effect to the pathogens of cutaneous myiasis in the stage of the larva-imago (withers, wing louses, sheep's larva, lice, fleas).

Indications
Prevention and treatment of myiasis in animals.
It is indicated for ruminants as ruminal remedy for diseases of proventriculus (atony, tympanitis, repletion of rumen etc.).
For pigs and dogs the drug is used as an emetic drug.

Contraindications
Do not administer to down-calving cows and horses.

Administration and dosage
The drug is administered orally with drinking water:
• cattle — 2-2.5 ml/100 kg of b.w. for recovery of motor activity of rumen, in a single dose;
• sheep and goats — 0.7-0.8 ml/10 kg of b.w. for recovery of motor activity of rumen, in a single dose;
• pigs — 1-2 ml/animal, in a single dose;
• dogs — 0.5-2 ml/animal in a single dose.
For therapy and prevention of myiasis a tincture is previously diluted with non-chlorinated water (1:1). Hair-covering is moistened by the solution in the places of ectoparasites location. In 15-20 minutes comb out thoroughly a treated area and then wash with water and shampoo. Repeat in 8-10 days.

Warning
In case of external administration do not permit animals to lick off a solution. Treat the tincture as a poison!

Storage
Store in a dry, dark place, out of reach of children at the temperature from +2 °C to +18 °C.

Shelf life
5 years.
Normotel
oral solution

1 ml of the feed additive contains:
- Propylene glycol — 0.78 ml
- Methionine — 15 mg
- Choline chloride — 15 mg
- Nicotinamide — 15 mg
- Cyanocobalamin — 0.001 mg
- Calcium pantothenate — 0.3 mg
- Zinc — 3 mg
- Selenium — 0.03 mg
- Cobalt — 0.015 mg

Polymeric vials of 2 l, polymeric cans of 20 l.

Description
Transparent, colorless or light pink liquid.

Pharmacological properties
The combination of propylene glycol, methionine, a complex of B vitamins and essential elements raises energy potential, stimulates metabolic processes in cows prone to ketosis.
Propylene glycol reduces the molar ratio of acetic and propionic acids in cow rumen, concentration of free fatty acids and beta-hydroxybutyrate, concentration of triacylglycerols in liver, and concentration of ketone bodies in milk. Increases reproductive efficiency of animals, energy balance of cows during early lactation, helps to increase milk yield.
Methionine is an essential amino acid, which has a metabolic, hepatoprotective effect, participates in the exchange of sulfur-containing amino acids, as well as in synthesis of epinephrine, creatinine and other biologically important compounds; activates action of hormones, vitamins, enzymes, proteins; reduces concentration of cholesterol and increases the concentration of blood phospholipids. Choline chloride conditionally belongs to the vitamins of group B, plays an important role in the metabolism of phospholipids and their synthesis in liver.
Nicotinamide is involved in the metabolism of fats, proteins, amino acids, purines, tissue respiration and glycogenolysis.
Cyanocobalamin as a metabolite activates the metabolism of carbohydrates, proteins and lipids, promotes the synthesis of labile groups in the formation of choline, methionine, nucleic acids, normalizes the liver function and nervous system, activates blood clotting.
Calcium pantothenate is easily absorbed in the intestine and cleaves, releasing pantothenic acid, which is an indispensable structural component of coenzyme A, which plays an important role in metabolic processes — the synthesis and oxidation of fatty acids, the Krebs cycle and other biochemical reactions.
Zinc is involved in the exchange of nucleic acids and the synthesis of proteins. Selenium is an essential nutrient, it is a component of various antioxidant enzymes that are responsible for protecting cell wall lipids from peroxidation. Cobalt is involved in blood formation, it is a catalyst for a number of enzymes, promotes the biosynthesis of vitamin B12 intestinal microflora in the small intestine.

Indications
It is indicated for the treatment of pregnant and lactating cows in case of subclinical and clinical ketosis, prevention of cows before and after calving in order to increase productivity and normalize metabolism.

Contraindications
Do not administer to cows with hypersensitivity to the active ingredients of the feed additive.

Administration and dosage
The drug is administered individually with fodder or water or undiluted using drencher or probe in the following doses:
- stimulation of metabolism in pregnant cows and ensuring the normal course of the postpartum period — 300-400 ml per animal, the course — 2-3 days before calving and 2 days after calving;
- prevention and treatment of subclinical and clinical ketosis, preferably at 2-6 week of lactation, depending on the degree of metabolic disorders — 300-400 ml per animal, the course — 4-5 days.

Warning
In case of large overdose in animals the decreased appetite, decrease of water consumption, gastrointestinal disorder may be observed.

Storage
Store in a dry, dark place at the temperature from +5 °C to +25 °C. After opening of vial the drug must be used within 30 days, the feed additive solution in water — within 48 hours.

Shelf life
2 years.
Kormosan
powder, feed additive

1 kg contains:
- clinoptilolite — 77%
- kaolin — 12%
- magnesium sulfate — 0.6%
- sorbic acid — 0.1%
- dry inactivated yeast (Saccharomyces cerevisiae) — 10%

Polymer packages of 1 kg, double-layer paper bags of 25 kg.

Description
Powder of light-gray color with a light characteristic smell.

Pharmacological properties
Composition of hydrophilic aluminosilicates, alkaline silicates and their alkaline earth elements, which are the basis of the chemical composition of clinoptilolite, adsorbs a large number (75-98%) of the most common mycotoxins in digestive tract of animals, thereby inhibiting their absorption and providing excretion from the body with feces. Contained in yeast biologically active substances in combination with selenium slow down the oxidation processes and reduce the toxic effect on the body of the remains of unrelated mycotoxins, indirectly improving detoxification function of the liver and overall immune status of the organism.

Indications
It is indicated for prevention of food mycotoxicosis in productive animals (cattle, sheep, goats, pigs, poultry), as well as promoting recovery of animals after the effects of mycotoxins.

Contraindications
None.

Administration and dosage
The product is added to the feed (or in its composition) or in milled grain forage during their manufacture in a feed plant — directly before using for animals. The dose is determined by the specialist of veterinary medicine depending on the intensity of contamination of feed by specific type of mycotoxin. The most optimal doses per 1 ton are the following:
- low level of contamination — 0.5-1.0 kg;
- medium — 1.2-2.0 kg;
- high level of contamination — 2.2-3.0 kg.
In case of simultaneous detection of two or more types of toxins in the parameters that exceed the maximum allowable level, above-mentioned doses of feed are increased up to a 0.5-1.0 kg.

Warning
It is necessary to follow the instructions for work with feed and feed additives.
The product must be properly mixed with feed.
The unused product should be disposed of in accordance with the applicable requirements.

Storage
Store in a dry, dark place at the temperature of +4 °C to +25 °C.
Mixture with feeding stuff should be used within 3 months.

Shelf life
1 year.
Kefen
solution 10% for injection

1 ml contains:
ketoprofen — 100 mg

Dark glass vials of 10 ml (10 pcs in a cardboard box),
100 ml (1 pc in a cardboard box).

Description
Clear colorless solution.

Pharmacological properties
Non-steroidal anti-inflammatory drug (NSAID) with a pronounced analgesic
and antipyretic effect.
Ketoprofen is a substance from the group of carboxylic acids, derivatives of
propionic acid. The mechanism of its action is to inhibit synthesis of pros-
taglandins and thromboxane and is based on a violation of the metabolism
of arachidonic acid. In therapeutic doses, ketoprofen inhibits mainly COX-II
and partially COX-I, providing anti-inflammatory, analgesic, antipyretic and
anti-endotoxic effects.
After a single intramuscular injection, the maximum concentration of keto-
profen in blood plasma is reached after 30 minutes. Ketoprofen is excreted
from the body mainly by the kidneys.

Indications
It is indicated for treatment of cattle, pigs, horses, dogs with acute or
chronic inflammatory process of the musculoskeletal system (arthritis, ar-
throsis, bursitis, sprains, swelling, tenosynovitis, trauma, infections of the
hoof), respiratory organs, syndrome of metritis-mastitis-agalactia, various
forms of mastitis, for the treatment of pain syndrome of various etiologies
(after surgery, injury, colic), as an antipyretic agent in diseases accompa-
nied by hyperthermia and depressed mood.

Contraindications
Do not administer to animals with hypersensitivity to the drug.
Do not administer to animals with gastric or duodenal ulcer, hemorrhagic
syndrome, severe renal or hepatic insufficiency.
Do not administer simultaneously with other NSAIDs, corticosteroids, anti-
coagulants and diuretics.

Administration and dosage
The drug is administered intramuscularly or intravenously once a day in
the following doses:
• cattle: intravenously or intramuscularly, 0.3 ml of drug per 10 kg of body
  weight during 1-3 days;
• sport horses: intravenously or intramuscularly, 1 ml of drug per 45 kg of
  body weight during 3-5 days (for animal treatment of colic single admin-
  istration will be sufficient);
• pigs: intramuscularly, 0.3 ml of drug per 10 kg of body weight during 1-3
days.
Injections of more than 10 ml are divided into two or more portions and
injected into different sites.

Warning
Do not mix with other drugs in the same syringe.
The slaughter of pigs for meat is allowed in 4 days, cattle — in 5 days.
Meat obtained before the specified period is utilized or fed to unproductive
animals depending on the conclusion of a veterinarian. Milk can be used
without restrictions.

Storage
Store in a dry, dark place in the original package at temperature from +4
°C to +25 °C.

Shelf life
2 years.
Melvet
solution 0.5% for injections

1 ml of the drug contains:
meloxicam — 5 mg

Glass vials of 10, 50 ml.

Description
Liquid of light yellow color, clear

Pharmacological properties
Meloxicam — non-steroid anti-inflammatory agent of the oxicam class with analgesic and antipyretic action. The mechanism of action is based on the reduction of biosynthesis of prostaglandins, which are inflammatory mediators, due to inhibition of the enzymatic activity of COX-2. Partially influences COX-1, therefore reduces the risk of side effects.

It has pronounced chondroprotective properties and, with long-term use, does not inhibit bone metabolism, and can therefore be used to treat diseases of the musculoskeletal system. In addition, it does not affect the gestation process in cows. After subcutaneous, intramuscular or intravenous administration is completely absorbed, the relative bioavailability is 89-99%. The maximum concentration in the blood is reached in 1-5 hours. Has a high degree of binding to proteins, preferably albumin (99%). After penetration into synovial fluid, the concentration becomes twice less than in plasma. Metabolised by enzymes of the liver and excreted in urine and feces, partly in milk. The average half-life is approximately 20 hours. The total plasma clearance is an average of 8 ml/min.

Indications
Treatment of animals in diseases:
• cattle — acute and chronic diseases of the musculoskeletal system (traumatic edema, arthritis, arthrosis, bursitis, tendinitis, tendovaginitis, laminitis, pododermatitis, purulent-necrotic process in hooves in combination with antibacterial agents), acute respiratory infections, mastitis (in combination with antibiotic therapy), to reduce pain during dehorning of calves in combination with anesthesia of horn's nerve;
• pigs — acute and chronic diseases of the musculoskeletal system (laminitis, arthritis, myositis), after-farrowing sepsis, syndrome metritis-mastitis-agalaxia combined with antibiotic therapy;
• horses — acute and chronic diseases of the musculoskeletal system (traumatic edema, arthritis, arthrosis, bursitis, tendinitis, tendovaginitis, laminitis, pododermatitis, purulent-necrotic process in hooves in combination with antibacterial agents), colic;
• dogs, cats — acute and chronic diseases of the musculoskeletal system (injury, stretching of the ligaments and tendons, osteoarthritis, chronic degenerative joint disease etc.), relief of postoperative pain.

Contraindications
Do not administer to animals with high sensitivity to the active substances of the drug, ulcer of the stomach and duodenum, hemorrhagic syndrome, severe nephritic or hepatic insufficiency. Do not administer to calves of up to 1 week, horses up to 6 weeks old, sheep up to 2 weeks old, dogs up to 6 weeks. Do not apply to pregnant and lactating mares, pregnant and lactating female cats and dogs.

Do not use at the same time with other non-steroidal anti-inflammatory drugs, corticosteroids and anticoagulants.

Administration and dosage

<table>
<thead>
<tr>
<th>Species</th>
<th>Dose, ml / 10 kg body weight</th>
<th>Meloxicam, ml / 1 kg body weight</th>
<th>Route of administration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cattle</td>
<td>1</td>
<td>0.5</td>
<td>intravenously or intramuscularly, once, injection more than 20 ml should be divided and administered over different injections sites</td>
</tr>
<tr>
<td>Pigs</td>
<td>0.8</td>
<td>0.4</td>
<td>intramuscularly, once, if needed repeat in 24 hours</td>
</tr>
<tr>
<td>Horses</td>
<td>1.2</td>
<td>0.6</td>
<td>intravenously, one time</td>
</tr>
<tr>
<td>Dogs</td>
<td>0.4</td>
<td>0.2</td>
<td>subcutaneously, intravenously, one time</td>
</tr>
<tr>
<td>Cats</td>
<td>0.4</td>
<td>0.2</td>
<td>subcutaneously, one time</td>
</tr>
</tbody>
</table>

Warning
Do not mix with other drugs in one syringe.

After the subcutaneous application temporary swelling of the injection site may occur. If the animal is high-sensitive to the drug, the allergic reaction may occur (rash, urticaria, anaphylactic shock.

In case of any side effect, the drug should be stopped and reported to the veterinarians. Do not use the drug in animals with severe dehydration, hypovolemia and hypotonia, which need parenteral rehydration, because there is a potential risk of nephrotoxicity.

After the last administration of the drug, the slaughter of cattle for meat is allowed in 15 days, pigs and horses — in 5 days, milk can be used for human consumption in 5 days. Meat and milk, obtained earlier than the specified date, are disposed of or fed to unproductive animals, depending on the conclusion of the veterinarian.

Storage conditions
In a dry dark place at the temperature from +8 °С to +25 °С.

After opening the vial, keep the drug in the refrigerator and use within 28 days

Shelf life
3 years.
Lidocaine hydrochloride
solution 2% for injections

1 ml of the medicinal product contains:
**lidocaine hydrochloride — 20 mg**

Glass ampoules of 2 ml, glass vials of dark color of 10 ml.

**Description**
Colorless, transparent liquid.

**Pharmacological properties**
Lidocaine hydrochloride — is an acetanilide derivative, belongs to the group of amino amide medicinal products for local anesthesia, which deprive painful sensitivity of the restricted area of the body. The action is to stabilize the neuronal membrane, reduce its permeability for sodium ions, which prevents the impulses along nerve fibers. Antagonism with calcium ions is possible. It is quickly hydrolyzed in a slightly alkaline environment of tissues and after a short latent period, it lasts for 60-90 minutes. The anesthetic effect is 2-6 times stronger than procaine but decreases in case of tissue acidosis. It is effective with all types of local anesthesia, has moderate vasodilation and sedative properties. In case of intramuscular injection, the maximum concentration in the blood is reached in 5-15 minutes, the anesthetic effect begins in 2-5 minutes and lasts about 90 minutes. In case of local administration, the solution is absorbed for 7-20 minutes, depending on the dose and site of application.

**Indications**
It is indicated for **cattle, sheep, goats, horses, pigs, dogs, cats** for all kinds of local anesthesia (superficial, infiltration, conductive, epidural, spinal, intraarticular), blockades of peripheral nerves, nerve plexuses in case of pain syndromes and acute inflammatory processes.

**Contraindications**
Do not administer to animals with increased sensitivity to lidocaine and other amide medicinal products, during pregnancy, in case of severe bleeding or infection of possible injection sites, diseases of the cardiovascular system, impaired liver function accompanied by a decrease in hepatic blood flow.

**Administration and dosage**
The medicinal product is used in the form of solutions of 0.25, 0.5 and 1% for the preparation of which 7, 3 or 1 part of water for injections are respectively injected into a syringe to one part of lidocaine hydrochloride. The maximum permissible dose of lidocaine hydrochloride per active ingredient per 1 kg of body weight is: for cats — 2 mg; for cattle, sheep, goats, horses, pigs, dogs — 4 mg.

<table>
<thead>
<tr>
<th>Administration</th>
<th>Solution of medicinal product, %</th>
<th>Dose, ml/1 kg of body weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>Infiltration anesthesia</td>
<td>0.25</td>
<td>0.8-1.6</td>
</tr>
<tr>
<td>Therapeutic blockade</td>
<td>0.5</td>
<td>0.4-0.8</td>
</tr>
<tr>
<td>Superficial anesthesia of skin covering, mucous and synovial membranes, conductive, epidural anesthesia</td>
<td>1</td>
<td>0.2-0.4</td>
</tr>
<tr>
<td>Spinal anesthesia</td>
<td>2</td>
<td>0.1-0.2</td>
</tr>
</tbody>
</table>

To prolong the action of anesthetic, 0.1 ml of adrenaline solution 0.1% is added to every 10 ml of lidocaine hydrochloride solution.

**Warning**
Carefully prescribe to animals with liver disease, congestive heart failure, in a state of shock and hypovolemia with severe respiratory depression, hypoxia, during lactation. In the latter case, the medicinal product is used only when the intended benefit for the female exceeds the potential risk for the young animals.

Do not mix with other products in the same syringe. Do not combine with barbiturates, curare-like drugs, with medicinal products that suppress or excite central nervous system.

When using in therapeutic doses, side effects are not observed, however, from the side of the nervous system and sense organs, oppression or excitation, disorientation, vomiting, sweating, visual impairment, tremor, convulsions, respiratory depression, apnea are possible. After the administration of large doses of the medicinal product, the decrease of arterial pressure, bradycardia, arrhythmia, shock, cardiac arrest and sometimes allergic reactions are possible.

When a needle hits the vessel and lidocaine enters the bloodstream, a collapse may occur. In this case, vasoconstrictive and cardiac agents are used. In case of an overdose of the medicinal product, drowsiness, visual impairment, vomiting, decrease of arterial pressure, tremor of muscles are possible. In case of rapid injection, the hypotension, vascular collapse, convulsions, oppression of the respiratory center occur. Allergic reactions with the onset of anaphylactic shock are possible. In case of a decrease in the heart rate, 0.5-1 mg of atropine sulfate is allowed.

**Storage**
In the manufacturer’s packaging, in a dry, dark place at a temperature from +3 °C to +25 °C. The medicinal product should be stored in the refrigerator and used within 10 days of opening.

**Shelf life**
3 years.
Solution of novocaine 0.5%
solution for injection

1 ml contains:
- novocaine (procaine hydrochloride) — 5 mg

Polymer ampoules of 10 ml (10 pcs in a cardboard box);
glass vials of 100, 200 ml.

Description
Clear, sterile, colorless solution for injection.

Pharmacological properties
Agent for local anesthesia, blocks sodium channels, inhibits penetration of potassium, reduces tension of phospholipid layer of cell membranes, inhibits oxidation-reduction processes and generation of nerve impulses. When entering the blood reduces formation of acetylcholine, excitability of peripheral cholinergic systems, spasms of smooth muscles, excitability of the heart muscle and motor cortex, blocks vegetative ganglia.
When administrated parenterally the product is well absorbed, the degree of absorption depends on the site, route of administration and a dose. Quickly hydrolyzed by esterases and cholinesterases of blood plasma and tissues with formation of two basic pharmacologically active metabolites: diethylaminoethanol, which provides an anesthetic and moderate vasodilator effect, and paraaminobenzoic acid, which is a constituent of folic acid, exhibits antihistamine action, participates in detoxification processes and is an antagonist of sulfonamide preparations.

Indications
It is indicated as a local anesthetic for infiltration anesthesia in surgery; for relief of seizures in the intestine; as a chemotherapeutic agent for various ways of novocaine blockades. In combination with specific and symptomatic means it is used for ulcers of the stomach, atony of proventriculus and intestine, dyspepsia, spasmodic colic, obstruction of the intestine, peritonitis, pneumonia, catarhral pneumonia, pulmonary edema, prolapse of the uterus, vagina or rectum, metritis, sero-catarhal mastitis, rheumatic inflammation of the hoof, inflammation of the joints, for wounds that slowly granulate, ulcers, fistulas, myositis, papillomatosis. Use for dissolving antibiotics with the purpose of anesthesia of injection site and the prolonged action.

Contraindications
Hypersensitivity to novocaine.
Do not inject to animals with hypotony and at the sites affected by purulent diseases.

Administration and dosage
Before administration the drug solution is heated to body temperature of the animal and administered subcutaneously, intramuscularly, intravenously, or intra-aortically. Maximum single dose per animal:
- horse — 400-500 ml;
- cattle — 300-400 ml;
- goats, sheep, pigs — 100-150 ml;
- dogs — 60-100 ml.
Intravenous injection should be conducted slowly.

Warning
Intravenous administration of the drug in the maximum doses causes the excitement. The drug is incompatible with tannins, alkalis, oxidants, heavy metal salts, hexamethylenetetramine (urotropine), sulfonamides (reduce the anesthetic effect of novocaine).

Storage
Store in a dark, dry place at the temperature from +3 °C to +25 °C. After the first opening an ampoule should be used immediately, a vial — within 7 days provided the storage conditions in a refrigerator.

Shelf life
3 years.
Acepromal
solution 1% for injection

1 ml contains:
acepromazine maleate — 10 mg

Glass dark vials of 10, 50 and 100 ml.

Description
Clear solution of light-yellow color.

Pharmacological properties
Acepromazine maleate is a neuroleptic of the phenothiazines group, a sedative drug. Its application as a solution for injection of 1% gives a calming and relaxing effect, due to decrease in excitation of the central nervous system. At the same time, the drug has hypothermic, antihypertensive, antihistamine, adrenolytic, antispasmodic, antiemetic effect, enhances sleeping pills and means for local anesthesia. With intravenous administration, the drug appears after 5-8 minutes, and when intramuscular — after 15-25 minutes. The soothing effect lasts about an hour. After parenteral introduction quickly penetrates into all tissues, is metabolized in the liver, is excreted through the kidneys.

Indications
It is indicated for premedication of animals before surgical procedure for 15-20 min before the main anesthetic; as a sedative for aggressive animals before inspection and transportation; to reduce pain; as antispasmodic one for horses.

Contraindications
Do not administer to animals with impaired liver function, heart, lung, diabetes and pregnancy. Do not administer in case of hypothermia, hypotension, bleeding with significant blood loss, strychnine intoxication. Do not use with organophosphates (insecticides), local anaesthetics.

Administration and dosage
The drug is administered one time by slow intravenous or deep intramuscular injection. For stud horses and cats — intramuscular injection only. Dosage is indicated in the table.

<table>
<thead>
<tr>
<th>Kind of animals</th>
<th>Administration</th>
<th>The dose, ml / 10 kg of body weight</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>permissible</td>
</tr>
<tr>
<td>Cattle</td>
<td>intravenous</td>
<td>0.05-0.1</td>
</tr>
<tr>
<td></td>
<td>intramuscularly</td>
<td>0.1-0.15</td>
</tr>
<tr>
<td>Sheep, goats</td>
<td>intravenous</td>
<td>0.1-0.15</td>
</tr>
<tr>
<td></td>
<td>intramuscularly</td>
<td>0.2-1.5</td>
</tr>
<tr>
<td>Horses</td>
<td>intravenous</td>
<td>0.05-0.1</td>
</tr>
<tr>
<td></td>
<td>intramuscularly</td>
<td>0.1-0.15</td>
</tr>
<tr>
<td>Pigs</td>
<td>intravenous</td>
<td>0.05-0.1</td>
</tr>
<tr>
<td></td>
<td>intramuscularly</td>
<td>0.1-0.15</td>
</tr>
<tr>
<td>Dogs</td>
<td>intravenous</td>
<td>0.3-0.5</td>
</tr>
<tr>
<td></td>
<td>intramuscularly</td>
<td>0.5-1</td>
</tr>
<tr>
<td>Cats</td>
<td>intramuscularly</td>
<td>0.5</td>
</tr>
</tbody>
</table>

Warning
Intravenous injection must be carried out slowly! Increasing the dose does not lead to prolongation of the drug action. Avoid contact with skin. The drug does not provide analgesic effect, so an analgesic should be used for analgesia. When administering to the stud horses observe the minimum dose. The dogs of large breeds, greyhound, boxers and other brachycephalic breeds are sensitive to the drug. Sometimes bradycardia, narrowing of the airways, a slight decrease in body temperature, cardiac arrhythmia may occur. Slaughter of animals for meat is allowed in 5 days after the last administration of the drugs. Meat obtained before the specified period is utilized or is fed to unproductive animals depending on the conclusion of a veterinarian. People can consume milk in 1 day.

Storage
Store in a dry, dark place at the temperatures from +4 °C to +25 °C. After the first opening the drug should be used within 30 days provided the storage conditions in the fridge.

Shelf life
2 years.
Sedacyl
solution 2% for injection

1 ml contains:
xylazine hydrochloride — 20 mg

Dark glass vials of 20 ml.

Description
Clear solution.

Pharmacological properties
Xylazine is a potent antagonist of alpha-2-adrenergic receptors, refers to sedative, analgesic drugs with a relaxing effect on muscles. Has pharmacological properties similar to morphine, but does not cause CNS excitation in cats, horses and cattle. Due to inhibition of impulses along the sensory pathways of the CNS, xylazine, depending on a dose, causes a soothing or myorelaxing effect.

After administration, absorption occurs quickly, bioavailability in horses is 40-48%, in dogs — 52-90%.

After administration to horses, the drug begins to act after 1-2 minutes, the maximum effect occurs after 3-10 minutes. The duration of the action depends on the dose and may be 1.5 hours. The half-life (in blood serum) after administration of a single dose is approximately 50 minutes, the recovery time is 2-3 hours.

After intramuscular or subcutaneous injection to dogs and cats, the drug begins to act in 10-15 minutes, after intravenous one — in 3-5 minutes. The analgesic effect lasts only 15-30 minutes, whereas sedation lasts up to 1-2 hours (depends on a dose). The half-life (in blood serum) in dogs is an average of 30 minutes. Complete recovery after the injection occurs in 2-4 hours.

Xylazine is not found in the milk of dairy cows in 5 and 21 hours after the administration of the drug, it is mainly excreted unchanged with urine and feces.

Indications
It is indicated for cattle, horses, dogs, cats to reduce the pain reaction during surgery, diagnostic tests and sedation of aggressive animals. It is also recommended for use prior to injection or inhalation anesthesia.

Contraindications
Do not administer in case of lung diseases, diabetes, to females in the last third of pregnancy, stomach twisting and the esophagus blockage in dogs and cats.

It is not recommended for use in combination with other tranquilizers.

Administration and dosage
The drug is administered subcutaneously, intramuscularly or intravenously in the following doses:

- **cattle** (intramuscularly) per 10 kg of body weight:
  - 0.025 ml — slight sedative effect, causes mild muscle relaxation and mild analgesia;
  - 0.05 ml — medium sedative effect, causes muscle relaxation and analgesia, which is enough to perform small operations;
  - 0.1 ml — strong manifestation of the effects, it is used in conjunction with local or block anesthesia while complex surgical procedures;
  (In case of intravenous administration the dose is reduced by 50%)

- **horses** — 0.4 ml of the drug per 10 kg of body weight (i/v.) and 1 ml of the drug per 10 kg of body weight (i/m);

- **dogs** — in a dose of 0.15 ml/kg of body weight (i/m);

- **cats** — in a dose of 0.15 ml of the drug per 1 kg of body weight (s/c, i/m).

Warning
The drug has a weak analgesic effect, so for analgesia should use other analgesics.

Animals under sedation must be supervised until they recover to their normal condition.

Administration of the drug may cause vomiting in dogs and cats, so they should keep to a starvation diet (12 hr.). If the cat does not keep to the starvation diet before anesthesia so the interval between the injections of Sedacyl and Ketamine should be 20 minutes.

Cattle are very sensitive to the effects of xylazine, thus it is important to determine the dose precisely. Preliminary administration of atropine provides reducing possibility of bradycardia and hypersalivation.

Slaughter of animals for meat and milk consumption is allowed in 4 and 5 days respectively after the last treatment. The meat and milk obtained before the specified period are utilized or fed to unproductive animals, depending on the conclusion of a veterinarian.

Storage
Store in a dry, dark, unreachable for children place at the temperature from +15 °C to +25 °C.

Opened vial should be stored in a refrigerator and used within 28 days.

Shelf life
3 years.
**Medison**

solution 0.1% for injection

1 ml of the product contains:
medetomidine hydrochloride — 1 mg

Glass vials of 10, 20 ml (1 in a cardboard box).

**Description**

Colorless clear liquid.

**Pharmacological properties**

Medetomidine — a high-selective adrenergic alpha-2 receptors antagonist with broad spectrum activity. It has strong central and peripheral sympatholytic action — it reduces release of noradrenaline from sympathetic nerve terminals. Sedative effect is caused by the inhibition of excitation of the blue spot, the main noradrenergic nucleus in the brain stem. Acting on this site medetomidine shows a sedative effect, the strength of which depends on the dose: small doses give a moderate sedative effect without analgesia, large ones — a pronounced sedative effect with analgesia. Medetomidine causes typical hemodynamic changes mediated by alpha-2-adrenergic receptors, such as bradycardia and arterial hypotension or hypertension. In small doses reduces the frequency of heartbeats and blood pressure, and in large gives a vasoconstrictor effect. During a slow infusion reduces the heart rate and blood pressure, and with rapid administration activates extra-synaptic alpha-2-adrenoreceptors of peripheral vessels, resulting in predominant peripheral vasoconstrictor effects, and bradycardia becomes more pronounced.

After intramuscular injection medetomidine is quickly absorbed and distributed in the body, the maximum concentration in the blood is reached after 15-30 minutes. With proteins of blood plasma, 85-90% of medetomidine is bound. Oxidized in the liver, a small part is methylated in the kidneys. Most metabolites are excreted with urine. Half-life is 1-2 hours.

**Indications for use**

The product is used:
- **dogs** — for sedation and analgesia during checkup, diagnostic and prophylactic procedures, for premedication before the general anaesthesia, narcosis with propofol or ketamine, as a sedative and pain reliever (in combination with butorphanol);
- **cats** — for sedation, general anaesthesia induction during operative treatment (in combination with ketamine), sedation and analgesia (in combination with butorphanol), general anaesthesia (in combination with butorphanol and ketamine);
- **sporting horses** — for sedation and analgesia during checkup, small operative interference and diagnostic procedures, premedication during injectional or inhalation narcosis.

**Contraindications**

Do not use in animals with increased sensibility to active ingredients of the product, with cardiovascular and respiratory diseases, liver and kidney disorders, animals in shock condition, pregnant, milking, weak and emaciated animals.

Do not administer the product along with sympathomimetic amines and anticholinergic agents.

Do not use in puppies up to 12 weeks old and to productive animals.

**Route of administration and dosage**

The medicinal product is used intravenously, intramuscularly or subcutaneously in dogs, intramuscularly or subcutaneously in cats, intravenously in horses. There is a faster effect after intravenous injection. For prolonging of a sedative effect the product is to be injected second time in 10-15 min after the first injection. The dosage is indicated in the table below:

<table>
<thead>
<tr>
<th>Species</th>
<th>Route of administration</th>
<th>Purpose of administration</th>
<th>Dose, ml / 10 kg of body weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dogs</td>
<td>i/v, i/m, s/c</td>
<td>light sedation</td>
<td>0.1-0.3</td>
</tr>
<tr>
<td></td>
<td></td>
<td>mild and deep sedation</td>
<td>0.3-0.8</td>
</tr>
<tr>
<td></td>
<td></td>
<td>premedication</td>
<td>0.1-0.2</td>
</tr>
<tr>
<td>Cats</td>
<td>i/m, s/c</td>
<td>mild sedation</td>
<td>0.4-0.8</td>
</tr>
<tr>
<td></td>
<td></td>
<td>deep sedation</td>
<td>0.8-1</td>
</tr>
<tr>
<td></td>
<td></td>
<td>premedication</td>
<td>0.1-0.3</td>
</tr>
<tr>
<td>Horses</td>
<td>i/v</td>
<td>light sedation</td>
<td>0.2-0.4</td>
</tr>
<tr>
<td></td>
<td></td>
<td>mild and deep sedation</td>
<td>0.4-0.8</td>
</tr>
</tbody>
</table>

The dose is chosen depending on desired effect, individual details and the animal breed. The dose for small dogs should be bigger than for large breed dogs.

Maximum effect is reached in 10-15 min and lasts 0.5-1.5 hours, if prolongation is needed, an incremental dose is administered.

It is recommended to keep an animal without feeding 12 hours prior the anaesthesia.

For premedication the medicinal product is administrated intravenously 10 min prior the procedure, intramuscularly — 20 min. Intravenous injection should be carried out slowly during 30-45 sec.

Overdose leads to delayed post-anesthetic recovery.

In order to eliminate cardio-respiratory effects and overdose, administration of alpha-2 antagonists (atipamezole, antisedan) is recommended.

In case of slow awakening, symptomatic therapy is performed.
**Precautions**
After the administration of the medicinal product, the heart rate may decrease and blockade or bradypnoea with temporary apnea may occur. Also, the respiratory rate may decrease and a cardiac arrest may occur. With suppression of blood circulation and breathing, ventilation and oxygenation should be performed.
Immediately after the administration the arterial pressure may decrease, and then it is restored to almost normal values. The pressure can also decrease with the use of the drug in high doses and by rapid administration. The product may cause vomiting, especially in cats, in a few minutes after the administration and after awakening from anesthesia.
In some cases, hyperglycemia may develop due to suppression of insulin secretion, and sometimes — pulmonary edema.
After 1.5-2 hours after using the drug, urination is recorded. You can observe the trembling of muscles and increased sensitivity to loud sounds.
In dogs with a body weight less than 10 kg, side effects occur more often. In horses after the administration of the drug a fleeting arrhythmia, violation of coordination of movements, increased sweating may occur. Sometimes there is a slight tremor of individual muscles or muscle groups and uncontrolled urination. Blood pressure first increases slightly, but later comes back to normal.
Before administration of the product, clinical examination of animals should be performed, and the prescription should be done carefully for animals with the liver and kidneys diseases, cardiovascular system disorders, unsatisfactory general condition, as well as for young and old animals.
Before administration and for 12 hours after finishing of the procedure, the animal must be kept in a warm, restful place. The procedures are carried out 10-30 minutes after the administration and only after sedation has come.
When used with other sedatives or analgesics (thiopental, halothane, propofol, etc.), their dose is reduced by 50-90%.
Do not feed and water animals after applying the drug, until the swallowing reflexes are fully restored.
Wear rubber gloves when working with the drug. If the product gets on the skin, wash immediately with running water.
If you accidentally administered the drug, immediately consult a doctor (do not drive the car!) and show him a leaflet to the drug.

**Storage**
Store in a dry dark place, out of children reach, at a temperature from +8°C to +25°C. After the first opening the vial should be stored in a fridge and used during the next 30 days.

**Shelf life**
2 years.
Tiopenat
powder for injectable solution

1 g contains:
thiopental sodium — 950 mg
anhydrous sodium carbonate — 50 mg

Glass or polymeric vials of 1 g.

Description
Fine crystalline, hygroscopic powder of light yellow color with a slight characteristic smell.

Pharmacological properties
Thiopental sodium - a derivative of barbituric acid from the thiobarbiturate group, causes rapid inhibition of the GABA receptors of the central nervous system, gives instant anesthetic, hypnotic and somnific effects. The drug contributes to muscle relaxation, suppressing polysynaptic reflexes and inhibiting their conduction through insertion neurons of the spinal cord, reduces intensity of metabolic processes in brain, and utilization of glucose and oxygen by brain. Sleeping effect is manifested in accelerating the process of falling asleep and changing the structure of sleep. Depending on the dose, depresses the respiratory center and reduces its sensitivity to carbon dioxide, manifests cardiodepressant action.

Indications
The drug is indicated for pets and productive animals (dogs, cats, sheep, goats, pigs, cattle and horses) as an independent anesthetic agent for short surgical or diagnostic procedures (max. 20-25 minutes), or for an introductory and basic anesthesia by using other analgesics or miorelaxants. In case of severe diseases (with a hopeless diagnosis) the drug can be used for quick and painless euthanasia of animals.

Contraindications
Do not administer to animals with severe liver disease, impaired renal function, fever and severe exhaustion.
Do not inject into the arteries.

Administration and dosage
To enter animals in anesthesia the drug is used intravenously, the dose is 7-15 mg/kg of body weight. The first third part of a given dose is administered slowly to prevent respiratory arrest, the second third part is administered after stabilization of breathing, and the rest of the drug is administered after termination of tachycardia. For productive animals, the drug is used only intravenously. For the other animals, in case of inability of intravenous administration, the drug is administered intraperitoneally. To achieve a longer narcosis, other anesthetics are used. In some cases, one repeated administration is allowed, provided that the total dose of thiopental sodium does not exceed 35 mg per 1 kg of body weight. A dose of 60 mg per 1 kg of body weight is used for rapid and painless euthanasia of animals.

Warning
Do not use solvents with a content of active substance of less than 1.5%. When injecting into the vein avoid penetration of the solution into the subcutaneous tissue, as this may cause necrosis.
It was found that certain drugs are not compatible with thiopental sodium, namely: aminazin, amikacine sulfate, atropine sulfate, hydromorphone, diphenhydramine, dimenhydrinate, ditiline, insulin, morphine sulfate, Ringer’s solution, antibiotics of penicillin and tetracycline groups, etc.

Storage
Store in a dark place, in the original package, at the temperature up to +25 °C.
Solution must be used within a day after dilution.

Shelf life
3 years.
Bi-dez
solution for disinfection

1 ml contains:
polyhexamethylene guanidine hydrochloride — 65 mg
dodetsidipropilen triamine — 65 mg

Glass vials of 100 ml; polymer vials of 1 l,
polymer cans of 5 l.

Description
Clear, colorless, jelly-like liquid with a slight characteristic smell.

Pharmacological properties
The drug acts bactericidally and sporocidally on the most of Gram-positive and Gram-negative bacteria, virucidally on RNA- and DNA-containing viruses, antiprotozoic on eimeria, fungicidally on fungi, possesses deodorizing properties.

Indications
It is indicated for disinfection (or in combination of washing and disinfection), decontamination and disinvasion of various objects subjected to veterinary supervision, namely:
• equipment of slaughterhouses and meat processing plants, dairy and other animal products;
• commercial, laboratory premises and equipment;
• vehicles for animal products and in quarantine zones;
• various livestock buildings, as well as cages and other places for small animals, especially after deworming;
• rehabilitation of water supply systems and the flow of liquid feed in fur farms.

Contraindications
None.

Administration and dosage
Wet disinfection is carried out with solutions of appropriate working concentration of the drug that is prepared by mixing with usual non chlorinated water. Working solutions are applied on controlled surfaces with help of various sprayers. For preventive and routine disinfection 0.3-0.4 l of working solution per square meter of processing object is the optimum amount. For disinfection working solutions of the drug of following concentrations are used:
• 0.1% (10 ml per 10 l of water) — for rehabilitation of milking equipment and dairy processing objects, feeders, drinking bowls for animals;
• 0.25% (25 ml per 10 l of water) — prophylactic disinfection of premises and equipment in the presence of animals;
• 0.5% (50 ml per 10 l of water) — aseptic cleaning of slaughterhouses, meat processing premises, cold rooms, commercial, laboratory premises and vehicles;
• 1.0% (100 ml per 10 l of water) — prophylactic disinfection of equipment, bunkers and feed premises, disinfection of cutting instruments;
• 1.5% (150 ml per 10 l of water) — current disinfection of livestock premises during breaks sanitation, disinfection of wheel vehicles when crossing the quarantine zones;
• 2.0% (200 ml per 10 l of water) — disinvasions during protozoal diseases of animals and the disinfection of detention places of sick animals, including areas contaminated by mycobacteria;
• 3.0% (300 ml per 10 l of water) — forced and current disinfection in a complex of measures to improve the sanitation of farms from tuberculosis.

Warning
The staff contacting with the drug must observe general rules for work with veterinary products and use protective clothing (robe, cap, apron rubberized rubber, rubber shoes, rubber gloves, sealed protective glasses, respirator). Solutions with concentration over 3% may cause irritation of skin, so when you work with it rubber gloves and safety goggles must be used. If the undiluted product gets to open areas of the skin, rinse immediately with running water. While working with the drug, do not: smoke, consume food and drink. After finishing work, wash your face and hands thoroughly with warm water and soap.

Storage
Store in the original package, an a dry protected from direct sunlight, unreachable for children place at the temperature from 0 °C to +25 °C.

Shelf life
2 years.
**Brovadez-20**
solution for disinfection

1 ml contains:
benzalkonium chloride — 200 mg

Glass vials of 100 ml, polymer vials of 1 l.

**Description**
Clear, slightly opalescent, colorless to slightly yellowish solution, foaming while shaking, with a low characteristic smell.

**Pharmacological properties**

**Indications**
It is indicated for the purpose of sanitation and disinfection of livestock and poultry facilities, places of sales of livestock and poultry (markets), processing units of meat, dairy and other animal products; in slaughterhouses and sanitary — slaughterhouses, kennels, cages and other places of small animals and birds, especially after deworming, for disinfection of hives affected by ascospherosis, aspergillosis, American and European foulbrood and nosematosis of bees; as well as other objects subject to veterinary supervision.

**Contraindications**
None.

**Administration and dosage**
Wet disinfection is carried out by water solutions of appropriate concentration. They are prepared by mixing Brovadez with non-chlorinated water. The solution is applied by using a fine sprayer to complete wetting, or by wiping the surface of objects with a sponge.

Solutions of the following concentrations are used for:
- **0.1%** (10 ml / 10 l of water) — sanitation of milk processing equipment facilities, feeders and drinking bowls in the presence of animals;
- **0.25%** (25 ml / 10 l of water) — preventive disinfection of premises and equipment in the presence of animals; sanitation of water supply systems;
- **0.5%** (50 ml / 10 l water) — aseptic cleaning of slaughterhouses; processing facilities; commercial and laboratory facilities; means of transport of animal origin products; soak overalls before washing;
- **1.0%** (100 ml / 10 l of water) — planned disinfection of sanitary breaks in livestock buildings;
- **1.5%** (150 ml / 10 l of water) — disinvasion after deworming and disinfection of places of infectious affected animals or birds;
- **0.05%** (50 ml / 100 l of water) — prevention of breeding of green algae and other microorganisms in the indoor pools or water systems.
- **2.5%** (25 ml / 1 l of water) — disinfection of apiaries.

Disinfection of beehives, frames (without honey), beekeeping equipment is carried out at an air temperature above +12 °C with the help of sprayers, moisturizing all surfaces well. The processed objects are tightly closed with a polyethylene film for 10-12 hours, then it is washed with water and dried. Disinfection of safe apiaries is carried out 2 times a year — during the spring and autumn audit. With a damp sponge, all external and accessible inner walls of the hives are wiped, the wooden parts of the frames.

**Warning**
The staff contacting with the drug must observe general rules for work with veterinary medicinal products.
Preparation of working solutions must be carried out in a ventilated area, where there is water.
Do not use in the presence of animals, birds and beehives.
Soap and detergents slightly reduce the activity of the drug.
Solutions of over 2% of concentration may cause irritation of the skin, so when working with the drug and its solutions you must use personal protective equipment: gloves made of polyvinyl chloride and goggles.
In case of accidental contact with the skin it is necessary to wash thoroughly the affected area with running water, then apply softening cream.
In case of contact with the eyes, they are washed with water and dripped by the solution of sodium sulphacyl 20%.
During the work with the drug it is forbidden to eat, drink or smoke.

**Storage**
Store in the original package in dark, protected from direct sunlight, well-ventilated areas at the temperature from +1 °C to +20 °C.

**Shelf life**
4 years.
BROVADEZ-PLUS
solution for disinfection

100 g contain:
- dimethyldialkylammonium chloride — 10%
- didecyldimethylammonium chloride — 5%
- ethylenediaminetetraacetic acid — 7%

Glass vials of 50, 100 ml, polymer vials od 1 l, polymer cans of 5 l.

Description
Clear, light blue liquid with low characteristic smell.

Pharmacological properties

Indications
It is indicated for disinfection, decontamination and disinvasion of various objects which are subject to veterinary supervision:
• equipment of slaughterhouses and meat processing plants, dairy and other animal products;
• commercial, laboratory premises and equipment;
• vehicles for animal products and in quarantine zones;
• various livestock buildings, as well as cages and other places for small animals, especially after deworming;
• rehabilitation of water supply systems and the flow of liquid feed in fur farms.

Contraindications
None.

Administration and dosage
Wet disinfection is carried out with solutions of appropriate working concentration of the drug that is prepared by mixing with usual non chlorinated water. Working solutions are applied on controlled surfaces with help of various sprayers. For preventive and routine disinfection 0.3-0.5 l of working solution per square meter of processing object is the optimum amount. For disinfection working solutions of the drug of following concentrations are used:
• 0.05% (5 ml per 10 l of water) — to prevent reproduction of green algae and other microorganisms in closed basins and water supply systems;
• 0.1% (10 ml per 10 l of water) — for rehabilitation of milking equipment and dairy processing objects, feeders, drinking bowls for animals;
• 0.25% (25 ml per 10 l of water) — prophylactic disinfection of premises and equipment in the presence of animals;
• 0.5% (50 ml per 10 l of water) — aseptic cleaning of slaughterhouses, meat processing premises, cold rooms, commercial, laboratory premises and vehicles;
• 1.0% (100 ml per 10 l of water) — prophylactic disinfection of equipment, bunkers and feed premises, disinfection of cutting instruments;
• 1.5% (150 ml per 10 l of water) — current disinfection of livestock premises during breaks sanitation, disinfection of wheel vehicles when crossing the quarantine zones;
• 2.0% (200 ml per 10 l of water) — desinvasions during protozoal diseases of animals;
• 3.0% (300 ml per 10 l of water) — forced and current disinfection in a complex of measures to improve the sanitation of farms from tuberculosis.

Warning
Preparation of working solutions must be carried out in a ventilated area, where there is water. Solutions of over 2% of concentration may cause irritation of the skin, so when working with the drug and its solutions you must use personal protective equipment: gloves made of polyvinyl chloride and goggles. In case of accidental contact with the skin it is necessary to wash thoroughly the affected area with running water.

Storage
Store in the original package, in a dry dark, protected from direct sunlight place, out of reach of children, at the temperature from 0 °C to +25 °C. Avoid freezing and overheating of the drug.

Shelf life
4 years.
Dezsan
solution for disinfection

The medicinal product contains:
- alkyl(dimethyl)benzylammonium chloride — 4.8%
- octyl(dimethyl)ammonium chloride — 3.6%
- dioctyl(dimethyl)ammonium chloride — 1.44%
- didecyl(dimethyl)ammonium chloride — 2.16%
- glutaraldehyde — 10%

Polymer vials of 1 l (with dosing container).

Description
transparent yellowish liquid with a slightly specific odor.

Pharmacological properties

Indications
The medicinal product is used for preventive, ongoing, final and forced disinfection of objects and equipment subject to veterinary supervision, including:
- livestock and poultry premises;
- areas of the technological cycle of the poultry industry (egg-handling plant, incubators, hatchers, etc.);
- equipment, slaughterhouses and technological workshops (processing of meat, dairy and other products of animal husbandry);
- trade, outpatient and laboratory facilities and their inventory;
- vehicles for the transportation of feed and livestock products, as well as in quarantine areas;
- premises, booths, cages and other places for the maintenance of small animals and poultry;
- to fill disinfectant barriers and disinfectant rugs.

Contraindications
Not found.

Administration and dosage
The medicinal product is used in the form of working solutions, which are prepared by mixing the concentrate with running water. Disinfection is carried out after careful mechanical and sanitary cleaning of surfaces of decontamination objects. Use working solutions of the following concentrations:
- 0.1% (10 ml per 10 l of water) — preventive disinfection of premises and equipment at poultry, meat and milk processing enterprises, in slaughterhouses at the rate of 0.1-0.15 l of solution per 1 m² of surface, exposure time — 1-3 hours, it is carried out at the end of working day.
- 0.25% (25 ml per 10 l of water) — preventive and current disinfection of vehicles, premises, equipment and other objects of incubators, inventory of food markets in case of bacterial infections, the wiping is carried out at the rate of 0.1 l of solution per 1 m² of surface, irrigation — 0.2 l of solution per 1 m² of surface, exposure time — 1-hour, fine dispersion (particle size 1-25 microns) — 5-10 ml of solution per 1 m² of premises, exposure time — at least 3 hours.

Animal care items, equipment, containers, working tools and litter are disinfected by soaking in a working solution for at least 1 hour.
- 0.8% (80 ml per 10 l of water) — forced disinfection in case of viral and fungal infections, wiping, irrigation at a rate of 0.2-0.3 l of solution per 1 m², exposure time — 2-3 hours, fine dispersion — 5-10 ml of solution per 1 m³ of premises, exposure time — at least 3 hours.
- 1.6% (160 ml per 10 l of water) — forced and current disinfection in the complex of measures to improve sanitary conditions of farms from bacteria of the genus Bacillus and mycobacterium tuberculosis, irrigation at the rate of 0.2-0.3 l of solution per 1 m², exposure time — 3 hours, fine dispersion — 5-10 ml solution per 1 m³, exposure time — at least 3 hours.
- 10% (1 l per 9 l of water) — aerosol disinfection by fogging in the rate of 5 ml of solution per 1 m² of premises, exposure time — at least 3 hours.

Aerosol treatment is carried out when ventilation is switched off, closed doors and windows. The temperature in the room should not be lower than +15 °C, and the relative humidity — not less than 60-65%.

After the end of the exposure time, the surfaces that will come in contact with food, feed and drinking water need to be thoroughly washed.

Warning
Do not use in the presence of animals and poultry.

Storage
In a manufacturer’s packaging, in a ventilated place protected from direct sunlight, inaccessible to children and animals at a temperature from +1 °C to +25 °C. Use the working solutions within 10 days.
Sumerian silver
solution for disinfection

1 ml of solution contains:
silver citrate — 0.5 mg
copper citrate — 0.5 mg

Polymer vials of 0.5 and 1 l, polymer canisters of 5, 10 l.

Description
Liquid of greenish blue color, homogenous, clear, with slight specific odor.

Pharmacological properties
The efficient disinfecting agent against most of pathogenic bacteria — Escherichia coli, Pseudomonas aeruginosa, Pseudomonas vulgaris, Staphylococcus aureus, Staphylococcus enterica, Salmonella thyphimurium etc., virus bacteriophage T2, fungi C. Albicans, Aspergillus niger, Aspergillus flavus, sporena B. cereus, mycobacteria Mycobacterium B5. Disinvasive action against T. Suis, A. suum, O. dentatum, E. suis. Has a prolonged action (from 6 months and more), which depends on the concentration of the product in working solution and the method of application. Resistant species are not developed after of the product application.

Indications
Disinfection and sanitation of objects, which are the subject to veterinary supervision:
• surfaces of farming premises (poultry houses, hatcheries etc.);
• eggshell;
• watering systems;
• poultry- and egg-processing area;
• slaughtering and meat-processing complexes;
• food markets;
• maintenance places of small animal and poultry (especially after their deworming);
• beehives, frames, apiary equipment;
• technological equipment, facilities, containers, surfaces of tools, workwear for agricultural complexes, veterinary centers, laboratories, dispensaries of veterinary products;
• veterinary plants, transport etc.
Used for preventive, current and final disinfection in presence or absence of animal and poultry.

Contraindications
None.

Administration and dosage
The product is applied in a form of working solutions, which are prepared by mixing the concentrate with non-chlorinated drinking water in marked containers. Disinfection is conducted after thorough mechanical and sanitary cleaning of surfaces. Working solutions are sprayed with finely dispersed sprayers, generators of different types, applied with sponges until the surfaces are completely moistened, and soak in them items to be disinfected.
The following concentrations are used for disinfections:
• 0.01% (1 ml per 10 l of water) — disinfection of water in watering systems for livestock and poultry;
• 0.5% (5 ml per 1 l of water) — sanitation of nipple and teat drinking systems, prevention of biofilm reproduction in water supply systems (the solution is introduced into the system for a minimum of 6 hours, after which it is washed with clean water);
• 1% (10 ml per 1 l of water) — preventive disinfection of premises, equipment, minimum time for exposition — 1 hour, disinfection of workwear (soak in the working solution for 1 hour and then dry);
• 2% (20 ml per 1 l of water) — scheduled disinfection in livestock premises, minimum exposition time — 1 hour;
• 3% (30 ml per 1 l of water) — treatment of hatching eggs and eggs for sale, aseptic cleaning of hatcheries, market and laboratory premises, transport, disinfection of beehives, frames, apiary equipment;
• 5% (50 ml per 1 l of water) — disinfection of slaughtering and meat-processing complexes, disinvasion during protozoal diseases in livestock and poultry, minimum exposition time — 1 hour, a dose for spray application is 4-10 ml per 1 m³ of premises;
• 7% (70 ml per 1 l of water) — disinfection of places of maintenance of sick animals and poultry, including places contaminated with mycobacteria, minimum exposition time — 1 hour, treatment of wheels, refill of disinfection mats;
• 10% (100 ml per 1 l of water) — anti-spore treatment, minimum exposition time — 1 hour.

Cautions
If the native solution gets on the mucous membranes, immediately rinse them with plenty of water.

Storage
In the package, in a dark dry place, far from heating devices, at a temperature from +4 °C to +25 °C.

Shelf life
1 year.
**VetOx-1000**

solution for internal and external use

1 ml contains:

- sodium hypochlorite — 1.2±0.1 mg

Vials of dark glass of 100 ml; polymer canisters of 5 l.

**Description**
Clear colourless liquid with a low characteristic smell, without particulates matters, slightly salty taste.

**Pharmacological properties**
While using the drug, atomic oxygen is formed, which is a strong oxidant and has pronounced bactericidal, virucidal, fungicidal, detoxifying and deodorizing properties. The drug contributes to the neutralization and removal of toxins from blood, tissues and cavities of the animal body due to activation of oxidation-reduction processes.

**Indications**
It is indicated for pigs, cattle, sheep, goats, horses, cats, dogs and bees for the prevention and treatment of toxicosis, mycotoxicosis, diseases of the digestive tract of bacterial etiology, mastitis, burns, dermatitis, as well as for the treatment of wounds, surgical field, sanitation preputial cavity of bull-inseminators; for disinfection of hives, combs and other bee equipment; for sanitation of surgical instruments, equipment for processing and transport of milk, meat and fish products.

**Contraindications**
None.

**Administration and dosage**
The drug is diluted before use:

- **Orally:**
  - **calves** for treatment of diarrhea — 100 ml of the product diluted with drinking water up to 500 ml for 30-60 min. prior to feeding twice a day until the recovery.
  - **poultry** for the treatment of colibacteriosis, salmonellosis, mycotoxicosis — 25 ml of the product per 1 l of drinking water during 5-7 days;
  - **pigs** for the treatment of colibacteriosis, salmonellosis, mycotoxicosis — 200-300 ml of the drug diluted with 4 parts of water, daily during 4-5 days for 30 minutes prior to feeding.

- **Parenteral injection with sterile distilled water or isotonic solution, diluted 1:2, once a day, course of 4-7 days:**
  - **piglets** — 10 ml per 1 kg of b.w., intrauterine;
  - **calves** — 5 ml per 1 kg of b.w., intravenous.

- **Intracysternal administration:** cows suffering from mastitis using the drug solution which is prepared by dilution of distilled water (1:3) in a dose of 10 ml twice a day during 3-5 days.

- **Applications, irrigation:** cattle, horses, goats, sheep, dogs, cats affected by abscesses, phlegmons, postinjection phlebitis, furunculosis, dermatitis, infectious-allergic lesions and treatment of pulpitis, stomatitis — 1:2 solution.

- **Intracysternal administration:** cows suffering from mastitis using the drug solution which is prepared by dilution of distilled water (1:3) in a dose of 10 ml twice a day during 3-5 days.

- **For disinfection of hives combs and other bee equipment the drug is diluted with distilled water (1:3), exposition time — 4 hours.**

- **For disinfection and sanitation of surgical instruments, equipment equipment the drug is diluted with distilled water (1:2), exposition time — 30-60 minutes.**

- **For disinfection and sanitation of eggs, equipment for processing and transport of milk, meat and fish products the drug is diluted with distilled water (1:5), exposition time — 30-60 minutes.**

**Warning**
None.

**Storage**
Store in dark, dry place in the original package at the temperature from +5 °C to +25 °C. Avoid direct sunlight.

After the first opening store not more than 6 months, after the dilution — use within one day.

**Shelf life**
1 year
Solution of caffeine benzoate 20% solution for injection

1 ml contains:
- caffeine — 80 mg
- sodium benzoate — 120 mg

Glass and polymer ampoules of 10 ml (10 pcs in a cardboard box), glass vials of 100 ml.

Description
Sterile, clear, colorless liquid.

Pharmacological properties
The drug excites the central nervous system of animals, activates blood circulation, urination, stimulates activity of respiratory organs, increases performance of skeletal muscles.

Indications
It is indicated for treatment of horses, cattle, pigs, sheep, goats, dogs, cats suffering from general oppression, weakening of cardiac activity, fatigue, reduced metabolism, difficult parturation, labor paresis, intestinal cramps, intoxication by the drugs for anesthesia, etc.

Contraindications
Do not administer to animals with increased irritability, malformations of the cardiovascular system.

Administration and dosage
The drug is administered subcutaneously, in the following doses per animal:
- horses, cattle — 10-25 ml;
- pigs, sheep, goats — 2-7 ml;
- dogs: 0.5-1.5 ml;
- cats: 0.2-0.5 ml.
In case of oral administration specified doses of the drug are increased for 2 times.
If necessary, it is allowed to inject the drug 2-3 times at intervals of 7 hours.

Warning
Do not inject intramuscularly!
When used in the maximum therapeutic doses, sometimes cardiac activity increases, as well as fearfulness and reflex excitability. The drug is incompatible with α- and β-adrenergic agonists, anxiolytics, MAO inhibitors, xanthine derivatives, psycho-stimulant substances, hypnotics and sedatives.

Storage
Store in a dark, dry place at the temperature from +3 °C to +25 °C. Do not freeze the product. After the first opening keep the vial in a refrigerator and use within 48 hours.

Shelf life
3 years.
FOR NOTES