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Biological Drugs Used in Veterinary Medicine Against Infectious Diseases and Their Types

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Abstract: *Infectious diseases are now being prevented through the use of biological drugs in veterinary practice. If biological drugs are not used in a timely manner in veterinary practice, animals on farms can become infected with infectious diseases and cause great economic damage, so by using biological drugs, we can protect the health of animals and humans.*

Keywords: *Infectious disease, vaccines, anatoxin, antigen, inactivators, positive, negative, diagnostic drugs*

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More than 1,500 different drugs are currently used in veterinary practice. So far, 155 biopreparations have been used in animal husbandry. One of them was vaccines, the first information about which was given by E. Jenner in 1796. L. Pasteur in 1885 was scientifically based and recommended its use against infectious diseases, e.g. (Rabies).

Vaccines are prepared in special biocombines and biofactories, and normative technical documents (NTD) are prepared by the authors who developed them. This, in turn, will be phased out, inspected by the State Committee for Veterinary and Livestock Development of the Republic of Uzbekistan, then approved and recommended for production.

Anatoxins are drugs that are obtained by neutralizing bacterial toxins under the influence of formalin and heat. Used for the active prevention of toxic infection in animals. In recent years, concentrated and deposited anatoxins have been developed. The effectiveness of inactivated vaccines or anatoxins depends not only on the nature of the antigen, but also on the nature of the physicochemical environment in which they are located.

Vaccines and anatoxins include depot-forming substances, which are divided into two main groups depending on the mechanism of action of the antigen. Adsorbent and emulsifier. The most commonly used depot-forming substances in practice are hydrate protein aluminum, aluminum phosphate, aluminum-potassium kvass. Currently, 55 serums, 15 therapeutic and prophylactic drugs and 40 diagnostic positive and negative drugs are produced. It is inspected and monitored by a special biopreparation control laboratory under the General Veterinary Administration. All

procedures for vaccine preparation must be performed sterile, ie the pathogen must not be released into the environment.

The following requirements apply to vaccines:

1. Prepared vaccines should have high immunogenic properties.
2. Microorganisms grown in the environment should be washed in a clean saline solution.
3. Microscopic examination of the obtained (smiv) wash should be performed by RA reaction of serum with standard agglutinin.
4. The thickness of the vaccine is checked on the basis of a special standard density (Tarasevich method).
5. Various depot-forming substances are added to vaccines (aluminum kvass, hydroxy acid, saponin, aluminum phosphate), etc. These substances prolong the process of pushing the vaccine and create a strong immunity in the body.
6. Various inactivators (0.4% formalin or 0.5% phenol solutions) are added to the vaccine for disinfection.

Immunogenicity and sterility of the prepared vaccine are checked.

1. The vaccine is tested in the laboratory as a result of vaccination of susceptible animals in different doses. These animals (analogs) are then tested for infection with the same pathogen.
2. Harmlessness After vaccination of laboratory animals, the vaccine is considered harmless if there are no physiological changes in the animals.
3. The sterility of the prepared vaccine is checked by inoculation in special media. Only live vaccines grow in pure form, while killed strains do not grow at all. The only veterinary service that provides vaccines is in production.

To do this, orders are submitted from farms at the end of the year (application). On this basis, the vaccine is supplied through bioproducts. Obtained biopreparations should be stored according to the written instructions for each. After vaccination, the act is written in triplicate on the same day. To be used as a legal document, at least three to five people must sign and certify. Explanation of the act. If there are any complications from the vaccine, 2 vials of the vaccine are sent to the control laboratory for testing.

CONCLUSION

1. At present, biological drugs are used in veterinary medicine for the prevention of diseases, so it is possible to achieve positive results by knowing their composition, timely and effective use against diseases.
2. In addition, the types of vaccines prepared, taking into account the immunogenicity of the vaccine, are used in practice, which is an effective tool in the fight against diseases in veterinary medicine.
3. We protect human health and safety by ensuring food safety by vaccinating animals against infectious diseases and by protecting animal health.

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