

TYPES OF RAW MATERIALS AND THEIR PROCESSING FOR FORMULATION OF ALBUMIN

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Introduction. Animal blood is a cheap source of natural raw material for processing of medical and veterinary drugs. It can also be used as a proteinic mineral feeding in fur farming. The high content of native proteins and bioactive substances, fair amount of iron in blood of beef cattle (BF) and pigs defines its significance as a raw material for production of wholefood that has a beneficial effect on treatment of diseases caused by iron-deficiency anemia that is suffered by the considerable part of population, especially children and women.

During industrial processing of blood of meat-producing animals, dried blood, dark and bright albumin are formulated. The short range of traditional solutions for processing and usage of blood and its fractions results in cases when the most of blood is processed solely into meat and bone meal.

Aim. The aim of our studies was the analysis of known methods of formulation of biologic drugs based on animal blood, modern regulations of blood sampling, its transportation and storage, detecting of relevant types of raw materials for formulation of albumin as well as the ways of conservation before processing.

Materials and methods. The blood of BD sampled during butchering at the private farm was chosen as the material of our studies. Experimental studies were carried out though the methods of mechanical mixing, centrifugation, filtering, drying etc. using laboratory equipment. The methods of physicochemical analysis (qualification of proteins, titration, osmometry etc.) were used for control.

Results and discussions. Blood quantity and count differ in different animals, different sex, breed, economic use. Generic differences refer to density, content of proteins, hemoglobin, fat etc. These differences are essentially important for blood biotechnology. The comparative study of blood count of a number of animals, the cost and availability determined the selection of blood of BD as the object of the study. To prevent blood clotting, the following anticoagulants and their combinations were used: sodium oxalate, potassium or ammonium, sodium citrate, sodium fluoride, heparin. We suggested the usage of two-component anticoagulant for stabilization of blood of beef cattle during formulation of albumin.

Conclusions. The performed theoretical and experimental studies will be used for development of technologies that will provide more complete usage of alimentary blood and its fractions for production of bright and dark albumin, fibrin and hematogen as basic and most promising biologic drugs.