

Research and comparison of physico-chemical, organoleptic and sensory properties of experimental specimens.

**Result and discussion.** Experimentally studied samples of bases that containing 6-8% water-in-oil emulsion Sorbitan Olivem(Olivem-900) and 50-60% vegetable oil. Experimental studies have shown that necessary organoleptic, consumer and rheological properties has a sample of 60% of the oil phase and 8% of the emulsifier. To ensure antioxidant, anti-inflammatory and reparative action, we included sunflower oil, %, wheat germ oil, grape seed oil, Calendula CO<sub>2</sub> extract, Rosehip CO<sub>2</sub> extract, retinol acetate, oil solution of tocopherol acetate 10%.

As a result of the study, the composition of the cream from cracks on the heels has been developed. It contains in its composition 8% emulsifier of the second kind Olivem-900, sunflower oil 46,5%, wheat germ oil 3%, grape seed oil, Calendula CO<sub>2</sub> extract 1%, Rosehip CO<sub>2</sub> extract 4%, retinol acetate (vitamin A) 1%, oil solution of tocopherol acetate 10% (vitamin E) 1,5% As a preservative we use water soluble preservative potassium sorbate 0,2% and oil soluble preservative Euxyl PE 9010 0,5%.

**Conclusions.** Composition of the cream for treatment cracks on the heels is presented. It is rational to development of available, high quality and effective medicines for the pharmaceutical industry in Ukraine.

## **DEVELOPMENT TECHNOLOGY AND AGSEMBLY FOR BRONCHOPULMOERY DISEASES**

Yevtushenko T.V.

Scientific supervisors: ass. prof. Zhyvora N.V., ass. prof. Chushenko V.M., ass. Vislous O.A.

National University of Pharmacy, Kharkiv, Ukraine

Chushenkovn@gmail.com

**Introduction.** Today, the study of medicinal herbs and collections is actual and promising. First, this is due to the growing interest of the population in preparations of plant origin. The second factor is the distribution among the population of national traditions of herbal treatment. The basis for this choice is an increasingly active public attitude towards their own health, as well as the risk of using synthetic drugs. In addition, of course, one cannot but mention that the modern consumer is more inclined to buy herbs and fees not only for treatment, but also for the prevention of various diseases. Modern scholars are focusing on drugs of natural origin. The growth of the role of herbs and doses and other phytotherapeutic drugs is evident – in 2015, it was estimated at 15-20%, while the increase in the entire pharmaceutical market is estimated at a maximum of 10%. Herbal medicinal products occupy a significant place in modern pharmacotherapy. These are chemically pure substances isolated from plants, based on which many analogues are synthesized and purified complexes of natural substances, and a large group of complex preparations from plants (infusions, decoctions, doses, tinctures, extracts, etc.).

Important place in the treatment is given to the pharmacotherapy of respiratory diseases, whose spread is increasing rhinitis, sinusitis, pharyngitis, angina, bronchitis, tracheitis, obstructive pulmonary disease, pneumonia, and the like. Recently, respiratory diseases occupy a significant place in the overall structure of diseases and most often develop under the direct influence of environmental factors, which include strong gas pollution and dust, increased content of harmful toxins in the air, and so on.

Medicinal herbs are used for medical purposes for many centuries. Despite the considerable progress of modern organic chemistry, which provides the production of high-quality synthetic biologically active substances used in pharmacy, the popularity of herbal preparations around the world not only does not fall, but also steadily grows.

To date, there is a wide range of medicines for the treatment of upper and lower respiratory tract diseases that are related to various pharmacological groups. However, among all the variety of medicines you need to choose a drug that will have maximum efficiency and safety.

**Aim.** The purpose of our work is to develop the composition and technology of expectorant, bronchodilator and extensor extemporal collection for the treatment of bronchopulmonary diseases and cough in particular.

**Materials and methods.** In order to develop the composition of the collection, physical, chemical and technological methods were used.

**Result and discussion.** In order to develop the optimum collection technology in modern packaging – filter bags, we have studied the technological parameters of medicinal plant material included in its composition: specific, volumetric, bulk density, porosity, porosity and free volume of the raw material layer. The above parameters determine the technological properties of the medicinal plant material included in the collection, as well as the qualitative and quantitative content of biologically active substances that will pass into the water extraction as a result of extraction. The determined indicators determine the volume that takes dry and swelled raw materials; necessary ratios of raw material and extracting; changes occurring in the volume of internal and external juice and the concentration of substances in the internal and external juice with volume changes. Based on the conducted studies, it was established that the mass of the collection in the filter packet has 1.5 g per 1 filter bag. We have also developed a spectrophotometric method for determining the content of hydroxycinnamic acids. The quaternary method determines the content of polysaccharides in the collection. The microelement composition of the collection has been studied. The established indicators are qualitative parameters of cooking technology and allow to control and evaluate the technological parameters of preparation of the collection, as well as the yield of active substances (polysaccharides and hydroxycholic acids).

**Conclusions.** Theoretically and experimentally, the composition of the extemporal collection for the treatment of bronchopulmonary diseases, which includes the following medicinal plants: grass altea, grass mantle, thyme grass, foliage grass, violet grass, plantain of large leaves, lime flowers, are substantiated.

The technological characteristics of medicinal raw materials in the composition of the investigated collection are studied: specific, volumetric, bulk density, porosity, porosity, free volume of a layer. The influence of time and method of insistence and type of packaging on the yield of active substances from the investigated collection has been studied.

The conducted studies allowed developing the composition and technology of extemporal collection in the filter bags for the treatment of bronchopulmonary diseases.