

the importance of the use of quality re-equipment of production and modernization of production processes by the enterprises themselves.

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SURFACTANTS SELECTION FOR EFFICIENCY IMPROVEMENT OF COMBINED OINTMENT WITH HYDROPHILIC POPLAR EXTRACT

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Actuality: Soft medicinal forms using for various types of purulent-inflammatory processes curing makes possible to create the necessary concentration of active substances in the lesion. The developed composition of an ointment contains a hydrophilic poplar extract that exhibits antimicrobial activity against most strains sown in wounds. The developed ointment does not contribute formation antibiotic resistance of microorganisms [1].

Purpose: The main task of modern medicinal products creating is the composition and technology development, due to which achieving of the maximum effectiveness and minimal risk of adverse reactions, considering that the ointment is planned to apply for wound lesions complicated by purulent and necrotic processes. The aim of the study was to improve the efficiency of the developed composition and improve its technology. Achievement of the assigned tasks can be achieved by the introduction of surfactants, which promote the release of active substances from the ointment base. Surfactants can be used as emulsifiers, to advance stability for emulsions, and also as solubilizers, to increase the solubility of substances slightly soluble in water and increase bioavailability of the API. The task of the study was the determination of the surfactant, which would allow achieving the maximum efficiency of the developed composition and establishing its concentration. The task of the study was the determination of the surfactant, which would allow achieving the maximum efficiency of the developed composition and establishing its concentration.

Materials and methods: The object of our study was an ointment containing a hydrophilic poplar extract on the PEO-400 and PEO 1500 alloy base in a ratio of 6: 4, propylene glycol and purified water. Analysis of the ointment effectiveness was monitored by agar diffusion method, with determination of the microorganism's growth retardation zone. For the study was used microorganisms strains recommended by WHO: *Staphylococcus aureus* ATCC 25923, *Escherichia coli* ATCC 25922, *Pseudomonas aeruginosa* ATCC 27853, *Basillus subtilis* ATCC 6633, *Proteus vulgaris* ATCC 4636, *Candida albicans* ATCC 885/653 [2]. As solubilizers tween-80, cetostearyl alcohol, OS-20, distilled monoglycerides, glycerol monostearate, emulsifier No 1, synthetic primary fatty alcohols C16-C20 and emulsion wax were used.

Results of the study: As a result of the study microorganisms growth retardation zones were determined. The greatest activity was possessed by ointment samples containing MGD and Tween-80. According to the research, the optimal concentration was 5% MGD and Tween 80 equal to 5% of the sample weight. Ointment samples contained MGD or Tween-80, by the diameter of the microorganisms growth retardation zone more than 20% exceeded the parameters of the other samples.

Conclusions: The highest antimicrobial activity shown ointment samples containing 5% MGD or 5% Tween-80 as solubilizers. These samples can be used for future investigations for Ukrainian ointments production.

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PROBLEMS OF SMALL AND MEDIUM BUSINESS DEVELOPMENT IN UKRAINE

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World experience shows that a significant place in the economic systems of developed countries belongs to small and medium enterprises. The economic and social development of any state depends on the level of development of the economy as a whole, and hence on the level of development of entrepreneurship, where a small and medium business should play a significant role. The urgency of this topic is that the development and effective functioning of this sector is an extremely acute problem in the current conditions of the crisis situation in Ukraine due to the presence of a number of unresolved issues, including a complex political situation, corruption, controversial and ambiguous legislation, a high tax burden and, consequently, a significant shadow economy.

The tasks of this work are: analysis of the development of small and medium-sized businesses in Ukraine, identification of factors that negatively affect its development, as well as their ways of overcoming. In order to understand how complex the situation in Ukraine is with small and medium businesses, it is necessary to analyze the indicators of its activity in the countries of Europe, as well as in Asia and America, in which small and medium business forms the basis of the national economy (more than 60-80% of GDP), in at a time when in Ukraine this indicator was fixed at 11% of GDP. Looking at these indicators in the context of the leading countries of the world, the situation will look like this: the share of SMEs in Ukraine is lower than in the United States 63 times than in Japan - 21 times than in Russia - 3 times. Considering the proportion of the employed population in the small and medium business, it should be noted that in developed countries this figure is from 50 - 90%, and in our country - 5 - 6%, but taking into account the shadow economy, it can be said about 30% of the population. These data prove a significant lag in the development of Ukraine from most developed capitalist countries of the world. From all above, one can conclude that this sector of the Ukrainian economy has low development indicators, which is a problem that needs to be addressed. That is why we considered the factors that caused this situation. The process of establishing a small business in Ukraine is slow and uneven, because:

1) there is a slowdown in the growth of the number of small and medium enterprises;

2) the existing sectoral deformation, which is oriented mainly on activities in the field of trade and catering (55%), which is associated with relatively insignificant costs for the establishment of such enterprises and the rapid turnover of the capital invested. It is alarming that there is no tendency to increase the proportion of small enterprises specializing in manufacturing activities. The share of enterprises in industry makes up 14% of the total number of small enterprises, in construction - 10%, in domestic servicing of the population - 5%, in transport and communications - 2%;

3) there is an uneven development of business entities at the regional level. The largest number of small enterprises operates in the Kyiv and Dnipro regions, the lowest rates are in Rivne, Chernivtsi and Volyn regions. This situation was before the beginning of hostilities on the territory of Ukraine, these indicators have changed somewhat, and especially indicators of Donetsk and Luhansk regions;