



TECHNOLOGY OF OBTAINING A COMBINED TINCTURE OF LINGONBERRY AND BEARBERRY LEAVES

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Relevance: Lingonberry and bearberry leaves should be considered valuable medicinal plant raw materials for the production of medicinal products. To expand the range of medicinal products based on medicinal plant raw materials, we offer a combined tincture of lingonberry and bearberry leaves for the prevention and treatment of urinary tract diseases.

Objective of the study: Development of a technology for obtaining a combined tincture of lingonberry and bearberry leaves.

Materials and methods: The study subjects were lingonberry and bearberry leaves, using 40% ethyl alcohol as the extractant. A combined tincture of lingonberry and bearberry leaves was obtained by percolation. Percolation involves three sequential steps: soaking (swelling) of the raw materials, infusion, and percolation itself. An equal amount of 40% ethyl alcohol (10 ml) was added to 10.0 g of crushed raw materials (5 g lingonberry leaves + 5 g bearberry leaves) and left to soak for 6 hours. The soaked raw materials were transferred to a percolator on a false bottom lined with filter material, covered with filter material, and weighted to prevent individual raw material particles from floating. The percolator was left for 24 hours. After 24 hours, percolation was performed at a rate of 1/24 of the extract per hour until the extract was 5 parts by volume relative to the mass of the raw material loaded into the percolator. Lingonberry and bearberry leaves contain low-activity biological substances, so the tincture was prepared at a ratio of 1:5. The resulting extract was left to settle at 10 °C. for 2 days. The sediment was then filtered without stirring. The resulting combined tincture was evaluated for its composition, relative density, and ethanol content. The relative density and ethanol content of the combined tincture were determined in accordance with the State Pharmacopoeia of the Republic of Belarus.

Results: The quality indicators of the obtained combined tincture are presented in Table 1.

Table 1. Quality indicators of the combined tincture of lingonberry and bearberry leaves

Indicators	Complex tincture
Description	Liquid dosage form, transparent, brown in color with a specific odor.
Relative density	0.9620
Ethanol content,%	40

Conclusions: A technology has been developed for obtaining a combined tincture of lingonberry and bearberry leaves by percolation in a ratio of 1:5, which meets the requirements of the State Pharmacopoeia of the Republic of Belarus in terms of description, relative density and ethanol content.