

DETERMINATION OF TECHNOLOGICAL PARAMETERS OF PLANT MIXTURE FOR TREATMENT OF UROLITHIASIS

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The incidence of urolithiasis in the world is from 0.5 to 5.3% and is diagnosed in children and the elderly. However, in 68% of cases it develops in working age. Unfortunately, even after removal of stone recurrence during the first 3 years after treatment was 53%. Therefore, urgent measures are metaphylaxis using combined herbal preparations that provide not only a diuretic and anti-inflammatory actions and influence the pH of urine and provide antispasmodic effect. Preparations *Rubia tinctorum* promote urinary calculus loosening, reduce spasms and facilitate discharge of small calculus with urolithiasis.

The aim is to develop of technology and collection of litholytic activity for use in acute kidney stones, and a prophylactic measure for all forms of urolithiasis.

Materials and methods. In developing the collection of medicinal herbs has been used, which is widespread in Ukraine: the roots of *Rubia tinctorum*, *Ammi visnaga* grass, Chamomile flowers and *Betulae* burgeons. Technological parameters studied samples of plant materials and their mixtures: fractional composition, fluidity, bulk volume, the moisture content. Technological parameters indices were determined by methods SPU.

The obtained results. Our results revealed that all samples of plant material fraction (0.5, 1.0 and 2.0 mm) have satisfactory fluidity and is close to the value that indicates compatibility in this collection.

In determining the fractional composition of the mixture were the largest number of fractions with particle size less than 1 mm fraction and particle size of 1-2 mm. They totally make up 84.2%. Particle size significantly affects the yield of extractives of medicinal plants in the extraction. Therefore, the presence of plant collection of fractions with particle size of less than 2 mm should facilitate the rapid release of active ingredients. Therefore, further investigation was elected these fractions. After receiving the powder mixture held its pharmaco-technological analysis, which showed that the bulk density of plants is low. When she shrinkage varies considerably, and may cause a change in dose mass volume dosage collection.

Conclusions. Determined that all components of the mixture are compatible. Sieve analysis showed a high content of shallow fractions, which significantly accelerates the extraction. But a significant change in bulk density further expedient packing blend in filter bags or obtain granules to provide a more accurate receiving the necessary dose patient.