Introduction. Based on the analysis of literature data and own research, there is an important task of Ukrainian pharmaceutical industry to develop the technology of the drug, which is offered as a diuretic for the treatment of hypertension on the basis of available medicinal raw materials – corn columns with stigmas.

Purpose of the research. Study the pharmacotechnological properties of corn columns with stigmas in order to obtain a dry extract for the treatment of hypertension.

Materials and methods. The object of study – corn columns with stigmas. We used generally accepted standard, described in the literature methods and devices, and new methods of research of drugs that allow to objectively assess their quality, based on the obtained statistically processed results in conducting research.

Obtained results. Based on the analysis of experimental data, it was found that the bulk density in the studied samples of medicinal plant raw materials was 0.17 g / cm³. This important parameter is taken into account to ensure uniform mixing of the components of the raw material and to prevent their stratification and is because the corn columns with stigmas occupy a large volume due to their structure.

The free volume of the layer was high, which indicates the need to use larger volumes of extractant to wet the medical plant material and compact it when loaded into the extraction device. The difference between specific and bulk density shows that the raw material occupies a large volume, so there is a need to take into account when calculating the ratio of medical plant material and the finished product, choosing the size of the extractor, the characteristics of loading raw materials and more. To optimize the process of extraction of medicinal plant raw materials, we conducted research to determine the coefficient of swelling and the degree of swelling using organic and inorganic solvents. It has been experimentally established that the raw material absorbs a larger amount of organic solvent compared to the inorganic solvent.

Conclusions. Methods of experimental research, namely physical and physicochemical and pharmacotechnological, which allowed to objectively assess the properties of drugs during the development of its composition and technology. The defined indicators are qualitative parameters of technology and allow to control and estimate technological parameters of preparation of medicinal product.