

Comparative commodity analysis of narrow-leaved lavender flowers in the Kaskasu and Yntymak areas

Atyrkhan A.O 2nd year master's student, South Kazakhstan Medical Academy, Republic of Kazakhstan, Shymkent, Al-Farabi Ave., 1

Scientific supervisor: candidate of Pharmaceutical Sciences, Professor I.O.

Orynbasarova K.K., South Kazakhstan Medical Academy, Republic of Kazakhstan, Shymkent, Al-Farabi Ave., 1

The purpose of the work:

to determine the humidity, ash content, degree of grinding and the content of impurities of lavender flowers growing in the Turkestan region in the Kaskasu and Yntymak areas.

Research objectives: To determine the compliance of lavender flowers with the established standards of the GF RK.

Materials and methods. The object of the study was the flowers of narrow-leaved lavender grown in the Turkestan region on the Kaskasu and Yntymak sites.

The pulverization of medicinal plant raw materials/preparation is an indicator of the quality of medicinal plant raw materials /preparation (whole, crushed, powder), which characterizes the amount of medicinal plant raw materials / preparation having a larger or smaller particle size in comparison with the established pharmacopoeia article

The results of determining the degree of grinding in the Cascade: particles without sieving with holes of 0.5 mm in size – no more than 29%, particles without sieving with holes of 1 mm in size – no more than 23%, particles without sieving with holes of 2 mm in size – no more than 6%, particles without sieving with holes of 3 mm in size – no more 0.5%

The results of determining the degree of grinding in Yntymak: particles without sieving with holes of 0.5 mm in size – no more than 32%, particles without sieving with holes of 1 mm in size – no more than 24.5%, particles without sieving with holes of 2 mm in size – no more than 7.5%, particles without sieving with holes of 3 mm in size – no more more than 0.7%



The part of the analytical sample of whole and crushed medicinal plant raw materials / preparation remaining after determining authenticity and shredding is weighed with an error of ± 0.01 g, then placed on a clean smooth surface and impurities specified in the pharmacopoeia article for medicinal plant raw materials / preparation are isolated with a spatula or tweezers.



Indicators for determining the numerical parameters of the flowers of narrow-leaved lavender.



No	Indicator	Results
1	Humidity (Kaskasu)	3,809%
	Humidity (Yntymak)	3,932%
2	Common ash (Kaskasu)	8,747%
	Common ash (Yntymak)	8,762%
3	Ash, insoluble in 10% HCL (Kaskasu)	0,581%
	Ash, insoluble in 10% HCL (Yntymak)	0,767%



Main results: As a result of research, it was found that the content of total ash in the flowers of narrow-leaved lavender in the Kaskasu and Yntymak areas is from 8.7% to 8.8%. The content of ash insoluble in 10% hydrochloric acid is 0.5% - 0.8%. When determining the moisture content of the raw materials of narrow-leaved lavender flowers, it was found that the weight loss during drying ranges from 3.8% to 3.93%. The indicator of organic impurities is: at the Yntymak site – no more than 2%, and at the Kaskasu site - no more than 1%. The indicator of mineral impurities: both at the Yntymak site and at the Kaskasu site – no more than 1%. The result of determining the degree of grinding: particles without sieving with holes of 0.5 mm-29-32%; particles without sieving with holes of 1 mm –23-24.5%; particles without sieving with holes of 2 mm –6-7.5%; particles without sieving with holes of 3 mm –0.5-0.7%.

Conclusions: Based on the conducted research, numerical indicators have been developed for narrow-leaved lavender flowers: the total ash content is not more than 10%, the ash content insoluble in 10% hydrochloric acid is not more than 1%, humidity is not more than 4%, the content of organic impurities does not exceed 2%, and mineral impurities - 1%. The result of determining the degree of grinding: with holes of 0.5 mm in size-no more than 32%, with holes of 1 mm no more than 25%, with holes of 2 mm no more than 7.5%, with holes of 3 mm no more than 0.7%.In the course of research, it can be understood that plants of environmentally friendly and higher quality are grown on the Kaskasu site than on the Yntymak site.