

3rd International FOOD SCIENCE, PROBIOTICS, NUTRITION & MICROBIOME CONFERENCE November 28-29, 2019 | Kuala Lumpur, Malaysia

Drying Medicinal Plants with Preservation of Biologically Active Substances

Safarov Jasur* and Sultanova Shaxnoza

Tashkent State Technical University, Uzbekistan

Experimental studies were performed on a convective water heater and curves were obtained for the duration and temperature for the drying process of medicinal plants.

A comparative analysis of the behavior of the constituent extractives of peppermint and zizifora, plantain polysaccharides, as well as the ash content and final moisture content of medicinal plants under various drying methods was carried out.

Dried plant samples of peppermint, plantain and jujube were studied for residual moisture, ash and the presence of extractives and polysaccharides at the Institute of Plant Chemistry of the Academy of Sciences of the Republic of Uzbekistan (Table 1).

Quality	Medicinalplants	In a naturalway	Waterheatingdryer	Domesticmanufacturer
Humidity	Peppermint (Mentha)	5,4	5,30	5,25
	Ziziphora(Ziziphora)	6,2	6,32	6,00
	Plantain(Plantago)	6,3	6,00	5,90
Ashcontent	Peppermint (Mentha)	5,92	6,30	6,00
	Ziziphora (Ziziphora)	7,2	7,00	7,30
	Plantain (Plantago)	6,3	6,42	6,29
Extractives	Peppermint (Mentha)	20,3	23,30	21,56
	Ziziphora (Ziziphora)	17,7	19,19	16,55
	Plantain(Plantago) (mass fraction of polysaccharides)	13,1	13,70	12,60

The amount of extractives dried in water heating dryer is 2.5-3% or more (23.30%). In the initial version, extractive substances in this plant were 23.2%. This indicates that the VKSU drying device and the developed technology provide effective results.

Notes: