

EXPERIMENTAL STUDY OF DRYING BEHAVIOUR OF POTATO

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Abstract

Drying is one of the processes used in the food industry to preserve and maintain the quality of food products for a period of time. The efficiency of drying potatoes depends on the content of dry substance; their initial moisture percentage is between 66-88%. The purpose of this research was to study the drying parameters of the potato, as regards the temperature of the drying and how partitions (slices, cubes) without any pre-treatment. The parameters of drying agent were as follows: temperature of the drying was 50°, 60° and 70 °C, the initial moisture content of the air was 30 to 35%, the rate of drying agent was kept constant at 2.0 m/s. The time was set so that at the end of the drying the moisture content of the product to have a value of 14%. Data drying was determined experimentally using a vertical laboratory dryer. Experimental results have shown that the temperature of the drying and splitting mode have a high influence on the duration of the drying process. Potatoes in the form of cubes and dried at 70 °C were reached at a moisture content of 14% in a shorter time than the products being divided in the form of rings.

Key-words: kinetics of drying, dryer, food products.
