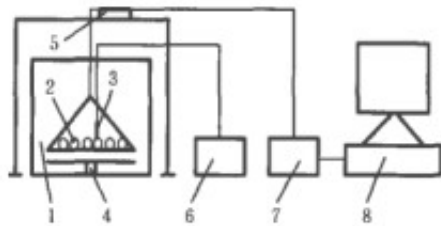


Effects of different drying methods on pumpkin powder quality

Abstract: Pumpkin powder was dried and powdered by hot air drying equipment, [microwave drying equipment](#) and vacuum drying equipment. The effects of drying methods on the quality of pumpkin powder were studied.

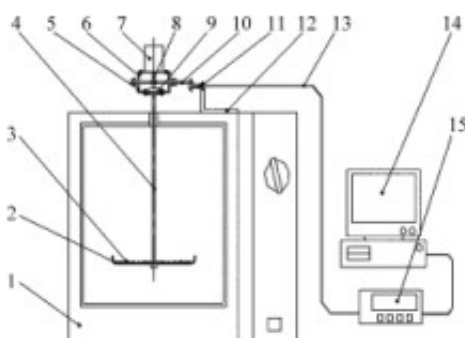


The results showed that hot air drying had the highest total phenol content, the lowest content of beta-carotene, solubility and rehydration; microwave drying had the highest b^* value, bulk density, solubility, rehydration, water and oil retention, and the lowest L^* value, a^* value and VC content; vacuum drying had the lowest L^* value, a^* value, VC content and beta-carotene content. The total phenol content, bulk density, solubility, water holding capacity and oil holding capacity were the lowest. In order to ensure the nutritional quality of pumpkin powder, and considering the appearance quality of pumpkin powder, vacuum drying is the best way to prepare pumpkin powder.

Key words: [Pumpkin microwave drying](#); drying method; quality

Pumpkins are Cucurbita plants. In addition to carotene, pumpkin polysaccharide, vitamins, free amino acids and mineral nutrients, it also contains a large number of cucurbitacin, alkaloids, pumpkin seed alkaloids and pectin and other active ingredients. It has many health functions, such as reducing blood sugar, lipid, anti-aging and so on.

Fresh pumpkin has high water content and can not endure storage. Therefore, processing fresh pumpkin into dehydrated powder can not only make full use of pumpkin resources, but also improve its processing additions. At the same time, the nutrients in pumpkin are also kept to the maximum extent, which effectively broadens the way of processing and eating pumpkin.



Choosing a scientific drying method is the key to the preparation of pumpkin powder. Therefore, different drying methods were used to prepare pumpkin powder, and the effects of drying methods on the quality of pumpkin powder were studied in order to provide theoretical basis for the processing and utilization of pumpkin and expand the processing technology and product types of pumpkin.