Effect of Cutting Treatment on Microwave Drying Characteristics of Huping Jujube

Absrtact: Taking Hupingzao jujube as test material, half and 1/4 of the jujube seeds were separately cut, and the whole jujube seeds were treated by microwave drying equipment under different microwave power. The effects of different cutting treatments on the microwave drying characteristics of Hupingzao jujube were discussed.

The results showed that the microwave drying time was shortened, the rehydration ratio and sensory quality of the dried jujube were improved, but the Vc loss was increased to some extent. Considering comprehensively, the best drying effect was obtained when half-fruit was used as the shape of dried fruit under 160W microwave for 60 minutes.

Key words: microwave drying of jujube; segmentation; characteristics; quality

Jujube is one of the unique fruits in our country, which is very popular with consumers. However, because of the high water content of fresh jujube, it is easy to rot and deteriorate after harvest, which brings great economic losses to jujube farmers. Therefore, it is important to study the suitable storage, preservation and processing methods for jujube for promoting the healthy development of jujube industry.

In addition to fresh food, most of the jujubes are made into dried jujubes. At present, natural drying, hot air drying, far infrared drying, microwave drying, vacuum freeze drying and combined

drying of various drying methods are commonly used for jujube.

Microwave drying is a drying technology developed rapidly in recent years. Because of its fast heating speed, short drying time and good drying quality, microwave drying has been widely applied in the field of post-harvest processing and processing of agricultural products.

At present, the application of microwave drying technology in jujube drying is mainly studied from the aspects of microwave intermittent and continuous drying, surface pricking and combined drying of microwave and hot air on jujube drying characteristics and quality. However, there is no relevant report on the effects of different cutting treatments on the microwave drying characteristics of jujube. Therefore, the jujube in Hupingzao was used as the test material, and jube was divided into different parts. The effects of specific surface area on microwave drying characteristics of jujube were studied under different microwave power in order to provide theoretical basis and technical support for jujube drying.