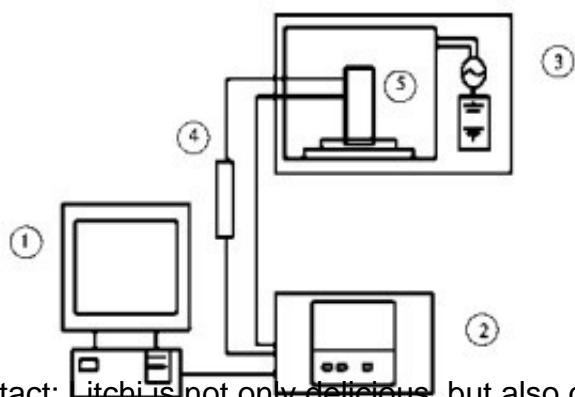


Research Progress of Litchi Dehydration and Drying Technology



Abstract: Litchi is not only delicious, but also of high edible, medicinal and economic value. However, because the storage time of fresh litchi is very short, it is easy to deteriorate, and the storage conditions are also very high. If lychee is dehydrated and dried into dried litchi stem, not only the flavor and nutrients of fresh litchi can be maintained, but also the storage time of litchi can be prolonged to a great extent, and the added value of litchi can be increased. By summarizing the advanced drying technologies of litchi (heat pump drying, [microwave drying equipment](#), vacuum freeze drying, hot air-heat pump combined drying), the application prospect of these advanced drying technologies was prospected.

Key words: [litchi microwave drying](#); combined drying



Litchi, originating in southern China, is an evergreen tree of Sarcandinaceae. At present, litchi is planted all over the world. The planting range of Litchi in China is mainly concentrated in Guangdong and Fujian. Fresh litchi fruit is not only sweet and delicious, but also rich in a large number of nutrients needed by the human body. It can be used as a nutrient to meet people's needs.

In addition to rich nutrients, litchi also has some functions such as reducing blood lipid, detoxifying swelling, hemostasis and pain relief. Storage of fresh litchi is very difficult, because the fruit is prone to browning and decay, which greatly reduces the utilization of fresh litchi, and drying litchi first can make the use of litchi more widely. The commonly used drying methods of

litchi are traditional hot air drying and sun drying. These traditional drying methods have the disadvantages of poor quality, long drying time and high drying cost.

In the drying process, too high drying temperature and too long drying time will also cause serious browning of the peel, which will reduce the quality, and also lead to a large number of bacterial growth and reproduction. In the process of litchi drying, besides achieving the most fundamental purpose of dehydration, attention should also be paid to the appearance and quality of litchi. Several advanced drying technologies of litchi were introduced, including heat pump drying, microwave vacuum drying, vacuum freeze drying and hot air-heat pump combined drying.

Litchi drying technology (heat pump drying, microwave vacuum drying, vacuum freeze drying, hot air-heat pump combined drying) has its own unique advantages and different defects. Therefore, on the one hand, efforts should be made to overcome the shortcomings of various drying technologies in their own technical methods, and on the other hand, theoretical and practical combination should be made to overcome the shortcomings of equipment. On the other hand, two or more drying methods should be combined to carry out joint drying technology research, which can not only bring their respective advantages into play, but also make up for each other's shortcomings to a certain extent and achieve complementary work. Use.