

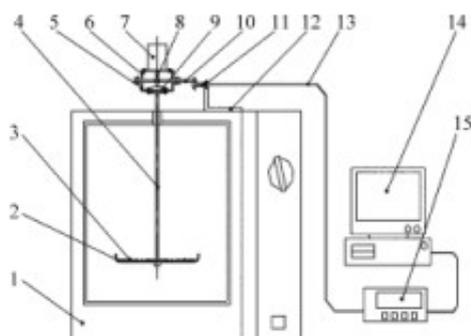
Preliminary study on combined drying technology of Litchi chinensis

Abstract: Litchi dried fruit was processed by [microwave drying equipment](#) combined with hot air drying technology with fresh fruit litchi as raw material, which solved the problems of short shelf life and easy occurrence of pests of products made by traditional methods.

The results showed that the fresh litchi fruits of "Huaizhi" cultivar were dried to 40% by hot air after color protection treatment.

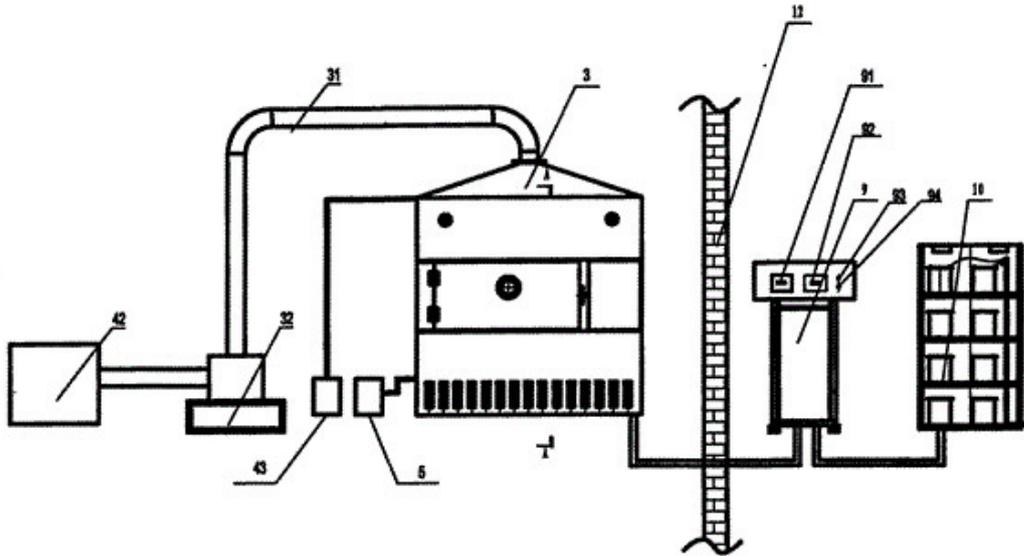
The quality of dried fruit samples with 60% water content and 800 W microwave average power was the best. With the prolongation of drying processing and storage time, the pulp color of "Huaizhi" litchi was gradually deepened.

Key words: "Huaizhi" variety litchi; combined drying; [microwave drying litchi](#); browning.



Litchi is native to southern China. Lichee can be grown in tropical and subtropical regions of the world. The litchi planting in China is mainly concentrated in Guangdong, Fujian, Guangxi and Hainan. "Huaizhi" litchi is a popular litchi variety with high yield, sweet and delicious taste, rich in nutrients needed by human body.

However, fresh litchi has a short shelf life and difficult storage. The lychee drying and drying process is beneficial to the storage and transportation of the products and the added value of litchi products. Traditionally, lychee drying is traditional drying or hot air drying. However, the traditional drying method has the disadvantages of poor quality and long drying time. The drying technology of hot air and microwave was used to improve the quality of dried litchi of "Huaizhi" variety.



Through the combination of hot air drying and microwave drying, the fresh fruit of Huaiqi litchi was dried. The results were as follows: On the basis of hot air drying, combined with microwave drying, not only the total drying time was shortened, but also the insect eggs in fresh fruit of litchi were effectively killed and the dried fruit products were prevented from being pested. Harm. The optimum technological condition is that the fresh fruit of Huaichi litchi is dehydrated to 40%~60% water content by hot air at 70 C after color protection treatment, which is the better combination point of hot air drying and microwave drying. The dried litchi cultivar Huaizhi was dried with 800 W microwave average power to 20% water content, and the quality of dried litchi was the best. With the prolongation of drying processing and storage time, L value decreased, and the pulp color of "Huaizhi" litchi gradually deepened.