# Experimental Study on Microwave Drying of Pu'er Tea

In order to deeply study the application of microwave in food drying, the microwave drying of Pu'er cake tea experiment proves that microwave drying Pu'er tea can not only greatly shorten the drying time, improve production efficiency, but also have energy saving, environmental protection and nutrition. Good results. This is very important to improve the quality of Pu'er tea and the scale of processing.

Located in the subtropical plateau, Yunnan has a unique climate and natural landforms, soil and ecological environment, providing the best habitat for the growth and reproduction of tea trees.

The six major tea mountains provide a sufficient source of raw materials for the processing of Pu'er tea. Due to the

unique efficacy of Pu'er tea in rickets and body-building, it has been favored by consumers in recent years. At present, there is no such thing as Pu'er tea drying. More mature methods are applied to production. Most of the current processing methods use solar radiation drying or coal burning. These two drying methods are time consuming and laborious, and are affected by weather conditions and equipment, so it may affect The quality and production efficiency of Pu'er tea are not easy to form scale and standardization.

In this paper, the drying of Pu'er cake tea was studied in depth. Combined with the advantages of microwave drying machinery technology, the idea of microwave drying Pu'er tea was put forward, and a lot of experimental research was carried out. Finally, the best process of microwave drying Pu'er tea was obtained. The drying efficiency, power consumption and other aspects were tested.

The microwave drying of the tea dryer is different from the conventional drying method. When drying normally, the temperature of the material increases from the outside to the inside, and the water loss rate gradually decreases from the outside to the inside. The disadvantage of this drying method is: the inner layer water content It is much larger than the outer layer, and it is easy to form a dry shell on the outer layer, which affects the drying speed and quality.

For Pu'er cake tea, the outer layer loses too much water and is easy to fall off, which affects the appearance of the cake tea. When the microwave is dried, the material is heated from the inside to the outside, and the same water loss is also from the inside to the outside, so it is not easy to form dry. Shell, and the water loss is fast and uniform. Microwave drying material, water loss rate is affected by heating time and power.

When the microwave is dried, the temperature is proportional to the time. As the heating time increases, the temperature also increases. The water loss rate decreases first, then increases, and then gradually decreases. The final reason may be due to the cake. The water content of the tea itself is already very low, and the water is not easily lost.