

ABSTRACT

North of Thailand cultivates a lot of mulberry tree for silkworm feeding and then fruits of mulberry are popular for consumption. But ripe mulberry are increasingly rotten after crop harvest because they are kept at room temperature for few days. This research is studied about mulberry drying by low temperature dryer. According the purpose of this study is properly examination state at low temperature by tray dryer, air velocity is 0.5 m/s, air temperature are 45 and 70 degree Celsius, relative humidity are 10 and 70 %. The finding indicated that at high temperature and low relative humidity cause high drying rate. At high temperature, relative humidity has an effect less than low temperature but high temperature cause of essential substances degradation. Appropriable drying state is temperature at 45 degree Celsius and air relative humidity 10%. And they have total phenolic compound 2,018.9 µg/g, total anthocyanin 8,967.3 µg/g and total Free radical scavenger capacity 56.7%.

Keywords: drying, mulberry, tray dryer, low temperature dryer