ABSTRACT

EFFECT OF TEMPERATURE AND CONCENTRATION OF SUGAR SOLUTION IN THE PROCESS OF OSMOTIC DEHYDRATION OF PUMPKIN (Cucurbita Moschata)

By

Astri Magdalena

Vegetables and fruits are horticultural commodities that commonly have a limit shelf life. It is because they have high water content. Post-harvest handling can be done by osmotic dehydration technique. The aims of this research were to know the effects of temperature and concentration in the process of osmotic dehydration of pumpkin. This research uses volume of pumpkin with a length of ± 2 cm, width of ± 2 cm, and thickness of ± 1 cm that soaked at temperature 30, 40, 50°C and concentration of sugar solution 40, 50, 60°Brix for 480 minutes. The results showed that sugar concentration and soaking temperature increase total soluble solids, solid gain and water loss but decrease water content, volume, weight, and material hardness. Values of water loss and solid gain are highest in the combination of 50°C dan 60°Brix that reach 60.23%, and 11.00%, respectively

Keywords: Osmotic dehydration, pumpkin, soaked temperature, sugar concentration.