

**RESEARCH PAPER**

# Osmo convective drying of sapota slices

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**ABSTRACT**

The present study is carried out to standardize the pretreatment of sapota slices and study drying characteristics during convective drying. The effect of process parameters during osmotic dehydration such as osmosis, concentration and temperature of syrup on mass reduction, water loss and solid gain increased with increase of syrup concentration and temperature. The water loss and solid gain during osmosis at 30, 40 and 50 °Brix was varied in the range of 13.54 to 30.25 and 23.84 to 36.66 per cent at 30, 40 and 50° C temperatures, respectively. The drying temperature and pretreatment as osmotic dehydration had a significant effect on the rehydration ratio and colour. The drying times of osmosed sapota slices by convective drying at 50, 60, 70 and 80 per cent drying temperature were 12, 10 and 8 and 6 hrs, respectively. Quality of dried product in respect to colour and rehydration was superior. The osmo-convective dehydrated samples were found more acceptable than convective dried ones. The sapota dried at 40°C brix solution concentration, 30°C osmosis temperature and 70°C drying temperature was more acceptable on the basis of colour and rehydration.

**KEY WORDS** : Osmo-convective drying, Colour value, Sapota dehydration

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