

Osmotic Dehydration of Beetroot Slices in Salt Solution

N Vinoda, B V V Balaram Bhagath, K Lavanya, V Bhargavi and N Yadagirish Babu
College of Agricultural Engineering, Bapatla 522 10, Andhra Pradesh

ABSTRACT

Study was conducted for selecting suitable osmotic treatment of beet root slices in a salt solution of different concentrations followed by suitable drying methods such as tray drying, solar cabinet drying and sun drying. Beetroot slices were dipped in osmotic solution, in a solution to sample ratio of 15:1 & 10:1 at 15% and 10% concentrations respectively for dehydration period of 90 min at a temperature of 60°C in a hot air bath. The water loss & weight reduction of osmotically treated beet root slices were increased with increase in concentration and solute gain was decreased with increase in concentration. The quality of osmotic dehydrated beet root slices was best at 15% salt concentration dried in tray dryer.

Key words: osmotic dehydration, weight loss, solute gain, weight reduction.