

Abstract

During past decades, osmotic dehydration has become a novel approach in production of healthy and tasty minimally processed foods. Since large quantity Cantaloupe and Muskmelon is wasted as the result of improper harvest, handling and transportation, accelerated. In this study the effects of different parameters including pretreatment with Calcium salt such as CaCl_2 , $\text{Ca}(\text{OH})_2$, CaCO_3 at four levels (0 , 0.5 , 1 , 1.5 %) ,different osmotic solutions such as Sucrose, Glucose and their combination and pH on sensory attributes in addition to moisture content , a_w and pH were evaluated . After osmotic dehydration at 4° for 12h, samples were dried by air drier at 50- 60 $^\circ\text{C}$. Tests were accomplished in 6 months with 2 months interval. 5 points hedonic scale was utilized for comparison. Statistical analysis was carried out in a Complete Randomized Design (CRD). Results indicated that the best sensory attributes were obtained when CaCO_3 (1.5 % w/v) was utilized as a pretreatment. Combination of Sucrose & Glucose led to better flavor and appearance. Heating of samples after immersion in osmotic solutions resulted in higher rate of dewatering. During storage, flavor intensity of dehydrated Cantaloupe samples was enhanced.