

## ABSTRACT

The food dehydration's objective is to reduce the water content (75-90%) within the food matrix by applying a circulating hot air over the food, thus prohibiting enzymes and bacteria growth, extending shelf life, and reducing the weight and the bulk of foods. This study investigates the impacts of conventional drying using various temperatures towards the physicochemical quality and the shelf life of breadfruit. The breadfruits were cut into 0.5cm thickness and pretreated with 2% of ascorbic acid solution. The breadfruits were dried by a food dehydrator with three different temperatures (40°C, 50°C, and 60°C). The dried breadfruit was analyzed on its moisture content, weight loss, weight loss decreasing rate, water activity, water activity decreasing rate, and water activity after stored for ten days at room temperature. The results showed that the samples treated with 60°C give a significant ( $P < 0.05$ ) effect on the water activity, weight loss decreasing rate and water activity decreasing rate. There was no significant difference in water activity after being stored for ten days. However, all samples were still considered safe and acceptable since all water activity was below 0.5. This study suggests that the ripening stage, size, and thickness of the breadfruit have to be controlled to improve the data's quality.

**Keywords:** Breadfruit, conventional drying, water activity, moisture content, temperature