

**DEHYDRATION OF SELECTED VEGETABLES
BY DIFFERENT DRYING METHODS**

PhD DISSERTATION

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JULY, 2007

ABSTRACT

The aim of this research work is to dehydrate selected vegetables (i.e. pumpkin, okra and ginger) by different drying methods (i.e. by hot air oven, by the combination of hot air oven and microwave oven, by heated dehumidified air dryer, by sun drying) associated with the comparison between them and also the quality of the dehydrated products. Conventional methods have been used to dehydrate vegetables for the purpose of preservation and to extend storage life of vegetables. However, these conventional methods have low drying efficiency, long drying time and the quality of dried products are rather poor. In this research work, the application of microwave in vegetables dehydration has been studied to verify the effectiveness of microwave dehydration, and to maintain the quality of the dried vegetables as compared to conventional methods. Microwave dehydration had decreased the dehydration time of vegetables with higher energy and drying efficiency. In this study, the microwave dehydration was able to dry vegetables that have better color and texture. This study has shown the potential application of microwave technology for the benefit of food processing.

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