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**POTENTIAL OF ROSEMARY (*ROSMARINUS OFFICINALIS* L.) LEAVES
AND BRANCHES TO ENHANCE STORAGE LIFE OF ONION
(*ALLIUM CEPA* L.)**

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Application of natural products due to health and environmental protection for the management of postharvest fungal rotting of fruit and vegetables has been developed in recent years. Onion (*Allium cepa* L.) is an important vegetable that a considerable amount of the product is lost in the storage process. Onion is as a second vegetable after tomatoes in the world's [1]. Storage condition is one of the most important issue in maintaining quality in postharvest. Accelerating this issue could lead to improving the postharvest quality of fruit and vegetables. To achieve this, a factorial experiment based on randomized complete block design (RCBD) with two factors and three replicates was carried out on the storage life of onions. The factors were storage conditions using Rosemary fresh leaves and branches with five levels and the storage times with ten levels. The storage feedbacks of onions in terms of weight loss and sprouting of onions were analyzed by exposing to different storage conditions and times. The results revealed that keeping the onions at 25 °C using Rosemary fresh leaves and branches resulted in the lowest weight loss and sprouting (the average bud length). Treating the onions with Rosemary fresh leaves and branches showed that 25 °C for 10 weeks significantly controlled the postharvest fungal rotting and improved the storage life of onions. In agreement with the reports of Tripathi and Dubey [2], the findings of this study indicated that the high potential of Rosemary fresh leaves and branches can be considered as an alternative strategy to control postharvest fungal rotting of fruit and vegetables to improve the storage life of onions considering its simplicity and efficacy in decreasing the storage cost, the weight loss and sprouting without causing any environmental toxicity.

References

- [1] Briggs, W. H.; Goldman, I. L. *Plant Cell and Environment*. **2002**, 25, 1031-1037.
[2] Tripathi, P.; Dubey, N. K. *Postharvest Biology and Technology*. **2004**, 32 (2), 235–245.