

Storage Durations Affect the Physico-Chemical Characteristics of *Physalis Minima* L.

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Abstract : *Physalis minima* from the family of Solanaceae is one of the promising fruits which contains the high amount of vitamin C and other antioxidants as well. However, it is a perishable fruit where the deterioration process will commence if the fruits are not stored in proper conditions. There is not much work has been carried out to study the effects of storage durations on *Physalis* fruit. Therefore, this study was conducted to determine the effects of 0, 3, 6, and 9 days of storage on postharvest quality of *Physalis minima* fruits. Total of 120g of uniform sizes of fruits (2.3 to 2.5g) were used for each replication and the experiment was repeated thrice. The fruits were divided equally into four groups with each group labeled according to the days of storage. The fruits were then stored in the cool room for nine days with temperature maintain at 12 ° C. The fruits were analyzed for weight loss, firmness, color (L*, C* and hue angle), titratable acidity (TA), soluble solids concentrations (SSC), pH and ascorbic acids. Data were analyzed using analysis of variance and means was separated using least significant difference (LSD). The storage durations affect the quality characteristics of the fruits. On the day 9, the average of fruit weight loss and fruit firmness decreased about 21 and 24% respectively. The level of ascorbic acids and titratable acidity were also decreased while the soluble solids concentration increased during storage. Thus, in order to retain the quality of the fruits, it is recommended that the *Physalis* fruit can be stored only up to 6 days at 12 ° C.

Keywords : fruit quality, *Physalis minima*, Solanaceae, storage durations

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