

Effect of post-harvest treatment on quality attributes of moroccan pomegranate variety sefri ouled abdellah during cold storage

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Introduction: Pomegranate (*Punica granatum L.*) has received special attention from fruit growers and consumers around the world due to its diverse functionality and famous nutritional benefit in the human diet. Harvested pomegranate fruit is highly susceptible to high weight loss and deterioration in technological quality and nutritional components during postharvest handling and storage. Cold storage is one of the best common methods of conservation technologies performed to extend its availability in the market. This leads to myriad problems of this method that low temperature causes deterioration of quality and nutritional values in pomegranate fruit. The ultimate aim is to find a new way to effectively maintain fruit quality during cold storage.

Tools and method: Thus, the effects of treatment based on Imazalil on their technological quality (Weight loss, color attributes (L^* , a^* , b^* , C and h°), pH, titratable acidity, and total soluble solids), and nutritional components (total anthocyanins contents (TAC), and total phenolics contents (TPC)) in Pomegranate fruits of the variety 'Sefri Ouled Abdellah' collected from the Béni Mellal region and immediately stored at 4°C for 120 days.

Results: Fresh untreated Pomegranates showed high general-quality deterioration (weight loss, color changes, acidity, and total soluble solids) during cold storage. The Treatment based on Imazalil was more effective in delaying the changes and losses in bioactive components when compared with those in control.

Conclusion: This experiment adds to a growing corpus of research showing treatment based on Imazalil is effective in prolonging the technological quality and nutritional components of pomegranate in postharvest during cold storage. Our data suggest that we still have a long way to find the best treatments and storage conditions for pomegranate fruit.

Keywords: Pomegranate, Cold storage, technological quality, nutritional components, Morocco.