

Effect of Post Harvest Treatments with Oxilite on Washington "NavelOrange" Fruits under Cold Storage Conditions

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Abstract : This study was conducted during two seasons (2014 and 2015), on Washington "Navel Orange" fruits (*Citrus sinensis*, L.) obtained from a private orchard at El-Qalubia Governorate. The aim of the current investigation was to study the effect of post-harvest treatments with Oxilite (O_3) on fruit quality of "NavelOrange" during cold storage at $8^\circ C$ and relative humidity (R.H85-90%). Fruits were dipped in Oxilite (**chemical substance for Ozone production**) in two concentrations of Oxilite solution 1:5 or 1:10 (v/v) (10 % Oxilite) for 30 or 60 seconds and (20 % Oxilite) for 30 and 60 seconds beside control treatment. Some Physical and Chemical properties were studied such as fruits weight loss and decay percentage, fruit appearance, fruit Firmness, fruit color, fruit Juice percentage, Soluble Solids Content, total acidity and ascorbic acid. The data illustrated that fruit dipped in Oxilite solution 1:10(v/v for 60 seconds had less fruit weight loss, decay percentage and good color and appearance till the end of storage period 8 weeks in comparison with other treatments.

Key word : Washington "Navel Orange"–Oxilite-Weight loss –Decay- cold storage.

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