



The Effect of Post-Harvest Treatments of Packaged "Kelsey" Plum Fruits with Oleic Acid Kept in Light, Dark or at Low Temperature

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Abstract:In order to manipulate poor coloration and progress forwards ripening and to enhance marketable appearance and storability of plum (*Prunus salicina* L),"Kelsey" plum fruits were treated with oleic acid then kept at light, dark or low temperature. The results of this investigation proved that plum fruits treated with oleic acid then kept at low temperature (4-5°C) for one week gained more anthocyanin pigment, possessed higher firmness and reduced weight loss and electrolyte leakage. In addition, no internal browning or other chilling injury symptoms was appeared. On the other hand, keeping plum fruits in dark or under artificial light at room temperature (22 ±2°C) lowered quality of "Kelsey" plums especially fruit firmness. Thus, the manipulation of coloration and ripening progress of plum with post-harvest treatment with oleic acid then incubation at low temperature (4- 5°C) for seven days would be practical for increasing fruit coloring and marketable acceptance of "Kelsey" plums. These results suggest that low temperature plays an important role in regulating anthocyanin biosynthesis of plum fruits even after harvest.

Keywords:Packaged Kelsey, Plum Fruits, Oleic Acid.

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