

Title Enhancement of anthocyanins and selected aroma compounds in strawberry fruits through methyl jasmonate vapor treatment

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Abstract

The effect of the post-harvest application of methyl jasmonate (MJ) vapor on total phenolics, antioxidant capacity, anthocyanin profile and overall aroma composition in strawberry fruits was examined on days 5, 7 and 11 after treatment. Exogenous application of MJ induced an enhancement in the total phenolic content and antioxidant capacity of strawberries after 5 and 7 days of treatment. Similarly, a significant increase was also registered in the individual and total anthocyanin content on day 5 and particularly on day 7, which resulted in important color changes in the strawberry extracts. However, no effects were observed on the anthocyanin relative distribution as a consequence of MJ treatment. Additionally, the level of several specific key aroma compounds was significantly increased in treated strawberries with respect to untreated samples, the maximum concentration registered on day 5. However, longer storage time up to 11 days after treatment resulted in a considerable decline of both anthocyanins and volatile compounds that might be detrimental to fruit quality.

<http://www.springerlink.com/content/hh08281m77081u70/fulltext.pdf>