

Title Quality changes of Muscat of Alexandria table grapes as influenced by postharvest cluster stem excision

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Abstract

In 2003 and 2004, the potential of using table grapes, cv. Muscat of Alexandria, as fresh-cut products was evaluated by investigating the effects of postharvest cluster stem excision on several quality attributes. Clusters were harvested either at 17 or 19 deg Brix from mature grapevines grown in Okayama, Japan. The treatments included: (1) No excision (C): Intact clusters; (2) Excision at laterals (L): Branches carrying 2-7 berries; and (3) Excision at pedicels (P): Single berries without pedicels. Fruit was placed in commercial packages and stored for 6 days at 25 deg C. As regards aroma, linalool production by P increased markedly without major changes in the other monoterpenes. In addition, high geraniol production was observed in C, while minor aroma changes were observed in L. Total amino acid concentrations increased in P and C in comparison to L. Interestingly, at the end of the experiment, berries of treatment P had the highest firmness and visual quality, followed by C, while L was the lowest. It is concluded that grapes of Muscat of Alexandria are suitable for stemless marketing.