**Title** Phenylethyl alcohol (PEA) application slows fungal growth and maintains aroma in strawberry

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**Abstract**

In order to investigate the effect of phenylethyl alcohol (PEA) on the extension of shelf-life and quality of strawberries, physicochemical properties and flavor changes were determined in PEA-treated strawberries (*Fragaria ananassa* cv. Maehyang). Fungal growth on the surface of PEA-treated strawberries during storage at 4 °C was significantly lower than that of the control group throughout the experimental period. The weight and moisture contents of PEA-treated fruit showed a significantly lower rate of decrease than the control group. Similarly, titratable acidity and the contents of ascorbic acid and sugar were not diminished in the PEA-treated group. The aroma profile of PEA-treated strawberries stored for 15 days was similar to that of fresh strawberries. The strawberry flavor compounds identified from both groups were ethyl acetate, ethyl butyrate, ethyl 2-methyl butyrate, and methyl acetate. In contrast, aroma production and the number of volatiles increased in stored strawberries (without PEA-treatment). In addition to ethyl acetate, isobutyraldehyde, isoamyl acetate, *sec*-*n*-amyl acetate, and *n*-butyl acetate are thought to be the major flavor compounds of stored strawberries. The results suggest that PEA can be used to prolong the postharvest life of this fruit.