

Effect of storage time at low temperature on the volatile compound composition of Sevillana and Maravilla raspberries

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In this study, the effect of storage time at low temperature on volatile compounds in two cultivars of raspberry, *Rubus idaeus* L. cv. Sevillana and Maravilla, was determined. A total of 28 compounds were identified in both cultivars and showed quantitative differences between the cultivars. The Sevillana cultivar was richer in volatile compounds than the Maravilla cultivar. α -Ionone had the highest concentration in both cultivars. We observed opposing trends in the volatile compound composition for the cultivars during storage at low temperature, in which 'Sevillana' lost compounds and 'Maravilla' was enriched. Therefore, storage at low temperature causes important changes in the volatile compound profile of raspberry, particularly the Sevillana cultivar, with significant decreases in C13-norisoprenoids and increases in terpenes. These changes are most likely responsible for the aromatic differences between the cultivars because of the presence of terpenes in 'Sevillana' and C13-norisoprenoids in 'Maravilla'. © 2014 Elsevier B.V.

Low temperature storage

Raspberry

Volatile compound