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Comparison of Essential Oil Components between Leaf and Peel in Citrus Hybrids ('Seto unshiu'×'Morita ponkan')

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The leaf oil components in hybrid seedlings of 'Seto unshiu' (*Citrus unshiu* MARC.) crossed with 'Morita ponkan' (*Citrus reticulata* BLANCO) as the pollen parent were examined. The leaf and peel oil components in the hybrid seedlings were also compared with those of their parents. Twenty eight of the 32 peaks found in the hydrocarbon fraction of the leaf oils were identified. The major compounds were γ -terpinene and β -caryophyllene in 'Seto unshiu' and sabinene and β -ocimene in 'Morita ponkan.' All 40 peaks found in the oxygenated compound fraction of the leaf oils were identified. The major compounds were linalool, (Z)-3-hexenal, and (Z)-2-hexenal. There was a correlation between the leaf oil and peel oil in the percentage of the oxygenated compound fraction in the hybrid seedlings. A similar correlation was found for the parents. When the hybrids were classified according to the major kinds of monoterpenes, such as sabinene and γ -terpinene, and thymol and α -sinensal, the same groupings were obtained with the leaf and peel oils. These results suggested that the flavor of the fruit can be predicted by analyzing the oil in the leaf, which can be sampled much earlier than the fruit.

Keywords: [citrus hybrid seedling](#), [leaf oil](#), [Ponkan](#), [Satsuma mandarin](#), [essential oil component](#)



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