



## Polyphenol variability in the fruits and juices of a cider apple progeny

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Mots-clés	cider apple [9], extractability [10], HPLC [11], Malus x domestica [12], phenolic compound [13], phloroglucinolysis [14]
Résumé en anglais	<p><b>BACKGROUND</b> Polyphenols have a favourable antioxidant potential on human health, suggesting that their high content in apple is responsible for the beneficial effects of apple consumption. They are also linked to the quality of apple juices and ciders since they are predominantly responsible for astringency, bitterness and colour. Major phenolic compounds were quantified by liquid chromatography in fruits and juices from a cider apple progeny harvested for 3 years. The total content of procyanidins and their average degree of polymerisation (DP<sub>n</sub>) were also determined in fruits by phloroglucinolysis. Variability and extraction yield of these compounds were determined. <b>RESULTS</b> The variability observed in the progeny was representative of the variability observed in many cider apple varieties. Hydroxycinnamic acids were the most extractable group, with an average extraction yield of 67%, whereas flavonols and anthocyanins were the least. <b>CONCLUSION</b> This study is the first to introduce variability and extraction yields of the main phenolic compounds in both fruits and juices of a cider apple progeny. This dataset will be used for an upcoming QTL mapping study, an original approach that has never been undertaken for cider apple.</p>
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## Liens

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