

A Comparative Study on the Functional Compounds of Color Potatoes

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This study was carried out to obtain a basic information for the improvement of human health and the development of variety through analysis of organic compounds, contents of three CQA(3-caffeoylquinic acid, 4-caffeoylquinic acid and 5-caffeoylquinic acid) and five anthocyanin (petunidin-3-p-cumaroylrutinoside-5-glucoside, pelargonidin-3-p-cumaroylrutin-oxide-5-glucoside, peonidin-3-p-cumaroylrutinoside-5-glucoside, pelargonidin-3-p-feruloyl-rutinoside-5-glucoside and peonidin-3-feruloylrutinoside-5-glucoside) to color potatoes is Hong-young(HY) and Ja-young(JY). The analytical results on organic compounds in color potatoes were shown as follow, The contents of CQA and Anthocyanin of JY variety were shown to be higher than HY, while CQA and Anthocyanin were appeared to be highest in peel of JY. Overall, JY had higher amount of physicochemical properties than HY.

The results of this study reveal the quantitative analysis of functional compounds seperated from various kind of potatoes, which will enable the acquisition of new bioactive candidates and the establishment of new profit generation models for farmers.

Key words: Anthocyanin, Color Potatoes, Comparative, CQA, Functional compounds

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