OMICS Group Conferences
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2nd International Conference and Exhibition on
Food Technology, Bioprocess & Cell Culture
October 28-30, 2013 Kansas City Marriott Country Club Plaza, USA

Study on functional properties of Hakuwa

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This research is based on the study of functional property of Hakuwa. In the present work, normal rice and Hakuwa were comparatively analyzed for physiochemical attributes. The anthocyanin content, antioxidant property and phenolic content in Hakuwa were determined. The result showed Hakuwa is nutritionally rich food. Proximate composition of rice and Hakuwa showed that; fat content is increased from 0.67±0.29% to 1.62±0.21%, fiber content from 1.10±0.18% to 2.47±0.34% and ash content 0.88±0.34% to 1.08±0.14% and protein decreased from 6.8±0.77% to 6.40±0.53% and carbohydrate from 91.05±0.94% to 88.42±0.14%, calcium and iron content in rice were found to be 22.57±4.12 mg and 1.41±0.21 mg respectively and that for Hakuwa were found to be 31.57±0.98 mg and 3.42±0.14 mg respectively. Calcium and iron content in Hakuwa is significantly increased. The reducing sugar and total sugar is increased whereas total starch is significantly decreased in Hakuwa. Protease and amylase activity is significantly increased. Milling yield of Hakuwa is found to be higher in Hakuwa. Decrease in length while increase in breadth is observed in Hakuwa. Total anthocyanin, IC50 and phenolic content in Hakuwa are obtained to be 114.14±8.55 mg CGE/100 g, 1428.95 µg/mL and 47.9 mg of GA/100 g of extract respectively.

Keywords: Hakuwa, Anthocyanin content, Antioxidant activity, Total polyphenol content

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