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Comparison of Nutritional and Functional Constituents in Cereals

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Cereals or cereal grains, are grasses cultivated for the edible components of their fruit seeds. In this study we evaluated the chemical characteristics of 12 raw cereals produced in Korea. The nutritional and functional contents such as moisture, carbohydrate, crude protein, crude lipid, ash, dietary fiber, minerals(Ca, P, Fe, Na, and K), vitamins (A, E, C, B groups, folic acid, and niacin), total polyphenol, carotenoid, and flavonoid containing isoflavone were investigated. Especially, the dietary fiber were determined and divided into three contents such as total, soluble, and insoluble fibers. As a results, the black rice was shown the high total polyphenol and flavonoid contents. They were included the rich vitamins, minerals, carbohydrates, fats and protein. The other chemical compositions were not shown the remarkable differences among cereal cultivar. This result can be used as basic data for specific cooking or functional study.