Title Status of dietary fiber contents in pigmented and non-pigmented rice varieties before and after parboiling

Author Y.S. Savitha and Vasudeva Singh

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Abstract

Five different varieties of paddy (four pigmented and one non-pigmented) were shelled and milled in pre and post parboiled form, their dietary fiber contents were estimated. Under similar conditions of milling, raw rice showed a high degree of polish (DOP), 9–12 g/100 g and parboiled rice showed low DOP, 4.6–6.6 g/100 g. Dietary fiber content was high in pigmented rice, 9–10 g/100 g compared to non-pigmented, ～6 g/100 g. Soluble fiber content in pigmented head rice (dehusked) varied from 1 to 1.5 g/100 g and in its brokens varied from 0.45 to 1.45 g/100 g. Dietary fiber content was low by about 1% in parboiled rice. In the parboiled rice of pigmented varieties, the total fiber content varied from 7.95 ± 0.15 to 9.05 ± 0.25 g/100 g and the soluble fiber content varied from 0.7 to 0.9 g/100 g. In milled parboiled rice the respective values were 5 ± 0.4 to 6 ± 0.1 g/100 g and 0.85 ± 0.05 to 1.25 ± 0.05 g/100 g. However, the soluble fiber content in the non-pigmented brown rice, IR-64 remained same after parboiling, 0.75 ± 0.5 g/100 g. Milled parboiled rice showed higher soluble dietary fiber compared to milled raw rice. In conclusion, dietary fiber was high in pigmented rice varieties when compared with non-pigmented rice.