

RESEARCH ARTICLE

Evaluation of nutritional quality, physical characteristics and functional properties of organically produced variety of red rice (*Oryza sativa*)

■ Priyanka Joshi and Arti Sankhala

SUMMARY

The present study is an investigation to evaluate nutritional quality, physical characteristics and functional properties of organically produced variety of red rice (*Oryza sativa*). Results revealed that red rice contained 9.6 g crude protein, 1.7 g crude fat, 1.5 g total ash, 2.3 g crude fibre, 73.3 g carbohydrates, 347 kcal energy, 182 mg calcium, 1.76 mg iron and 1.52 mg zinc, respectively. Protein digestibility *in-vitro* of red rice was found to be 65.4 % whereas iron bioavailability was observed to be 0.27 mg/100g that pertaining to 15% availability of iron in the body. Anti-nutritional factors *i.e.* tannin and phytate content of red rice was found to be 0.29% and 0.96%, respectively. Red rice had a strong antioxidant property (75%). Results of physical characteristics and functional properties also showed that good water, oil absorption, emulsifying capacity. Organically produced variety of red rice were found to contain all essential nutrients and thus, can be recommended for regular use in daily diet to contribute various nutrients.

Key Words : Red rice, Nutritional composition, Antioxidant property, Functional property

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