Effect of Processing and Fermentation on Oxalate, Biochemical and Microbial Properties in Horse Gram

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ABSTRACT

Oxalates are considered to be one among the major antinutritional factors in horse gram, that play a key role in kidney stone formation especially when accumulated in urine, predominately derived either by liver synthesis or through absorption of dietary oxalate. Many processing methods are available for reducing these antinutritional factors, thus the present work was carried out to evaluate the best processing methods available for lowering the oxalate content in horse gram. Results showed that fermentation of unprocessed flour (160.12 mg) recorded highest oxalate reduction followed by soaked flour (151.13 mg), germinated flour (132.00 mg), roasted flour (116.25 mg) and cooked flour (103.50 mg/100 g).

Keywords: Antinutritional factors, Fermentation, Horse gram, Oxalates and Titratable acidity