

The Effect of Fermentation and Germination on the Nutrient and Antinutrient Composition of Lima Bean (*Phaseolus lunatus*) Flour

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Abstract : Fermentation and germination of legumes have been an ancient practice. In this study, the influence of fermentation and germination on the chemical properties of Lima bean (*Phaseolus lunatus*) flour were evaluated. The flours were analyzed for their proximate and mineral composition, using the standard assay methods. The result showed that fermentation and germination increased the moisture, protein and ash content of the flours while fiber, fat and carbohydrate were decreased. The protein level of fermented and germinated lima bean increased from 21.06-26.60%. The minerals: iron, copper, zinc, and phosphorous increased due to germination and fermentation. The phytate and tannin levels were drastically reduced in both the fermented and germinated flours. The result of this study revealed that fermentation and germination makes the nutrient in lima beans more accessible as it reduces the anti-nutrients. It is therefore recommended that lima bean be process accordingly for richer and more bio-availability of the nutrients.

Keywords : nutrient, anti-nutrient, fermented, germinated, lima bean flour

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