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Potential of cassava leaves in human nutrition: a review

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Abstract

Cassava is mainly grown for its roots whereas leaves are mostly considered as a byproduct. Cassava leaves are a rich source of protein, minerals, and vitamins. However, the presence of antinutrients and cyanogenic glucosides are the major drawbacks in cassava leaves which limit its human consumption. These antinutrients and toxic compounds of cassava leaves cause various diseases depending on the consumption level. Hence these antinutrients and toxic potential of cassava leaves should be addressed during cassava leaf processing (CLP) before human consumption. Several CLP methods have been developed but every method has its own limitations. Some CLP methods successfully detoxify cassava leaves but simultaneously destroy the nutrients. Efforts have also been made for cassava leaf protein extraction in the form of cassava leaf protein concentrate (CLPC) but protein recovery was very low. This review summarizes the nutrient, antinutrient and toxic composition of cassava leaves, CLPC, different CLP methods, human consumption and diseases caused by cassava leaves. Furthermore, recommendations have been made in order to encourage cassava leaves consumption as an important source of protein and micronutrients.

KEY-WORDS:

Cassava leaves, Protein, Nutrients, Antinutrients, Detoxification, Human consumption

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