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Elephant foot yam (*Amorphophallus paeoniifolius* (Dennst.) Nicolson): The effect of processing on the amino acid profile

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The elephant foot yam (*Amorphophallus paeoniifolius* (Dennst.) Nicolson) is a tropical plant from Southeast Asia, where it is cultivated, but it also grows wild in the Philippines, Malaysia, Indonesia and other countries in the region, including East Timor. Besides being used as food, it is still used in popular medicine to treat some health problems, such as arthralgia, elephantiasis, inflammation, hemorrhoids, vomiting, asthma, dyspepsia, flatulence, colic, constipation, among others [1].

The aim of this study was to characterize the amino acids composition of elephant foot yam from Timor. Fresh and boiled tubers were also compared to evaluate the effect of processing on the amino acids profile.

Samples were prepared as described by Pimentel et al. [2], derivatized with dansyl chloride and analysed by HPLC with fluorescence detection. Analyses were performed in triplicate.

Considering the essential amino acids, for both fresh and boiled samples, the prevailing ones were phenylalanine, threonine, leucine, lysine, followed by valine plus methionine and isoleucine. Similarly, serine was the main amino acid from the non essential fraction, followed by arginine, aspartic plus glutamic acids, alanine and proline. Fresh samples presented higher levels of all amino acids, when compared with the boiled ones. We have concluded that the boiling process has influenced the final concentration of the different amino acids in the samples.

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