

Cooking time before and after soaking and iron and zinc contents in cowpea (*Vigna unguiculata* L. Walp.) cultivar BRS Aracê

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One of the main factors in the adoption of a bean cultivar by consumers and, consequently by producers, is related to cooking time. As most women work outside the house, less time is available for cooking and, for the low income group in particular, the potential reduction in fuel costs, affects cultivar selection. The objective of this work was to determine the cooking time of cowpea and its iron and zinc content before and after soaking. The cultivar BRS Aracê was developed by Embrapa Mid-North, Teresina, Brazil. The sample was sent in polyethylene bags to Embrapa Food Technology and to the Technology and Instrumental Analysis Laboratory/UFRJ for cooking experiments and analyses. The analysis was carried out at Embrapa Food Technology using Inductively Coupled Plasma (ICP) Optical Emission Spectrometry (Spectro Analytical Instrument – Spectroflame P). cowpea cooking time was measured in an experimental JAB-77 cooker, manufactured by São Paulo State University (UNESP) – Jaboticabal – SP), based on the Mattson cooker principle. Comparisons were made between cowpeas that were soaked in water for 16 hours and those that received no soaking. The cowpea cooking time was 32 minutes before soaking and 6 minutes after soaking, respectively. The same results were observed when cowpea was cooked using normal household cooking practices. The iron content ranged from 24.29 mg Kg⁻¹ without previous soaking and 21.09 mg Kg⁻¹ after soaking. The zinc content was 19.30 mg Kg⁻¹ without previous soaking and 16.03 mg Kg⁻¹ after soaking. These results suggest that soaking had negligible effect on iron and zinc content in cowpea cultivar BRS Aracê, but soaking had important impact in the cooking time and therefore potential reduction in fuel costs.

KEYWORDS: cooking time, iron, zinc, soaking.

Acknowledgements: The authors would like to thank HarvestPlus, the Embrapa - Monsanto Research Fund that supports the BioFORT project and FAPERJ.