MINERALS IN AZUKI BEANS \( [Vigna \text{ angularis} \ (\text{Willd.}) \ var. \ angularis \ Ohwi \ & \ Ohashi] \)

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Azuki \( [Vigna \text{ angularis} \ (\text{Willd.}) \ Ohwi \ & \ Ohashi] \) is a red small bean originating from Asian countries, where it is used as a main ingredient in many confectioneries. Due to its nutritional and functional properties, the grain started to be consumed by several populations in different countries, mostly enjoyed in savory dishes, replacing the traditional beans. This kind of bean has a faster digestion than the usual ones. In addition to the basic nutrients like carbohydrate, protein, fiber and also lipids in low levels, Azuki presents vitamins and minerals in its composition that are essential for biological system maintaining and they participate as cofactors in metabolic reactions. The objective of this study was to evaluate the minerals in the variety angularis, which is the most widely consumed variety of Azuki bean. Digestion of the sample was performed by dry method in muffle furnace at 550°C for 6 hours. Minerals quantification was determined by atomic absorption spectrophotometer, using standards solutions for the analytical curve. All analysis were performed in triplicates and the results were expressed in mg/100g of beans. The major mineral was potassium \( (1012.89 \pm 134.68 \text{ mg/100g}) \) followed by calcium \( (237.14\pm15.66 \text{ mg/100g}) \), magnesium \( (1754\pm145.30 \text{ mg/100g}) \) and phosphorus \( (30.37\pm4.78 \text{ mg/100g}) \). The trace elements analyzed were iron \( (3.41\pm0.29 \text{ mg/100g}) \), copper \( (0.95\pm0.09 \text{ mg/100g}) \), manganese \( (2.05\pm0.17 \text{ mg/100g}) \) and zinc \( (2.54\pm0.35 \text{ mg/100g}) \). Sodium \( (1.33\pm0.40 \text{ mg/100g}) \) and aluminum \( (0.61\pm0.17 \text{ mg/100g}) \) were analyzed as well. Based on these results, the variety angularis of Azuki bean can be considered a good food to meet the daily minerals requirements.