# Physical-Chemical Analysis of Hymenaea courbaril Flour for the Development of Functional Food in Combating Anemia and Child Malnutrition

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Child malnutrition is a pathological condition caused by lack of intake or absorption of nutrients. Among the nutritional diseases, a major problem is iron deficiency anemia. The objective of this study was to investigate the feasibility of using jet meal (Hyminaea courbaril) as an alternative to combat malnutrition and anemia in the rural communities of Maranhão. The methods and techniques of research were based on bibliographies, documents, observations, experiences, case analysis, documentation and photographs that served as the basis for substantiating as samples. Analytical procedures determined moisture, total ash, acid, pH, iron content, proteins, lipids, vitamin C, starches and soluble solids. Centesimal composition of 100g of jatobá (Hymenaea courbaril) flour at 94% humidity, 91.4% ash, acidity 1.58, pH 5.79, iron content 0.80mg, protein 5.61g, lipids 3.64g, Vitamin C 33%, starch 8.45g, soluble solids 3%. The levels of ash and fat, protein (by difference) are presented on a dry basis and the results were performed in triplicates. From the results, a factorial design with substitution between 5% and 8% of the flour was carried out. Firmness results for the design formulations ranged from 65% to 66%. The chemical and analytical results showed proteins 8.37g, lipids 2.2g, vitamin C 33g, starch 8.45g, iron 0.80mg, soluble dietary fiber 8.81%, carbohydrate 27.63%, and insoluble dietary fiber 45.79 %.

**Awards Won:**