

Study of the Amazon yam to obtain sustainable food products with higher added value

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In line with the concepts of zero hunger, poverty eradication and sustainable agriculture, this work studied new sources of nutrients that can improve people's health through actions aimed at the consumption of regional Amazonian products. The yam of the *Dioscorea* species has the potential to act as an agent of socioeconomic transformation through practical applications that respect family farming and value the local culture. This species is native to Brazil and occurs in tropical and subtropical regions. Despite its great socioeconomic importance in poor countries, it lacks scientific studies and incentives to expand development, as there is no developed processing chain and, as a result, it ends up losing a considerable part of production due to the only form of commercialization (in natura). The objective of this work was to study the white and purple yams produced in the city of Caapiranga/AM/Brazil, aiming at their greater food use. Samples were evaluated for nutrient chemical composition using official AOAC methods; later, they were subjected to processes for the flour production, aiming to make them more stable and, as a consequence, contribute to their consumption in a safer way. The use of these flours as an ingredient for food application in gluten-free and clean label cookies was also studied, privileging formulations without additives, which were submitted to the sensory acceptance test. The results of the physical-chemical characterization indicated that the yams studied have potential for human consumption. They are good sources of energy, since they have more than 80% of carbohydrates and high fiber content, which is very beneficial for health. In addition, as they are gluten-free, they can serve the healthy product market and the celiac public. Therefore, white and purple yam flour can be an alternative to reduce post-harvest losses, giving stability to the product and adding value. More research needs to be carried out to better understand the nutritional benefits of yam flours, especially with regard to the content of minerals and phenolic compounds. Taking into account that flavor and texture characteristics are decisive for the acceptance of the product, the cookies produced in this work showed good acceptance.