MYCOTOXIN ANALYSIS IN ROASTED BARU NUTS (*Dipteryx alata)*

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The baru nut, valued for its nutritional and sensory properties, represents an important source of sustainable income in the Brazilian Cerrado, contributing to the economy of local communities with minimal environmental impact. This context highlights the nut not only for its economic potential but also for its integration into responsible environmental and social management practices. However, the lack of studies on the presence of mycotoxins in this food raises concerns related to its consumption. This study aimed to evaluate the presence and concentration of different classes of mycotoxins in samples of roasted baru nuts, using a modified Quick, Easy, Cheap, Effective, Rugged, and Safe (QuEChERS) extraction method and analysis by ultra-performance liquid chromatography coupled with tandem mass spectrometry (UPLC-MS/MS) quadrupole type. Seventy samples, collected between July 2022-September 2023, were analyzed, of which six showed contamination by alternariol (8.6 %), with concentrations ranging from 12.2 to 148.2 µg/kg. One sample revealed the

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presence of fumonisins B1 and B2, with concentrations of 242.7 and 27.6 µg/kg, respectively. Remarkably, this study found an absence of aflatoxins, an unprecedented result that, if confirmed by future research, could boost both the local market and the export of baru nuts. The presence of alternariol, a toxin for which there is still no specific regulation in nuts in Brazil, underscores the importance of continuous monitoring and discussions about its regulation. It is concluded that the method used proved effective in detecting mycotoxins in the baru nut, highlighting the need for more studies to assess health risks and contribute to the development of specific regulations for food safety.