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Public perceptions of hazards associated with Brazil nuts (Bertholletia excelsa): Evaluation of risk within an European context

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One of the most important economic plants of the Amazon is the Brazil nut (*Bertholletia excelsa*). Brazil nuts for international trade are mainly obtained from wild collection rather than from plantations, often cited as one of the most important products of extractive reserves in Amazonia. The European Commission (2003/493/EC) has imposed strict regulations on the import from Brazil of Brazil nuts in their shells, as the shells have been found to contain high levels of aflatoxins, which can lead to liver cancer. This may have a negative impact on the Brazilian exports of shelled Brazil nuts, due to possible public awareness. The aim of the present research is to assess public perceptions regarding Brazil nuts and to contrast these with other nuts in general through the use of the Portuguese version of the Perceived Food Risk Index (PFRI).

A sample of 418 consumers was drawn through a door-to-door interview using a random route walk procedure and following a quota sampling controlled for sex, age and location. Consumers were asked to choose the most relevant quality and preservation characteristics and to identify their consumption patterns for Brazil nuts and for nuts in general. Risk perception was evaluated over ten risk characteristics, for each of the following hazards: i) aflatoxins; ii) biological contaminants; iii) organoleptic changes; iv) fragments and strange bodies and v) microbial contamination. Additionally, subjects were asked to rate the probability of each hazard occurring in Brazil nuts or in nuts in general.

Results show high consumptions of nuts in general, and a reduced consumption of Brazil nuts, although with low differences on the dimensions of risk perception. Concluding, this work adds to knowledge about the perceptions of risk connected to Brazil nuts consumption, namely that consumers perceive Brazil nuts as safe as nuts in general.

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