



TAL 797 – Seminário

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Potentials and Challenges of Entomophagy in the Future of Food

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It is projected that by the year 2050, the global population will attain an estimated count of 9.7 billion individuals, thereby engendering a substantial augmentation in the requisition for sustenance. In response to this escalating alimentary demand, the incorporation of alternative nourishment origins, exemplified by the integration of arthropods into the human alimentary regimen, surfaces as an enticing and advisable recourse. Entomophagy, the consumption of arthropods, is not a nascent practice for many, yet has garnered increased scholarly and societal attention in recent years. This heightened interest stems from the endeavor to ascertain more ecologically sustainable protein reservoirs, contrasting with conventional counterparts. When contemplating the ecological and economic facets, the cultivation of arthropods endows numerous advantages: (i) it necessitates minimal technological infrastructure, (ii) entails modest capital investment for its deployment, (iii) furnishes a substantially augmented protein density, (iv) occupies diminished spatial footprints for production, and (v) consumes fewer alimentary and aqueous resources. Furthermore, the nutritional composition of arthropods is noteworthy, characterized by protein concentrations that may reach up to 61%. These proteins are amenable to hydrolysis, yielding biologically active peptides imbued with antioxidant, antidiabetic, and antihypertensive properties. Furthermore, arthropods can be harnessed as constituent elements in the formulation of novel alimentary products, encompassing biscuits, confections, and cocoa-derived comestibles, thereby contributing to the amelioration of their nutritional configuration. Nevertheless, multifarious challenges loom that necessitate resolution, including alimentary neophobia. Consequently, it is imperative to explore innovative strategies for the expansion of the edible arthropod market.

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