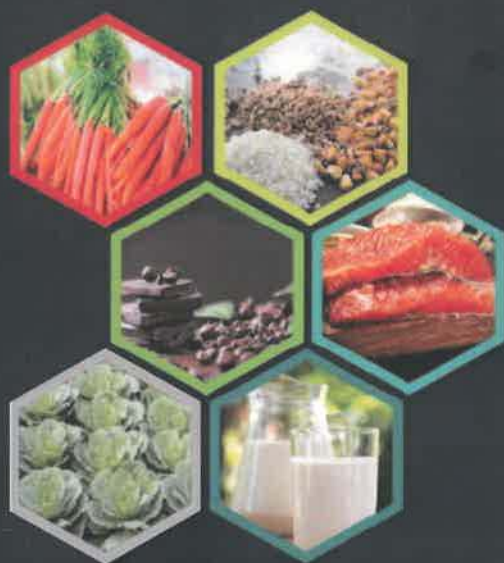


# 2<sup>nd</sup> International Conference on FOOD BIOACTIVES & HEALTH

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Program and Abstracts

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### Phenolic compounds and bioactivity of husk from different rice cultivars

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There is a growing interest in food industry to valorize by-products from food production waste, and husk represents near 20% of raw material for rice millers. This study aimed to characterize the rice husk phenolic compounds extracted from different varieties ("Maçarico", "Ronaldo", "Ceres" COTARROZ) that may contribute to valorize these by-products. The *in vitro* antioxidant properties of the phenolic extracts were also investigated. The phenolic composition of extracts under study was identified and fully characterized by HPLC-DAD-ESI-HRMS/MS. The *in vitro* antioxidant activity of the extracts was assayed by DPPH (2,2-diphenyl-1-picrylhydrazyl) radical scavenging method, and the ferric reducing antioxidant power (FRAP). The LC-DAD-MS profile of the three rice husk extracts presented as main compounds tricin derivatives, including tricin-glycosides and tricin-lignans. Ceres husk presented the highest tricin compounds, while Maçarico husk showed lower amount of these compounds. The antioxidant capacity evaluated by DPPH and FRAP assays follow the same trend as the phenolic profiles. The results show that Ceres husk have potential to be valorized in order to provide flavonoids compounds that can increase paddy rice shelf life. Future works will be conducted in order to evaluate also their antibacterial and cytotoxic properties against tumor and non-tumor cells.