



**THE POTENTIAL OF COFFEE (*COFFEA ARABICA* L.) PULP AND CACAO (*THEOBROMA CACAO* L.) HUSK AS A SOURCE OF PREBIOTICS, ANTIOXIDANTS, AND ANTIMICROBIAL COMPOUNDS**

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**ABSTRACT**

The objective of this work was to determine the viability of the most important agro-industrial coproducts, such as cacao husk and coffee pulp, as sources of bioactive compounds, as prebiotic fiber, and polyphenols as antioxidants and antimicrobials. Main carbohydrates and prebiotic activity score were determined, as well as the characterization of main polyphenols, antimicrobial and antioxidant capability. The flours presented a higher dietary fiber content (64 % for coffee pulp and 70 % for cacao husk), with a higher glucose content in cacao husk flour. This explained the higher prebiotic activity score obtained, as compared to coffee pulp. During lactic acid fermentation, the SCFA was adequate, with a higher production of lactate and acetate when coffee pulp was employed as a carbon source. Total polyphenols content was higher in cacao husk, and although TEAC was higher with this flour, DPPH, and total antioxidant activity were higher for coffee pulp. Cacao husk flour or coffee pulp can be employed as functional ingredients to improve intestinal health promoting the selective growth of probiotics, as well as inhibiting pathogens microorganisms due to their antimicrobial activity. Both ingredients can be employed as natural antioxidants as well.