



Sustainable Use of Local Biomass Resources with Therapeutic Potential [†]

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1. Introduction

Hot peppers (*Capsicum annuum*), *Solanaceae* family, represent the most cultivated species of all four known types of peppers. In this sense, the variety of hot peppers is an exception due to the irritating substance capsaicin [1–3], with multiple therapeutic indications. They are frequently used in therapeutics for their antimicrobial, anti-inflammatory, and peripheral circulation stimulatory properties, as well as antioxidant, vitamin (A and C), and mineral contents [4]. The purpose of this paper is to enhance the valorification of such type of bioresource, by an efficient use of different fractions for the development of bioproducts with input in human and veterinary applications.

2. Materials and Methods

We determined the content of bioactive compounds on different extracts of *Capsicum annuum* parts (pulp and seeds powder) in polar and nonpolar solvents (ethanol, methanol, hexane, and ethyl acetate). The analyses were performed by gas-chromatography coupled with mass spectrometry.

3. Results

The experimental results show that the selected natural materials contained important bioactive substances, among which esters of fatty acids and monoglycerides can be further used for developing new sustainable value chains for bioproducts. Furthermore, the chemical composition of the extracts confirms an important complexity of molecular species, useful for the therapy of cutaneous tissue. Thus, the hot peppers extracts will be further used to obtain complex bioproducts able to treat pain, inflammation, and their complications.

4. Conclusions

In this study, the chemical composition of *Capsicum annuum* extracts revealed through the complexity of molecular species multiple ways of using the local biomass resources in the field of health and ecology.

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