DEVELOPMENT OF EXTRACTIVE SOLUTIONS FROM VISMIA GUIANENSIS (AUBL.) CHOISY USING A FACTORIAL DESIGN

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The use of medicinal plants represents an important source of knowledge of traditional therapy. Vismia guianensis is widely used in Amazon region as medicinal plant against fungi that cause skin disease. The standardization of extractive solutions from medicinal plants is essential for the technological development of phytopharmaceuticals products. The absence of such studies can interfere with the reproducibility of the extraction process. So, it is necessary to know the technological and physico-chemical properties as well as the factors that may have an influence on them. The aim of this study was to evaluate the influence of extractive parameters (extractive method and type of solvent) on the dry residue and total tannin content of extractive solutions from V. guianensis using a factorial design. For this, leaves were used as raw vegetable material, collected at different periods of the year (four batches) and characterized by not pharmacopoeia and pharmacopoeia techniques. Through a factorial design 2x3 was obtained and a standardized extractive solution aiming higher tannin content and dry residue. Samples of all lots of raw material analyzed showed loss on drying below 12%. When comparing the content extraction can be seen that there were differences of soluble solids in water among of batches analyzed. Diameter of particle ranging from 594 to 647 μ m. The characterization of plant material from the four batches of V. guianensis, show that there were significant differences between them, highlighting the influence that edaphoclimatic factors have on the physical and chemical characteristics of plant material. The total tannins content obtained from different extractive solutions varied from 3.26 to 8.64 g%, where the maceration obtained with ethanol showed higher contents. The values of dry residue range from 0.83 to 1.53 g%. The method of decoction using ethanol:water (50:50 v/v) showed the best dry residue. The extractive parameters studied proved to be very influential in the development of standardized extractive solution, the values of characterization can be used as reference for future analysis. For the extraction of tannins from leaves of Vismia guianensis, the best method was maceration, using ethanol as a solvent. To obtain extractive solution with high dry residue, the best parameters were: decoction, using as solvent a solution of ethanol: water (50:50 v/v).

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