ANTIMICROBIAL ACTIVITY OF ETHANOLIC EXTRACT OF RESIDUAL BIOMASS OF *Oneocarpus bataua* (PATAUA)

Authors SILVA, A.L.[1], SAN MARTIN, B.S.[1], ESCHER, S.K.S[1'2], BARATA, L.E.S.[1]

Institutions [1]UFOPA – Universidade Federal do Oeste do Pará (Rua Vera Paz, s/n, bairro Salé – Santarém – PA), [2]UFPEDA – Universidade Federal do Pernambuco – Departamento de Antibióticos (Avenida Professor Morais Rego, 1235 - Cidade Universitária – Recife – PE)

The *Oenocarpus bataua*, popularly known as Pataua, is a palm tree that bears fruit in clusters that are rich in unsaturated fatty acids, these being extracted by the Extractive Industry Amazon Vegetable Oils and marketed, so in an oil for use in cooking cause that has properties similar to olive oil in addition to wine production. After extraction of Pataua oil, a by-product is generated, it is discarded by industry. This residual biomass becomes a problem by the tons that accumulate without a certain destination is found. Faced with the problem of the disposal of waste biomass, there is growing interest in adding value to these. Microorganisms resistant to broad-spectrum antibiotics are emerging more and more. The need to search for new drugs and metabolites with antimicrobial activity justifies this work aimed to test the antimicrobial activity of the crude extract of the Pataua residual biomass against bacteria of clinical interest. The extract obtained from the extraction with 99% ethanol, taken in Sohxlet system. The tested microorganisms were S. aureus and S. epidermidis isolated from clinical cases. Petri dishes containing Agar Mueller Hinton were seeded with 100 µl of bacterial suspensions obeying McFarland scale. Subsequently, 3 filter paper discs soaked with 10µL of the extract in the concentration of 70mg / mL (crude extract / DMSO) were placed over the bacterial cultures. The sensitivity test was read by 48 hours, observing the formation of zones of inhibition of bacterial growth. Was used as positive control Tetracycline and as negative control a filter paper disc soaked with 10µL of DMSO. The results observed were zones of inhibition ranging between 9 and 15mm diameter. It highlighted the need for further research related to residual biomass industry, as these are treated as waste and there is hardly any work in literature related to the reuse of this material.

Keywords: antimicrobial activity, residual biomass, industrial residue