



## MICROBIOLOGICAL ANALYSES OF PIRACUÍ SOLD IN MONTE ALEGRE-PARÁ INDICATE GOOD HYGIENIC-SANITARY QUALITY

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### RESUMO

Piracuí (from Tupi: pira=fish/cuí=flour) is a protein concentrate widely consumed in the Amazon region, generally produced by hand in floodplain areas and riverside communities from the processing of acari fish (*Pterygoplichthys pardalis*), in stages cooking, maceration and drying. The ways of producing and storing piracuí can pose a risk to consumers' health due to the presence of undesirable microorganisms. Therefore, this work aimed to analyze the microbiological parameters of piracuí sold in Monte Alegre, western Pará. The study was conducted at 5 collection points in the municipality, where 5 portions of piracuí from different producers were sampled. Microbiological analyses were carried out following SDA Normative Instruction nº 62 of 08/26/2003. To assess the presence of *Salmonella* spp. in fish, selective enrichment was carried out in cystine selenite broth (35°C; 24h) and Rappaport Vassiliadis broth at (45°C; 24h), isolation was carried out on bright green red phenol lactose sucrose agar and Salmonella- Shigella, both at 35°C for 24h. Bergey's key identified typical colonies. To quantify coagulase-positive *Staphylococcus aureus* in the samples, decimal dilutions were made in 0.1% peptone saline, followed by plating on Baird-Parker agar with egg yolk and potassium tellurite (35°C; 48h). Typical colonies with a transparent halo were counted and subjected to catalase and coagulase tests and identified using the Bergey key. Total and thermotolerant coliforms were measured using the most probable number (MPN) statistical method using lactose lauryl sulfate, bile brilliant green 2%, and EC broths. According to RDC nº 724 of 07/01/2022, *Salmonella* spp. must be absent in 25g of analyzed fish. For thermotolerant, values between 50 - 500 CFU/g indicate intermediate quality and values greater than 500 CFU/g indicate compromised quality. For coagulase-positive *S. aureus*, values between 10<sup>2</sup> - 10<sup>3</sup> CFU/g indicate intermediate quality, and values above 10<sup>3</sup> indicate poor quality. Fortunately, *Salmonella* spp and coagulase-positive *S. aureus* were not found in any piracuí samples analyzed. Our results showed that all samples had values lower than 3 CFU/g for thermotolerant and total coliforms. Therefore, these findings demonstrate a high standard of microbiological quality of this food of cultural importance in the Monte Alegre-PA region, which may contribute to obtaining a quality seal in the future. Funding source: FAPESPA/ CNPQ 2022/14379272 and PA04 AmazonBiotec | Inova Amazônia - Traction.

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