

**Title: HYGIENIC AND SANITARY QUALITY OF WOODEN BOXES USED FOR AMAZON COCOA FERMENTATION**

**Authors:** MORAES, A.C.S.S.<sup>1</sup>; SILVA, L.R.C.<sup>1</sup>; ALMEIDA, S.F.O.<sup>1</sup>; CHAGAS JUNIOR, G.C.A.<sup>1</sup> e LOPES, A.S.<sup>1</sup>

**Institution:** <sup>1</sup>UFPA- Universidade Federal do Pará (Rua Augusto Corrêa Campus Guamá – Guamá - 66075-650. Belém- PA)

**Abstract:**

The cocoa *Theobroma cacao* L. is economically important due to its valuable seeds. The seed of the cocoa is the main raw material for the production of the chocolate, being cultivated in tropical regions around the world. Brazil is fifth largest producer, however the production scale of the cocoa has been hampered with a low-quality production, due to bad driving of the fermentation process, resulting in contaminations by undesirable microorganisms, these contaminations eventually induce the development of chemical compounds that will inevitably result in a cocoa with unpleasant taste, thereby decreasing the quality and value of this product on the market. The cocoa fermentation, hygienic and sanitary conditions of the place where this process occurs are of fundamental importance for the production of a quality chocolate. Considering the above, this study aimed to assess the sanitary hygienic conditions of 3 wooden boxes (n=3) fermentation conducted by standardized way by CEPLAC, which consists of fermentation in wooden box made up of three compartments measuring 3 to 6 meters in length, with partitions each meter and with 1 meter and 20 cm wide by 1 meter high. For this research were collected samples using sterilized swab, from the surface of wooden boxes from the city of Tomé-Açu (state of Pará). Was analyzed the count of mesophilic aerobic bacteria, using the *spread plate* method, fecal coliforms using the technique of determining *the most probable number* (MPN/cm<sup>2</sup>) and *Staphylococcus aureus* by the method of direct counting on plates. According to the analysis, the presence of *Staphylococcus aureus* and fecal coliforms was not detected, the results for mesophilic aerobic bacteria was  $3.0 \times 10^5$  (CFU/cm<sup>2</sup>), which was within the standards set by law. Therefore, the wooden boxes analyzed showed satisfactory sanitary conditions for a good and efficient fermentation with absence of pathogenic microorganisms.

**Keywords:** hygienic and sanitary quality; cocoa fermentation; microorganisms.

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