Importance of A Method of Drying and A Low Microbial Load To Maintain Physical and Chemical Characteristics of Seaweed *Gracilaria domingensis*

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INTRODUCTION: Seaweed are marine organisms with great importance in the pharmaceutical, nutritional and environmental, however due to the high amount of water in its composition it is highly perishable and perfect environment for microorganisms proliferation. Methods for seaweed prior disinfestation are important, reducing this microbial contamination. **OBJECTIVE:** Evaluate the importance of a method of drying and a prior disinfestation in the microbial load of seaweed *Gracilaria domingensis* keeping algae nutritional value. **MATERIAL AND METHODS:** Two samples of *G. domingensis* were collected, one was washed in running water (control) and other was disinfected using sodium hypochlorite (1%) for 10 minutes. Then, both were dried at 60 °C for 9h. Samples of seaweed (10g) were homogenized in 0.1% peptone sterile water. Then serial dilutions were performed (3 folds). These suspensions were seeded in different culture media under incubation parameters for each microbial group: yeast and moulds (PDA agar / 36 ºC / 5 days), total coliforms (Lauryl Tryptose Broth / 37ºC / 48 h) and mesophilic (Nutrient agar / 36°C / 48h). **DISCUSSION AND RESULTS**: Regarding coliforms there was no growth in any of the samples, it indicates that the local seaweed collection is not polluted with sanitary wastewater, since this microorganism is characteristic of fecal contamination. With respect to these molds and yeasts also showed no growth, because fungi requires humidity to development, as the samples were previously dried, expected the absence of fungi. The mesophilic bacteria grew only on control sample having a number of $7{,}1X10^4$ CFU / g of seaweed, the sample disinfected show no growth. A low or non-existent microbial load is important for maintaining higher nutritional qualities of this sample. **CONCLUSION:** An appropriate time of drying, a suitable dry temperature and quick disinfestation are so important to reduce microbial load, maintaining the seaweed nutritional value.

KEY-WORDS: seaweed, microrganisms, disinfestation
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