

High-pressure processing treatment for ready-to-drink Sabah Snake Grass juice

ABSTRACT

This study aimed to investigate the effect of high-pressure processing (HPP) at different pressures (300, 400, and 500) MPa and 5 min processing time on the physicochemical properties, the microbiology count, the bioactive compounds, the antioxidant capacity, and the sensory attributes of ready-to-drink Sabah Snake Grass juice during 36 days of storage. HPP treatment at (400 and 500) MPa significantly ($p \leq .05$) reduced the microbial counts in the juice. In contrast, the pH and total soluble solid content were maintained during the HPP treatments. The HPP treatments resulted in a significantly higher amount of total phenolic content and antioxidant capacity than the untreated samples. However, the sensory quality of the juice subjected to (300 and 400) MPa was strongly preferred as compared to the juice subjected to the 500 MPa. In conclusion, the HPP treatment at 400 MPa was the most effective pressure treatment for processing Sabah Snake Grass juice.