

Title: "Evaluation of the quality of fruit juices in the city of Yaoundé for the development of a quality management protocol"

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The high water content of the fruits makes them very vulnerable to degradation. It is then the importance to process them into products such as fruit juices. However, the uncontrolled proliferation of fruit juices that do not comply with good manufacturing practices can be the cause of public health problem. The present work was carried out to evaluate the quality of fruit juices consumed in the town of Yaoundé with a view to proposing a quality management protocol. The study began with a survey with a questionnaire for fruit juice producers, followed by a simple probabilistic sampling with no-juice draw, followed by labeling analysis and an essential nutritional claim (vitamin C). sub sequently, the evaluation of few physicochemical parameters (degree Brix, pH and titrable acidity) and microbiological parameters (FMAT load, total coliforms and salmonella) were done and as well as the organoleptic quality by sensory analysis (color, texture, sweetness, odor and acidity).The results obtained allowed us to calculate the overall conformity index of the production system and classified the various parameters as a percentage of compliance compared to a pre-established performance grid which allowed us to propose the management protocol of the production system. quality. At the end of the sampling. five fruit juices (two juices from the formal sector, two juices from the informal sector and an imported juice) were selected. An effort has been made to comply with labeling (both formal and imported juice) and nutrition claims. Although the Brix degree of juice was generally respected, no juice had the recommended pH. Juices from the formal and imported sectors were of good microbiological quality, unlike those in the informal sector, which had high loads of FMAT, total coliforms and salmonella. Finally the juices were moderately accepted by the panel; sweetness and color being the most accepted parameters; paradoxically from the organoleptic point of view, juices from the informal sector were more appreciated than those from the informal sector. After evaluating and calculating the compliance indices for each parameter evaluated as a percentage, we found that: the conformity of the manufacturing process was 32%, which corresponds to poor performance; good labeling compliance (81%) was observed; average physico-chemical quality (58.33%) and poor microbiological quality (41.7%); The degree of appreciation of fruit juices was 54%. The overall compliance according to our evaluation grid of the performance of the production system is average (53%) outside the nutritional claim considered as not representative enough. Nevertheless, it emerges from this study that the quality of fruit juices consumed in the city of Yaoundé depends on the sectors, whereas the juices in the formal sector are acceptable, an effort should be made to better control those of the informal sector in order to avoid health problems for consumers.

Key words: Fruit juices, physicochemical, microbiological, organoleptic and quality management protocol

Biography
completed his Master's degree in Food Safety at the age of 28 at the Biotechnology Center of the University of Yaoundé I
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Category: Poster presentation