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30th International Conference on NUTRITION & DIETETICS

10TH Global FOOD SECURITY FOOD SAFETY AND SUSTAINABILITY

February 13, 2025 | Webinar

Study of the links between the physicochemical parameters of five varieties of mango (Mangifera indica) dried in Senegal

Ibrahima BA

Chemestry Departementn Cheikh Anta Diop University , Senegal

In Senegal, to combat the rotting of their produce, women working in GIEs (Genomic interest groups) have been processing mangoes into by-products for some years now. In this work, we studied the links between physico-chemical parameters following three drying techniques: one without treatment (normal) used by women processors, and two others with pre-treatment in a sugar solution of 350g/L concentration, then slightly heated for two and three hours respectively. Proteins were quantified using the Kjeldahl method, sugars using the Luff-Schoorl method, and moisture content. The results of this study show that knowing one of the two indices (browning or yellowing) can accurately predict

the other, but this link is not observed for the other variables. The quantities of sugars, proteins and moisture vary according to variety and drying technique. According to the three drying techniques used, the Kt variety always has the highest quantities of protein, total sugars and reducing sugars, and the lowest browning index. Knt is also rich in total sugars. The five varieties studied give interesting results compared with the literature.

Figure 3: Mango slices being processed, mango slices on the rack and bags of dried mangoes.

Biography

Ibrahima BA is a master's student in Nutrition at the c, where he also earned his Bachelor of Science in Nutrition. With a strong academic foundation and practical experience, Ibrahima has worked as a graduate assistant for the past two years and currently serves as a graduate research assistant. His research interests lie in the cutting-edge fields of nutrigenomics and translational nutrition, focusing on bridging the gap between molecular nutrition research and its application in clinical or public health settings. Sara aspires to deepen her knowledge through PhD studies in these evolving areas, aiming to contribute to transformative solutions for global health challenges.