



Evaluation of food processing in sustainability environment

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A comparative analysis of the environmental/economic performance of air mass process (HPP) technology for food process is formed victimization Life Cycle cost accounting (LCC) and Life Cycle Assessment (LCA) methodologies. Thermal pasteurisation (TP), within the type of indirect system (with energy recovery) and of retort method, and changed atmosphere packaging (MAP), square measure taken as benchmark throughout the analysis, as ancient food process technologies generally accustomed method fruit juice (TP) and sliced Parma ham (MAP). Primary knowledge on prices and consumption of HPP, TP and MAP plants were obtained from corporations. Secondary knowledge for LCA analysis was retrieved from the Ecoinvent three4 information and from on the market scientific literature (Federica et al., 2020).

The objective of this study was to analyze the result of air mass process (HPP) (100, three hundred or 500 MPa for two or 5 min) on microbic inactivation, quality parameters and biological process quality indices of mackerel fillets. a major reduction in TVC and H₂S-producing bacterium was detected at 300 MPa for 5 min and 500 MPa for two for two. Lightness (L*) inflated and redness (a*) reduced at the very best treatment intensities. Hardness, chewiness and elasticity inflated with the foremost intense treatments however neither cohesiveness nor TBARS values were suffering from pressurization. HPP considerably reduced levels of Environmental Protection Agency, PUFAs, HUFAs, DHA, CLAs and inflated MUFAs and SFAs. TI considerably inflated at the very best pressurization intensities and AI was affected once HPP was control for 5 min. However, the magnitude relation PUFA/SFA on top of zero.45 in pressurised mackerel fillets indicated that HPP failed to compromise the biological process worth of this oceanic fish (Mariade et al., 2019).

The energy balance and life cycle assessment (LCA) of typical (thermal) and different (pulsed electrical fields (PEF) and air mass process (HPP)) technologies for preservation of tomato and watermelon juice are evaluated. A comparison between technologies was performed at a similar level of

microbic inactivation while considering a similar production capability on a pilot scale victimization industrial scale instrumentality. the information enclosed within the study, like elect process conditions, energy consumption, water use, improvement agents and maintenance, were through an experiment collected. For the LCA 2 main systems were identified: (1) the primary system reviewed solely the process stage of juice production (from “gate to gate”), and (2) the second enclosed the growth of the boundaries to the agricultural production stage and waste treatment throughout juice preparation and process (from “farm to gate”) (Kemal et al., 2017).

The result of a high hydrostatic pressure (HHP) process (600 MPa, 8 min, 16 °C) throughout one hundred twenty days of storage at 4 °C or 18 °C on the *Listeria monocytogenes* (*L. monocytogenes*) cells inoculated in slices of peninsula dry-cured “chorizo” was evaluated. Mesophilic aerobic plate count (APC) and yeast and mould (YM) counts, instrumental color and macromolecule and macromolecule oxidation were additionally evaluated. HHP resulted during a reduction of three.2 log₁₀ CFU/g in *L. monocytogenes* counts (Cava et al., 2020).

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