



Application of Fuzzy Logic for Sensory Evaluation of Pre-treated Vacuum Fried Carrot Chips

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Abstract: The five various pre-treatments of vacuum fried (VF) carrot chips were evaluated using the sensory evaluation by consumers. Sensory analysis of the samples was conducted based on fuzzy logic model in terms of their ranking. Based on general sensory attributes color and appearance, texture, flavor, taste and overall acceptability of the VF chips five different pre-treatments selected were named and coded as Blanching (C1), Blanching cum drying(C2), Blanching cum freezing (C3), Freezing(C4) and Guar gum (C5). These five pre-treatments were compared with control samples (C6) and atmospheric frying (C7). The output of the fuzzy logic model samples were ranked as excellent, good, medium, fair and not satisfactory. The results of sensory analysis using the fuzzy logic showed order of ranking of the vacuum fried carrot chips follows as $C4 > C3 = C1 > C6 > C2 > C7 > C5$.

Keywords: Fuzzy logic, Sensory study, Pre-treatments, Vacuum frying, Carrot chips
