عنوان مقاله:

Evaluation of Sensorial, Chemical, and Microbial Characteristics of Pickled Cucumber Supplied in Shiraz

محل انتشار:

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خلاصه مقاله:

Background: Cucumber is one of the vegetables that are widely preserved by fermentation in brine. Vegetables such as cucumber are normally not washed in the commercial centers and this causes microbial growth during fermentation. At the beginning of the fermentation process, lactic acid bacteria, depending on the environmental conditions, begin to grow. The aim of this study was to compare the microbial, chemical, and sensorial characteristics of canned and bulk pickles. Methods: In this study, a random sampling was implemented from the pickles of three locations in Shiraz city as suppliers of pickles. The sensorial evaluation was also conducted by 60 members of the hospital staff. Data was collected through questionnaires. Sensorial evaluation was performed using a hedonic scale of nine points. For microbial assessment, Iran National Standards 2326 was used. Results: The results of the microbiological tests showed that bulk pickles were infected with mesophilic aerobic bacteria at 26.6%, aerobic thermophilic bacteria at 6.6%, and 43.3% by mold and yeast; while canned pickles (with license the Ministry of Health) were infected 13.3% by mesophilic aerobic bacteria. The average pH of the bulk samples based on the national standard was more than the maximum allowed level. The results of the sensorial evaluation of taste, texture, color, and overall acceptability showed that canned pickles had the most overall acceptance and texture acceptance points and bulk pickles had the most points of flavor and color acceptance. Conclusions: According to the findings, it seems that the use of herbs in bulk pickles is the main cause of increase in the microbial load and rated the taste, because .fragrant fresh vegetables have a greater impact on the microbial load than dried vegetables

كلمات كليدى:

Pickled cucumber, Microbiological, Sensorial, Chemical, Characteristic

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