Microbial evaluation of Ready-to-eat foods served in canteens and Cafes of an university campus from portugal

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The goal of university food establishments is to produce healthy, varied food with high quality and safety. Although various studies referred that implementation of food safety systems based on HACCP principles improved the safety meals, the occurrence of Foodborne diseases (FBD) still be prevalent. Canteens and cafes are regularly associated to the occurrence of FBD.

This study was carried out in food establishments (6 cafes and 5 canteens) from a university campus of Portugal in view to evaluate the effect of season and food category in the microbial counts of ready-to-eat meals. These were grouped in four categories: cold meals, hot meals, pastries (fresh and salt) and salads, resulting in a total of 125 samples. Detection of Salmonella sp., Listeria monocytogenes and Staphylococcus coagulase positive were performed and lactic acid bacteria, Pseudomonas spp., Yeasts/moulds, Enterobacteriaceae, Escherichia coli, Bacillus cereus, Clostridium perfringens and total aerobic counts (TAC) were evaluated.

Significant differences were obtained for food categories, however no significant differences were found for season effect. However, when analysing the TAC by category of meal vs season, we verified that salads and cold meals had higher counts in summer months. The cold meals reached lower values in spring and autumn months. Pastries also had higher TAC in the warmer months.

No samples were classified in satisfactory or unacceptable level for the indicators and pathogen used. However, it becomes evident that is necessary to enforce a continuous improvement of food safety in order to reduce the risk of FBD.

Biography

Kamila Cavalcante Gomes Soares was graduated in Food Science in 2011 at University Trás-os-Montes e Alto Douro. She completed her Food Safety Master in 2013 and has started her PhD in Veterinary Sciences, researching about food safety systems applied to univerisitary food establishments and food handlers knowledge, practices and attitudes with one paper published in food handlers training programs.

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