# EVALUATION OF MICROBIOLOGICAL QUALITY OF PACKED AND UNPACKED HERBAL AND FRUIT TEA

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Herbal and fruit teas are defined as tea made from any medicinal or aromatic plant other than tea plant (*Camellia sinesis*) and fruits. They are usually consumed in dry form and prepared with hot water. However, various microorganisms can contaminate the dried herbal products during cultivation, harvesting, or post-harvest process. According to the studies unpacked products are more at risk of high amount of contamination. Although most of these microorganisms can be inactivated after contact with hot water, some of them can survive. According to Codex Alimentarius Commission, dried herbal teas should be free of pathogenic microorganisms. Likewise in Turkish Food Codex, herbal and fruit teas and their mixtures should contain a maximum limit of (M) $10^5$ log cfu/g, and a minimum limit of (m) $10^4$ log cfu/g yeast and mold, and the presence of *Salmonella* was set to 0/25 g-mL. Nevertheless contamination of several pathogens and even poisoning cases related to the *Salmonella* contamination has also been reported in such products. Especially the well-known hazardous pathogen in milk-based formula for baby, i.e. *Enterobacter sakazakii* (*Cronobacter sakazakii*) is one of the most undesirable in dried herbal and fruit teas, because of its resistance to drying process. The importance of this is due to the usage of herbal teas in some case for baby feeding. Consequently, the unpacked products without controlled production might bear a significant health risk for the mother and baby. It is assumed that, due to the increased interest to usage of natural products such as herbal and fruit teas in adult and baby feeding in last decades, their safety should be analysed quantitatively in point of view their packed and unpacked forms.

**Biography**

Gül ÖĞREN has completed her bachelor from Erciyes University, Department of Nutrition and Dietetics, 2014. She is continued her master degree in Marmara University, Department of Nutrition and Dietetics, Istanbul. And she is also research assistant at the same university.