Chemical Composition, Antibacterial and Antioxidant Effect of *Salvia Officinalis, Mentha Piperita* and *Mentha Longifolia*

**Abstract**

**Background and Objective:** The aim of this study was to evaluate chemical composition, antibacterial and antifungal effect and antioxidant property of *Salvia officinalis, Mentha piperita* and *Mentha Longifolia*.

**Material and Methods:** At first, chemical analysis of essential oils was determined using GC/MS. Then the antibacterial and antifungal effect of tested essential oils on *L. monocytogenes, S. aureus, S. typhimurium* and *E. coli* and two fungal strains including *A. niger* and *A. flavus* were determined using disk diffusion agar and broth microdilution methods. The antioxidant property of essential oils was evaluated using DPPH assay.

**Results:** Linalool (14.38%), l. menthone (19.03%) and δ-terpinene (21.78%) were the major components of *Salvia officinalis, Mentha piperita* and *Mentha Longifolia*, respectively. all tested essential oils had antibacterial effect on foodborne pathogens, which was comparable with tetracycline’s effect. In addition, all essences had appropriate antioxidant potential compared with BHT.

**Conclusion:** based on the results, *Salvia officinalis, Mentha piperita* and *Mentha Longifolia* can be introduced as appropriate natural preservatives.

**Keywords:** *Salvia officinalis; Mentha piperita; Mentha Longifolia, Antibacterial Agents*