

The effect of olive leaf extract as antioxidant and antimicrobial agent on sensory properties and shelf life of muffin cake

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Oxidation of fat and oils has a key role in reduction of nutritional and organoleptic properties of foodstuffs. Nowadays, new tendency has created to use of natural antioxidant such as herbal extract in food industry. olive leave is a medical plant that have so healthy benefits. In this study ,antioxidant and antimicrobial effects of olive leave extract in muffin cake prepration were evaluated during 0,15 and 30 days of storage. For evaluation of this matter three different group of muffin cake werer produced. 1-cake were treated with olive leave extract in three levels (750,1500 and 2250 ppm) 2- cake were treated without any synthetic and natural antioxidant.and antimicrobial agent as blank sample 3- control samples, commercial cake including synthetic antioxidant (TBHQ) and antimicrobial (potassium sorbate) agent. in all samples peroxide value, acidity, humidity, microbial test (yeast and mold) and sensory evaluation (color, taste, flavor, texture and overall quality) were determined. Statistical results showed that,the sample containing of 750,1500 and 2250 ppm olive leave extract, respectively, have good antioxidant activities.in comparation with the blank and samples containing TBHQ . in sensory evaluation, samples containing of 750 and 1500 ppm olive leave extract have higher score than the sample with 2250 ppm olive leave extract. Generaly , it can be concluded that olive leave extract could be used as natural antioxidant in muffin cake. Results of antioxidant, antifungal and organoleptic assays showed that optimum concentration of olive leave extract for using in cake is 1500ppm. Key words: olive leave extract , muffin cake , antioxidant activity , antimicrobial activity

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