

## EVALUATION OF EFFECT OF CALCIUM CHLORIDE AND SOME ESSENTIAL OILS ON POSTHARVEST OF STRAWBERRY FRUIT

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**INTRODUCTION:** Strawberry is kind of mortal and short-living fruits after harvest, using essential oils which is natural and also using Calcium Chloride that has the calcium cause this fruit to be more lasting. In this study tried to figure out the different concentration of essential oils, *Thymus vulgaris*, *Thymus kotschyanus* and Calcium Chloride on some factors of postharvest of strawberry.

**MATERIALS AND METHODS:** This research was conducted in a completely randomized design with 4 treatments each with 3 replicates. Essential oils, *T.vulgaris* and *T.kotschyanus* in 0-100-200-300 µl/l and Calcium Chloride 0-100-200-300 mg/l concentration are used in this experiment. Measured factors and methods used are: the amount of total soluble solid (TSS) using refractometer and Brix index, the amount of vitamin C according to Nisperos-Carriedo & Busling(1992), the amount of soluble sugar according to Fulai *et al.* (2000) and the activity of Oxidized polyphenols enzyme (PPO) according to Manoranjan & Mishram (1976).

**RESULTS AND DISCUSSION:** The results showed that using the 300 µl/l concentration of *T.vulgaris* in comparison to other concentration were significant in TSS, vitamin C and Soluble sugar. The 200µl/l concentration of *T.vulgaris* and *T.kotschyanus* and the 300 mg/l concentration of Calcium Chloride have increased the rate of activity of PPO. Using essential oils because of being antifungal, also Calcium Chloride increase postharvest strawberry fruits.

**Keywords:** Essential oils, Calcium Chloride , Postharvest, strawberry

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