

**P-130 (41)****EFFECT OF SAVORY ESSENTIAL OIL, EDIBLE COATING AND HOT WATER ON THE PHYSICO-CHEMICAL PROPERTIES OF MEXICAN LIME PEEL INOCULATED WITH *PENICILLIUM DIGITATUM***

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The most important cause of rotting in Mexican lime fruit is the *Penicillium* species, particularly *P. digitatum*. *Penicillium* mycelia enter to the fruit through surface lesions and punctures and deteriorate fruit. This research was carried out to control green mold using savory essential oil extracted after drying using Clevenger apparatus by hydro-distillation method. In this experiment, fruit inoculated by spores were treated by 7 treatments including savory essential oil (800 and 1000  $\mu\text{l L}^{-1}$ ), edible coating of gum Arabic (2.5 and 5%) and hot water (40 and 50 °C) and water (Control) treatment for 5 minutes with three replications. The treated fruit were packaged in polyethylene bags and it was kept at 8 °C and 85% RH for 4 weeks. Based on the results, the lowest amount of polyphenol oxidase was found in fruit treated with savory essential oil (800  $\mu\text{l L}^{-1}$ ) followed by other treatments compared to control. The maximum lightness ( $L^*$ ) and chlorophyll was found in fruit treated with hot water. The maximum chromacity was found in fruit treated with savory essential oil and hot water, respectively. These treatments delayed the changes of fruit color.

**Keywords:** Green Mold, Polyphenol oxidase, Chlorophyll, Color