ABSTRACT

Msc. Thesis

A RESEARCH ON DETERMINATION OF NAPHTHALENE RESIDUE IN WAX FOUNDATION

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In this study, the determinations of naphthalene residue used against to wax moth (*Galleria mellonella* L.) giving damage to the beeswax and the possibilities of cultural practices to lessen the naphthalene residue in the beeswax foundation were investigated. As the wax moth (*Galleria mellonella* L.) nourished on the wax comb with honey, pollen and broad in the larvae phases, it also causes important damages in the beeswax. In this study, the samples of wax foundations produced from old dark combs from 4 different factories were used to determine the residue levels at the initial and after 60, 120 and 180 days of airing. The average residue quantity at the beginning was 21.48±3.657 ppb, however the averages after 60, 120 and 180 days of airing were 7.97±0.764 ppb, 6.22±0.290 ppb and 5.41±0.332 ppb, respectively. Consequently, it was determined that the residue quantity of naphthalene on the wax foundations was reduced significantly after 60 days of airing ($P<0.05$).

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Key words: Beeswax moth **(***Galleria mellonella* L.), naphthalene, wax foundation, residue.