

P-99 (191)**EFFECTS OF OZONE CONCENTRATIONS AND EXPOSURE TIMES ON THE MORTALITY OF THE INDIAN MEAL MOTH IN DIFFERENT AMOUNTS OF DRIED FIG FRUITS**

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The Larva of Indian meal moth, *Plodia interpunctella* (Hübner), is one of the most damaging pests of such stored products as dried fig (*Ficus carica* cv. Sabz) fruits. Ozone was applied as a gas at three concentrations (0, 10 and 15 grams per hour) for four fumigation periods (24, 48, 72, and 96 hours) on the different stages of *P. interpunctella* in two amounts (20 and 500 Kg) of dried fig fruits with three replications. So far, ozone experiments have been applied to the small amount of other stored product or it was tested on *P. interpunctella* in the laboratory. The ozone effects were evaluated on the stored pests in a large amount of stored dried figs for the first time. The results indicated that by increasing exposure time (fumigation periods), the rate of mortality increased for all tested stages. This study showed that 72 and 96 hours' exposure times were more effective than other times. Two amounts of dried fig fruits had the same results on mortality because of gas distribution in the different part of large boxes. The fumigation period is reduced with increasing gas concentration. The effect of ozone on the skin color of dried fig fruits was investigated, which did not observe any significant changes.

Keywords: Larva, pest, skin color, stored products