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Effects of Insecticide Residues on Some Quality Attributes in Tomato Fruits and Determination their residues

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Abstract : Pesticides are known to interfere with the biochemical processes of plants, lowering their food quality. So this study was designed to evaluate persistence of some insecticide residues in fresh tomato fruits and investigate its effects on fruits quality. The results showed that, the preharvest interval (PHI) for tomato fruits treated by chlorpyrifos, carbosulfan and acetamiprid was more than 15 days, while it could be safely used at 15 days after spraying in case of betacyfluthrin. However, chlorpyrifos appeared to have relatively longer persistence with $t_{1/2}$ 6.86 days than other compounds. Obtained data revealed also there is fluctuation in all quality parameters activities during the experiment periods, however, the peak of these activity was happened after 3 or 5 days for application. Also, all insecticides caused significant increase in average of fruits quality parameters values.

Keywords : Tomatoes, Pesticide residues, Fruits quality

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