Abstract: Pesticides are chemicals used in intensive agricultural struggles. Intensive and incorrect use of pesticides can cause adverse effects on humans. In this study, blood SOD, CAT, MDA, AST, ALT, GGT, LDH levels were investigated in 44 greenhouse workers (24 tomato workers, 20 clove workers) and their produced tomato (24 samples) and clove (20 samples). At the end of the study, blood MDA, ALT, AST and LDH levels in greenhouse workers were found to have significantly increased while SOD and CAT levels had significantly decreased. Pesticide residue was not determined in agricultural workers' blood. Malathion residues (average 0.8 ppm) were determined in produced tomatoes (8 samples) in these greenhouses. We can conclude that the health of the greenhouse workers and tomatoes may be adversely affected by pesticides.

Introduction: For centuries, several hundred pesticides have been used in agricultural practice in order to enhance food production by eradicating unwanted insects and controlling disease vectors. These pesticides differ greatly in their modes of action; uptake by the body, metabolism, elimination from the body and toxicity to humans. Occupational exposure occurs in the mixing and loading of equipment and in the spraying of insecticides. The improper use of pesticides may engender a biological effect through the active ingredients and associated impurities.

Results: The distribution of the subjects with respect to age and years of exposure is presented in table 1. The mean age of the subjects in the group exposed to pesticides (35.2 ± 3.55 year) and in the control group (36.1 ± 4.63 year) was not statistically different.

Conclusion: The results of the present study support the view that pesticide-related effects on people and the environment during their use, and also pesticide residues in foods, remain a very serious problem. The results of this study reveal the adverse effects of pesticides on human health once again.