

Project Title: Documenting and mitigating the impact of pesticides and heavy metal residues on vegetables

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Several insects/pests attack the vegetables at different stages of their growth resulting in 35-40% loss in the yield of vegetables. Pakistan is one of the biggest consumers of pesticides in the world after India. The use of insecticides on fruits and vegetable crops has been reported to be 27% of the total insecticide used; this alarmingly high usage rate poses hazards to the human and the environment. The US Environment Protection Agency (EPA) reported pesticides in food as one of the nation's most serious threats to human health and environment. Farmers have to spend a major portion of their capital in purchasing pesticides and such chemical so that they can get good per acre growth. However, on the other hand, organic farming and cultivation is natural and safe. Therefore, by minimizing the amount of hazardous pesticides used, consumer safety is enhanced (both producer and consumer) from effects of pesticide use in vegetable production by documenting the level of pesticide residue on selected vegetables and socio-economic constraints and impact of producing organic vegetables. Exports can be enhanced by minimizing the pesticides effect or by convincing farmers to legitimate their pesticides usage and encouraging them to do organic farming. People suffering with different food borne maladies including diarrhea, mutagenicity, carcinomas, etc can also be lessened by using organic products or by using products with minimum or no pesticides residues.