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## An Empirical Analysis of Farmers Field Schools and Effect on Tomato Productivity in District Malakand Khyber Pakhtunkhwa-Pakistan

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Abstract: Farmer Field School (FFS) is constantly aims to assist farmers to determine and learn about field ecology and integrated crop management. The study was conducted to examine the change in productivity of tomato crop in the study area; to determine increase in per acre yield of the crop, and find out reduction in per acre input cost. A study of tomato crop was conducted in ten villages namely Jabban, Bijligar Colony, Palonow, Heroshah, Zara Maira, Deghar Ghar, Sidra Jour, Anar Thangi, Miangano Korona and Wartair of district Malakand. From each village 15 respondents were selected randomly on the basis of identical allocation making sample size of 150 respondents. The research was based on primary as well as secondary data. Primary data was collected from farmers while secondary data were taken from Agriculture Extension Department Dargai, District Malakand. Interview schedule was planned and each farmer was interviewed personally. The study was based on comparison of cost, yield and income of tomato before and after FFS. Paired t-test and Statistical Package for Social Sciences (SPSS) was used for analysis; outcome of the study show that integrated pest management project has brought a positive change in the attitude of farmers of the project area through FFS approach. In district Malakand 66.0% of the respondents were between the age group of 31-50 years, 11.3% of respondents had primary level of education, 12.7% of middle level, 28.7% metric level, 3.3% of intermediate level and 2.0% of graduate level of education while 42.0% of respondents were illiterate and have no education. Average land holding size of farmers was 6.47 acres, cost of seed, crop protection from insect pest and crop protection from diseases was reduced by Rs. 210.67, Rs. 2584.43 and Rs. 3044.16 respectively, the cost of fertilizers and cost of farm yard manure was increased by Rs.1548.87 and Rs. 1151.40 respectively while tomato yield was increased by 1585.03 kg/acre from 7663.87 to 9248.90 kg/acre. The role of FFS initiate by integrated pest management project through department of agriculture extension for the development of agriculture was worth mentioning. It has brought enhancement in crop yield of tomato and their income through FFS approach. On the basis of results of the research studies, integrated pest management project should spread their developmental activities for maximum participation of the complete rural masses through participatory FFS approach.

**Keywords:** agriculture, Farmers field schools, extension education, tomato

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