**Lethal effect of pesticides use on crops used by the farmers in comparison to safe to use ecofriendly biofertilizers.**

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**ABSTRACT**

The quality of fresh produce is often judged by visual characteristics such as size, shape, color, and freedom from blemishes which, it could be argued, are enhanced by pesticide and fungicide applications. A wider definition of food quality which includes six criteria, embracing functional, biological, nutritional, sensual, ethical and ‘authentic’ considerations. The present studies deals with a combinatorial study and breakthrough aimed at differentiating the conventional and organic farming systems, thus ensuring the criteria food security and safety of food. A Field trial was laid out in a Randomized Block Design (RBD) underlying three farming systems viz. organic, conventional and chemical treatments, with eight treatments replicated thrice. The data pertaining to estimation of various parameters was analyzed by significance tests tested by analysis of variance (ANOVA) ($p $=0.05) with SPSS STAT 20 Software for Randomized Block Design (RBD) and Post Hoc Tukey’s Test. The pesticide residues analysis by GCMS in the present studies, revealed a lower percentage of residues in organic tomato fruits as compared to the control. A considerable reduction of 0.28ppm in propergite residues, 0.03ppm in deck and 3.77ppm in acephate was recorded under organic treatment (T₃) over the control during two consecutive years of study. It can be concluded from the present studies that by adopting appropriate combination of organic production technologies, food safety can be enhanced.

**Key words**: Tomato, organic amendments, GCMS, Food safety, Pesticides.