RESEARCH PAPER

## Economics and pesticide use efficiency in vegetable crops in district Kanpur, Uttar Pradesh

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**Abstract:** The study was under taken with 60 vegetable growers in Kalyanpur block of district Kanpur during 2007-08 on three major vegetables *viz.*, tomato ,brinjal and chilli. The highest plant protection cost Rs. 1994 per hectare was measured for chilli constituting 6.3 per cent of total variable cost. The plant protection cost of tomato was Rs.1911.37 per hectare with a tune of 8.6 per cent variable cost, while lowest cost of plant protection was measured Rs. 1578/ha in case of brinjal constituted with 10.8 per cent of total variable cost. The pesticide use efficiency analysis for tomato revealed that one per cent increase in value of plant protection reduced the yield by 0.11 per cent reflected the over use of pesticide while production elasticity of labour (0.18) and fertilizer (0.14) indicating further scope of enhancing the labour and fertilizer for better yield of tomato crop. The pesticide use efficiency of brinjal indicating positive response and resulted 0.20 per cent increase in yield of brinjal by increasing one per cent more dose of the pesticide. The production elasticity of fertilizer (0.30) and labour (0.29) also resulted positive response and further scope in brinjal crop. The pesticide use efficiency for chilli crop (-.03) showed a negative response for plant protection and restrict the further use of plant protection chemicals. The production elasticity for labour (0.25) and fertilizer (0.43) indicated under use of nutrients and man power. Hence, there is still scope for increasing man power and fertilizers to improve the yield of chilli crop in the study area.

Key Words: Economics, Pesticide use efficiency, Production elasticity, Marginal value product

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