

RESEARCH ARTICLE

# Economic and health consequence of pesticide used in cotton crop in western region of Tamil Nadu

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ABSTRACT

Pesticides help the producer to minimize the pest damages to crops and there by minimize the yield losses. This paper examines the economic and environmental impacts of plant protection measures in IPM and non-IPM cotton growing areas in the western zone of Tamil Nadu. Cobb-Douglas production function was utilized to analyze the resource-use efficiency in IPM cotton non-IPM cotton. The co-efficients of pesticides were negative and significant indicating the over usage of pesticides and increased cost of production there by reducing yield. Environmental Impact Quotient Index (EIQ) was used to quantify the impact of pesticides on human health and environment in sample farms. The high EIQ values denoted in non-IPM cotton (46.93) compared to IPM cotton. The important safety precautions like using masks or gloves were followed by only very few farmers in all sample farms. This study suggested that to assure the environmental hazards and the government needs to promote training on IPM practices and the farmers should be educated to follow safety norms while handling the pesticides.

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