

Pesticide Risk: A Study on the Effectiveness of Organic/Biopesticides in Sustainable Agriculture

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Abstract : In agriculture and farming, pesticides are frequently used to kill off or fend off any pests (bugs, bacteria, fungi, etc.). However, traditional pesticides have proven to have harmful effects on both the environment and the human body, such as hazards in the endocrine, neurodevelopmental, and reproductive systems. This experiment aims to test the effectiveness of organic/bio-pesticides (environmentally friendly pesticides) compared to traditional pesticides. Black pepper and garlic will be used as bio-pesticides in this experiment. The results support that organic farming applying organic pesticides operates through non-toxic mechanisms, offering minimal threats to human well-being and the environment. Consequently, consuming organic produce can significantly diminish the dangers associated with pesticide intake. In this study, method is introduced to reduce pesticide-related risks by promoting organic farming techniques within organic/bio-pesticide usage.

Keywords : pesticide, garlic, black pepper, bio-pesticide

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