



# Biodegradation of Pesticides in Soil Amended with Different Organic Matters

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**Abstract:** The biodegradation of pesticides is a vital process that controls pesticides' fate in soil. Organic matter has been proven to enhance biological activity in soil. The efficiency of microbial to degrade pesticides can be increased by adding organic matter to the soil. In this study, two types of organic matter (wheat straw and sheep residue) were added to soil to study the biodegradation of two types of pesticide (fungicide Topsan and herbicide Convidens) under different incubation periods. Results showed that the addition of organic matter increased the amount of CO<sub>2</sub> released. The CO<sub>2</sub> released from the treatments increased with increasing the incubation period. The incubation period of twenty one days recorded the highest amount of CO<sub>2</sub> release in all treatments. The number of bacteria and fungi in all treatments had significantly increased compared with the control treatment. Therefore, organic matter, especially wheat straw treatment, can be recommended in enhancing the degradation of pesticides in soils.

**Keywords:** Organic matter, Pesticides, Biodegradation, CO<sub>2</sub> release, Soil contaminated

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