The Effectiveness of Mushrooms as a Biodegrading Agent for Common Waste

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Waste degradation is an urgent issue that humanity must try to mitigate. Pink oyster, turkey tail, and Pestalotiopsis mushrooms are three fascinating species that have shown remarkable potential in degrading waste. Pink oyster mushrooms (Pleurotus djamor) are known for their vibrant pink color and are commonly found in tropical and subtropical regions. These mushrooms have been found to effectively break down a wide range of waste materials, including agricultural residues, paper waste, and even petroleum-based products. Similarly, turkey tail mushrooms (Trametes versicolor) have demonstrated their ability to degrade various types of waste, particularly in the realm of environmental remediation. The incredible waste-degrading capabilities of these mushrooms highlight their potential as key players in sustainable waste management practices. To test the waste-degrading capabilities of these mushrooms, three types of mushrooms were grown in a controlled school environment. The mushrooms were split into separate mycelium cakes resulting in three Pink Oyster, three Turkey Tail, and three Pestalotiopsis mushrooms in total. After the mushrooms began to fruit, petroleum gas and polyurethane sponge were added to each individual mushroom sample. After a week, the weight and liquidity of each mushroom sample were taken. It was observed that all mushrooms were equally capable of absorbing petroleum oil and pestalotiopsis performed the best at degrading plastic. Therefore, all three mushrooms can be used as an effective way in waste degradation of crude oil spills and pestalotiopsis would be efficient at assisting in degrading plastic waste, making these mushrooms a potential solution to help in waste degradation.

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