Decomposition of Artificial Materials With Oyster Mushroom (Pleurotus ostreatus) Culture

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This research is about decomposing artificial materials with oyster mushrooms. The author chose this topic as there is a huge amount of plastic on earth that could be broken down. The subject is also on the agenda as it would contribute to the improvement of pollution levels and promote a greener future. For example, difficulties in reusing masks during the pandemic and getting rid of simple plastic at home. The aim of the work was to investigate in more detail what kind of plastic can an oyster mushroom break down, in which environment they break down the plastic, and which home conditions are suitable for oyster mushrooms. A prototype was made that included both the fungus and the materials that were part of the study. The hypothesis of the research work was that the oyster mushroom decomposes most of the plastic used for household purposes in two months, and it could be used in home conditions. The research demonstrated that it in fact did not decompose used plastic in two or four months however it thrived in home conditions. The knowledge may be used to create an even better prototype of it, this time by placing the materials in the mycelia.

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