

Development of Functional Biofertilizer using Ectotrophic Mycorrhiza Mycelium

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In this work, 6 kinds of soil microbes were selected to culture. The most important organism of them is Suillus bovinus—the mushroom mycelium. To work with the mycelium a deuteromycetes Trichoderma harzianum that species grow and proliferate best has to be added. The other strains, two fungi Streptomyces griseoviridis and Aspergillus oryzae, and two bacteria Pseudomonas sp. and Bacillus subtilis will be selected to help the action the main species Suillus bovinus does to plant.

The material of functional ceramic was processed economy with wastes from ferrite pulverization, slag of Posco and sawdust from sawmill or fruit farm pruning. For producing the microbes, sawdust 80%, and rice bran 19.5% were mixed with ceramic functional powder 0.5%, then sterilized at atmospheric pressure in 60°C. The results on 10 years old Gamcheonbae trees which treated with microbe demonstrated 0.2 BX increasing in saccharinity, 100g increasing in weight, and 1.7 times higher than the trees non-treated in root activity. Therefore, this microbe fertilizing was improved as being a beneficial and economy fertilizing and effect the fruit in high quality.