

Febriansyah, R.A. 2011. Consortium Bacterial Biodekomposer Viability Test Over Two Months To Determine The Optimal Time Inoculum.

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Biodekomposer is a formula that contains cellulose degrading microbial consortium that functions in the overhaul of biological organic materials made specifically to improve the efficiency of decomposition of organic matter plant. Activity of microbial consortia remodel and convert the cellulose and lignin organic residues into soil organic matter, which can enrich the soil. By using composting biodekomposer which usually takes a long time to be faster. Biodekomposer used contains 6 genera of bacteria namely *Bacillus*, *Lactobacillus*, *Pseudomonas*, *Mikrococcus*, *Escherichia*, *Aerococcus*. The study aims to determine the optimum level of viability of bacteria in biodekomposer so that in the process of composting bacteria to work optimally.

This research is descriptive. Sample bacterial viability seen for two months, in the first week visits viability of bacteria in a row, then bacterial viability periodically visits the range of 1 week until the age of two months. This research was conducted in July-September 2010, at the Laboratory of Microbiology, State Islamic University of Maulana Malik Ibrahim Malang.

The result showed that the viability of the consortium of bacteria from the initial breeding gradually increased. From the results of this study, 4 stages, stage adaptation, exponential, stationary and death phases. Stage adaptation found on day 1 to 2, there is exponential on day 3 to day 14, stationary at day 21 through to 35 and the stages of death at day 42 to to 49. There is an optimum viability at day 28.