

# The power of sawdust to support the future of the earth

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## Submission Category:

Technical research proposal to solve concrete problems

## SDGs Targets/Indicators:

6-2

## Abstract:

In recent years, sawdust has been refocused as a target for utilization resources and basic research. The properties of sawdust include high porosity, high water retention ability, high specific surface area, low specific gravity, and biodegradability. A "bio-toilet" that does not use water utilizing these characteristics has been developed, and basic research on removal of low concentration radioactive Cs has also been conducted. In the bio-toilet, not only human waste is completely decomposed, but mineral residue is reduced to the soil as organic fertilizer. In the process of examining degradation of human wastes caused by sawdust, we may solve many global problems by sawdust, such as disaster, elderly society, as well as water resource conservation and resource circulation. In this study, we confirmed the ability of sawdust to degrade organic matter, and focused on the oxygen-containing functional groups present in sawdust, and investigated the interaction between sawdust and a base.

## Graphical Abstract:

