

Life Cycle Impact Assessment of Compost, and Possibility of IT Solution

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Abstract

Life Cycle Assessment (LCA) is a method to estimate environmental load of products. The feature of this report is LCA applied to acidulocompost which is made by PICS project.

Since electric power is needed for warming, acidulocompost has a large environmental impact on a manufacturing process compared with the conventional compost. LCA was applied to the compost which makes a fish raw material. Therefore, the performance of the compost as a product is equivalent to fish meal manure. Although fish meal manure has the high manure effect, it is expensive. Fish residue unsuitable for fish meal manure is incinerated by

thermal disposal. In the case of composting without thermal disposal, carbon-dioxide emissions decrease in the whole process. (Dr. Ryosuke Tajima calculated and computed this LCA.)

There are some examples where LCA was applied to compost. However, there is no example of application to acidulocompost. LCA as environment assessment is going to evaluate commercial products. The one exit is a carbon footprint (CFP). Compost is the material for agriculture and is B2B goods. Therefore, it was not the main target of CFP. Evaluation of compost increases for an agricultural synthetic environmental impact assessment.