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# **#7793 Summary**

SUMMARY REVIEW EDITING

# **Submission**

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Title The Dynamics of C and N by Combination of Composted Fresh Organic Waste as

Soil Amendment in the Soil Thickness at Pineapple Plantation, Lampung Indonesia

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# **Title and Abstract**

Title

The Dynamics of C and N by Combination of Composted Fresh Organic Waste as Soil Amendment in the Soil Thickness at Pineapple Plantation, Lampung Indonesia

**Abstract** 

The purpose of the research was to study the effect of decomposition of fresh organic waste on improvement of soil nutrients, especially the presence carbon availability at soil surface layer. The study was conducted to evaluate the decomposition progress of fresh organic waste and canned pineapple waste on Ultisol Lampung. The experiment was designed with a completely randomized factorial design with two factors: the first was fresh organic waste (200 ton.ha-1 chopper pineapple crops, 40 ton.ha<sup>-1</sup> cattle manure, 40 ton.ha<sup>-1</sup> cassava waste, 40 ton.ha<sup>-1</sup> waste pump pineapple, 2 ton.ha<sup>-1</sup> mill juice pineapple), and the second was thickness on the top layer (i.e. 0-15 cm, 0-30 cm and 0-45 cm), the each repeated 3 replication so total treatments were 24 plot pots. The results showed that the fresh organic waste and canning pineapple waste application can increase the resistance carbon and nitrogen on the soil. The more thickness of soil indicate to the more decrease of C, N, C/N ratio. The thickness of the soil 0-15 cm of C loss above 60%, 0-30 cm loss of C is less than 30 % and less than 20 % loos C-organic for 0-45 cm. The N loss less than 50 % on 0-15 cm, and less than 40% for 0-30 and 0-45 cm. Fresh organic matter decomposition rate in the near of top soil more faster than subsoil. The thickness of 0-45 cm it showed very low total carbon whiches affected to the the value of the C/N, It smaller than C/N ratio on the soil thickness above. Its because the process of decomposition of fresh organic matter mixed with mineral soil becomes slower. The innovation of technology that applied to combination on soil thickness with organic waste and canning pineapples can increase avalability of carbon and soil nutrients at Ultisol Lampung. It is an important aspect to improve soil fertility.

# Indexing

Keywords decompositition; fertility; fresh organic matter; soil amendment.

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# **Supporting Agencies**

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