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| | Compositing Empty Fruit Bunches using Wood Chips and Chicken Manure | | |
| | LAI SEN LIM*1,2, NURLYDIA GAZALI ² & AGNES KEVIN* ² | | |
| | ¹ School of Fisheries Science, Kitasato University, Ofunato, 22-0101 Japan; ² Faculty of Resource Science and Technology, Universiti Malaysia Sarawak, 94300 Kota Samarahan, Sarawak, Malaysia *Corresponding authors: laisenlim@gmail.com; agneskevin@unimas.my | | |
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| | ABSTRACT | | |
| | Empty fruit bunches (EFB) from palm oil industries can be exploited for agricultural use as compost. In this study, palm oil EFB compost was prepared by the addition of wood chips and chicken manure. The results show that composts prepared by EFB with or without 20% wood chips and 10% chicken manure significantly increased the composting rate by increasing the germination of <i>Raphanus Sativs</i> L. (two-way ANOVA, p-value <0.05). The results may serve as a baseline data for future use of EFB in compost preparation for agriculture use. | | |

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Published

Nyanti, L., Ismail, N., & Lo, M. L. K. F. (2005). Fish, crustacean and cephalopod fauna and their fisheries of the Paloh mangrove, Rajang Estuary, Sarawak. In A. A. Tuen & I. Das (Eds.), Wallace in Sarawak –150 years later. Proceedings of an International Conference on Biogeography and Biodiversity (pp. 162-177). Kota Samarahan, Malaysia: Institute of Biodiversity and Environmental Conservation, Universiti Malaysia Sarawak.

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Compositing Empty Fruit Bunches using Wood Chips and Chicken Manure

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¹School of Fisheries Science, Kitasato University, Ofunato, 22-0101 Japan; ²Faculty of Resource Science and Technology, Universiti Malaysia Sarawak, 94300 Kota Samarahan, Sarawak, Malaysia *Corresponding authors: laisenlim@gmail.com; agnes@unimas.my

ABSTRACT

Empty fruit bunches (EFB) from palm oil industries can be exploited for agricultural use as compost. In this study, palm oil EFB compost was prepared by the addition of wood chips and chicken manure. The results show that composts prepared by EFB with or without 20% wood chips and 10% chicken manure significantly increased the composting rate by increasing the germination of *Raphanus Sativs* L. (two-way ANOVA, p-value <0.05). The results may serve as a baseline data for future use of EFB in compost preparation for agriculture use.

Keywords: Aerobic composting, oil palm empty fruit bunch, Raphanus sativs L., wood chips

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RESULTS

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Table 1. Germination of *Raphanus Sativs* L. using empty fruit bunches (EFB) compost using wood chips and chicken manure.

| Compost type | Germination yield (mean and SD) |
|--|----------------------------------|
| EFP with 20% wood chips | $2.34 \times 10^{2} \text{ SFU}$ |
| EFP with 10% chicken manure | $3.37 \times 10^4 \text{ SFU}$ |
| EFP with 20% wood chips and 10% chicken manure | $2.52 \times 10^{5} \text{ SFU}$ |
| Control | $1.02 \times 10^2 \text{ SFU}$ |

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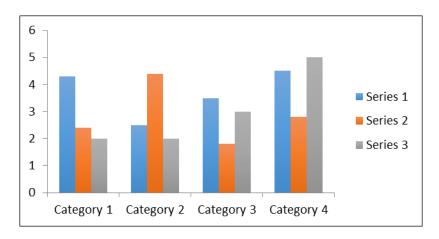


Figure 1. Germination Rate of *Raphanus Sativs* L. using empty fruit bunches (EFB) compost using wood chips and chicken manure.

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DISCUSSION

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CONCLUSION

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REFERENCES

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Mohamad, S., Yamaguchi, Y., Sagara, T., Takatani, T., Arakawa, O., & Noguchi, T. (2006). Accumulation and depuration profiles of PSP toxins in the short-necked clam *Tapes japonica* fed with the toxic dinoflagellate *Alexandrium catenella*. *Toxicon*, 48, 323-330.