

ABSTRACT

OPTIMIZATION COMPOSTING OF THE COCOA RIND AND RICE HUSK WITH THE ADDITION OF VARIOUS DUNG CATTLES

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The aims of this research were to acquire the best kind of dung cattle for composting a mixture of cocoa pod husk and rice husk with the short time composting. The cocoa pod husk was been chopped and mixed with dung of cattle (cow, chicken, and goats) and rice husk (5:5:1), then added with 25 kg dolomite (total weight \pm 685 kg). Then, those mixed compost (C/N ratio 30-40) with a high of pile \pm 1 m and covered with tents. Each treatments were conducted once a week during 30 days and it was repeated as twice. During the composting process the daily temperature, water content, pH, C-organic, N total, the ratio of C/N, colors, smell, texture, P₂O₅, and K₂O were evaluated.

The results showed that the addition of dung cattle gave a good effect at the time composting (30 days) and the compost produced. The cow dung of cattle compost produced the best based on the percentage decline in the ratio of C/N, the ratio of C/N (12,95), material availability, and nutrient P and K with criteria respectively C-organic 16,45 %, N total 1.27 %, pH 6.93, water content 57,60 %, blackish brown color, smelling of the land, texture crumbs, P₂O₅ 1.12 %, and K₂O 3.25 %.

Keywords : Cocoa pod husk, compost, dung of cattle.