

**PEMANFAATAN KOMPOS LIMBAH PADAT INDUSTRI
KARET DALAM MEMPERBAIKI SIFAT KIMIA ULTISOL
PADA PERTUMBUHAN BIBIT KARET (*Hevea brasiliensis* L.)**

SKRIPSI

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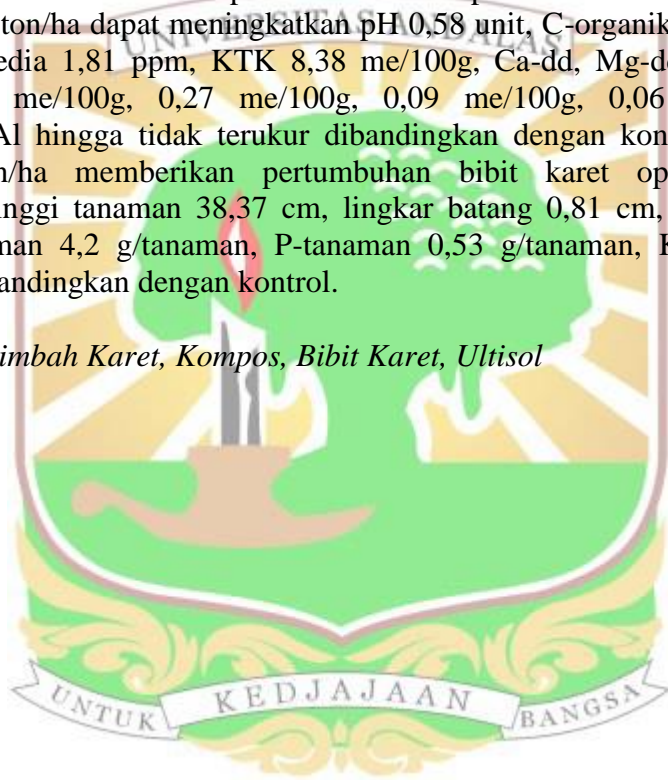
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ABSTRAK

Karet merupakan komoditi perkebunan yang mampu memberikan kontribusi di dalam peningkatan devisa Indonesia. Ultisol adalah tanah yang bermasalah dari pH tanah yang rendah, keracunan Al dan defisiensi hara. Penambahan bahan organik dari limbah industri karet merupakan alternatif dalam memperbaiki kimia Ultisol. Penelitian ini bertujuan untuk mengetahui perubahan sifat kimia Ultisol dan pertumbuhan bibit karet setelah pemberian kompos limbah karet. Penelitian ini menggunakan rancangan acak lengkap (RAL) dengan 7 perlakuan : 0 ton/ha, 5 ton/ha, 10 ton/ha, 15 ton/ha, 20 ton/ha, 25 ton/ha dan 30 ton/ha dengan 3 ulangan sehingga diperoleh 21 satuan percobaan. Hasil penelitian menunjukkan bahwa pemberian 15 ton/ha dapat meningkatkan pH 0,58 unit, C-organik 0,76%, N-total 0,04%, P-tersedia 1,81 ppm, KTK 8,38 me/100g, Ca-dd, Mg-dd, K-dd, Na-dd sebesar 0,52 me/100g, 0,27 me/100g, 0,09 me/100g, 0,06 me/100g dan menurunkan Al hingga tidak terukur dibandingkan dengan kontrol. Pemberian dosis 30 ton/ha memberikan pertumbuhan bibit karet optimum dengan peningkatan tinggi tanaman 38,37 cm, lingkaran batang 0,81 cm, jumlah daun 5 helai, N-tanaman 4,2 g/tanaman, P-tanaman 0,53 g/tanaman, K-tanaman 0,91 g/tanaman dibandingkan dengan kontrol.

Kata kunci : Limbah Karet, Kompos, Bibit Karet, Ultisol



**UTILIZATION OF COMPOSTED SOLID WASTE FROM RUBBER
FACTORY IN IMPROVING CHEMICAL PROPERTIES OF ULTISOLS
AND GROWTH OF RUBBER SEEDLINGS AT NURSERY (*Hevea
brasiliensis* L.)**

Abstract

Rubber is one of plantation commodities which could support and contribute to Indonesian foreign exchange. Ultisols is a type of marginal soil having low pH, and high Al toxicity and nutrient deficiency. Application of organic matter from solid waste is an alternative way in improving chemical properties of Ultisols. The objective of this research was to identify chemical properties of Ultisols and growth of rubber seedlings at nursery. This research was informed of an experiment consisting of 7 levels of compost (0 ton/ha, 5 ton/ha, 10 ton/ha, 15 ton/ha, 20 ton/ha, 25 ton/ha and 30 ton/ha) with 3 replications, so there were 21 of the total experimental units. The units were allocated based on CRD in a glasshouse. This research showed that addition of 15 ton/ha compost could increase pH by 0.58 unit, Organic C by 0.76%, N-total by 0.04%, available P by 1.81 ppm, CEC by 8.38 cmol/kg, exchangeable Ca, Mg, K, Na by 0.52, 0.27, 0.09, 0.06 cmol/kg, respectively and decreased Al-exchangeable until undetected compared to control. Addition of 30 ton/ha compost gave the best seedling growth indicated by the increase in number of leaves by 5, N by 4.29 g/crop, P by 0.53 g/crop, and K by 0.91 g/crop compared to control.

Keywords : Rubber waste, Compost, Rubber nursery, Ultisols.

