

**RESPON PERTUMBUHAN STEK TANAMAN KELOR (*Moringa oleifera*
Lam.) TERHADAP PEMBERIAN *Trichoderma* sp. DAN BEBERAPA
LEVEL PUPUK LIMBAH BAGLOG**

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ABSTRAK

Kelor (*Moringa oleifera* Lam.) merupakan salah satu tanaman biofarmaka di Indonesia. Untuk melakukan budidaya kelor dapat dilakukan dengan beberapa cara, salah satunya dengan cara vegetatif, yaitu stek. Penelitian ini bertujuan untuk menentukan interaksi antara penggunaan limbah baglog dengan *Trichoderma* sp., menentukan pengaruh pemberian *Trichoderma* sp., dan menentukan level limbah baglog paling tepat terhadap pertumbuhan stek kelor. Metode penelitian yang digunakan adalah Rancangan Acak Lengkap (RAL) dengan dua faktor. Faktor pertama adalah inokulasi *Trichoderma* sp., yaitu tanpa dan dengan inokulasi *Trichoderma*. Faktor kedua adalah level pupuk limbah baglog, yaitu 10%, 20%, 30%, 40%, dan 50%. Setiap kombinasi perlakuan diulang sebanyak tiga kali. Data hasil pengamatan dianalisis keragamannya menggunakan Sidik Ragam dan dilakukan uji lanjut menggunakan Uji Jarak Berganda Duncan pada jenjang 5%. Hasil penelitian menunjukkan terdapat interaksi antara perlakuan penggunaan *Trichoderma* sp. dan macam level pupuk limbah baglog pada parameter jumlah tunas 7 mst dan 9 mst, panjang tunas 3 mst, 5 mst, 7 mst, dan 9 mst, jumlah daun 3 mst, 5 mst, 7 mst, dan 9 mst, luas daun, panjang akar, jumlah akar, volume akar, dan simplisia daun. Pemberian *Trichoderma* sp. pada stek tanaman kelor memberikan hasil lebih baik dari perlakuan tanpa inokulasi *Trichoderma* sp. pada parameter jumlah tunas 7 mst dan 9 mst, panjang tunas 5 mst, 7 mst, dan 9 mst, jumlah daun 3 mst, 5 mst, 7 mst, dan 9 mst, luas daun, jumlah akar, panjang akar, dan simplisia daun serta level pupuk limbah baglog 30% memberikan hasil terbaik terhadap pertumbuhan stek tanaman kelor (*Moringa oleifera* Lam.) pada parameter jumlah tunas 7 mst dan 9 mst, panjang tunas 5 mst, 7 mst, dan 9 mst, jumlah daun 3 mst, 5 mst, 7 mst, dan 9 mst, dan simplisia daun.

Kata kunci: Kelor (*Moringa oleifera* Lam.), limbah baglog, *Trichoderma* sp.

**THE GROWTH RESPONSE OF MORINGA (*Moringa oleifera* Lam.)
CUTTINGS ON *Trichoderma* sp. AND SEVERAL LEVELS OF BAGLOG
WASTE FERTILIZER APPLICATION**

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ABSTRACT

Moringa (*Moringa oleifera* Lam.) is one of the biopharmaca plants in Indonesia. To do the cultivation of moringa can be conducted in several ways, one of them in a vegetative way, namely cuttings. This research aims to determine the interaction between the use of Baglog waste with *Trichoderma* sp., determine the influence of giving *Trichoderma* sp., and determine the best level of baglog waste on the growth of moringa cuttings. The research method used is a Completely Randomized Design (CRD) with two factors. The first factor was the inoculation of *Trichoderma* sp., namely, with and without inoculation *Trichoderma*. The second factor was the level of baglog waste fertilizer, namely 10%, 20%, 30%, 40%, and 50%. Each combination of treatment is repeated three times. The observed data was analyzed its diversity using Completely Randomized Design (CRD) and continue by using Duncan Multiple Range Test (DMRT) at 5%. The results showed there was an interaction between the use of *Trichoderma* sp. and various levels of baglog waste fertilizer in the number of shoots at 7 and 9 weeks after planting, buds length at 3,5, 7, and 9 weeks after planting, the number of leaves at 3, 5, 7, and 9 weeks after planting, leaf area, the length of the roots, number of the roots, the volume of the roots and leaves simplicial. The inoculation of *Trichoderma* sp. on cuttings moringa plants provide better result compared to without the use of *Trichoderma* sp. in the number of shoots at 7 and 9 weeks after planting, buds length at 5, 7, and 9 weeks after planting, the number of leaves at 3, 5, 7, and 9 weeks after planting, leaf area, the length of the roots, number of the roots, and leaves simplicial and the provision of 30% baglog waste fertilizer level provides the best results against the growth of (*Moringa oleifera* Lam.) in the number of shoots at 7 and 9 weeks after planting, buds length at 5, 7, and 9 weeks after planting, the number of leaves at 3, 5, 7, and 9 weeks after planting, and leaves simplicial.

Keywords: *Moringa* (*Moringa oleifera* Lam.), baglog waste fertilizer, *Trichoderma* sp.