

**PERTUMBUHAN STEK TANAMAN KELOR (*Moringa oleifera* Lam.)
TERHADAP WAKTU INOKULASI *Trichoderma* sp. DAN BERBAGAI
LEVEL PUPUK LIMBAH BAGLOG**

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ABSTRAK

Kelor (*Moringa oleifera* Lam.) merupakan salah satu tanaman biofarmaka di Indonesia. Keterbatasan pengetahuan mengenai budidaya kelor menyebabkan rendahnya ketersediaan bibit kelor terutama untuk ekspor. Untuk meningkatkan budidaya kelor dapat dilakukan dengan beberapa cara, salah satunya dengan cara vegetatif, yaitu stek. Untuk meningkatkan pertumbuhan stek kelor, pada media tanam diinokulasikan *Trichoderma* sp. dan pupuk limbah baglog. Penelitian ini bertujuan untuk menentukan interaksi antara penggunaan limbah baglog dengan *Trichoderma* sp., menentukan pengaruh waktu inokulasi *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 yaitu waktu inokulasi *Trichoderma* sp saat tanam, dan 3 HST. Kemudian pemberian berbagai macam level pupuk limbah baglog dengan level 10%, 20%, 30%, 40%, dan 50%. Setiap kombinasi perlakuan diulang sebanyak tiga kali. Data hasil pengamatan dianalisis keragamannya menggunakan Analisis Sidik Ragam dan dilakukan uji lanjut menggunakan Uji Jarak Berganda Duncan (DMRT) pada jenjang 5%. Hasil penelitian menunjukkan terdapat interaksi pengaruh perlakuan waktu inokulasi *Trichoderma* sp. dengan pemberian macam level pupuk limbah baglog terhadap parameter jumlah tunas 7 mst dan 9 mst, panjang tunas 3, 5 mst, 7 mst, dan 9 mst, jumlah daun 3 mst, 5 mst, 7 mst, dan 9 mst, jumlah akar, panjang akar, volume akar, dan simpisia daun. Dari penelitian diketahui bahwa pemberian inokulasi *Trichoderma* sp. saat tanam memberikan hasil paling baik dibandingkan dengan perlakuan inokulasi *Trichoderma* sp. 3 (tiga) hari setelah tanam. Sedangkan pemberian level pupuk limbah baglog 30% memberikan hasil terbaik terhadap pertumbuhan stek tanaman kelor (*Moringa oleifera* Lam.) dibanding perlakuan level 10%, 20%, 40%, dan 50%.

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

**GROWTH OF KELOR (*Moringa oleifera* Lam.) CUTTINGS ON
INOCULATION TIME OF *Trichoderma* sp. AND VARIOUS LEVELS OF
BAGLOG WASTE FERTILIZER APPLICATION**

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ABSTRACT

Moringa (*Moringa oleifera* Lam.) is one of biopharmaca plants in Indonesia. The limited knowledge of moringa cultivation causes low availability of moringa nursery transplant for export. To increase moringa cultivation can be done in several ways, such as cuttings. To improve moringa growth, *Trichoderma* sp. and baglog waste fertilizer can be added on the cuture medium. The purpose of this research is to dermine the interaction between *Trichoderma* sp. and baglog waste fertilizer application, the effect inoculation of *Trichoderma* sp., and determine the most appropriate level of baglog waste fertilizer towards growth of moringa cuttings. This research used a Completely Randomized Design (CRD) with two factor, there are inoculation times of *Trichoderma* sp. (at the time of planting), and (3 days after planting). Then giving various levels of baglog waste fertilizer (10%, 20%, 30%, 40%, and 50%). Each combinations repeated 3 times. The observed data was analyzed using Completely Randomized Design (CRD) and continued with the test using Duncan Multiple Range Test (DMRT) at 5%. The result showed there were interaction between inoculation time of *Trichoderma* sp. and various levels of baglog waste on number of shoots at 7 and 9 day after planting, length of shoots at 3, 5, 7, and 9 day after planting, number of leaves at 3, 5, 7, and 9 day after planting, length of roots, number of roots, volume of roots, and herbal simplicial. From this research showed it was found that inoculation of *Trichoderma* sp. when transplanting the *Moringa* plant cuttings gave the best treatment compared to inoculation of *Trichoderma* sp. 3 (three) days after planting. Meanwhile, giving the level of baglog waste fertilizer 30% gave the best results on the growth of *Moringa oleifera* Lam. Cuttings from the treatment level of 10%, 20%, 40%, and 50%.

Key words: *Moringa* (*Moringa oleifera* Lam.), Baglog waste fertilizer, *Trichoderma* sp.