

Inokulasi Fungi Mikoriza Arbuskula (*Glomus fasciculatum* dan *Glomus aggregatum*) pada Tanaman Stroberi (*Fragaria spp.*)

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INTISARI

Tanaman stroberi mempunyai prospek pengembanganyang baik di Indonesia. Salah satu spesies tanaman stroberi yaitu *Fragaria vesca* L., merupakan jenis stroberi yang pertama kali masuk dan berkembang di Indonesia. Dalam upaya meningkatkan kesuburan tanaman serta mengatasi faktor-faktor yang menurunkan produktivitas tanaman stroberi maka diperlukan metode pengendalian hayati yaitu menggunakan agen hayati menggunakan fungi mikoriza arbuskula. Tujuan dari penelitian ini untuk mengetahui inokulasi fungi mikoriza arbuskula (*Glomus aggregatum* dan *Glomus fasciculatum*) pada tanaman stroberi (*Fragaria x ananassa* 'Festival' dan *Fragaria vesca* L. 'Californica'). Penelitian ini dilakukan di Banyuroto, Sawangan, Magelang dengan menginokulasikan spora mikoriza *Glomus aggregatum*, *Glomus fasciculatum* dan campuran keduanya masing - masing 100 spora inokulum ke akar tanaman stroberi kultivar Festival (*Fragaria x ananassa* 'Festival') dan kultivar Californica (*Fragaria vesca* L. 'Californica') yang berumur 10 hari. Stroberi di tumbuhkan selama 10 minggu di dalam *Greenhouse* dan Lahan untuk dibandingkan. Data dianalisis menggunakan program SPSS dengan *one way* ANOVA. Hasil penelitian menunjukkan bahwa inokulasi mikoriza meningkatkan pertumbuhan vegetatif maupun generatif kedua stroberi. Inokulasi fungi mikoriza arbuskula lebih efektif dilakukan di dalam *Greenhouse*. Inokulasi *G. aggregatum* mempengaruhi persen kolonisasi mikoriza. *Biomassa* tanaman stroberi meningkat secara signifikan oleh inokulasi ganda *G. aggregatum* + *G. fasciculatum*. *G. aggregatum* meningkatkan jumlah stolon dan jumlah daun serta berat buah pada kedua stroberi. Kultivar Californica lebih meningkat pertumbuhannya ketika diinokulasi oleh jamur mikoriza dibandingkan dengan kultivar Festival.

Kata kunci: Inokulasi Mikoriza, *Glomus aggregatum*, *Glomus fasciculatum*, Stroberi, Fungi Mikoriza Arbuskula

Inoculation of Arbuscular Mycorrhizal Fungi (*Glomus fasciculatum* and *Glomus aggregatum*) on Strawberry Plant(*Fragaria* spp.)

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ABSTRACT

Strawberry has good prospects to be developed in Indonesia, especially when it cultivated intensively. One of the strawberry plant species is *Fragaria vesca* and this is a type of strawberry that was first to come and developed in Indonesia. An effort to improve the fertility of strawberry crops and address the factors that reduce the productivity of strawberry plants, it is necessary to use biological control methods that use biological agents using arbuscular mycorrhizal. This research aimed to find the best inoculum for growing strawberry California and Festival cultivar in the greenhouse and at the field. This research was conducted in Banyuroto, Sawangan, Magelang by inoculating spores of *Glomus aggregatum*, *Glomus fasciculatum* and a mixture of both each 100 spores of a mixture of inoculum in zeolite to the roots of cultivars Festival (*Fragaria x ananassa* 'Festival') and California cultivars (*Fragaria vesca* 'California') of 10 days old strawberry plant. Strawberries were grown for 10 weeks in the greenhouse and field for comparison. Data were analyzed using SPSS by one-way ANOVA. The results showed that mycorrhizal inoculation significantly influenced the vegetative and generative growth of strawberries. Inoculation had a better result when grown in the Greenhouse. Inoculation of the *G. aggregatum* affected the percentage of mycorrhizal colonization. Biomass of strawberry plants was affected by double inoculum of *G. aggregatum* + *G. fasciculatum*. *G. aggregatum* increased stolon number and number of leaves and fruit weight. California cultivar was greater improved when inoculated by mycorrhizal fungi compared with Festival cultivar.

Keywords: Mycorrhizal Inoculation, *Glomus aggregatum*, *Glomus fasciculatum*, Strawberry, Arbuscular Mycorrhizal Fungi