

# **PENGARUH KOMPOSISI MEDIA TANAM TERHADAP PERTUMBUHAN BIBIT JAHE MERAH**

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## **INTISARI**

Jahe merah (*Zingiber officinale var. rubrum*) merupakan salah satu tanaman temu-temuan dari suku *Zingiberaceae*. Jahe merupakan salah satu biofarmaka penting dalam perekonomian Indonesia. Jahe merah digunakan sebagai campuran bahan makanan, minuman, obat-obatan, industri parfum serta kosmetik. Setiap tanaman membutuhkan media untuk tempat tumbuh dan berkembangbiak untuk menghasilkan keturunannya. Penggunaan media tanam yang mengandung bahan organik dan penggunaan rimpang induk untuk mendukung pertumbuhan bibit berkualitas dapat dikategorikan sebagai bagian penerapan pertanian organik. Penelitian dilaksanakan di Desa Polaman, Kelurahan Agrotejo, Kecamatan Sedayu, Kabupaten Bantul, Daerah Istimewah Yogyakarta pada ketinggian 80,50 meter di atas permukaan laut dan di Laboratorium Agronomi, Fakultas Agroindustri, Universitas Mercu Buana Yogyakarta bulan April sampai Juli 2022. Penelitian berupa percobaan faktor perlakuan tunggal yang disusun dalam Rancangan Acak Lengkap (RAL) dengan 5 ulangan. Perlakuan yang diujikan adalah komposisi media tanam, dengan 6 aras perlakuan, yaitu: M1 (tanah), M2 (tanah:arang sekam - 1:1), M3 (tanah:arang sekam:pupuk kandang ayam - 1:1:1), M4 (tanah:arang sekam:limbah jamur tiram - 1:1:1), M5 (arang sekam:pupuk kandang:limbah jamur tiram - 1:1:1), dan M6 (tanah:arang sekam:limbah jamur tiram:pupuk kandang - 1:1:1:1). Variabel yang diamati yaitu tinggi tunas (cm), jumlah tunas (buah), jumlah daun (helai), diameter tunas (cm), jumlah anakan rimpang (buah), bobot segar tanaman (g), bobot kering tanaman (g), jumlah akar (buah), panjang akar (cm) dan volume rimpang dan akar (ml). Data dianalisis menggunakan analisis varian dan uji lanjut DMRT (*Duncan's Multiple Range Test*). Hasil penelitian menunjukkan bahwa komposisi media tanam berpengaruh nyata pada pertumbuhan tinggi tunas dan diameter tunas bibit jahe merah dengan bahan tanam rimpang induk. Media tanam, tanah:arang sekam:pupuk kandang (1:1:1), tanah:arang sekam: limbah jamur tiram (1:1:1), arang sekam: pupuk kandang:limbah jamur tiram (1:1:1) dan tanah:arang sekam:pupuk kandang:limbah jamur tiram (1:1:1:1) lebih baik bagi pertumbuhan bibit jahe merah dibandingkan dengan media tanam tanah saja.

*Kata Kunci : Jahe merah, rimpang induk, bibit, komposisi media tanam.*

## ***EFFECT OF PLANTING MEDIA COMPOSITIONS ON THE GROWTH OF RED GINGER SEEDLINGS***

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### **ABSTRACT**

*Red ginger (Zingiber officinale var. rubrum) is an herbaceous plants from the Zingiberaceae. Ginger is one of the important biopharmaceutical in the economy of Indonesian. Red ginger is used as a mixture of food ingredients, beverages, medicines, perfume and cosmetic industries. Every plant needs a medium to grow and multiply to produce offspring. The use of planting media containing organic materials and the use of mother rhizome to support the growth of quality seedlings can be categorized as part of the application of organic farming. The research was conducted in Polaman, Agorojo Village, Sedayu District, Bantul Regency, Daerah Istimewah Yogyakarta at an altitude of 80.50 meters above sea level and in the Agronomy Laboratory, Faculty of Agroindustry, Universitas Mercu Buana Yogyakarta from April to July 2022. The research was a single treatment factor experiment arranged in a Completely Randomized Design (CRD) with 5 replications. The treatment tested was the effect of planting media composition, with 6 treatment level, namely: M1 (soil), M2 (soil:husk charcoal - 1:1), M3 (soil:husk charcoal:chicken manure - 1:1:1), M4 (soil:husk charcoal:oyster mushroom waste - 1:1:1), M5 (husk charcoal: chicken manure:oyster mushroom waste - 1:1:1), and M6 (soil:husk charcoal:oyster mushroom waste: chicken manure - 1:1:1:1). The variables observed were shoots height (cm), number of shoots (pieces), number of leaves (strands), shoots diameter (cm), number of rhizome tillers (pieces), shoots fresh weight (g), shoots dry weight (g), number of roots (pieces), root length (cm) and rhizome and root volume (ml). Data were analyzed using analysis of variance and DMRT (Duncan's Multiple Range Test). The results showed that the effect of planting media composition had a significant effect on the growth of shoot height and shoot diameter of red ginger seedlings with the mother rhizome planting material. Planting media, soil:husk charcoal: chicken manure (1:1:1), soil:husk charcoal:oyster mushroom waste (1:1:1), husk charcoal: chicken manure:oyster mushroom waste (1:1:1) and soil:husk charcoal: chicken manure:oyster mushroom waste (1:1:1:1) are better for the growth of red ginger seedlings compared to soil planting media only.*

**Keywords:** Red ginger, mother rhizome, seedlings, planting media compositions.