

**PENGARUH PEMBERIAN PUPUK DAN MULSA ORGANIK
TERHADAP PERTUMBUHAN DAN HASIL JAHE MERAH (*Zingiber
officinale var rubrum*) UMUR EMPAT BULAN
DI BAWAH TEGAKAN CAMPUR SENGON-MERANTI**

Oleh:

Nina Nur Ainia¹

INTISARI

Informasi pengaruh pemberian pupuk dan mulsa organik terhadap pertumbuhan dan hasil jahe merah umur empat bulan masih terbatas khususnya di bawah tegakan campur sengon-meranti. Tujuan dari penelitian ini adalah untuk mengetahui pengaruh pupuk organik, mulsa organik, dan interaksinya terhadap pertumbuhan dan hasil tanaman jahe merah umur empat bulan di bawah tegakan campur sengon-meranti.

Rancangan penelitian yang digunakan adalah *Randomized Complete Block Design* (RCBD) yang terdiri dari 2 perlakuan, yaitu pupuk (P), tanpa pupuk (P0) dan dengan pupuk (P1) dan mulsa (M), tanpa mulsa (M0) dan dengan mulsa (M1) dengan 4 kombinasi perlakuan yaitu kontrol (P0M0), dengan pupuk tanpa mulsa (P1M0), tanpa pupuk dengan mulsa (P0M1), dan interaksi pemberian pupuk dan mulsa (P1M1). Pengamatan dilakukan setiap bulan mulai Januari 2021 sampai Mei 2021. Parameter yang diukur dalam penelitian ini adalah: sengon-meranti (tinggi, diameter, keliling, TBBC, tinggi tajuk terlebar, dan lebar tajuk berdasarkan arah mata angin); jahe merah (tinggi, diameter batang, jumlah daun, jumlah tunas, berat basah *above-ground*, rimpang, dan akar, serta berat kering *above-ground*, rimpang, dan akar).

Perlakuan pupuk organik 750g cenderung memberikan hasil yang lebih baik terhadap pertumbuhan dan hasil jahe merah umur empat bulan di bawah tegakan campur sengon-meranti. Perlakuan mulsa sekam padi ± 1 cm cenderung memberikan hasil yang lebih baik terhadap pertumbuhan dan hasil jahe merah umur empat bulan di bawah tegakan campur sengon-meranti. Interaksi pemberian pupuk organik dan mulsa P1M1 (dengan pupuk dengan mulsa) cenderung menunjukkan hasil yang lebih baik terhadap pertumbuhan dan hasil jahe merah pada parameter jumlah rumpun (4,46), berat basah *above-ground* (17,27g), berat basah rimpang (17,85g), berat kering *above-ground* (3,64g), dan berat kering rimpang (2,68g).

Kata kunci: *Zingiber officinale var rubrum*, pupuk organik, mulsa organik, pertumbuhan dan hasil

¹ Mahasiswa Fakultas Kehutanan Universitas Gadjah Mada

EFFECT OF ORGANIC FERTILIZER AND MULCH ON GROWTH AND YIELD OF RED GINGER (*Zingiber officinale var rubrum*) AT AGE FOUR MONTHS UNDER MIXED STANDS OF SENGON-MERANTI

By:

*Nina Nur Ainia*¹

ABSTRACT

Information about the effect of organic fertilizer and mulch on the growth and yield of red ginger at age four month is still limited, especially grown under mixed stands of sengon-meranti. The research aims were to determine the effect of organic fertilizer, mulching, and interaction of two treatment on growth and yield of red ginger at age four month under mixed stands of sengon-meranti.

The research design used Randomized Complete Block Design (RCBD) which consisted of 2 treatments, namely fertilizer (P), without fertilizer (P0) and with fertilizer (P1) and mulch (M), without mulch (M0) and with mulch (M1) with 4 treatment combinations, they were control (POM0), with fertilizer without mulch (PIM0), without fertilizer with mulch (POM1), and interaction of fertilizer and mulch (PIM1). The observations were made every month from January 2021 to May 2021. Parameters observed in this study were: sengon-meranti (height, diameter, around the stem, TBBC, widest canopy height, and crown width based on the cardinal directions); red ginger (height, stem diameter, number of leaves, number of shoots, wet weight of above-ground, rhizomes, and roots, and dry weight of above-ground, rhizomes, and roots).

Treatment of 750g organic fertilizer tended to give better yields on growth and yield of four month old red ginger under mixed stands of sengon-meranti. Treatment of rice husk mulch ± 1 cm tends to give better results on the growth and yield. The interaction of giving organic fertilizer and PIM1 mulch (with fertilizer with mulch) tended to show better results on the growth and yield of red ginger on the parameters of the number of shoots (4,46), above-ground wet weight (17,27g), wet weight of rhizomes (17,85g), above-ground dry weight (3,64g), and rhizome dry weight (2,68g).

Key word: Zingiber officinale var rubrum, organic fertilizer, organic mulch, growth and yield

¹ Student of Faculty of Forestry Universitas Gadjah Mada