

**PENGARUH KOMPOS TANDAN KOSONG KELAPA SAWIT (TKKS) DAN
PLANT GROWTH PROMOTING RHIZOBACTERIA (PGPR) DARI AKAR
BAMBU TERHADAP PERTUMBUHAN BIBIT KAKAO
(*Theobroma cacao* L.)**

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Abstrak

Penelitian tentang pengaruh kompos tandan kosong kelapa sawit (TKKS) dan *plant growth promoting rhizobacteria* (PGPR) terhadap pertumbuhan bibit kakao (*Theobroma cacao* L.) telah dilakukan di lahan percobaan Kampus III Unand Dharmasraya pada bulan November 2019 sampai April 2020. Penelitian ini bertujuan untuk mendapatkan pengaruh interaksi antara kompos TKKS dan PGPR serta mendapatkan takaran terbaik kedua bahan tersebut terhadap pertumbuhan bibit kakao (*Theobroma cacao* L.) Penelitian ini menggunakan Rancangan Acak Lengkap (RAL) faktorial yang terdiri atas dua faktor dengan empat taraf perlakuan. Faktor pertama adalah kompos tandan kosong kelapa sawit (0 g/polybag, 150 g/polybag, 300 g/polybag dan 450 g/polybag) dan faktor kedua adalah *plant growth promoting rhizobacteria* (0 ml/polybag, 50 ml/polybag, 100 ml/polybag dan 150 ml/polybag). Variabel yang diamati dalam penelitian ini adalah pertambahan tinggi tanaman, diameter batang, jumlah daun dan ratio tajuk akar. Hasil penelitian menunjukkan bahwa tidak adanya pengaruh interaksi pemberian kompos TKKS dan *plant growth promoting rhizobacteria* (PGPR) terhadap pertumbuhan bibit kakao. Akan tetapi pemberian kompos TKKS memberikan pengaruh terhadap pertambahan tinggi tanaman, diameter batang dan jumlah daun kemudian pemberian *plant growth promoting rhizobacteria* (PGPR) tidak memberikan pengaruh terhadap semua variabel pertumbuhan bibit kakao.

Kata kunci: Bibit kakao, Kompos Tandan Kosong Kelapa Sawit (TKKS), *Plant Growth Promoting Rhizobacteria* (PGPR)

THE EFFECT OF OIL PALM EMPTY FRUIT BUNCH COMPOST (OPEFB) AND *PLANT GROWTH PROMOTING RHIZOBACTERIA* (PGPR) FROM BAMBOO ROOT ON THE GROWTH OF CACAO (*Theobroma cacao* L.) SEEDLINGS

ABSTRACT

Research about the effect of oil palm empty bunches (OPEFB) compost and *plant growth promoting rhizobacteria* (PGPR) from bamboo root on the growth of cacao (*Theobroma cacao* L.) seedlings was conducted in experimental field at 3rd Campus Unand Dharmasraya on November 2019 until April 2020. The objectives of this study were to determine the interaction effect between OPEFB compost and PGPR and to obtain the best dosage both of these on the growth of cacao (*Theobroma cacao* L.) seedlings. The research method was a factorial completely randomized design (CRD) consisted of two factors and four levels of treatment. The first factor was the oil palm empty fruit bunches compost (0 g/polybag, 150 g/polybag, 300 g/polybag and 450 g/polybag) and the second factor was *plant growth promoting rhizobacteria* (0 ml/polybag, 50 g/polybag, 100 g/polybag and 150 ml/polybag). The observed variables in this research were plant height, stem diameter, number of leaves and shoot root ratio. The results showed that there was no interaction effect between OPEFB compost and *Plant Growth Promoting Rhizobacteria* (PGPR) on the growth of cacao seedlings. However, the provision of OPEFB compost gave an effect on the plant height, stem diameter and number of leaves then the provision of *Plant Growth Promoting Rhizobacteria* (PGPR) does not effect of cacao seedlings growth.

Keywords: Cacao seedlings, compost oil palm empty fruit bunches (OPEFB), *Plant Growth Promoting Rhizobacteria* (PGPR)