

RINGKASAN

Jati merupakan salah satu pohon hutan tropis yang terkenal di dunia dan bernilai jual tinggi. Jati juga memegang peranan penting dalam menjaga keseimbangan ekosistem. Tingginya laju penebangan hutan akhir-akhir ini menyebabkan populasi tanaman jati mengalami kemerosotan yang sangat tajam. Oleh karena itu, penanaman kembali pohon jati diperlukan penyediaan bibit yang berkualitas. Bibit yang berkualitas ini dapat diperoleh melalui perbanyakan tanaman secara generative. Penelitian ini bertujuan 1). Mengetahui macam stratifikasi terhadap perkecambahan benih dan pertumbuhan awal bibit jati (*Tectona grandis* L.). 2). Mengetahui pengaruh komposisi media tanam terhadap perkecambahan dan pertumbuhan awal bibit jati (*Tectona grandis* L.). 3). Mengetahui interaksi antara macam stratifikasi dan jenis media terhadap perkecambahan benih dan pertumbuhan awal bibit jati (*Tectona grandis* L.).

Penelitian dilaksanakan di Laboratorium Agronomi dan Hortikultura dan *Screenhouse* Fakultas Pertanian Universitas Jenderal Soedirman, Purwokerto, Kelurahan Karangwangkal, Banyumas pada ketinggian tempat 110 m dpl. Penelitian ini dimulai pada 14 Agustus 2015 sampai 15 November 2015. Penelitian ini menggunakan Rancangan Acak Lengkap (RAL) faktorial 4 x 3 dengan 12 kombinasi perlakuan dan 3 kali ulangan. Faktor pertama adalah 4 perlakuan stratifikasi yaitu kontrol, disangrai, direndam air mengalir dan larutan H_2SO_4 dan faktor kedua adalah 3 macam media tanam yaitu tanah (4:0), tanah+pupuk kandang (3:1) dan tanah+pupuk kandang+arang sekam (2:1:1). Variabel pengamatan terdiri atas: persentase perkecambahan, laju perkecambahan, tinggi tanaman, jumlah daun, panjang akar, bobot segar akar, bobot kering akar, bobot segar tanaman, bobot kering tanaman, panjang daun, dan lebar daun. Data dianalisis menggunakan uji F, apabila ada beda nyata antar perlakuan dilanjutkan dengan uji Uji Jarak Ganda Duncan (DMRT) pada taraf ketelitian 95%.

Hasil penelitian menunjukkan bahwa macam stratifikasi berpengaruh terhadap persentase perkecambahan, laju perkecambahan, tinggi tanaman, lebar daun, panjang daun dan jumlah daun, sedangkan komposisi media tanam berpengaruh terhadap pertumbuhan tinggi tanaman, lebar daun, panjang daun, jumlah daun, bobot tanaman segar, bobot segar tanaman, bobot kering tanaman, bobot segar akar, bobot kering akar dan panjang akar. Tidak terjadi interaksi antara macam stratifikasi dan komposisi media tanam terhadap komponen pertumbuhan bibit jati.

SUMMARY

Teak (*Tectona grandis* L.) is a famous tree of tropical forest which has a high economical value. Teak play an important role in maintaining the balance of the ecosystem. Curenly, the high rate of deforestation cause a siginificant decrease of Teaks population. Teak replantation program require the high quality of seeds. A seeds with high quality can be produced by generative propagation. This research was aims to determine 1) the best treatment of stratification to seeds germination and early growth of Teaks seedling 2) the best treatment of cultivation medium to seeds germination and early growth of Teaks seedling, and 3) the interaction between the best treatment of stratification and cultivation medium to seeds germination and early growth of Teaks seedling.

This research was conducted at Agronomy and Horticulture Laboratory and Screenhouse, Faculty of Agriculture, Jenderal Soedirman University, specifically in Karangwangkal village at 110m above the sea level. This research was conducted during August 14th-November 15th, 2015. This research used a 4x3 factorial with completely randomized design (CRD) by 12 combinations of treatments and 3 replications. The first factor was the treatment of stratification: control, roasted, and soaked seeds in waterflow and also H₂SO₄ solution. The second factor was the treatment of cultivation medium: soil (4:0), soil:manure (3:1) combination, and soil:manure:charcoal husk (2:1:1) combination. The observed variables were the plants height, amount of leaf, root length, fresh-root weight, dried-root weight, fresh-plant weight, dried-plant weight, leaf length, and leaf width. The data was analyzed by using the F-test, followed by Duncan Multiple Range Test (DMRT) at the accuracy level of 95%.

The results showed that the treatment of stratification affect some observed variables i.e. plant height, leaf width, leaf length and the amount of leaf. While, the cultivation medium affect some observed variables i.e. the increase of plant height, leaf width, leaf length, the amount of leaf, fresh-plant weight, dried-plant weight, fresh-root weight, dried-root weight and root length. Interaction between the treatment of stratification and cultivation medium has no effect on all observed variables.