

PERTUMBUHAN SEMAI KUPRES (*Cupressus lusitanica* Mill.) PADA BEBERAPA KOMBINASI MEDIA DAN NAUNGAN

Oleh:

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INTISARI

Populasi *Cupressus lusitanica* di Taman Nasional Gunung Merbabu terancam karena terus menurun dari tahun ke tahun dan tidak ditemukan adanya permudaan alami. Permudaan buatan diperlukan untuk menambah populasi *C. lusitanica*. Informasi mengenai media dan kondisi lingkungan terbaik masih belum ada. Penelitian ini bertujuan mengetahui informasi tersebut.

Rancangan penelitian yang digunakan dalam penelitian ini adalah rancangan petak terbagi dengan 3 blok sebagai ulangan. Perlakuan pada petak utama adalah naungan (terbuka dan ternaung 75 %), dan perlakuan media (Andisol, Andisol + pasir, Entisol, Entisol + pasir, dan campuran) sebagai anak petak. Setiap *treeplot* terdapat 5 kali ulangan. Materi semai *C. lusitanica* diperoleh dari penelitian sebelumnya dengan benih yang dipanen pada bulan November 2020 dari indukan *C. lusitanica* di Resor Kopeng, Taman Nasional Gunung Merbabu. Parameter penelitian ini adalah tinggi total, tinggi tajuk, jumlah cabang, dan biomassa semai *C. lusitanica*.

Naungan 75 % tidak berpengaruh terhadap pertumbuhan semai *C. lusitanica*, tetapi interaksi naungan dengan media berpengaruh terhadap pertambahan tinggi semai *C. lusitanica*. Tambahan faktor nutrien (konsentrasi N) dari media diduga memberikan pengaruh terhadap pertambahan tinggi semai *C. lusitanica*. Media hanya berpengaruh terhadap biomassa akar semai *C. lusitanica*. Secara keseluruhan media tanah Andisol menghasilkan pertumbuhan semai *C. lusitanica* yang lebih baik dibandingkan media tanah Entisol. Tanah Andisol menghasilkan perakaran semai *C. lusitanica* yang lebih baik sehingga penyerapan nutrien (N) lebih optimal dibandingkan pada tanah Entisol.

Kata kunci: *Cupressus lusitanica*, media tumbuh, naungan, pertumbuhan

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THE GROWTH OF KUPRES (*Cupressus lusitanica* Mill.) SEEDLINGS ON SEVERAL COMBINATIONS OF GROWING MEDIA AND SHADING

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ABSTRACT

Population of *Cupressus lusitanica* in Merbabu's Mountain National Park are threatened because the population are getting lower year by year and doesn't found any youth seedlings naturally. New cultivation are needed to increase population of *C. lusitanica*. The information about best growing media and environment hasn't found yet. This experiment has objectives to get that information.

The experimental design used on this study was split plot design with 3 blocks as replication. Shading treatments (open and 75 % shading) used as main plot, and growing media treatments (Andisols, Andisols + sand, Entisols, Entisols + sand, and mixed soils) are used as sub plot. Every treeplot has 5 times replications. Materials of *C. lusitanica* seedlings were obtained from the experiment before that the seed were harvested on November 2020 from *C. lusitanica* broodstock in Kopeng Resort, Merbabu's Mountain National Park. The observation parameters on this experiment was total height, crown height, amount of branch, and *C. lusitanica* seedlings biomass.

Seventy five percent of shading had no effect on *C. lusitanica* seedlings growth, but the interaction between shading and growing media had effect on *C. lusitanica* seedlings total height growth. The adding of nutrient factors (N concentration) from growing media suspected that given effect on *C. lusitanica* seedlings total height growth. Growing media only had effect on *C. lusitanica* seedlings root biomass. Generally Andisols as growing media produced better growth of *C. lusitanica* seedlings than Entisols. Andisols produced a better root systems of *C. lusitanica* that indicates the better nutrient (N) uptake than Entisols.

Keyword: *Cupressus lusitanica*, growing media, shading, growth

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