Pengaruh Klon terhadap Produktivitas Trubusan dan Perakaran Stek Pucuk Kayu Putih pada Metode Kebun Pangkas Bergulir

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Abstrak

Kayu Putih merupakan tanaman penghasil minyak atsiri yang memegang peranan penting dalam pengembangan hasil hutan bukan kayu berupa minyak kayu putih. Kebutuhan minyak kayu putih semakin meningkat, sementara pasokan bahan baku minyak kayu putih belum terpenuhi. Upaya peningkatan produktivitas bahan baku dapat dilakukan dengan cara menggunakan materi genetik unggul sebagai bahan pertanaman. Pertumbuhan materi genetik unggul dapat didukung dengan pemilihan teknik perbanyakan secara vegetatif. Salah satu teknik perbanyakan vegetatif yang digunakan yaitu stek pucuk dari kebun pangkas bergulir. Penelitian ini dilakukan untuk mengetahui pengaruh klon terhadap produktivitas trubusan dan perakaran semai kayu putih menggunakan teknik perbanyakan stek pucuk dari kebun pangkas bergulir.

Penelitian ini menggunakan delapan klon kayu putih (Klon 13, 21, 25, 38, 39, 41, 42 dan 71) dengan 30 ulangan. Stek direndam dalam Zat Pengatur Tumbuh (ZPT) yaitu IBA (*Indole Butyric Acid*) kemudian diinduksi akar dengan media campuran pasir : tanah : pupuk kompos (1:2:1). Stek ditumbuhkan di bedeng induksi dengan disungkup untuk menjaga kelembaban. Penelitian ini dilakukan selama empat bulan menggunakan metode Rancangan Acak Lengkap (RAL) dengan data yang diamati meliputi persen hidup, tinggi, diameter, produktivitas pucuk, biomassa atas, persen berakar, panjang akar Orde 1, jumlah akar (Orde 1, Orde 2 dan Orde 3) serta biomassa bawah.

Hasil penelitian menunjukkan bahwa klon yang memiliki produktivitas pucuk tinggi yaitu Klon 21, Klon 42 dan Klon 39. Produktivitas pucuk Klon 21 yaitu 50 pucuk, Klon 42 yaitu 45 pucuk dan Klon 39 yaitu 36 pucuk. Klon yang memiliki persen berakar tertinggi antara lain yaitu Klon 21, 25 dan 42. Persen berakar Klon 21 yaitu 73%, Klon 25 yaitu 72,7% dan Klon 42 yaitu 69,4%. Klon yang memiliki berat biomassa akar terberat yaitu Klon 25, 71 dan 38. Berat biomassa masing-masing klon adalah Klon 25 yaitu 0,0798 g, Klon 71 yaitu 0,0425 g dan Klon 38 yaitu 0,0419 g.

Kata kunci : Klon, produktivitas trubusan, perakaran stek pucuk, kebun pangkas bergulir kayu putih

ffect of Clones on Shoot Productivity and Rooting of Shoot Cutting Cajuput at Rolling Hedge Orchard Method

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Abstract

Melaleuca cajuputi is a plant producing essential oils and plays an important role in the development of non-timber forest products in the form of cajuput oil. The demand of cajuput oil is increasing, while the supply of the raw materials is low. The production can be increased by using superior genetic materials as planting material. The growth of superior genetic materials can be achieved by using vegetative propagation techniques. One of the vegetative propagation techniques is rolling hedge orchard propagation. This study aimed to determine the effect of clones with shoot cuttings productivity, as well as root rates and root biomass of *Melaleuca cajuputi* using the rolling hedge orchard propagation technique.

This study used eight Cajuput Clones (Clones 13, 21, 25, 38, 39, 41, 42 and 71) with 30 replications. The cuttings were dipped in Growth Regulatory Substances using IBA. The cuttings were planted in sand: soil: compost (1: 2: 1) media in polybags. All plants were grown under a plastic cover to maintain humidity. This research was conducted for four months using the Completely Randomized Design (CRD) method. The observed datas were survival rates, height, diameter, shoot productivity, biomass, root rates, root length of Order 1, root number (Order 1, Order 2 and Order 3) and root biomass.

The results showed that the clones that had highest values in shoot productivity were Clones 21, 42 and 39. Productivity of Clone 21 was 50 shoots, Clone 42 was 45 shoots and Clone 39 was 36 shoots. The clones that had the highest rooted percent were Clones 21, 25 and 42. The percent rooted Clones 21 were 73%, Clones 25 were 72.7% and Clones 42 were 69.4%. Clones that had the heaviest root biomass weight were Clone 25 , 71 and 38. The biomass weight of each clone was Clone 25, 0.0798 g, Clone 71 was 0.0425 g and Clone 38 was 0.0419 g.

Keyword : Clones, shoot cuttings, rootings, rolling hedge orchard of cajuput