PENGARUH POLA TANAM TERHADAP KONDISI LINGKUNGAN TANAMAN REHABILITASI PESISIR

Oleh :
RASTO ZANU MUBIARTO
08/269728/KT/06289

INTISARI

Efektifitas *windbreak* mampu meningkatkan produktifitas dan kesehatan tanaman. *Windbreak* dengan jenis cemara udang telah dibangun di pantai selatan Kabupaten Bantul guna mengurangi lahan kritis dan mengubahnya menjadi lahan produktif. Penelitian ini menaksir efek *windbreak* cemara udang dalam mengubah intensitas cahaya, suhu udara, kelembaban udara, pola angin, dan penurunan kecepatan angin di pantai.

Penelitian ini dilakukan pada bulan Mei - Juni 2012 di Pantai Kwaru dan Samas. Pengamatan data dilakukan setiap satu minggu sekali pada waktu pagi, siang, dan sore. Pengamatan data dilakukan pada ketinggian 200 cm di atas permukaan tanah.

W*indbreak* cemara udang di Pantai Kwaru mampu mengubah rata-rata intensitas cahaya menjadi sekitar 5.000 lux – 7.500 lux, rata-rata suhu udara antara 28 °C – 30 °C, dan rata-rata kelembaban udara antara 73% - 79%. W*indbreak* cemara udang di Pantai Samas mampu mengubah rata-rata intensitas cahaya menjadi sekitar 2.000 lux – 6.500 lux, rata-rata suhu udara antara 29 °C – 31 °C, dan rata-rata kelembaban udara antara 67 % - 74 %. Pola arah angin di area *windbreak* cemara udang di Pantai Kwaru menurun pada jarak 15 m hingga kecepatan 7,5 km/jam dan meningkat pada jarak 30 m – 45 m lebih cepat dari rata-rata kecepatan angin titik acuan. *Windbreak* cemara udang di Pantai Kwaru mampu menurunkan kecepatan angin sampai jarak 15 m atau 1,9 kali tinggi *windbreak* yaitu sebesar 48 %. Pola arah angin di area *windbreak* cemara udang di Pantai Samas menurun pada jarak 40 m hingga kecepatan 2 km/jam, kemudian meningkat pada jarak 80 m, dan meningkat pada jarak 120 m tetapi tidak lebih cepat dari titik acuan. *Windbreak* cemara udang di Pantai Samas mampu menurunkan kecepatan angin di belakangnya sampai jarak 120 m atau 12,12 kali tinggi *windbreak* yaitu sebesar 60 %.

Kata kunci : *windbreak* cemara udang, intensitas cahaya, suhu udara, kelembaban udara, pola angin, penurunan kecepatan angin

THE EFFECT OF PLANTING PATTERN TO COASTAL ENVIRONMENTAL CONDITIONS OF PLANT REHABILITATION

By :
RASTO ZANU MUBIARTO
08/269728/KT/06289

ABSTRACT

Windbreaks effectivity can improve crop productivity and health. The windbreak consisted of cemara udang has been established in southern coast of Bantul district to reduce the critical land and change into the productive one. The research assesed the effect of cemara udang windbreak in changing light intensity, atmosphere temperature, atmosphere humidity, wind pattern, and decreasing wind velocity at seashore.

The research was conducted in May - June 2012 on Kwaru Beach and Samas Beach. Data observation was done every week in the morning, in the afternoon, and in the evening. Data observation has been done on 200 cm above height the soil surface.

Cemara udang windbreak at Kwaru Beach was able to change average light intensity of 5.000 lux – 7.500 lux, average atmosphere temperature of 28 °C – 30 °C, and the average atmosphere humidity of 73 % - 79 %. However, cemara udang windbreak at Samas Beach was able to change average light intensity of 2.000 lux – 6.500 lux, average atmosphere temperature of 29 °C – 31 °C, and the average atmosphere humidity of 67 % - 74 %. The wind pattern at the area of cemara udang windbreak on Kwaru Beach decreased at the distance 15 m to an average speed 7,5 km/h and increased at the distance 30 m - 45 m faster than average speed at reference point. Cemara udang windbreak on Kwaru Beach was able to reduce wind velocity at the distance 15 m or 1,9 times of windbreak height by 48 %. At the distance 40 m, the wind pattern at the area of cemara udang windbreak on Samas Beach decreased to 2 km/h, then increased at the distance 80 m - 120 m, however at these distances the wind velocity is not as high as at the reference point. Cemara udang windbreak on Samas Beach was able to reduce wind velocity at the distance 120 m or 12,12 times of windbreak height by 60 %.

Keywords: cemara udang windbreak, light intensity, atmosphere temperature, atmosphere humidity, wind pattern, reduce wind velocity