

INTISARI

Penelitian ini bertujuan untuk menentukan pengaruh arang aktif, pengaruh dan konsentrasi terbaik IBA serta mengetahui interaksi kombinasi arang aktif dan IBA dalam menginduksi perakaran sarang semut pada medium MS secara *in vitro*. Penelitian dilaksanakan di Laboratorium Kultur *In Vitro*, Fakultas Pertanian, Universitas Muhammadiyah Yogyakarta pada bulan April hingga Agustus 2016.

Penelitian ini menggunakan metode eksperimen yang disusun dalam Rancangan Acak Kelompok Lengkap dengan rancangan perlakuan faktorial (2 x 4). Masing- masing perlakuan diulang lima kali. Faktor 1 adalah konsentrasi arang aktif yaitu 0 g/L dan 2 g/L. Faktor 2 adalah konsentrasi IBA yaitu: 0 mg/L, 2 mg/L, 4 mg/L, 6 mg/L. Parameter yang diamati yaitu persentase eksplan hidup, persentase eksplan *browning*, persentase eksplan kontaminasi, pertambahan tinggi tunas, pertambahan jumlah daun, jumlah akar, akar terpanjang dan diameter akar.

Hasil penelitian menunjukkan bahwa arang aktif tidak berpengaruh terhadap pertambahan tinggi tunas, pertambahan jumlah daun dan akar terpanjang. Penggunaan IBA dengan konsentrasi 2 mg/L memberikan pengaruh terbaik terhadap akar terpanjang (2,05 cm). Interaksi terjadi antara kombinasi arang aktif dan IBA terhadap jumlah akar dan diameter akar. Perlakuan arang aktif 2 g/L + IBA 4 mg/L memberikan hasil terbaik terhadap diameter akar (1,58 cm).

Kata kunci : Tanaman Sarang Semut, Induksi akar, Arang aktif, IBA

ABSTRACT

A research aimed to determine the effect of activated charcoal, the influence and the best concentration of IBA also the interaction between active charcoal and IBA in inducing roots of ant plant on MS medium in vitro. The research was carried out at In Vitro Laboratory, Faculty of Agriculture, University Muhammadiyah Yogyakarta in April until August 2016.

This research used an experimental method which arranged in a completely randomized block design (CRBD) with a factorial treatment (2x4). Each treatment was repeated five times. The first factor was the concentration of activated charcoal 0 g/L and 2 g/L. The second factor was the concentration of IBA 0 mg/L, 2 mg/L, 4 mg/L, 6 mg/L. The parameters observed were the percentage of life explants, the percentage of browning explants, the percentage of contamination explants, the accretion of shoot height, the accretion of leaves number, the number of roots, the longest roots and the diameter of root.

The results showed that the activated charcoal has no effect in the accretion of shoot height, the accretion of leaves number and the longest roots. Concentration of IBA 2 mg/L gave the best effect for the longest root (2,05 cm). The interaction occurred between activated charcoal and IBA on the number of roots and diameter of root. The use of Activated charcoal 2 g/L + IBA 4 mg/L gave the best results for diameter of root (1,58 cm).

Keyword : Ant Plant, Root inducing, Activated charcoal, Indole-3-butyric acid