

Studi interaksi strain nostoc gial3a dengan akar tanaman padi oryza sativa l varietas ciherang melalui sistem penanaman hidroponik =
Interaction study between nostoc strain gial3a and roots of rice oryza sativa l ciherang varieties by hydroponic system

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Abstrak

Penelitian dilakukan untuk mengetahui adanya interaksi strain Nostoc GIA13a dengan akar tanaman padi (*Oryza sativa* L.) varietas Ciherang melalui sistem penanaman hidroponik. Tanaman padi varietas Ciherang (T14) diko-kultivasi selama 14 hari dalam medium kontrol negatif yang berisi medium BG11 N-free konsentrasi 10x, kontrol positif berisi medium yang mengandung IAA 15ppm, perlakuan 1 berisi medium dan strain GIA13a sebanyak 0,4 g, dan perlakuan 2 berisi medium yang mengandung IAA 15 ppm dan strain GIA13a sebanyak 0,4 g.

Hasil penelitian menunjukkan bahwa strain GIA13a mampu melakukan interaksi dengan akar padi berupa penempelan pada zona maturasi akar dan bukan pada zona meristematis akar. Pemberian auksin (IAA) sebesar 15 ppm pada medium mampu menginduksi pemanjangan akar lateral dan rambut akar tanaman padi.

.....The aim of present study was to determine the interaction of Nostoc strain GIA13a with roots of rice (*Oryza sativa* L.) Ciherang varieties by hydroponic system. Cocultivation of paddy (D14) grown for 14 days in negative control containing BG11 Nfree concentrate medium, positive control containing BG11 N-free concentrate plus auxin (IAA) 15 ppm medium, treatment 1 containing BG11 N-free concentrate medium and strain GIA13a as 0,4 g, and treatment 2 containing BG11 N-free concentrate plus auxin (IAA) 15 ppm medium, and strain GIA13a as 0,4 g.

Results show that strain GIA13a able to interact with rice roots to form attachment at maturation zone and not on meristematic zone. Fifteen ppm of auxin (IAA) in medium induce elongation of lateral root and root hairs of rice plant.