

Pertumbuhan tunas apikal dan aksilar kultur in vitro ubi kayu (*manihot esculenta crantz*) genotipe ubi kuning = the growth of apical and axillary shoot of cassava (*manihot esculenta crantz*) ubi kuning genotype in vitro culture

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Abstrak

Telah dilakukan penelitian multiplikasi tunas ubi kayu tinggi beta karoten genotipe Ubi Kuning secara kultur in vitro menggunakan dua tipe eksplan, yaitu nodus apikal dan empat nodus aksilar yang ditanam pada medium MS dengan penambahan 0,75 mg l⁻¹ BAP. Penelitian bertujuan untuk mengetahui nodus yang paling responsif terhadap media induksi tunas. Hasil uji Kruskal-Wallis dan analisis variansi (ANOVA) menunjukkan adanya perbedaan nyata ($\alpha=0,05$) antara perlakuan nodus (Apikal, Aksilar 1, Aksilar 2, Aksilar 3, dan Aksilar 4) dengan rata-rata jumlah tunas, tinggi tunas, jumlah daun, dan panjang daun. Hasil uji lanjut Duncan ($\alpha=0,05$) menunjukkan adanya perbedaan nyata di antara perlakuan nodus. Respon pertumbuhan yang paling cepat dan seragam terkait tinggi tunas, hari tumbuh tunas, jumlah daun, dan panjang daun ditunjukkan oleh nodus tengah, yaitu nodus aksilar 2 dan 3.

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Abstract

Research on cassava shoot multiplication of high beta-carotene Ubi Kuning genotype in vitro culture has been done using two different types of explant sources i.e., apical and four axillary buds grow on MS medium containing 0,75 mg l⁻¹ BAP. The study aims to determine the most responsive node for shoot multiplication. The Kruskal-Wallis and ANOVA test showed that various of explants (Apical, Axillary 1, Axillary 2, Axillary 3, and Axillary 4) had significant different ($\alpha=0,05$) with average value of shoot number, shoot length, leaf number, and leaf length. The Duncan test showed that there was a significant different ($\alpha=0,05$) between various type of explants. The most rapid growth response that associated with shoot length, leaf number, and leaf length obtained from the 2nd and 3rd axillary buds.