

**Efektivitas 2,4-D dan Air Kelapa Muda Terhadap Regenerasi Tunas
Kentang (*Solanum tuberosum* L.) Secara *In Vitro*
Dibimbing oleh Ir. Djenal, MP, dan Rudi Wardana, S.Pd, M.Si.**

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ABSTRAK

Produksi kentang mengalami penurunan karena kurangnya ketersediaan bibit bermutu. Penelitian ini bertujuan untuk mengetahui keberhasilan regenerasi tunas pada kultur tanaman Kentang (*Solanum tuberosum* L.) dengan pemberian Zat Pengatur tumbuh 2,4-D dan air kelapa muda pada media MS0. Penelitian ini dilakukan selama 4 bulan dari bulan Januari 2017 hingga April 2017. Semua kegiatan penelitian dilakukan di Laboratorium Kultur Jaringan Politeknik Negeri Jember. Penelitian ini menggunakan rancangan acak lengkap (RAL) factorial yang terdiri dari 2 faktor, 9 kombinasi perlakuan, dan 3 ulangan. Faktor D 3 taraf yaitu konsentrasi 2,4-D 0,1 ppm, 0,2 ppm, 0,3 ppm dan faktor M 3 taraf yaitu konsentrasi air kelapa muda 100 ml/L, 200 ml/L, 300 ml/L. Data dianalisis menggunakan ANOVA selanjutnya diuji lanjut menggunakan DMRT taraf 5%. Hasil penelitian ini menunjukkan bahwa perlakuan pemberian ZPT 2,4-D (D) dan air kelapa muda (M) memberikan pengaruh tidak nyata terhadap parameter kedinian tunas (hari), kedinian akar (hari), jumlah tunas, dan tinggi tunas (cm). Namun, pengaruh auksin yang tinggi berasal dari auksin endogen dan eksogen 2,4-D serta IAA dalam air kelapa muda memberikan respon terhadap parameter jumlah akar dan panjang akar berbeda nyata (*) pada taraf 5%.

Kata Kunci : 2,4-D, Air Kelapa Muda, Kentang, Regenerasi Tunas

The Effectivity of 2,4-D and Young Coconut Water Supplementary Into Shoot Regeneration On Potato (*Solanum tuberosum* L.) Plant by In Vitro Method
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ABSTRACT

*Potato production decreased due to the lack of availability of quality seed. This study aims to determine the success of shoot regeneration in cultures of potato plants (*Solanum tuberosum* L.) by administering an organizing growing 2,4-D and young coconut water on MS0 media. This study was conducted over 4 months from January 2017 to April 2017. All the research activities carried out at the Tissue Culture Laboratory Polytechnic of Jember. This study uses a completely randomized design (RAL) factorial consisting of two factors, 9 combination treatments and 3 replications. Factor D 3 levels ie the concentration of 2,4-D 0.1 ppm, 0.2 ppm, 0.3 ppm and the factor M 3 levels ie coconut water concentration of 100 ml/L, 200 ml/L , 300 ml/L. Data were analyzed using ANOVA were tested further using DMRT level of 5%. The results of this study showed that administration of PGR 2,4-D (D) and coconut water (M) gives no real effect on the regeneration of shoots (day), roots (days), shoots amount and shoot height (cm). However, the influence of the high auxin derived from endogenous and exogenous auxin 2,4-D and IAA in young coconut water provides a response to the roots amount and root length were significantly different (*) at the level of 5%.*

Keywords: 2,4-D, Coconut Water, Potato, Shoot Regeneration