DAFTAR PUSTAKA

Ahmed, E. M., Ghanim, N. S., Dan Aziz, W.S. 2025. Induction Callus From Cotyledons Of (*Atropa Belladonna* L.) And Evolution Ionic Content Using Plant Tissue Culture Ekhlas. *Dept Of Horticulture And Landscape Design*. 13(1):51–67.

Ahmed, Z. S., Salim, A. M., Eelaf Taha Hussein Al-Dur, Sanam, M.A., Dargiri, S. A., Dan Meftahizade, H. 2025. Optimizing Micropropagation And Microcorm Induction In Saffron (*Crocus Sativus* L .) Using Pgrs (Naa And Bap) And Elicitor Salicylic Acid. *BMC Plant Biology*. 25(877):5–10.

Ali, A. M. A., Qahtan, A.A., Al-Khayri, J.M., Dan Ghazzawy, H.S. 2025. Effect Of Low 2 , 4-D Concentration On Enhancing Indirect Embryogenesis And Genetic Stability In Date Palm (*Phoenix Dactylifera* L .). *Scientific Reports*. 15(43865):1–14.

Ali, J., Nicolas, K.L.C., Akther, S., Torabi, A., Ebadi, A.A., Marfori-Nazarea, C.M., Dan Mahender, A. 2021. Improved Anther Culture Media For Enhanced Callus. *Plants*. (June 2020):1–16.

Andini, S.N., Dan Pradana, O.C.P. 2020. Respon Pertumbuhan Galur Padi B4 Hasil Rakitan Politeknik Negeri Lampung Terhadap Cekaman Ph Secara In Vitro. *Jurnal Planta Simbiosa*. 2(2):37–40.

Anjana, P. K., B. Prashanth, K. Prathik, R. P. Sriya, Dan N. K. Srinivas. 2024. In Vitro Callus Induction And Regeneration Of Oryza Sativa L. Var. Mtu1075 (Pushyami) Anjana. *International Journal Of Advanced Research (IJAR)*. 12(05):676–681.

Ardiyani, F., E. Setiti Wida Utami, Dan H. Purnobasuki. 2021. Optimation Of Auxin And Cytokinin On Enhanced Quality And Weight Of Coffea Liberica Somatic Embryos. *Pelita Perkebunan (A Coffee And Cocoa Research Journal)*. 37(1):1–12.

Ariani, R., Y. U. Anggraito, Dan E. S. Rahayu. 2016. Respon Pembentukan Kalus Koro Benguk (*Mucuna Pruriens* L.) Pada Berbagai Konsentrasi 2,4-D Dan Bap. *Jurnal MIPA*. 39(1):20–28.

Avivi, S., Mohammad Ubaidillah, Setiyono, Dan Rifngatul ‘Atiqoh. 2022. Pengaruh Bap, Iaa, Dan Jenis Eksplan Terhadap Efisiensi Regenerasi Tomat Fortuna 23. *Jurnal Agronomi Indonesia (Indonesian Journal Of Agronomy)*. 50(3):313.

Baihaki, M. A. Dan Siregar, D. S. 2025. Respon Pertumbuhan Tanaman Kentang (*Solanum Tuberosum* L.) Terhadap Pemberian Indole Acetic Acid (IAA) Dan Benzyl Amino Purine (BAP) Secara In Vitro. *Jurnal Agri-Tek : Jurnal*

Penelitian Ilmu-Ilmu Eksakta. 13(1):15–19.

Balitbangtan. 2021. VUB Padi Balitbangtan. *Badan Litbang Pertanian*. 1.

Bano, A. S., Ahmad, N., Khattak, A. M., Gilani, S. A. Q., Basit, A., Ullah, I., Alam, M., Anwar, S., Shah, S.T., Dan Mohamed, H. I. 2022. Callus Induction , Proliferation , Enhanced Secondary Metabolites Production And Antioxidants Activity Of Salvia Moorcroftiana L . As Influenced By Combinations Of Auxin , Cytokinin And Melatonin. *Brazilian Archives Of Biology And Technology*. 65:1–16.

Binte Mostafiz, S. Dan Wagiran, A. 2018. Efficient Callus Induction And Regeneration In Selected Indica Rice. *Agronomy*. 8(5):77.

Biswas, P., Kumari, A. Modi, A. Priyam, A. Haque, R. Ola, M. S. Kumar, S., Dan Kumar, N. 2025. Callus Culture-Derived Regeneration And Molecular Characterization Of Regenerated Stevia Rebaudiana : Implications For Steviol Glycoside Production And Genetic Stability. *Front. Plant Sci*. (August):1–15.

Britto, J. De, Kamsinah, Dan Prayoga, L. 2022. Penambahan Iaa Dan Bap Terhadap Pertumbuhan Kalus Eksplan Daun Anggrek *Coelogyne Pandurata* Lindl. *Bioeksakta : Jurnal Ilmiah Biologi Unsoed*. 3(2):112.

Carsono, N., E. Juwendah, E., Liberty, S. Sari, F. Damayanti, Dan Rachmadi, M. 2021. Optimize 2,4-D Concentration And Callus Induction Time Enhance Callus Proliferation And Plant Regeneration Of Three Rice Genotypes. *Biodiversitas Journal Of Biological Diversity*. 22(7)

Chen, Y. M., Huang, J. Z., Hou, T. W., Dan Pan, I. C. 2019. Effects Of Light Intensity And Plant Growth Regulators On Callus Proliferation And Shoot Regeneration In The Ornamental Succulent Haworthia. *Botaical Studies*. 60(10):6–8.

Chitphet, P., N. Sanevas, S. Vuttipongchaikij, Dan Wongkantrakorn, N. 2025. An Effective Protocol For Callus Induction And Plant Regeneration In An Indica Rice Cultivar Rd43. *International Journal Of Plant Biology*. 16(2):48.

Chitphet, P., N. Sanevas, S. Vuttipongchaikij, Dan Wongkantrakorn, N. 2025. An Effective Protocol For Callus Induction And Plant Regeneration In An Indica Rice Cultivar Rd43. *International Journal Of Plant Biology*. 16(2):7–8.

Dash, B., Bhuyan, S. S., Singh, S. K., Chandravani, M., Swain, N., Rout, P., Katara, J. L., Parameswaran. C., Devanna. B. N., Dan Samantaray, S. 2022. Androgenesis In Indica Rice: A Comparative Competency In Development Of Doubled Haploids. *Plos One*. 17(5):1–20.

Datta, S. K., Peterhans, A., Datta, K., Dan Potrykus, I. 1990. Genetically Engineered Fertile Indica-Rice Recovered From Protoplasts. *Nature Biotechnology*. 8(8):736–740.

Delfi, S. A., Putri, S. I., Santoso, P., Dan Idris, M. 2025. Jurnal Biologi Tropis

Twenty-Five Years Research On Micropropagation Of Stevia And Curcuma Sp . And Improving Secondary Metabolites Using Precursor-Elicitor In Vitro : A Review. *Jurnal Biologi Tropis*. 25(2):1925–1930.

Ezward, Y. S., Okalia, D., Dan Chairil. 2021. Karakteristik Morfologi Malai Dan Bunga Pada 14 Genotipe Padi Lokal (*Oryza Sativa* L.) Kabupaten Kuantan Singingi. *Jurnal Sains Agro*. (2021):62.

Fatima, R., Reddy, V. P., Dan Hussain, S. M. 2024. Standardization Of In-Vitro Regeneration Of Oryza Sativa L . *An International Journal Of Plant Biology*. 9(1):6–9.

Gao, R., Zong, Y., Zhang, S., Guo, G., Zhang, W., Chen, Z., Lu, R., Liu, C., Wang, Y., Dan Li, Y. 2024. Efficient Isolated Microspore Culture Protocol For Callus Induction And Plantlet Regeneration In Japonica Rice (*Oryza Sativa* L .). *Plant Methods*. 20(76):1–12.

Gati, E. Dan Yunita, R. 2008. Induksi Kalus Dan Regenerasi Tunas Padi Varietas Fatmawati. *Journal Of Agronomy*. 36(2):106–110.

Ge, X., Chu, Z., Lin, Y., Dan Wang, S. 2006. A Tissue Culture System For Different Germplasms Of Indica Rice. *Plant Cell Reports*. 25(5):392–402.

Isnaini, F. Silvina, Dan Mora, N. F. 2023. Studi Keragaman Dan Kekerabatan Padi Lokal Asal Kabupaten Siak Berdasarkan Karakter Kualitatif The Study Of Diversity And Kinship Of Siak Regency Local Rice Based On Qualitative Character. *Jurnal Agroteknologi*. 5:16–17.

Kamble, T. B., Sawardekar. S.V., Palshetkar. M.G., Chavan. S.S., Lonare. K.M., Sarangkar. A.S., Dan Sherkar. S.H. 2024. Optimizing The Protocol For In Vitro Regeneration Through Callus In Rice Varieties , Viz ; Ratnagiri-8 , Karjat Shatabdi And Karjat-3. *Journal Of Advances In Biology & Biotechnology*. 27(11):1533–1543.

Khan, N., Uddin, M., Ghosh, J., Dan Rashid, M. 2023. Callus Induction, Regeneration Of Rice Variety Brri Dhan29 And Determination Of Lethal Dose Of Ethyl Methanesulfonate. *Bangladesh Journal Of Nuclear Agriculture*. 37(1):1–10.

Komatsuda, T., Pourkheirandish, M., He, C., Azhaguvel, P., Kanamori, H., Perovic, D., Stein, N., Graner, A., Wicker, T., Tagiri, A., Lundqvist, U., Fujimura, T., Matsuoka, M., Matsumoto, T., Dan Yano, M. 2007. Six-Rowed Barley Originated From A Mutation In A Homeodomain-Leucine Zipper I-Class Homeobox Gene. *Proceedings Of The National Academy Of Sciences*. 104(4). January 23, 2007. 1424–1429.

Kumar, A., Priyanka, Jeevanandhan, K., Kaushik, M., Mulani, E., Meena, S., Jeet, R., Phogat, S., Sareen, B., Madhavan, J.,Sevanthi, A. M., Solanke, A. U., Kumar, P., Dan Mandal, P. K. 2025. Low Titre Of Agroinoculum With Prolonged Incubation Period And Low Auxin Concentration In The

Regeneration Media Are The Key To High Frequency Of Transformation In Climate-Resilient Aus-Type Rice Genotype Nagina 22. 3 Biotech. July 16, 2025.

Lestari, E. G. Dan Yunita, R. 2008. Induksi Kalus Dan Regenerasi Tunas Padi Varietas Fatmawati Callus Induction And Shoot Regeneration Of In Vitro Rice Var. Fatmawati. *Bul. Agron*. 36(2):106–110.

Lin, Y. J. Dan Zhang, Q. 2005. Optimising The Tissue Culture Conditions For High Efficiency Transformation Of Indica Rice. *Plant Cell Reports*. 23(8):540–547.

Liu, C., Fan, H., Zhang, J., Wu, J., Zhou, M., Cao, F., Dan Tao, F. 2024. Combating Browning : Mechanisms And Management Strategies In In Vitro Culture Of Economic Woody Plants. *Forestry Research*. 4(E032)

Long, Y., Yang, Y., Pan, G., Dan Shen, Y. 2022. New Insights Into Tissue Culture Plant-Regeneration Mechanisms. *Frontiers In Plant Science*. 13

Ma, J., Zhao, F., Zhang, Y., Tian, X., Dan Du, W. 2025. Effects Of Hormone Concentrations On Anther Cultures And The Acquisition Of Regenerated Plants Of Five Awnless Triticale Genotypes. *BMC Plant Methods*. 6–10.

Manuhara, Y. S. W., Kusuma, D. Y., Dan Wibowo, A. T. 2024. Induksi Kalus *Amorphophallus Titanum* (Becc .) Becc . Melalui Kultur In Vitro. *Jurnal Hortikultura Indonesia (JHI)*. 15(3):133–139.

Manurung, B. H., Damanik, R. I., Dan Bayu, E. S. 2018. Kombinasi 2,4 D Dan Bap Untuk Induksi Kalus Embriogenik Beberapa Varietas Kedelai (*Glycine Max* (L.) Merrill) Pada Kondisi Hipoksia Secara In Vitro. *Jurnal Agroekoteknologi FP USU*. 6(1):86–92.

Martinez, M. E., Jorquera, L., Poirrier, P., Katy, D., Dan Chamy, R. 2021. Effect Of The Carbon Source And Plant Growth Regulators (Pgrs) In The Induction And Maintenance Of An In Vitro Callus Culture Of Taraxacum Officinale (L) Weber Ex F.H. Wigg. *MDPI Journal Agronomy*. 10–15.

Mulyono, M., Salsabila, M. S., Rasnijal, M., Fadilah, S., Dan Putra, A. 2025. Callus Induction In Kappaphycus Alvarezii Using *Indole-3-Acetic Acid* (Iaa) And *6-Benzylaminopurine* (Bap) For Seedstock Development. *Indonesian Aquaculture Journal*. 20(1):1.

Murugesan, D., Subramanian, G., Salini, A. P., Dan Muthurajan, R. 2022. Optimization Of High Frequency Plant Regeneration Protocol Via Embryogenic Callus Formation From Diverse Indica Rice Genotypes Induced By Combinations Of 2,4-D And Ba. *Oryza-An International Journal On Rice*. 59(3):281–291.

Nofitria, A. S., Putri, D. P., Fatah, F. A., Faradila, N., Dan Advinda, L. 2022. Pengaruh Perbedaan Konsentrasi IAA Dan BAP Terhadap Pertumbuhan Biji Padi (*Oryza Sativa* L .) Secara In Vitro (The Effect Of Differences In IAA And BAP Concentrations On The Growth Of Rice Seeds (*Oryza Sativa* L .)

In Vitro). *Prosiding Semnas Bio*. 2022. 751–757.

Nopriansyah, S., Mustikarini, E. D., Dan Khodijah, N. S. 2024. Pelestarian Varietas Padi Ladang Lokal Untuk Pertanian Berkelanjutan : Pelestarian Varietas Padi Lokal Bangka. *Jurnal Pemikiran Masyarrakat Ilmiah Berwawasan Agribisnis*. 10(1):1364.

Novitasari. 2019. Induksi Kalus Dan Regenerasi Tunas Beberapa Genotipe Padi Lokal Kabupaten Tana Toraja Dan Toraja Utara Serta Enrekang Secara In Vitro

Patil, R. S., Davey, M. R., Dan Power, J. B. 1994. Highly Efficlent Plant Regeneration From Mesophyll Protoplasts Of Indian Field Cultivars Of Tomato (*Lycopersicon Esculentum*). *Plant Cell, Tissue And Organ Culture*. 36(2):255–258.

Prashariska, K., Pitoyo, A., Dan Solichatun. 2021. Pengaruh *Indole-3-Acetic Acid* (Iaa) Dan *Benzyl Amino Purine* (Bap) Terhadap Induksi Dan Deteksi Alkaloid Kalus Kamilen (Matricaria. *Jurnal Inovasi Pertanian*. 23(2):104–114.

Purmanigsih, R. 2006. Induksi Kalus Dan Optimasi Regenerasi Empat Varietas Padi Melalui Kultur In Vitro. *Agrobiogen*. 2(2):74–80.

Putri, A. B. S., Hajrah, H., Armita, D., Dan Tambunan, I. R. 2021. Teknik Kultur Jaringan Untuk Perbanyakan Dan Konservasi Tanaman Kentang (*Solanum Tuberosum* L.) Secara In Vitro. *Filogeni: Jurnal Mahasiswa Biologi*. 1(2):69–76.

Rahayu, S., Dan Suharyanto, S. 2020. Induksi Kalus Dengan 2,4d Dan Bap Pada Eksplan Daun Vegetatif Dan Generatif Tempuyung (*Sonchus Arvensis* L.). *Bioeksakta : Jurnal Ilmiah Biologi Unsoed*. 2(3):479.

Rahman, H. Dan Mawariani. 2021. Organogenesis Of Cavendish Banana (*Musa Acuminata* L.) Plant In Various Concentrations Of Zpt Iaa (*Indole Acetic Acid*) And Bap (*Benzyl Amino Purine*) Vitro. *Agrotech Journal*. 6(1):23–29.

Rahman, M. S., Ferdaous, J., Jafrin, S., Hoque, M. E., Hossain, M.A., Dan Sultana, S. 2023. Optimizing Hormonal Effects And Incubation Periods On In Vitro Regeneration In High-Yielding Indica Rice. *Bangladesh Rice Journal*. 27(2):17–24.

Rahman, M. S., J. Ferdaous, S. Jafrin, M. E. Hoque, M. A. Hossain, Dan S. Sultana. 2025. Optimizing Hormonal Effects And Incubation Periods On In Vitro Regeneration In High-Yielding Indica Rice. *Bangladesh Rice Journal*. 27(2):17–24.

Rahman, Nurhamidar, H. Fitriani, Nurhaidar Rahman, Dan N. S. Hartati. 2021. The Influence Of Various Growth Regulators On Induction Organogenic Callus From Gajah And Kuning Cassava Genotype (*Manihot Esculenta Crantz*). *Jurnal Ilmu Dasar*. 22(2):119.

Rasud, Y. Dan Bustaman. 2020. Induksi Kalus Secara In Vitro Dari Daun Cengkeh (*Syizigium Aromaticum* L .) Dalam Media Dengan Berbagai Konsentrasi Auksin. *Jurnal Ilmu Pertanian Indonesia (JIPI)*. 25(1):67–72.

Rika, A., D. H. Anggraeni, Noeriwan, K. Indra, L. Ali, T. D. Sekarsari, Dan E. Latifah. 2023. Kajian Inovasi Teknologi Budidaya Padi Di Kabupaten Mojokerto. *Jurnal Riset Kajian Teknologi Dan Lingkungan*. 182.

Salsabilla, M. J. Dan M. N. Isda. 2021. Induksi Kalus Dari Eksplan Daun Tacca (*Tacca Chantrieri Andre*) Pada Media Murashige And Skoog Dengan Konsentrasi Sukrosa Yang Berbeda Secara In Vitro. *Jurnal Biologi Universitas Andalas*. 10(1):1–9.

Sanjaya, M. F., L. O. Afa, M. Amir, Dan N. Utami. 2023. Respon Agronomi Padi Gogo Lokal Sulawesi Tenggara Pada Berbagai Kondisi Lingkungan Tumbuh. *Jurnal Ilmu Pertanian*. 8:184.

Saputro, T. B., D. Prasetyaningsih, R. Himami, R. D. Ramadhana, Q. Nasywa, E. N. Ngizati, I. D. Soleha, Dan D. K. Wahyuni. 2025. In Vitro Selection Of Callus From Local Badui Rice Plant (*Oryza Sativa* L .) On Polyethylene Glycol (Peg 6000) Medium To Obtain Drought-Resistant Variants. *BIO Web Of Conferences*. 03001

Setiawan, R. B., N. Khumaida, Dan D. Dinarti. 2024. Proliferasi Kalus Embriogenik Dan Embrio Somatik Tanaman Gandum (*Triticum Aestivum* L.) Embryogenic. *Jurnal Sains Agro*. 9(1):61–67.

Shahin, S. M., A. Jaleel, Dan M. A. M. Alyafei. 2021. Yield And In Vitro Antioxidant Potential Of Essential Oil From Aerva Javanica (Burm. F.) Juss. Ex Schul. Flower With Special Emphasis On Seasonal Changes. *Plants*. 10(12):2618.

Sidek, N., R. Nulit, Y. C. Kong, C. Yong, Dan S. Yien. 2022. Callogenesis And Somatic Embryogenesis Of Oryza Sativa L . (Cv . Mardi Siraj 297) Under The Influence Of 2 , 4 - Dichlorophenoxyacetic Acid And Kinetin. *AIMS Agriculture And Food*. 7(February):536–552.

Sutini, Widiwurjani, N. Augustien, Guniarti, D. H. Pribadi, D. A. Purwanto, Dan W. Mudlihatin. 2020. Teknologi Kultur In Vitro Untuk Produksi Metabolit Sekunder Dan Pengem- Bangan Tanaman Yang Tahan Terhadap Perubahan Iklim In Vitro Culture Technology For The Production Of Secondary Metabolites And The De- Velopment Of Plants That Are Resistant To Climat. *Seminar Nasional Magister Agroteknologi*. 2020. 2020. 33–34.

Syamsurizal, D. T. Utami, Elisma, Lizawati, A. B. Sasongko, Dan B. H. Prabowo. 2025. Effectiviness Of Antioxidants As Browning Inhibitors Against Shoot Cyrtostachys Renda As Callus Culture Explant. *Jurnal Ilmiah Ilmu Terapan Universitas Jambi*. 9(1):188–197.

Wardana, R., Pratiwi, H. G., Dan Utami, C. D. 2024. Pengaruh Pemberian Zpt Iaa

Dan Bap Terhadap Pertumbuhan Ubi Jalar (*Ipomoea Batatas* L .) Ungu Secara In Vitro. *Jurnal Ilmiah Inovasi*. 24(1):1–7.

Waryastuti, D. E., L. Setyobudi, Dan T. Wardiyati. 2017. Pengaruh Tingkat Konsentrasi 2,4-D Dan Bap Pada Media Ms Terhadap Induksi Kalus Embriogenik Temulawak (*Cucurma Xanthorrhiza* Roxb.). *Jurnal Produksi Tanaman*. 5(1):140–141.

Wijaya, N. R., D. Suharto, Dan H. Sudrajad. 2024. Pengaruh Bap Dan 2,4 D Terhadap Inisiasi Dan Pertumbuhan Kalus Pulesari (*Alyxia Reinwardtii Blume*). *Jurnal Pertanian Agros*. 26(1):38–45.

Yimam, T., M. Abide, S. Benor, Dan D. Guadie. 2025. Protocol Optimization For Callus Induction And Shoot Regeneration Of Ethiopian Rice Varieties (*Oryza Sativa* L.). *BMC Biotechnology*. 25(1):43.

Zaman, T. Dan S. M. S. Islam. 2024. Influence Of Plant Growth Regulators On Efficient Callus Induction And Regeneration Using Five Rice Genotypes In Bangladesh. *Journal Of Bio-Science*. 32(1):83–94.

Zaranek, M., A. Pinski, B. Skupien-Rabian, U. Jankowska, K. Godel-Jedrychowska, K. Sala-Cholewa, K. Nowak, E. Kurczynska, E. Grzebelus, Dan A. Betekhtin. 2025. The Cell Colony Development Is Connected With The Accumulation Of Embryogenesis- Related Proteins And Dynamic Distribution Of Cell Wall Components In In Vitro Cultures Of Fagopyrum Tataricum And Fagopyrum Esculentum. *BMC Plant Biology*. 3–5.

Zhang, K., J. Su, M. Xu, Z. Zhou, X. Zhu, X. Ma, J. Hou, L. Tan, Z. Zhu, H. Cai, F. Liu, H. Sun, P. Gu, C. Li, Y. Liang, W. Zhao, C. Sun, Dan Y. Fu. 2020. A Common Wild Rice-Derived Boc1 Allele Reduces Callus Browning In Indica Rice Transformation. *Nature Communications*. 11(1):6–7.

Zhang, Y., J. T.-C. Tseng, I.-C. Lien, F. Li, W. Wu, Dan H. Li. 2020. Mrnasi Index: Machine Learning In Mining Lung Adenocarcinoma Stem Cell Biomarkers. *Genes*. 11(3):257.

Ziraluo, Y. P. B. 2021. Metode Perbanyakan Tanaman Ubi Jalar Ungu (*Ipomea Batatas Poiret*) Dengan Teknik Kultur Jaringan Atau Stek Planlet. *Jurnal Inovasi Penelitian*. 2(3):1037–1046.

Zulda, S. M. 2020. Induksi Kalus Padi Hitam (*Oryza Sativa* L.) Varietas Wojalaka Menggunakan 2,4-D Dichlorophenoxy Acetid Acid Dan Asam Amino Prolin Secara In-Vitro. *Skripsi Universitas Islam Negeri Maulana Malik Ibrahim Malang*. 2:37-56.