UNIVERSITAS GADJAH MADA
Pengaruh Kombinasi Giberelin dan Sitokinin terhadap Pertumbuhan dan Karakter Fisiologis Semai Sengon (Falcataria falcata (L.) Greuter & R. Rankin)
Jovika Syifa Ananmaimuna, Prof. Dr. Kumala Dewi, M.Sc.St. ; Prof. Dr. Liliana Baskorowati, S.Hut., M.P.
Universitas Gadjah Mada, 2026 | Diunduh dari http://etd.repository.ugm.ac.id/

DAFTAR PUSTAKA

Abualia, R., Riegler, S., & Benkova, E. (2023). Nitrate, auxin and cytokinin—a trio to tango. *Cells*, *12*(12),1-14. https://doi.org/10.3390/cells12121613

Adilah, N., Yusran., & Taiyeb, A. (2019). Pertumbuhan semai jati (*Tectona grandis* L.f) pada aplikasi berbagai konsentrasi hormone giberelin di persemaian. *Jurnal Warta Rimba*, 7(3), 121-127.

Alam, P., Faizan, M., Arif, Y., Azzam, M. M., Hayat, S., Afzal, S., & Albalawi, T. (2025). Reactive oxygen species: balancing agents in plants. *Frontiers in Plant Science*, *16*, 1-18. https://doi.org/10.3389/fpls.2025.1713590

Alzubaidi, A.I., Elfeel, A.A., & Bakhashwain, A. A.(2021). Interactive effects of seed priming and watering frequency on *Acacia tortilis* seedlings growth performance in arid saline field. *Life Science Journal*, 18(2), 17-34.

Anggraini, N., Triani, N., & Tarigan, P.L. (2025). Pengaruh dosis pupuk NPK dan konsentrasi ZPT giberelin terhadap pertumbuhan dan hasil tanaman mentimun (*Cucumis sativus* L.). *Journal Galung Tropika*, *14*(1), 22-32. https://doi.org/10.31850/jgt.v14i1.1374

Arba., Sudiarto., & Yuniansari, R.(2023). Perlindungan hutan dan fungsinya bagi kehidupan anusia dan lingkungan alam. *Jurnal Kompilasi Hukum*, *8*(2),128-142.

Assyifa, F., Indraswara, H., & Supriatna, A. (2023). Inventarisasi tumbuhan famili Fabaceae di jalur hutan Kota Babakan Siliwangi Bandung, Jawa Barat. *Konstanta: Jurnal Matematika dan Ilmu Pengetahuan Alam*, *1*(2), 143-151. https://doi.org/10.59581/konstanta-widyakarya.v1i2.806

Autio, A.M., & Day, M. E. (2016). Cytokinin phytohormonal effects on crown structure. Arboriculture & Urban Forestry, 42(1), 1-20. https://auf.isa-arbor.com/content/42/1/1#:~:text=https%3A//doi.org/10.48044/jauf.2016.001

Badan Perencanaan Pembangunan & Penelitian Pengembangan Daerah. (2020). Pemulihan dan pemanfaatan lahan bekas penambangan timah, Bappeda Babelprov.go.id, dikutip pada tanggal 20 Februari 2026, https://bappeda.babelprov.go.id/content/pemulihan-dan-pemanfaatan-lahan-bekas-penambangan-timah

Bao, Y., Li, X., Qi, X., Wang, X., Feng, X., Chen, Y., Hou, L., & Li, M. (2022). Analysis of cytokinin content and associated genes at different developmental stages in pak choi (*Brassica rapa* ssp. *chinensis* Makino). *Biotechnology & Biotechnological Equipment*, *36*(1), 788-797. https://doi.org/10.1080/13102818.2022.2106888

Baskorowati, L. (2014). *Budidaya sengon unggul (Falcataria moluccana) untuk pengembangan hutan rakyat.* IPB Press.

Baskorowati, L. (2020). Orasi pengukuhan profesor riset bidang genetika dan pemuliaan tanaman: teknologi pemuliaan sengon untuk meningkatkan ketahanan penyakit karat tumor guna mendorong perkembangan industri perkayuan di Indonesia. Kementerian Lingkungan Hidup dan Kehutanan.

Baskorowati, L., Wirabuana, P. Y. A. P., Hendrati, R. L., Nurtjahjaningsih, I. L. G., Setiadi, D., Mashudi., & Gunawan. (2024). Early boosting of

UNIVERSITAS GADJAH MADA
Pengaruh Kombinasi Giberelin dan Sitokinin terhadap Pertumbuhan dan Karakter Fisiologis Semai Sengon (Falcataria falcata (L.) Greuter & R. Rankin)
Jovika Syifa Ananmaimuna, Prof. Dr. Kumala Dewi, M.Sc.St. ; Prof. Dr. Liliana Baskorowati, S.Hut., M.P.
Universitas Gadjah Mada, 2026 | Diunduh dari http://etd.repository.ugm.ac.id/

genetically improved *Falcataria moluccana* with mycorrhiza for better growth and disease tolerance. *Forest Science and Technology*, 20(2), 124–135. https://doi.org/10.1080/21580103.2024.2314709

Beernink, B. M., Vogel, J. P., & Lei, L. (2025). Enhancers in plant development, adaptation and evolution. *Plant and Cell Physiology*, *66*(4), 461-476.

Berger, A., Boscari, A., Horta Araujo, N., Maucourt, M., Hanchi, M., Bernillon, S., Rolin, D., Puppo A., & Brouquisse, R. (2020). Plant nitrate reductases regulate nitric oxide production and nitrogen-fixing metabolism during the Medicago truncatula–Sinorhizobium meliloti symbiosis. *Frontiers in Plant Science*, *11*, 1313. https://doi.org/10.3389/fpls.2020.01313

Bidwell, R.G. (1979). *Plant physiology* (2nd edition). Macmillan Publishing.

Binenbaum, J., Weinstain, R., & Shani, E.(2018). Gibberellin localization and transport in plants. *Trends in plant science*, *23*(5),410-421. https://doi.org/10.1016/j.tplants.2018.02.005

Caferri, R., Guardini, Z., Bassi, R., & Dall'Osto, L. (2022). Assessing photoprotective functions of carotenoids in photosynthetic systems of plants and green algae. In *Methods in enzymology*.Academic Press, 674, 53-84. https://doi.org/10.1016/bs.mie.2022.04.006

Cao, J., Liu, H., Tan, S., & Li, Z. (2023). Transcription factors-regulated leaf senescence: current knowledge, challenges and approaches. *International journal of molecular sciences*, *24*(11),9245. https://doi.org/10.3390/ijms24119245

Carrier, M., Loppinet-Serani, A., Denux, D., Lasnier, J.M., Ham-Pichavant, F., Cansell, F., & Aymonier, C.(2011). Thermogravimetric analysis as a new method to determine the lignocellulosic composition of biomass. *Biomass and bioenergy*, *35*(1),298-307. https://doi.org/10.1016/j.biombioe.2010.08.067

Castro-Camba, R., Sánchez, C., Vidal, N., & Vielba, J.M.(2022). Plant development and crop yield: the role of gibberellins. *Plants*, *11*(19),1-27. https://doi.org/10.1104/pp.107.100370

Cheng, C.K.C., & Jr, H.V.M. (1968). Gibberellic acid-promoted lignification and phenylalanine ammnonia-lyase activity in a Dwarf Pea (*Pisum sativum*). *Plant Physiology*. 43(11),1755-1759.

Corryanti., & Novitasari, D. (2015). *Sengon dan penyakit karat tumor*. Puslitbang Perum Perhutani Cepu.

Cortleven, A., Marg, I., Yamburenko, M.V., Schlicke, H., Hill, K., Grimm, B., Schaller, G.E., & Schmülling, T. (2016). Cytokinin regulates the etioplast-chloroplast transition through the two-component signaling system and activation of chloroplast-related genes. *Plant Physiology*, *172*(1),464-478. https://doi.org/10.1104/pp.16.00640

Dabravolski, S.A., & Isayenkov, S.V. (2025). Expansins in Salt and Drought Stress Adaptation: From Genome-Wide Identification to Functional Characterisation in Crops. *Plants*, *14*(9), 1-17. https://doi.org/10.3390/plants14091327

UNIVERSITAS GADJAH MADA
Pengaruh Kombinasi Giberelin dan Sitokinin terhadap Pertumbuhan dan Karakter Fisiologis Semai Sengon (Falcataria falcata (L.) Greuter & R. Rankin)
Jovika Syifa Ananmaimuna, Prof. Dr. Kumala Dewi, M.Sc.St. ; Prof. Dr. Liliana Baskorowati, S.Hut., M.P.
Universitas Gadjah Mada, 2026 | Diunduh dari http://etd.repository.ugm.ac.id/

Deng, J., Chen, Y., Lin, S., Shao, Y., Zou, Y., Zheng, Q., Guo, L., Lin, J., Chen, M., & Ye, Z. (2025). Molecular regulation of carotenoid accumulation enhanced by oxidative stress in the food industrial strain *Blakeslea trispora*. *Foods*, *14*(9), 1-16. https://doi.org/10.3390/foods14091452

Doan, P.P.T., Vuong, H.H., & Kim, J. (2024). Genetic foundation of leaf senescence : insights from natural and cultivated plant diversity. *Plants*, 13(23), 1-36. https://doi.org/10.3390/plants13233405

El-Beltagi, H. S., El-Nady, M. F., Ismail, A. M., Abomarzoka, E. A., El-Mogy, M. M., & Metwaly, M. M.(2025). Foliar application of exogenous gibberellin or cytokinin mitigates salinity stress on faba bean (*Vicia faba* L.). *Notulae Botanicae Horti Agrobotanici Cluj-Napoca*, *53*(2),14579-14579. https://doi.org/10.15835/nbha53214579

Ende, S., Salawati, S., Kadekoh, I., Fathurrahman, F., Darman, S., & Lukman, L. (2022). Aktivitas nitrat reduktase (ANR) tanaman jagung pada pola tumpangsari yang diberi serasah jagung-kedelai serta biochar di lahan suboptimal Sidondo Sulawesi Tengah. *Jurnal Ilmu Pertanian Indonesia*, *27*(4),528-535. https://doi.org/10.18343/jipi.27.4.544

Ernita, M., Utama, M.Z.H., Zahanis, Z., Ernawati, E., & Muarif, J.(2023). Pengaruh zat pengatur tumbuh alami dan sintetik terhadap pertumbuhan ibit kelapa sawit (*Elaeis guineensis* Jacq) di pre nusery. *Jurnal Ilmiah Ilmu Pertanian*, *7*(2),186-194. https://doi.org/10.33096/agrotek.v7i2.356

Falcataria falcata (L.) Greuter & R.Rankin in GBIF Secretariat (2023). GBIF Backbone Taxonomy. Checklist dataset https://doi.org/10.15468/39omei accessed via GBIF.org on 2026-03-24.

Guo, Y., Ren, G., Zhang, K., Li, Z., Miao, Y., & Guo, H. (2021). Leaf senescence: progression, regulation, and application. *Molecular Horticulture*, *1*(1),5 https://doi.org/10.1186/s43897-021-00006-9

Haerumi, W., Suryantini, R., & Herawatiningsih, R. (2019). Identifikasi dan tingkat kerusakan oleh serangga perusak pada bibit sengon (*Falcataria moluccana*) di persemaian permanen balai pengelilaan daerah aliran sungai dan hutan lindung Kapuas Pontianak. *Jurnal Hutan Lestari*, 7(1),349-362. https://doi.org/10.26418/jhl.v7i1.31959

Heidarzadeh, A. (2025). RETRACTED ARTICLE: Role of amino acids in plant growth, development, and stress responses: a comprehensive review. *Discover Plants*, *2*(1), 237.

Haky, C. E., Pellondo'u, M. E., & Ramman, N. (2020). Perendaman biji cendana (*Santalum album* Linn.) dengan berbagai konsentrasi air kelapa muda untuk meningkatkan kualitas perkecambahan. *Jurnal Wana Lestari*, 2(2), 256-263.

Han, X., Zeng, H., Bartocci, P., Fantozzi, F., & Yan, Y.(2018). Phytohormones and effects on growth and metabolites of microalgae: a review. *Fermentation*, *4*(2),1-15. https://doi.org/10.3390/fermentation4020025

Hartiko. (1983). Leaf and root in vivo nitrate reductase activities of coconut (*Cocos nucifera* L.) cultivars and hybrids. [Disserstation]. University of the Phillippines, Los Banos. [Filipina].

UNIVERSITAS GADJAH MADA
Pengaruh Kombinasi Giberelin dan Sitokinin terhadap Pertumbuhan dan Karakter Fisiologis Semai Sengon (Falcataria falcata (L.) Greuter & R. Rankin)
Jovika Syifa Ananmaimuna, Prof. Dr. Kumala Dewi, M.Sc.St. ; Prof. Dr. Liliana Baskorowati, S.Hut., M.P.
Universitas Gadjah Mada, 2026 | Diunduh dari http://etd.repository.ugm.ac.id/

Heidarzadeh, A. (2025). RETRACTED ARTICLE: Role of amino acids in plant growth, development, and stress responses: a comprehensive review. *Discover Plants*, *2*(1), 237.

Hemalatha, S. (2002). Regulation of nitrate reductase activity in rice (*Oryza sativa* L.) by growth regulators. *Journal of Central European Agriculture*, 3(3),231-238.

Hendry, G. A. F., & Grime, J. P. (1993). *Methods on comparative plant ecology. a laboratory manual*. Chapman and Hill.

Herrmann, A., & Torii, K.U. (2021). Shouting out loud: signaling modules in the regulation of stomatal development. *Plant Physiology*, *185*(3),765-780. https://doi.org/10.1093/plphys/kiaa061

Huang, P., Li, Z., & Guo, H. (2022). New advances in the regulation of leaf senescence by classical and peptide hormones. *Frontiers*, 13 ,1-17. https://doi.org/10.3389/fpls.2022.923136

Huang,D., Wang, S., Zhang, B., Shang-Guan, K.,& Zhou, Y. A. (2015). Gibberellin-Mediated DELLA-NAC Signaling Cascade Regulates Cellulose Synthesis in Rice. *Plant Cell*. 27: 1681–1696. http://www.plantcell.org/cgi/doi/10.1105/tpc.15.00015

Hughes, R.F., Anderson, A., Clements, D.R., Norton, J., & Ostertag, R. (2024). Biology and impacts of pacific islands invasive species: *Falcataria falcata* (Miquel) Barneby and Grimes (Fabaceae). *Pacific Science*, *78*(1),61-84. https://doi.org/10.2984/78.1.5

Iskandaria, W., Darmawanti, N., Manalu, S.N.A.B., Tanjung, I.F., & Hasibuan, F.R. (2023). The effect of growth regulating substances giberelin on the growth of cucumber (*Cucumis sativus*). *Jurnal Biologi Tropis*, *23*(1):269-272. https://doi.org/10.29303/jbt.v23i1.4603

Islam, M.S., Hasan, M.K., Islam, B., Renu, N.A., Hakim, M.A., Islam, M.R., Chowdhury, M.K., Ueda, A., Saneoka, H., Ali Raza, M., & Fahad, S. (2021). Responses of water and pigments status, dry matter partitioning, seed production, and traits of yield and quality to foliar application of GA3 in mungbean (*Vigna radiata* L.). *Frontiers in Agronomy*, *2*:1-17. https://doi.org/10.3389/fagro.2020.596850

Kasmono. (2026). Kemenhut pulihkan lahan bekas tambang timas seluas 50 hektare, Antara News.com, dikutip 20 Februari 2026, https://babel.antaranews.com/berita/546302/kemenhut-pulihkan-lahan-bekas-tambang-timah-seluas-50-hektare

Katyayini, N.U., Rinne, P.L., Tarkowská, D., Strnad, M., & Van der schoot, C.(2020). Dual role of gibberellin in perennial shoot branching: inhibition and activation. *Frontiers in Plant Science*, *11*,1-18. https://doi.org/10.3389/fpls.2020.00736

Khadr, A., Wang, Y.H., Zhang, R.R., Wang, X.R., Xu, Z.S. and Xiong, A.S.(2020). Cytokinin (6-benzylaminopurine) elevates lignification and the expression of genes involved in lignin biosynthesis of carrot. *Protoplasma*, *257*(6),1507-1517. https://doi.org/10.1007/s00709-020-01527-8

Khan, I., Sohail, Zaman, S., Li, G., & Fu, M. (2025). Adaptive responses of plants to light stress: mechanisms of photoprotection and acclimation. A

UNIVERSITAS GADJAH MADA
Pengaruh Kombinasi Giberelin dan Sitokinin terhadap Pertumbuhan dan Karakter Fisiologis Semai Sengon (Falcataria falcata (L.) Greuter & R. Rankin)
Jovika Syifa Ananmaimuna, Prof. Dr. Kumala Dewi, M.Sc.St. ; Prof. Dr. Liliana Baskorowati, S.Hut., M.P.
Universitas Gadjah Mada, 2026 | Diunduh dari http://etd.repository.ugm.ac.id/

review. *Frontiers in plant science*, *16*, 1550125. https://doi.org/10.3389/fpls.2025.1550125

Khisti, M., Avuthu, T., Yogendra, K., Kumar Valluri, V., Kudapa, H., Reddy, P.S., & Tyagi, W. (2024). Genome-wide identification and expression profiling of growth-regulating factor (GRF) and GRF-interacting factor (GIF) gene families in chickpea and pigeonpea. *Scientific Reports*, *14*(1),17178. https://doi.org/10.1038/s41598-024-68033-2

Kieber, J.J., & SchKhaaller, G.E. (2014). Cytokinins. *The Arabidopsis Book:American Society of Plant Biologists*, *12*:1-35. https://doi.org/10.1199/tab.0168

Krasnovsky Jr, A.A., & Kovalev, Y.V. (2014). Spectral and kinetic parameters of phosphorescence of triplet chlorophyll a in the photosynthetic apparatus of plants. *Biochemistry (Moscow)*, *79*(4),349-361. https://doi.org/10.1134/S000629791404004X

Krisnawati, H., Varis, E., Kallio, M.H., & Kanninen, M. (2011). *Paraserianthes falcataria (L.) Nielsen: ecology, silviculture and productivity*. Cifor.

Küpper, H., Dědic, R., Svoboda, A., Hála, J., & Kroneck, P.M. (2002). Kinetics and efficiency of excitation energy transfer from chlorophylls, their heavy metal-substituted derivatives, and pheophytins to singlet oxygen. *Biochimica et Biophysica Acta*, *1572*(1),107-113. https://doi.org/10.1016/S0304-4165(02)00284-2

Liu, J., Qiao, Y., Li, C., & Hou, B. (2023). The NAC transcription factors play core roles in flowering and ripening fundamental to fruit yield and quality. *Frontiers in Plant Science*, *14*, 1095967. https://doi.org/10.3389/fpls.2023.1095967

Mahapatra, K., Mukherjee, A., Suyal, S., Dar, M.A., Bhagavatula, L., & Datta, S. (2024). Regulation of chloroplast biogenesis, development, and signaling by endogenous and exogenous cues. *Physiology and Molecular Biology of Plants*, *30*(2),167-183. https://doi.org/10.1007/s12298-024-01427-8

Majda, M., & Robert, S.(2018). The role of auxin in cell wall expansion. *International journal of molecular sciences*, *19*(4),1-21. https://doi.org/10.3390/ijms19040951

Mäkilä, R., Wybouw, B., Smetana, O., Vainio, L., Solé-Gil, A., Lyu, M., Ye, L., Wang, X., Siligato, R., Jenness, M.K., & Murphy, A.S.(2023). Gibberellins promote polar auxin transport to regulate stem cell fate decisions in cambium. *Nature plants*, *9*(4),631-644. https://doi.org/10.1038/s41477-023-01360-w

Marantika, M., Hiariej, A., & Sahertian, D.E. (2021). Kerapatan dan distribusi stomata daun spesies mangrove di Desa Nergi Lama Kota Ambon. *Jurnal Ilmu Alam dan Lingkungan*, 12(1), 1-6.

Mazher, A.A.M., Abdel-Aziz, N.G., El-Maadawy, E.I., El-Sayed, M., & Nasr, A.A. (2014). Effect of gibberellic acid and paclobutrazol on growth and chemical composition of *Schefflera arboricola* plants. *Middle East Journal of Agriculture Research*, 3(4),782-792.

Miedes, E., Suslov, D., Vandenbussche, F., Kenobi, K., Ivakov, A., Van Der Straeten, D., Lorences, E.P., Mellerowicz, E.J., Verbelen, J.P., &

UNIVERSITAS GADJAH MADA
Pengaruh Kombinasi Giberelin dan Sitokinin terhadap Pertumbuhan dan Karakter Fisiologis Semai Sengon (Falcataria falcata (L.) Greuter & R. Rankin)
Jovika Syifa Ananmaimuna, Prof. Dr. Kumala Dewi, M.Sc.St. ; Prof. Dr. Liliana Baskorowati, S.Hut., M.P.
Universitas Gadjah Mada, 2026 | Diunduh dari http://etd.repository.ugm.ac.id/

Vissenberg, K. (2013). Xyloglucan endotransglucosylase/hydrolase (XTH) overexpression affects growth and cell wall mechanics in etiolated Arabidopsis hypocotyls. *Journal of experimental botany*, *64*(8),2481-2497. https://doi.org/10.1093/jxb/ert107

Mudyantini, W. (2008). Pertumbuhan, kandungan selulosa, dan lignin pada rami (*Boehmeria nivea* L. Gaudich) dengan pemberian asam giberelat (GA_3). *Biodiversitas*, 9(4),269-274. https://doi.org/10.13057/biodiv/d090406

Munir, A. (2020). Pengaruh umur tanaman terhadap dimensi pohon sengon (*Paraserianthes falcataria*. L) pada ketinggian tempat tumbuh yang berbeda. *Wanamukti: Jurnal Penelitian Kehutanan*, *21*(1),67-80. https://doi.org/10.35138/wanamukti.v21i1.155

Muzahid, N.N., & Anwar, S. (2021). Aplikasi berbagai konsentrasi giberelin dan komposisi media akar pakis pada pertumbuhan dan hasil panen tanaman kailan (*Brassica oleracea* L.). *Jurnal Agrotech*, *11*(2),71-78. https://doi.org/10.31970/agrotech.v11i2.66

Nakano, Y., Yamaguchi, M., Endo, H., Rejab, N.A., & Ohtani, M. (2015). NAC-MYB-based transcriptional regulation of secondary cell wall biosynthesis in land plants. *Frontiers in plant science*, *6*(288). https://doi.org/10.3389/fpls.2015.00288

Napier, J. D., Heckman, R. W., & Juenger, T. E. (2022). Gene by environment interactions in plants : molecular mechanism, environmental drivers, and adaptive plasticity. *Plant Cell*, 35(1),109-124. https://doi.org/10.1093/plcell/koac322

Nofitria, A. S., Violita, V., Novita, L., Hindaningrum, I. F., Elya, M., & Kartiman, R. (2024). Response of shoot growth of Pterocarpus indicus willd. to the addition of BAP and TDZ in vitro. Jurnal Biologi Tropis, 24(2),199-208. http://dx.doi.org/10.29303/jbt.v24i2.6885

Nurtjahya E., & Agustina F.(2015). Managing the socio- economic impact of tin mining on Bangka Island, Indonesia – preperation for closure. *In Fourie (eds) Mine Closure 2015,* Vancouver Canada.

Oktaviani, E., Rante, A., & Suroto, A. (2025). Genetic parameters of red ginger accessions (*Zingiber officinale* var. rubrum) from java island. *Jurnal Agrotek Tropika*, *13*(4),870-878. https://doi.org/10.23960/jat.v13i4.8344

Prasad, R. (2022). Cytokinin and its key role to enrich the plant nutrients and growth under adverse conditions-an update. *Frontiers in Genetics*. *13*,1-14. https://doi.org/10.3389/fgene.2022.883924

Prawinata, W.S., Harran., & Tjondronegoro. (1988). *Dasar–Dasar fisiologi tumbuhan*. Departemen Botani Faperta IPB.

Prijono, A., & Saputra, S.H.(2024). Pertumbuhan sengon umur lima tahun pada tanah regosol di Widodomartani, Sleman, Yogyakarta. *Jurnal Wana Tropika*, *14*(1),28-35. https://doi.org/10.55180/jwt.v14i1.1212

Putra, A.F.R., Wardenaar, E., & Husni, H.(2018). Analisa komponen kimia kayu sengon (*Albizia falcataria* (L.) Fosberg) berdasarkan posisi ketinggian batang. *Jurnal Hutan Lestari*, *6*(1),83-89. https://doi.org/10.26418/jhl.v6i1.23921

UNIVERSITAS GADJAH MADA
Pengaruh Kombinasi Giberelin dan Sitokinin terhadap Pertumbuhan dan Karakter Fisiologis Semai Sengon (Falcataria falcata (L.) Greuter & R. Rankin)
Jovika Syifa Ananmaimuna, Prof. Dr. Kumala Dewi, M.Sc.St. ; Prof. Dr. Liliana Baskorowati, S.Hut., M.P.
Universitas Gadjah Mada, 2026 | Diunduh dari http://etd.repository.ugm.ac.id/

Qolby, F. H., DS, F., & Sulastri. (2025). Pertumbuhan vegetative bibit kopi arabika (*Coffea arabica*) pada jenis naungan berbeda. J*urnal Research Ilmu Pertanian,* 5(2), 135-140. https://doi.org/10.31933/1zhark72

Rao, M. J., Duan, M., Zhou, C., Jiao, J., Cheng, P., Yang, L., ... & Zheng, B. (2025). Antioxidant defense system in plants: reactive oxygen species production, signaling, and scavenging during abiotic stress-induced oxidative damage. *Horticulturae*, *11*(5), 477.

Rathnasamy, S. A., Kambale, R., Elangovan, A., Mohanavel, W., Shanmugavel, P., Ramasamy, G., Alagarsamy, S., Marimuthu, R., Rajagopalan, V.R., Manickam, S., Ramanatham, V., Muthurajan, R., & Vellingiri, G. (2023). Altering stomatal density for manipulating transpiration and photosynthetic traits in rice through CRISPR/Cas9 mutagenesis. *Current Issues in Molecular Biology*, *45*(5), 3801-3814. https://doi.org/10.3390/cimb45050245

Ritonga, F.N., Zhou, D., Zhang, Y., Song, R., Li, C., Li, J., & Gao, J. (2023). The roles of gibberellins in regulating leaf development. *Plants*, *12*(6),1-19. https://doi.org/10.3390/plants12061243

Roca, M., & Perez-Galvez, A. (2021) Metabolomics of chlorophylls and carotenoids : analytical methods and metabolome-based studies. *Antioxidant*, 10, 1-23. https://doi.org/10.3390/antiox10101622

Rodriguez-Concepcion, M., Avalos, J., Bonet, M.L., Boronat, A., Gomez-Gomez, L., Hornero-Mendez, D., Limon, M.C., Meléndez-Martínez, A.J., Olmedilla-Alonso, B., Palou, A., & Ribot, J. (2018). A global perspective on carotenoids: metabolism, biotechnology, and benefits for nutrition and health. *Progress in lipid research*, *70*,62-93. https://doi.org/10.1016/j.plipres.2018.04.004

Rosniawaty, S., Anjarsari, I.R.D., & Sudirja, R. (2018). Aplikasi sitokinin untuk meningkatkan pertumbuhan tanaman teh di dataran rendah. *Jurnal Tanaman Industri dan Penyegar,5*(1),31-38. https://doi.org/10.21082/jtidp.v5n1.2018.p31-38

Roth-Bejerano, N ., & Lips, S.H. (1970). Hormonal regulation of nitrate reductase activity in leaves. *New Phytol*, 69,165-169. https://doi.org/10.1111/j.1469-8137.1970.tb04060.x

Rumahorbo, A. S. R., Duryat., Bintoro, A. (2020). Pengaruh pematahan masa dormansi melalui perendaman air stratifikasi suhu terhadap perkecambahan benih aren (*Arenga pinnata*). *Jurnal Sylva Lestari*, 8(1),77-84. https://doi.org/10.23960/jsl1877-84

Saefas, S.A., Rosniawaty, S., & Maxiselly, Y. (2017). Pengaruh konsentrasi zat pengatur tumbuh alami dan sintetik terhadap pertumbuhan tanaman teh (*Camellia sinensis* (L.) O. Kuntze) klon GMB 7 setelah centering. *Kultivasi*, *16*(2),368-372. https://doi.org/10.24198/kultivasi.v16i2.12591

Salisbury, F.B., & Ross, C.W. (1995). *Fisiologi Tumbuhan* (Terjemahan Diah R., Lukman, dan Sumarjono). ITB. Bandung.

UNIVERSITAS GADJAH MADA
Pengaruh Kombinasi Giberelin dan Sitokinin terhadap Pertumbuhan dan Karakter Fisiologis Semai Sengon (Falcataria falcata (L.) Greuter & R. Rankin)
Jovika Syifa Ananmaimuna, Prof. Dr. Kumala Dewi, M.Sc.St. ; Prof. Dr. Liliana Baskorowati, S.Hut., M.P.
Universitas Gadjah Mada, 2026 | Diunduh dari http://etd.repository.ugm.ac.id/

Santner, A., Calderon-Villalobos, L.I.A., & Estelle, M.(2009). Plant hormones are versatile chemical regulators of plant growth. *Nature chemical biology*, *5*(5),301-307. https://doi.org/10.1038/nchembio.165

Sosnowski, J., Malinowska, E., Jankowski, K., Król, J., & Redzik, P. (2019). An estimation of the effects of synthetic auxin and cytokinin and the time of their application on some morphological and physiological characteristics of *Medicago x varia T. Martyn*. *Saudi journal of biological sciences*, *26*(1),66-73. https://doi.org/10.1016/j.sjbs.2016.12.023

Sufardi. (2019). *Pengantar nutrisi tanaman*. Syiah Kuala University Press

Suhartati, T., & Pebriansyah. (2021). Daur volume optimal jati di hutan rakyat (studi kasus di Desa Girikarto, Kecamatan Panggang, Kabupaten Gunung Kidul). *Jurnal Wana Tropika*, *11*(2), 16-25.

Sutopo, L. (2010). *Teknologi benih*. PT Raja Grafindo Persada.

Syukur, M., Sujiprihati, S., & Yunianti, R. (2015). *Teknik Pemuliaan Tanaman Edisi Revisi.* Penebar Swadaya.

Thirugnanasambantham, K., Prabu, G., & Mandal, A. K. A. (2020). Synergistic effect of cytokinin and gibberellins stimulates release of dormancy in tea (*Camellia sinensis* (L.) O. Kuntze) bud. *Physiol Mol Biol Plants*, 26(5), 1035-1045. https://doi.org/10.1007/s12298-020-00786-2

Triani, A., Ahadiyat, Y.R., & Nurchasanah, S. (2021). Respons tanaman padi varietas inpari terhadap mutagen sodium azide. *Jurnal Penelitian Pertanian Terapan*, 21(1),51-60. http://dx.doi.org/10.25181/jppt.v21i1.1996

Tuan, P.A., Kumar, R., Rehal, P.K., Toora, P.K., & Ayele, B.T. (2018). Molecular mechanisms underlying abscisic acid gibberellin balance in the control of seed dormancy and germination in cereals. *Frontiers in plant science*, *9*,1-14. https://doi.org/10.3389/fpls.2018.00668

Ummi, P., & Anggriani, D. O. (2025). Pertumbuhan dan perkembangan benih tumbuhan. Jurnal Sains Student Research. 3(5),1011-1022. https://doi.org/10.61722/jssr.v3i5.5865

Vandepoele, K., Raes, J., De Veylder, L., Rouzé, P., Rombauts, S., & Inzé, D. (2002). Genome-wide analysis of core cell cycle genes in Arabidopsis. *The Plant Cell*, *14*(4):903-916. https://doi.org/10.1105/tpc.010445

Vatén, A., Soyars, C.L., Tarr, P.T., Nimchuk, Z.L., & Bergmann, D.C. (2018). Modulation of asymmetric division diversity through cytokinin and speechless regulatory interactions in the Arabidopsis stomatal lineage. *Developmental cell*, *47*(1),53-66. https://doi.org/10.1016/j.devcel.2018.08.007

Venkatesan, S., & Yuvaraj, G. (2020). Effect of bio regulators on hastening the growth and development of mango rootstock. *Plant Archives*. 20(2),4271-4274.

Voss, I., Sunil, B., Scheibe, R., & Raghavendra, A. S. (2013). Emerging concept for the role of photorespiration as an important part of abiotic stress response. *Plant biology*, *15*(4), 713-722.

Weiss, D., & Ori, N.(2007). Mechanisms of cross talk between gibberellin and other hormones. *Plant physiology*, *144*(3),1240-1246.

UNIVERSITAS
GADJAH MADA
Pengaruh Kombinasi Giberelin dan Sitokinin terhadap Pertumbuhan dan Karakter Fisiologis Semai Sengon (Falcataria falcata (L.) Greuter & R. Rankin)
Jovika Syifa Ananmaimuna, Prof. Dr. Kumala Dewi, M.Sc.St. ; Prof. Dr. Liliana Baskorowati, S.Hut., M.P.
Universitas Gadjah Mada, 2026 | Diunduh dari http://etd.repository.ugm.ac.id/

Werner, T., Motyka, V., Strnad, M., & Schmülling, T.(28 Agustus 2001). Regulation of plant growth by cytokinin. Proceedings of the National Academy of Sciences, *98*(18), 10487-10492. https://doi.org/10.1073/pnas.171304098

Wibowo, F.A.C., Suryanto, P., & Faridah, E. (202019). Ekofisiologi dan peluang pengembangan durian (*Durio zibethinus*) dengan sistem agroforestri di lereng selatan Gunung Merapi, Indonesia. *Jurnal Ilmu Kehutanan*, 13(2) , 195-209. https://doi.org/10.22146/jik.52441

Wu, W., Du, K., Kang, X., & Wei, H.(2021). The diverse roles of cytokinins in regulating leaf development. *Horticulture Research*, *8*(118),1-13. https://doi.org/10.1038/s41438-021-00558-3

Xu, W., Miao, Y., Kong, J., Lindsey, K., Zhang, X., & Min, L. (2024). ROS signaling and its involvement in abiotic stress with emphasis on heat stress-driven anther sterility in plants. *Crop and Environment*, *3*(2), 65-74. https://doi.org/10.1016/j.crope.2023.12.002

Yahya, R.Y., Sukri, H., & Djarot, I.N.D. (2025). Responses of stomatal characteristics to environmental factors in Fabaceae trees of the urban forest in Maros Regency. *Jurnal Wasian*, *12*(01),01-09. https://doi.org/10.62142/xx0wes03

Yu, X., Sukumaran, S., & Márton, L.(1998). Differential expression of the Arabidopsis Nia1 and Nia2 genes: cytokinin-induced nitrate reductase activity is correlated with increased Nia1 transcription and mRNA levels. *Plant Physiology*, *116*(3):1091-1096.

Yuliyanto, Y., Sinuraya, R., & Pratama, I. S. (2022). Pemanfaatan pupuk organik kotoran kambing dan abu tandan kosong kelapa sawit pada pembibitan awal kelapa sawit (*Elaeis guineensis* Jacq.). *Jurnal Citra Widya Edukasi*, 14(1),95-104.

Zhang, X., Xiong, Y., Wang, Y., Wu, C., da Silva, J.A.T., & Ma, G. (2025). 6-benzyladenine, a cytokinin, promotes the accumulation of essential oil, flavonoids, and phenolics in *Santalum album* heartwood by interacting with other hormones. *Industrial Crops and Products*, *223*,1-21. https://doi.org/10.1016/j.indcrop.2024.120285

Zhang, Y., Berman, A., & Shani, E. (2023). Plant hormone transport and localization: signaling molecules on the move. *Annual Review of Plant Biology*, *74*(1),453-479. https://doi.org/10.1146/annurev-arplant-070722-015329