

DAFTAR PUSTAKA

- Adinugraha, H.A., & Leksono. (2013). Kinerja Jati Asal Muna Pada Plot Uji Klon Jati di Empat Lokasi. *Jurnal Penelitian Kehutanan Wallacea*, 2(2), 138-153.
- Adinugraha, H.A., & Fauzi, M.A. (2015). Pertumbuhan Klon Jati Asal Cepu Dan Madiun Umur 10 Tahun Pada Lahan Berbatu di Gunung Kidul. *Jurnal Hutan Tropis*, 3(3), 253-259.
- Aggarwal, B.B., Sundaran, C., Malani, N., & Ichikawa, H. (2006). Curcumin: The Indian Solid Gold. *Adv Exp Med Biol*, 595, 1-75. doi: [10.1007/978-0-387-46401-5_1](https://doi.org/10.1007/978-0-387-46401-5_1).
- Akram M., Uddin S., Ahmed A., Usmanghani K., Hannan A., Mohiuddin E., & Asif, M. (2010). Curcuma Longa and Curcumin: A Review Article. *Rom. J. Biol. – Plant Biol.*, 55(2), 65–70.
- Amoah, M., & Stephen, I. (2019). Comparison of some physical, mechanical and anatomical properties of smallholder plantation teak (*Tectona grandis* Linn. f.) from dry and wet localities of Ghana. *Journal of the Indian Academy of Wood Science*, 16(2), 125–138. doi: [10.1007/s13196-019-00248-7](https://doi.org/10.1007/s13196-019-00248-7).
- Anish, M.C., Anoop, E.V., Vishnu, R., Sreejith, B., & Jijeesh, C.M. (2015). Effect of growth rate on wood quality of teak (*Tectona grandis* L. f.): a comparative study of teak grown under differing site quality conditions. *Journal of the Indian Academy of Wood Science*, 12(1), 81–88. doi: [10.1007/s13196-015-0147-1](https://doi.org/10.1007/s13196-015-0147-1).
- Aswandi. (2007). Model Simulasi Penjarangan Hutan Tanaman Ekaliptus. *Jurnal Penelitian Hutan dan Konservasi Alam*, 4(2), 195-209.
- Baah-Acheamfour, M., Chang, S., Carlyle, C., & Bork, E. (2015). Carbon pool size and stability are affected by trees and grassland cover types within agroforestry systems of western Canada. *Agric. Ecosyst. Environ*, 213, 105-113.
- Bachli, Y., & Daud I. (2016). Pertumbuhan Tanaman Jagung, Jahe dan Kunyit bawah Tegakan Di Kawasan Hutan Diklat Tabo-Tabo Kabupaten Pangkep. *Jurnal Agrisistem*, 12 (2), 215-221
- Badan Pusat Statistik (BPS). (2017). *Statistik Tanaman Biofarmaka Indonesia*. Jakarta, Indonesia.
- Badan Pusat Statistik (BPS). (2018). *Statistik Indonesia*. Jakarta, Indonesia.
- Badan Pusat Statistik (BPS) Ngawi. (2018). *Rata-rata curah hujan tiap bulan menurut lokasi penakar di Kabupaten Ngawi 2016–2017*. Retrieved from <https://ngawikab.bps.go.id>
- Basri, E., & Wahyudi, I. (2012). Sifat dasar kayu jati plus Perhutani dari berbagai umur dan kaitannya dengan sifat dan kualitas pengeringan [The basic properties of superior teak of various ages and their relationship to the nature and quality of drying]. *Jurnal Penelitian Hasil Hutan*, 31, 93-102.
- Basu, J.P. (2014). Climate Change Mitigation and Livelihood Security in India. *New Zealand Journal of Forestry Science*, 44(1), 1-10.

- Berrocal, A., Gaitan-Alvarez, J., Moya, R., Fernández-Sólis, D., & Ortiz-Malavassi, E. (2020). Development of heartwood, sapwood, bark, pith and specific gravity of teak (*Tectona grandis*) in fast-growing plantations in Costa Rica. *Journal of Forestry Research*, 31(2), 667–676. doi: [10.1007/s11676-018-0849-5](https://doi.org/10.1007/s11676-018-0849-5).
- Bhat, K.M., & Priya, P.B. (2004). Influence of provenance variation on wood properties of teak from Western Ghat Region in India. *IAWA Journal*, 25(3), 273-282.
- Budiadi., Widiyatno., & Ishii, H. (2017). Response of A Clonal Teak Plantation to Thinning And Pruning In Java, Indonesia. *Journal of Tropical Forest Science*, 29(1), 44-53.
- Bursatriannyo. (2013). Khasiat kunyit sebagai obat tradisional dan manfaat lainnya. *Warta Puslitbang Perkebunan*, 19(2), 5-9.
- Cardoso, D.J., Lacerda, A.E.B., Rosot, M.A.D., Garrastazú, M.C., & Lima, R.T. (2013). Influence of spacing regimes on the development of loblolly pine (*Pinus taeda*) in southern Brazil. *For. Ecol. Manag.*, 310, 761-769.
- Cedamon, E., Nuberg, I., Pandit, B.H., & Shrestha, K.K. (2017). Adaptation factors and futures of agroforestry systems in Nepal. *Agroforestry Systems*, 92, 1437–1453. doi: [10.1007/s10457-017-0090-9](https://doi.org/10.1007/s10457-017-0090-9).
- Charlton, R.A., Naghizadeh, Z., Ham, C., & Wessels, C.B. (2020). A value chain comparison of Pinus patula sawlog management regimes based on different initial planting densities and effect on wood quality. *Forest Policy and Economics*, 111, 102067. doi: [10.1016/j.forpol.2019.102067](https://doi.org/10.1016/j.forpol.2019.102067).
- Chattopadhyay, I., Biswas, K., Bandyopadhyay, U., & Banerjee, R.K. (2004). Turmeric and curcumin: Biological actions and medicinal applications. *Current Science*. 87, 44-50.
- Chia, F.R. (2011). Survival and growth performance of teak under monocrop system and intercropped with oil palm. *Sepilok Bulletin*, 13(14), 33-42.
- Coe, R., Sinclair, F., & Barrios, E. (2014). Scaling up agroforestry requires research “in” rather than “for” development. *Current Opinion in Environmental Sustainability*, 6(1), 73–77. doi: [10.1016/j.cosust.2013.10.013](https://doi.org/10.1016/j.cosust.2013.10.013).
- Contreras, M.A., Affleck, D., & Chung, W. (2011). Evaluating tree competition indices as predictors of basal area increment in western Montana forests. *Forest Ecology Management*, 262, 1939–1949. doi: [10.1016/j.foreco.2011.08.031](https://doi.org/10.1016/j.foreco.2011.08.031).
- Coulibaly, J.Y., Chiputwa, B., Nakelse, T., & Kundhlande, G. (2017). Adoption of agroforestry and the impact on household food security among farmers in Malawi. *Agricultural Systems*, 155, 52–69.
- Crowder, L.V. (1986). *Genetika Tumbuhan Edisi Indonesia*. Yogyakarta: Universitas Gadjah Mada.
- Cunuhay, P.S., Diaz, G.D., & Cruzatty, L.C. (2009). Evaluación de cuatro especies forestales asociadas con café (*Coffea arabica*) y en monocultivo en el litoral ecuatoriano. *Ciencia y Tecnología*, 2:29–34.

- Damayanti, R., Ozarska, B., Pandit, I.K.N., Febrianto, F., & Pari, G. (2018). Wood Properties of 5-year-old Fast Grown Teak. *Wood Research Journal*, 9(2), 29-34.
- Daniel, T.W., Helms, J.A., & Baker, F.S. (1987). *Prinsip-prinsip Silvikultur (terjemahan)*. Yogyakarta: Gadjah Mada University Press.
- Das, K. (2016). *Turmeric (Curcuma longa) Oils (Chapter 95) from Essential Oils in Food Preservation, Flavor and Safety*. 835–841. Academic Press, Elsevier.
- De Foresta, H. and G. Michon. (1997). The Agroforest Alternative to Imperata Grasslands : when Smallholder Agriculture and Forestry Reach Sustainability. *Agroforestry Systems*, 36,105-120.
- Ding, Y., Zang, R., Lu, X., & Huang, J. (2016). The impacts of selective logging and clear- cutting on woody plant diversity after 40 years of natural recovery in a tropical montane rain forest, South China. *Science of the Total Environment*, 579, 1683-1691.
- Djagbletey., & Adu-Bredu. (2007). Adoption of Agroforestry by Small Scale Teak Farmers in Ghana—the Case of Nkoranza District, Ghana. *Journal of Forestry*, 21, 1–13.
- Djati, I.D., Takatoshi, T., Mitsunori, K., & Fumio, T. (2014). Sapwood of Young Teak From Thinning As Potential Material for Making Products: Case Studi Sapwood of Young Teak From Teak Plantation in Java, Indonesia. *Bulletin of JSSD*, 61(5), 77-86.
- Dwianto, W., & Marsoem, S.N. (2008). Review of Natural Factor Research That Affects Wood Physical And Mechanical Properties of Indonesia. *Jurnal Ilmu dan Teknologi Kayu Tropis*, 6(2), 85-100. doi: [10.51850/jitkt.v6i2.249](https://doi.org/10.51850/jitkt.v6i2.249)
- Efansyah, M., Bintoro, H., & Limbong, W.H. (2012). Prospek Usaha Bagi Hasil Penanaman Jati Unggul Nusantara (Studi Kasus Pada Koperasi Perumahan Wanabhakti Nusantara di Kabupaten Bogor). *Manajemen IKM*, 7(1), 64-73.
- Ekawati, S., Kushartati, B., Sylviani., Elvida, S., & Ismatul, H. (2015). Kajian Tinjauan Kritis Pengelolaan Hutan di Pulau Jawa. Kementrian Lingkungan Hidup dan Kehutanan. *Policy Brief*, 9(1).
- Evans, J., & Turnbull, J. (2004). *Plantation Forestry In The Tropics, Third Edition*. New York: Oxford University Press.
- Fahryl, N., & Novita, C. (2019). Kunyit (*Curcuma domestica Val*) sebagai Terapi Arthritis Gout. *Majority*, 8(1).
- Faridah, E., Sapto, I., & Tuharno. (2009). Tunas Air: Variasi Kemunculan dan Pengaruhnya Terhadap Pertumbuhan Tanaman Jati (*Tectona grandis*). *Jurnal Ilmu Kehutanan*, 3 (1), 23-34.
- Fauzi, M.A., Mahfudz., Pudjiono, S., Hamdan, A.A., Hasna, T.M., Wibowo, A., Setiadi, D., & Rimbawanto, A. (2014). *Beberapa Jenis Jati (Tectona sp), Variasi dan Potensi Pemuliaannya*. Balai Besar Penelitian dan Pengembangan Bioteknologi dan Pemuliaan Tanaman Hutan. Jakarta: Pusat Data dan Informasi KLHK.

- Food and Agriculture organization of the United Nations (FAO). (2013). *Natural Teak Forests Decline, While Planted Teak Forests Increase*. Food and Agricultural Organisation of United Nations.
- Febe., & Grote. (2013). The economic relevance of sustainable agroforestry practices - An empirical analysis from Tanzania. *Ecological Economics*, 94, 86-96.
- Feliciano, D., Ledoa, A., Hillierb, J., & Nayaka, D.R. (2018). Which agroforestry options give the greatest soil and above ground carbon benefits in different world regions. *Agriculture, Ecosystems and Environment*, 254, 117–129.
- Fernandes, A., & Saridan, A. (2013). Sifat Fisik dan Mekanik Kayu Shorea Macroptera ssp. Sandakanensis (Sym.) Ashton Sebagai Bahan Baku Mebel [Physical and Mechanical Properties of Shorea macroptera ssp. sandakanensis (Sym.) Ashton]. *Wood as Raw Material for Furniture*, 7(1), 1–6.
- Goh, D.K.S. (2016). *Rationale for clonal teak plantations*. Asia-Pacific Forestry Week 22–26 February). http://www.fao.org/fileadmin/user_upload/rap/Asia-PacificForestry_Week/doc/Stream_1/ST1_25Feb_Goh_Teak.pdf
- Handayani, A. (2011). Pengaruh Model Tumpang Sari Terhadap Pertumbuhan Dan Hasil Tanaman Gandum dan Tembakau. *Widyariset*, 14(3), 479-488.
- Haninec, P., Petr, M., Martin, S., Hana, H., Martin, S., Lubos, U., Milan, R., Jindrich., Josef, C., Katerina, N., & Radek. (2016). Assessment of teak production characteristics using 1 m spacing in a plantation in Nicaragua. *Bois Et Forests Des Tropiques*, 300(4), 37-48.
- Hansen, O.K., Changtragoon, S., Ponoy, B., Kjær, E.D., Minn, Y., Finkeldey, R., Nielsen, K.B., & Graudal, L. (2014). Genetic resources of teak (*Tectona grandis* Linn. f.) - strong genetic structure among natural populations. *Tree Genetics & Genomes*, 11(1), 802-818.
- Hardjowigeno, S. 1995. *Ilmu Tanah*. Jakarta: Akademika Pressindo.
- Hardiwinoto, S., Fiqri, A., & Widiyatno. (2021). Application Of Selected Teak Clone And Organic Fertilizer To Accelerate Rehabilitation Of Lowland Forest In Java, Indonesia. *Biodiversitas*, 22(4), 1750-1756. doi: [10.13057/Biodiv/d220419](https://doi.org/10.13057/Biodiv/d220419).
- Harrington, T.B., Harrington, C.A., & DeBell, D.S. (2009). Effects of planting spacing and site quality on 25-year growth and mortality relationships of Douglas-fir (*Pseudotsuga menziesii* var. *menziesii*). *Forest Ecology and Management*, 258, 12–25. doi: [10.1016/j.foreco.2009.03.039](https://doi.org/10.1016/j.foreco.2009.03.039).
- Hartati, S.Y. (2013). Khasiat kunyit sebagai obat tradisional dan manfaat lainnya. *Warta penelitian dan pengembangan Tanaman Indsutri*, 19(2), 5-9.
- Hébert, F., Krause, C., Plourde, P., Achim, A., Prigent, G., & Ménétrier, J. (2016). Effect of Tree Spacing on Tree Level Volume Growth, Morphology, and Wood Properties in a 25-Year-Old Pinus banksiana Plantation in the Boreal Forest of Quebec. *Forests*, 7, 276-292.
- Hegyi, F. (1974). *A simulation model for managing jack-pine stands*. in : *fries,j.(ed.). growth models for tree and stand simulation*. Stockholm: Royal College of Forestry.

- Herlina. (2011). *Kajian variasi jarak dan waktu tanam jagung manis dalam sistem tumpangsari jagung manis (Zea mays)*. Universitas Andalas, Padang.
- Hernández-Morcillo, M., Burgessb, P., Mirckc, J., Panterad, A., & Plieningere, T. (2018). Scanning agroforestry-based solutions for climate change mitigation and adaptation in Europe. *Environmental Science and Policy*, 80, 44–52.
- Hidayati, F., Sulisty, J., Lukmandaru, G., Listyanto, T., & Praptoyo, H. (2015). Physical and mechanical properties of 10-year old superior and conventional teak planted in Randublatung Central Java Indonesia. *Jurnal Ilmu Dan Teknologi Kayu Tropis*, 13(1), 11–21.
- Hong, Y., Heerinka, N., Shuqin, J., Paul, B., Lizhen, Z., & Wopke. (2017). Intercropping and agroforestry in China – Current state and trends. *Agriculture, Ecosystems and Environment*, 244, 52–61.
- Iddi, S., Chamshama S.A., & Malimbwi, R.E. (1996). *Planting spacing in forest plantation: A review, record 63, Faculty of Forestry*. Morogoro, Tanzania: Sokoine University of Agriculture.
- Indira, E.P., & Bhat, K.M. (1998). Effects of site and place of origin on wood density of teak (*Tectona grandis*) clones. *Journal of Tropical Forest Science*, 10(4), 537–541.
- Isaac-Renton, M., Stoeher, M., Bealle-Statland, C., & Woods, J. (2020). Tree breeding and silviculture: Douglas-fir volume gains with minimal wood quality loss under variable planting densities. *Forest Ecology and Management*, 465, 118094. doi: [10.1016/j.foreco.2020.118094](https://doi.org/10.1016/j.foreco.2020.118094).
- Iskak, M. (2005). *Produktifitas Tegakan Jati JPP Intensif Sampai Umur 20 Tahun Ke depan: Seperempat Abad Pemuliaan Jati Perum Perhutani*. Cepu: Pusat Pengembangan Sumberdaya Hutan Perum Perhutani.
- Jamnadas, R., Place, F., Torquebiau, E., Malezieux, E., Iiyama, M., Sileshi, G.W., Kehlenbeck, K., Masters, E., McMullin, S., Weber, J.C., & Dawson, I.K. (2013). *Agroforestry, Food and Nutritional Security*. ICRAF Working Paper No. 170. Nairobi: World Agroforestry Centre.
- Junaedi, E. (2013). Peranan Penerapan Agroforestri Terhadap Hasil Air Daerah Aliran Sungai (Das) Cisadane. *Jurnal Penelitian Agroforestri*, 1(1), 41-53.
- Kaiser, J. (2000). Rift Over Biodiversity Divides Ecologist. *Science*, 289, 1282-1283.
- Kang, J.S., Shibuya, M., & Shin, C.S. (2014). The effect of forest-thinning works on tree growth and forest environment. *Forest Science and Technology*, 10(1), 33–39.
- Kaskoyo, H., Mohammed, A.J., & Inoue, M. (2017). Impact of community forest program in protection forest on livelihood outcomes: A case study of Lampung Province, Indonesia. *Journal of Sustainable Forestry*, 36(3), 250–263.
- Kemenhut. (2012). *Statistik Kehutanan Indonesia 2011*. Jakarta: Dirjen Planologi Kementrian Kehutanan Indonesia.

- Kementan. (2015). *Statistik Pertanian 2014*. Jakarta: Kementrian Pertanian Indonesia.
- Keogh, R. (2009). *The future of teak and the high-grade tropical hardwood sector: planted forests and trees working paper FP/44E*. <http://www.fao.org/forestry/site/10368/en/>
- Khasanah, N., Perdana, A., Rahmanullah, A., Manurung, G., Roshetko, J.M., & van Noordwijk, M. (2015). Intercropping teak (*Tectona grandis*) and maize (*Zea mays*): bioeconomic trade-off analysis of agroforestry management practices in Gunungkidul, West Java. *Agroforestry Systems*, 89, 1019–1033.
- Kokutse, A.D., Henri, B., Alexia, S., & Kouami, K. (2004). Proportion and quality of heartwood in Togolese teak (*Tectona grandis* L.f.). *Forest Ecology and Management* 189(1–3), 37–48. doi: [10.1016/j.foreco.2003.07.041](https://doi.org/10.1016/j.foreco.2003.07.041).
- Kollert, W., & Cherubini, L. (2012). *Planted Forests and Trees Working Paper Series: Teak Resources and Management Assessment*. Forest Assessment, Management and Conservation Division, Forestry Department. Working Paper FP/47/E. Rome: FAO.
- Kollert, W., & Kleine, M. (2017). *The global teak study: Analysis, evaluation and potential of teak resources*. Vienna: IUFRO World Series Volume 36. Retrieved from <https://www.iufro.org/uploads/media/ws36.pdf>
- Kosasih, A.S., & Mindawati, N. (2011). Pengaruh Jarak Tanam Pada Pertumbuhan Tiga Jenis Meranti di Hutan Penelitian Haurbentes. *Jurnal Penelitian Dipterokarpa*, 5(2), 1-10. doi: [10.20886/jped.2011.5.2.1-10](https://doi.org/10.20886/jped.2011.5.2.1-10).
- Krisdianto, K., & Sumarni, G. (2006). Perbandingan Persentase Volume Teras Kayu Jati Cepat Tumbuh Dan Konvensional Umur 7 Tahun Asal Penajam, Kalimantan Timur [Comparison of the Volume Percentage of Fast-Growing and Conventional Teak Terrace, Age 7, From Penajam, East Kalimantan]. *Jurnal Penelitian Hasil Hutan*, 24(5), 385–394. doi: [10.20886/jphh.2006.24.5.385-394](https://doi.org/10.20886/jphh.2006.24.5.385-394).
- Kumar, N., & Sakhya, S.K. (2013). Ethnopharmacological properties of *Curcuma longa*: a review. *Int. J. Pharm. Sci. Res.*, 4(1), 103–112.
- Lal, J. (2012). Turmeric, curcumin and our life: a review. *Bull. Environ. Pharmacol. Life Sci.*, 1(7), 11–17.
- Lewerissa, E. (2016). Agroforestri Hutan Jati (*Tectona grandis*) di Desa Gorua, Kecamatan Tobelo Utara, Kabupaten Halmahera Utara. *Uniera*, 5(1).
- Li, S., Yuan, W., Deng, G., Wang, P., Yang, P., & Aggarwal, B.B. (2011). Chemical composition and product quality control of turmeric (*Curcuma longa* L.), *Pharmaceuti. Crops*, 2, 28-54.
- Ling, L.T., Yap, S.A., Radhakrishnan, A.K., Subramaniam, T., Cheng, H.M., & Palanisamy, U.D. (2009). Standardised *Mangifera indica* extract is an ideal antioxidant. *Food Chemistry*, 113(4), 1154–1159.
- Maharani D., Sudomo A., Swestiani D., Murniati., Sabastian G.E., Roshetko J.M., & Fambayun R.A. (2022). Intercropping Tuber Crops with Teak in Gunungkidul Regency, Yogyakarta, Indonesia. *Agronomi*, 12 (449): 1-20. <https://doi.org/10.3390/agronomy12020449>

- Mahendra, F. (2009). *System Agroforestry dan Aplikasinya*. Yogyakarta: Graha Ilmu.
- Makruf, E., Oktavia, Y., & Putra, W. E. (2012). *Faktor-Faktor Yang Mempengaruhi Produksi Padi Sawah Di Kabupaten Seluma (Studi Kasus: Produktivitas Padi Sawah di Desa Bukit Peninjauan II Kecamatan Sukaraja)*. Prosiding Seminar Inovasi Teknologi Pertanian Spesifik Lokasi Mendukung Empat Sukses Kementerian Pertanian di Provinsi Bengkulu (pp. 44–52). Bengkulu.
- Maleki, K., Kiviste, A., & Korjus, H. (2015). Analysis of individual tree competition effect on diameter growth of silver birch in estonia. *Forest Systems*, 24(2), 1-13. doi: [10.5424/fs/2015242-05742](https://doi.org/10.5424/fs/2015242-05742).
- Malimbwi, A., Persson, S., Iddi, S., Chamshama, S.A.O., & Mwihomeke, S.T. (1992). Effects of spacing on yield and some wood properties of *Pinus patula* at Rongai, Northern Tanzania. *Forest Ecology and Management*, 53(1-3), 297–306. doi: [10.1016/0378-1127\(92\)90048-e](https://doi.org/10.1016/0378-1127(92)90048-e).
- Marsoem, S.N., Vendy, E.P., Joko, S., Sudaryono., & Ganis, L. (2014). Studi Mutu Kayu Jati Di Hutan Rakyat Gunungkidul III. Sifat Fisika Kayu [Study of Teak Wood Quality in Gunungkidul Community Forest III. Physical Properties of Wood]. *Jurnal Ilmu Kehutanan*, 8(2), 75-88. <https://jurnal.ugm.ac.id/jikfkt/article/view/10162>
- Martin, F.S., & Noordwijk, M.V. (2011). Is native timber tree intercropping aneconomically feasible alternative for smallholderfarmers in the Philippines?. *The Australian Journal of Agricultural and Resource Economics*, 55(2), 257–272. doi: [10.1111/j.1467-8489.2011.00530.x](https://doi.org/10.1111/j.1467-8489.2011.00530.x)
- Mawazin., & Suhaendi, H. (2008). Pengaruh Jarak Tanam Terhadap Pertumbuhan Diameter *Shorea parvifolia* Dyer. *Jurnal Penelitian Hutan dan Konservasi Alam*, 5(4), 381-388. <http://ejournal.forda-mof.org/ejournal-litbang/index.php/JPHKA/article/view/1166/1090>
- Mayrowani., & Ashari, H. (2011). Pengembangan Agroforestry untuk Mendukung Ketahanan Pangan dan Pemberdayaan Petani Sekitar Hutan. *Forum Penelitian Agro Ekonomi*, 29(2), 83-98.
- Mbow, C., Smith, P., Skole, D., Duguma, L., & Bustamante, M. (2014). Achieving mitigation and adaptation to climate change through sustainable agroforestry practices in africa. *Current Opinion in Environmental Sustainability*, 6(1), 8–14.
- Medeiros, R.A., de Paiva, H.N., D'Ávila, F.S., & Leite, H.G. (2018). Growth and yield of teak stands at different spacing. *Pesq. agropec. bras., Brasília*, 53(10), 1109-1118.
- Meng, S.X., Leiffers, V.J., & Huang, S. (2007). Modelling crown volume of Lodgepole pine based upon uniform stress theory. *Forest ecology and Management*, 251(3), 174-181. doi: [10.1016/j.foreco.2007.06.008](https://doi.org/10.1016/j.foreco.2007.06.008).
- Miranda, I., Sousa, V., & Pereira, H. (2011). Wood properties of teak (*Tectona grandis*) from a mature unmanaged stand in East Timor. *Journal of Wood Science*, 57(3), 171–178. doi: [10.1007/s10086-010-1164-8](https://doi.org/10.1007/s10086-010-1164-8).

- Moya, R., Bond, B., & Quesada, H. (2014). A review of heartwood properties of *Tectona grandis* trees from fast-growth plantations. *Wood Science and Technology*, 48(2), 411–433. doi: [10.1007/s00226-014-0618-3](https://doi.org/10.1007/s00226-014-0618-3).
- Moya, R., & Perez, D. (2008). Effects Of Physical And Chemical Soil Properties On Physical Wood Characteristics Of *Tectona Grandis* Plantations In Costa Rica. *Journal of Tropical Forest Science*, 20(4), 248-257. <https://www.jstor.org/stable/23616701>
- Mulyono. (2014). *Budidaya Tanaman Kunyit*. <http://cybex.pertanian.go.id/mobile/artikel/77974/Budidaya-Tanaman-Kunyit/> diakses pada 11 Agustus 2022.
- Mustofa, M.S. (2011). Perilaku Masyarakat Desa Hutan dalam Memanfaatkan Lahan di Bawah Tegakan. *Jurnal Komunitas*, 3(1), 1-11.
- Na'iem, M. (2000). Early performance of clonal tests of teak. In E. B. Hardiyanto (Ed.), *Third regional seminar on teak. Potential and opportunities in marketing and trade of plantation teak: Challenge for the new millenium* (pp 217–275). Yogyakarta: Faculty of Forestry, UGM.
- Na'iem, M. (2014). Peningkatan produktivitas hutan berbasis silvikultur intensif (SILIN): strategi efisiensi penggunaan kawasan hutan. Pp 162-183 in Nugraha A dkk. (eds) *Darurat Hutan Indonesia, Mewujudkan arsitektur baru kehutanan Indonesia*, Cetakan ke-2. Banten: Wana Aksara.
- Nair, P.K.R. (2007). Perspective - the coming of age of agroforestry. *Journal of the Science of Food and Agriculture*, 87, 1613–1619. doi: [10.1002/jsfa.2897](https://doi.org/10.1002/jsfa.2897).
- Nair, P.K.R., Kumar, B.M., & Nair, V.D. (2009). Agroforestry as a strategy for carbon sequestration. *Journal of Plant Nutrition Soil Science*, 172, 10-23.
- Njurumana, G.N.D. (2008). Rehabilitasi Lahan Kritis Berbasis Agrosylvopastur di Timor dan Sumba, Nusa Tenggara Timur. *Info Hutan*, 5(2), 99-112.
- Nyland, R.D. (2002). *Silviculture: Concepts and Applications*, 2 edition. Long Grove: Waveland Press.
- Ola-Adams. (1990). Influence of Spacing on Growth and Yield of *Tectona grandis* LINN. F. (teak) and *Terminalia superba* Engl. & Diels (Afara). *Journal of Tropical Forest Science*, 2(3), 180-186.
- Olivi, R., Qurniati, R., & Firdasari. (2015). Kontribusi Agroforestri Terhadap Pendapatan Petani Di Desa Sukoharjo 1 Kecamatan Sukoharjo Kabupaten Pringsewu. *Jurnal Sylva Lestari*, 3(2), 1-12.
- Oluwajuwon, T., Attafuah, R., Offiah, C., & Krabel, D. (2022). Genetic Variation in Tropical Tree Species and Plantations: A Review. *Open Journal of Forestry*, 12, 350-366. doi: [10.4236/ojf.2022.123019](https://doi.org/10.4236/ojf.2022.123019).
- Omosa, L.K., Midiwo, J.O., & Kuete, V. (2017). *Curcuma longa*. *Medicinal Spices and Vegetables from Africa*, 425–435.
- Pachas, A.N.A., Somphanh, S., Outhai, S., Maichor, L., Sianouvong, S., Jonathan, C.N., Bounkieng, S., Bounthan, K., & Mark, J. (2019). Initial Spacing of Teak (*Tectona grandis*) in northern Lao PDR: Impacts on the Growth of Teak and Companion Crops. *Forest Ecology and Management*, 435, 77-88.

- Palanisamy, K., Gireesan, K., Nagarajan, V., & Hegde, M. (2009). Selection And Clonal Multiplication Of Superior Trees Of Teak (*Tectona Grandis*) And Preliminary Evaluation Of Clones. *Tropical Forest Science*, 21(2), 168-174.
- Pandey, D., & Brown, C. (2000). Teak: A global review. *Unasylva*, 51(201), 3-13.
- Perez, D., & Kanninen, M. (2003). Provisional equations for estimating total and merchantable volume of *Tectona grandis* trees in Costa Rica. *Forests, Trees and Livelihoods*, 13, 345-359.
- Perez, D., & Kanninen, M. (2005). Stand growth scenarios for *Tectona grandis* plantations in Costa Rica. *Forest Ecology and Management*, 210, 425–441. doi: [10.14214/df.1](https://doi.org/10.14214/df.1).
- Perhutani. (2006). *Seperempat Abad Pemuliaan Jati Perum Perhutani*. Cepu: Pusbang SDH Perhutani.
- Perhutani. (2014). *Statistik Perum Perhutani 2009–2013*. Jakarta: Perum Perhutani.
- Perhutani. (2016). *Laporan Tahunan 2016*. Jakarta: Perum Perhutani.
- Perhutani. (2020). *Harga Jual Kayu Bulat Jati dan Rimba Tahun 2021*. Keputusan Direksi Perhutani No. 183/KPTS/DIR/12/2020. Jakarta.
- Perhutani. (2021). *Perhutani Rangkul Masyarakat Sekitar Hutan Manfaatkan Lahan di Bawah Tegakan*. <https://www.perhutani.co.id/> diakses pada 22 Desember 2022
- Pfister, O., Wallentin, C., Nilsson, U., & Ekö, P.M. (2007). Effects of wide spacing and thinning strategies on wood quality in Norway spruce (*Picea abies*) stands in southern Sweden. *Scandinavian Journal of Forest Research*, 22(4), 333-343. doi: [10.1080/02827580701504951](https://doi.org/10.1080/02827580701504951).
- Phillips, H. (2004). *Thinning to improve stand quality*. Silviculture/Management No 10. COFORD.
- Porth & Yousry. (2014). Assessment of the Genetic Diversity in Forest Tree Populations Using Molecular Markers. *Diversity*, 6, 283-295.
- Pramono, A.A., Fauzi, M.A., Widayani, N., Heriansyah, I., & Rosetko, J.M. (2010). *Pengelolaan hutan jati rakyat: panduan lapangan untuk petani*. Bogor: CIFOR.
- Pramono, A.A., Ika, H., Nurin, W.M., Anies, F., Gerhard, E.S., & Alfian, G.A. (2016). *Penjarangan (Thinning) Jati: Proyek Pengembangan Hutan Jati Rakyat ACIAR*. World Agroforestry Centre.
- Prehaten, D., M. Na'iem., & Suryo, H. (2018). *Produktivitas Perhutanan Klon Jati Unggul Pada Beberapa Jarak Tanam*. Prosiding Seminar Nasional Biologi Dan Pendidikan Biologi UKSW.
- Pretzsch, H., Biber, P., Uhl, E., Dahlhausen, J., Rötzer, T., Caldentey, J., Koike, T., Con, T.V., Chavanne, A., Saifert, T., Toit, B., Farnden, C., & Pauleit, S. (2015). Crown size and growing space requirement of common tree species in urban centres, parks, and forests. *Urban Forestry and Urban Greening*, 14(3), 466-479. doi: [10.1016/j.ufug.2015.04.006](https://doi.org/10.1016/j.ufug.2015.04.006).
- Pudjiono, S. (2014). *Produksi Bibit Jati Unggul (Tectona grandis L.F.) dari Klon dan Budidayanya*. BBPBPTH dengan Direktorat Jenderal Bina Usaha Kehutanan. Bogor: IPB Press.

- Pujar, S., Madiwalar., Channabasappa., & Kumar, P. (2007). Performance of Medicinal and Aromatic Plants as Intercrops with Teak. *Karnataka Journal of Agricultural Sciences*, 20(1), 178-180.
- Purnomo, D., Syukur, M., & Sitompul. (2006). Irradiasi pada Sistem Agroforestri Berbasis Jati dan Pinus serta Pengaruhnya terhadap Pertumbuhan Tanaman Kedelai. *Biodiversitas*, 7(3), 251-255.
- Puspitojati, T., Encep, R., & Kirsfianti, L. (2015). *Hutan Tanaman Pangan Realitas, Konsep, dan Pengembangan*. Yogyakarta: Kanisius.
- Rachman, & Hani, A. (2014). Pola Agroforestri Sengon (*Falcataria Moluccana*) Dan Cabai Merah Keriting Di Dataran Tinggi Ciamis Jawa Barat. *Jurnal Penelitian Agroforestry*, 2(1), 35-44.
- Rahardjo, M., & Rostiana, O. (2010). *Standar Prosedur Operasional: Budidaya Jahe, Kencur, Kunyit, dan Temulawak, Cetakan ke-2*. Bogor: Badan Penelitian Tanaman Obat dan Aromatik.
- Rahmawati, R.B., Suryo, H., Widiyatno., Budiadi., Yahya, A., & Aulia, H. (2021). Space Planting, Competition, and Productivity of a Seven-Year-Old Clonal Teak Plantation in the East Java Monsoon Forest Area. *Jurnal Manajemen Hutan Tropika*, 27(2), 123-131. doi: [10.7226/jtfm.27.2.123](https://doi.org/10.7226/jtfm.27.2.123).
- Rattis, B.A.C., Ramos, S.G., & Celes, M.R.N. (2021). Curcumin as a Potential Treatment for COVID-19. *Frontiers in Pharmacology*, 12, 1-14. doi: [10.3389/fphar.2021.675287](https://doi.org/10.3389/fphar.2021.675287).
- Rendra, P.R., Sulaksana, N., & Alam, B.Y.C.S.S.S. (2016). Optimalisasi Pemanfaatan Sistem Agroforestri Sebagai Bentuk Adaptasi Dan Mitigasi Tanah Longsor. *Bulletin of Scientific Contribution*, 14(2), 117-126.
- Rianse, U., & Abdi. (2010). *Agroforestri: Solusi Sosial dan Ekonomi Pengelolaan Sumber Daya Hutan*. Bandung: Alfabeta.
- Rizanti, D.E., Darmawan, W., George, B., Merlin, A., Dumarcay, S., Chapuis, H., Gérardin, C., Gelhay, E., Raharivelomanana, P., Kartika Sari, R., Syafii, W., Mohamed, R., & Gerardin, P. (2018). Comparison of teak wood properties according to forest management: short versus long rotation. *Annals of Forest Science*, 75(39), 1-12. doi: [10.1007/s13595-018-0716-8](https://doi.org/10.1007/s13595-018-0716-8).
- Roda J.M., P. Cadenè, P. Guizol, L. Santoso, dan A. U. Fauzan. (2007). *Atlas Industri Mebel Kayu di Jepara*. CIFOR. Bogor.
- Sabarnurdin, M.S., Budiadi., & Suryanto, P. (2011). *Agroforestri untuk indonesia: Strategi kelestarian hutan dan kemakmuran*. Yogyakarta: Cakrawala Media.
- Sadono, R., & Silalahi, M. L. (2010). Penentuan Tingkat Kompetisi Tajuk Tegakan Jati Hasil Uji Keturunan umur 11 Tahun di KPH Ngawi. *Jurnal Ilmu Kehutanan*, 6(2).
- Sadono, R., Nirwanawati, A., Murdjoko, A., Santosa, Ab., Rachman, I. (2014). Growing Space Estimation Of Teak Through Dominant Family Approach At Progeny Trial In Ngawi Forest District. *Advances In Environmental Biology*, 8 (5): 1890-1896.

- Sadono, R. (2018). Prediksi Lebar Tajuk Pohon Dominan pada Pertanaman Jati Asal Kebun Benih Klon di Kesatuan Pemangkuan Hutan Ngawi, Jawa Timur. *Jurnal Ilmu Kehutanan*, 12(2), 127-141.
- Salim, Z., & Munadi, E. (2017). *Info Komoditi Tanaman Obat*. Jakarta: Badan Pengkajian dan Pengembangan Perdagangan Kementerian Perdagangan Republik Indonesia.
- Santiago-Freijanes, J.J., Pisanelli, A., Rois, M., Aldrey-Vazquez, J.A., Pantera, A., Vityi, A., & Mosquera-Losada, M.R. (2018). Agroforestry development in Europe: Policy issues. *Land Use Policy*, 76, 144-156.
- Seng, O.D. (1990). *Berat Jenis dari Jenis-jenis Kayu Indonesia dan Pengertian Beratnya Kayu untuk Keperluan Praktek Pengumuman No.13 [Specific Gravity of Indonesian Wood Types and Definition of Timber Weight for Practical Purposes Announcement Number 13]*. Bogor: Lembaga Penelitian Hasil Hutan.
- Senoaji, G. (2012). Pengelolaan Lahan dengan Sistem Agroforestry oleh Masyarakat Baduy di Banten Selatan. *Jurnal Bumi Lestari*, 12(2), 283-293.
- Seta, G.W., Widiyatno., Hidayati, F., & Na'iem, M. (2021). Impact of thinning and pruning on tree growth, stress wave velocity, and pilodyn penetration response of clonal teak (*Tectona grandis*) plantation. *Forest Science And Technology*, 17(2), 57-66. doi: [10.1080/21580103.2021.1911865](https://doi.org/10.1080/21580103.2021.1911865).
- Seviset, S., Thanate, P., Udomsak, S., Ratthai, P., Kananke, R., & Sittichai, C. (2017). Mechanical Property of 9 Years Old Thinning of Teak Plantation in Thailand. *MATEC Web of Conferences*, 95, 03004. doi: [10.1051/matecconf/20179503004](https://doi.org/10.1051/matecconf/20179503004).
- Shan, C.Y., & Iskandar, Y. (2018). Studi Kandungan Kimia dan Aktivitas Farmakologi Tanaman Kunyit (*Curcuma longa* L.). *Farmaka Suplemen*, 16(2), 547-555. doi: [10.24198/jf.v16i2.17610.g8793](https://doi.org/10.24198/jf.v16i2.17610.g8793).
- Shi, J.L., Riedl, B., Deng, J., Cloutier, A., & Zhang, S.Y. (2007). Impact of log position in the tree on mechanical and physical properties of black spruce medium-density fibreboard panels. *Canadian Journal of Forest Research*, 37(5), 866-873. doi: [10.1139/X06-268](https://doi.org/10.1139/X06-268).
- Shubha, P., Shyamsundar, S., & Manjunatha, H.B. (2021). Curcumin therapy: Immune booster in present and post-pandemic (COVID-19) Era. *International Journal of Research Pharmaceutical Sciences*, 12(4), 2566-2572.
- Shukla, S.R., & Viswanath, S. (2014). Comparative study on growth, wood quality and financial returns of teak (*Tectona grandis* L.f.) managed under three different agroforestry practices. *Agroforestry Systems*, 88(2), 331-341.
- Sibomana, G., Makonda, F.B.S., Malimbi, R.E., Chamshama, S.A.O., & Iddi, S. (1997). Effect of Spacing on Performance of Teak at Longuza, Tanga, Tanzania. *Journal of Tropical Forest Science*, 10(2), 176-187.
- Simon, H. (2010). *Perencanaan Pembangunan Sumber Daya Hutan Timber Management*. Celeban Timur UH III/548. Yogyakarta: Pustaka Pelajar.

- Singh, G., Kapoor, I.P.S., Singh, P., de Heluani, C.S., de Lampasona, M.P., & Catalan, C.A.N. (2010). Comparative study of chemical composition and antioxidant activity of fresh and dry rhizomes of turmeric (*Curcuma longa* Linn.). *Food and Chemical Toxicology*, 48, 1026-1031.
- Sinha, S.K., Vijendra, R., Rathore, T.S., & Borgaonkar, H.P. (2017). Growth Ring Structure and Specific Gravity Variation in Juvenile and Mature Wood of Natural-Grown Teak (*Tectona grandis* L.f.) Springer Nature Singapore Pte Ltd. K.K. Pandey dkk. (eds.), Wood is Good. *Springer*, 106-115. doi: [10.1007/978-981-10-3115-1_11](https://doi.org/10.1007/978-981-10-3115-1_11).
- Soekotjo. (2009). *Teknik Silvikultur Intensif (SILIN)*. Yogyakarta: Universitas Gadjah Mada Press.
- Soekotjo. (2014). *Peran Teknik SILIN untuk Pencapaian Ekonomi Hijau yang Ekonomis, Kompetitif, dan Berkesinambungan*. Prosiding Seminar Nasional. Yogyakarta: Universitas Gadjah Mada.
- Sood, K.K. (2006). The Influence of Household Economics and Farming Aspects on Adoption of Traditional Agroforestry in Western Himalaya. *Mountain Research and Development*, 26(2), 124-130.
- Sreekanth, P.M., Balasundaran, M., Nazeem, P.A., & Suma, T.B. (2012). Genetic diversity of nine natural *Tectona grandis* L.f. populations of the Western Ghats in Southern India. *Conservation Genetics*, 13(5), 1409-1419.
- Stefančík, I., Vacek, Z., Sharma, R.P., Vacek, S., & Rösslová, M. (2018). Effect of thinning regimes on growth and development of crop trees in *Fagus sylvatica* stands of Central Europe over fifty years. *Dendrobiology*, 79, 141-155.
- Stewart, H., Dede, R., Mark, S., Digby, R., Novita, D.A., Devi, S., & Achmad, D. (2020). *Financial models for smallholder sengon and teak plantings in the Pati district Indonesia*. Research Report for Project on Enhancing Community-Based Commercial Forestry in Indonesia.
- Subiyantoro, A. (2014). Silvikultur Intensif Mampu Menjawab Tantangan Ekonomi Pedesaan. <https://humasperhutaniandublatung.wordpress.com/2014/03/07/silvikultur-intensif-mampu-menjawab-tantangan-ekonomi-pedesaan/> diakses pada 4 November 2022 pukul 08.23 wib.
- Suci, W., & Suwasono, H. (2018). Pengaruh Intensitas Cahaya Terhadap Keragaan Tanaman Puring. *Jurnal Produksi Tanaman*, 6(1), 161-169.
- Sudomo, M., Suryo, H., Sapto, I., Budiadi, Daryono, P., & Aris, W. (2021). Respon Pertumbuhan Tanaman Jati Plus Perhutani Umur 11 Tahun Terhadap Intensitas Penjarangan dan Tumpang Sari (Studi Kasus Di BKPH Begal KPH Ngawi, Perhutani Jawa Timur). *Jurnal Pemuliaan Tanaman Hutan*, 15 (1), 13 - 23.
- Sumarna, Y. (2007). *Budi Daya Jati*. Jakarta: Penebar Swadaya.
- Suprihatin, T., Rahayu, S., Rifa'i, M., & Widyarti, S. (2020). Senyawa pada Serbuk Rimpang Kunyit (*Curcuma longa* L.) yang Berpotensi sebagai Antioksidan. *Buletin Anatomi dan Fisiologi*, 5(1), 35-42. doi: [10.14710/baf.5.1.2020.35-42](https://doi.org/10.14710/baf.5.1.2020.35-42).

- Supriono, B., & Luluk, S. (2012). Pertumbuhan Tanaman Jati Unggul Nusantara Dengan Pola Agroforestry Umur Lima Tahun. *Jurnal Sains Natural Universitas Nusa Bangsa*, 2(2), 179-185.
- Tewari, V.P., & Mariswamy, K.M. (2013). Heartwood, sapwood and bark content of teak trees grown in Karnataka, India. *Journal of Forestry Research*, 24(4), 721–725. doi: [10.1007/s11676-013-0410-5](https://doi.org/10.1007/s11676-013-0410-5).
- Thamrin, S. (2014). Faktor-Faktor Yang Mempengaruhi Produksi Usahatani Kopi Arabika Di Kabupaten Enrekang Sulawesi Selatan. *Agric*, 26 (1), 1–6. <https://doi.org/10.24246/agric.2014.v26.i1.p1-6>
- Thulasidas, P.K., & Baillères, H. (2017). Wood Quality for Advanced Uses of Teak from Natural and Planted Forests. Chapter 6. *International Union of Forest Research Organizations (IUFRO) World Series*, 36, 73-81.
- Thulasidas, P.K., & Bhat, K.M. (2012). Mechanical properties and wood structure characteristics of 35-year old home-garden teak from wet and dry localities of Kerala, India in comparison with plantation teak. *Journal of the Indian Academy of Wood Science*, 9(1), 23–32. doi: [10.1007/s13196-012-0062-7](https://doi.org/10.1007/s13196-012-0062-7).
- Triwanto, J., & Muttaqin, T. (2013). Analisis Usaha Tani Masyarakat pada Berbagai Tingkat Perkembangan Agroforestri di RPH Pujon Kidul, BKPH Pujon, KPH Malang. *Prosiding Seminar Nasional Agroforestri*, 635-644.
- Tsujino, R., Yumoto, T., Kitamura, S., Djamaluddin, I., & Darnaedi, D. (2016). History of forest loss and degradation in Indonesia. *Land Use Policy*, 57, 335-347. DOI: 10.1016/j.landusepol.2016.05.034.
- Ugalde, A.L.A. (2013). Teak: new trends in silviculture: commercialization and wood production. Cartago (C.R): *International Forestry and Agroforestry*. p. 552. ISBN 978-9968-47-716-1.
- Vacharangkura, T., Woraphun H., Iwao N., & Reiji Y. (2017). Effects of First Thinning on Growth and Stem Form of Teak Plantations in Thailand. *Japan International Research Center for Agricultural Sciences*, 85, 19-30.
- Vahedian-azimi, A., Abbasifard, M., Rahimi-Bashar, F., Guest, P.C., Majeed, M., Mohammadi, A., Banach, M., Jamialahmadi, T., & Sahebkar, A. (2022). Effectiveness of Curcumin on Outcomes of Hospitalized COVID-19 Patients: A Systematic Review of Clinical Trials. *Nutrients*, 14(2), 256. doi: [10.3390/nu14020256](https://doi.org/10.3390/nu14020256).
- Vigulu, V., Blumfield, T.J., Reverchon, F., Hosseini, B.S., & Xu, Z. (2019). Growth and yield of 5 years old teak and flueggea in single and mixed species forestry systems in the Solomon Islands. *New Forests*, 50(4), 629–642. doi: [10.1007/s11056-018-9684-y](https://doi.org/10.1007/s11056-018-9684-y).
- Viquez, E., & Perez, D. (2005). Effect of pruning on tree growth, yield, and wood properties of *Tectona grandis* plantation in Costa Rica. *Silva Fenica*, 39: 381-3
- Vincent, G., & Harja, D. (2008). Exploring Ecological Significance of Tree Crown Plasticity through three dimensional modelling. *Annals of Botany*, 101(8), 1221-1231.

- Wahyudi, I., & Arifien, A.F. (2005). Perbandingan Struktur Anatomi, Sifat Fisis dan Sifat Mekanis Kayu Jati Unggul dan Jati Konvensional [Comparison of Anatomical Structure, Physical Properties and Mechanical Properties of Superior Teak and Conventional Teak]. *Jurnal Ilmu Teknologi Kayu Tropis*, 3(2), 53-59.
- Wahyudi., Dicky, K., Dinata, S., Muhran., & Lidia, B. (2014). Pengaruh Jarak Tanam Terhadap Pertumbuhan Pohon dan Beberapa Sifat Fisis-Mekanis Kayu Jati Cepat Tumbuh. *Jurnal Ilmu Pertanian Indonesia (JIPI)*, 19(3), 204-210.
- Wanneng, P.X., Ozarska, B., & Daian, M.S. (2014). Physical properties of *Tectona grandis* grown in Laos. *Journal of Tropical Forest Science*, 26(3), 389–396.
- Wehr, J.B., Blamey, F.P.C., Smith, T.E., & Menzies, N.W. (2016). Growth and physiological responses of teak (*Tectona grandis* Linn. f.) clones to Ca, H and Al stresses in solution and acid soils. *New Forests*, 48(11), 137-152.
- Widiyanto, A. (2017). *Pengaruh Teknik Silvikultur Terhadap Kualitas Kayu*. Ciamis: Balai Penelitian Teknologi Agroforestry.
- Wirabuana, P.Y.A.P., Hendrati, R.L., Baskorowati, L., Susanto, M., Mashudi., Sulistiadi, H.B.S., Setiadi, D., Sumardi., & Alam, S. (2022). Growth performance, biomass accumulation, and energy production in age series of clonal teak plantation. *For Sci Technol*, 18(2), 67-75. DOI: 10.1080/21580103.2022.2063952.
- Woesono, H.B. (2011). The Study of Diameter- Heartwood Percentage to Teakwood (*Tectona grandis* Linn. F) Quality from Gunung Kidul Community Forest. *Jurnal Wana Tropika*. <http://journal.instiperjogja.ac.id/index.php/JWT/article/view/10/10>
- Woodruff, D., Barbara, J.B., Gary, A.R., & William, S. (2002). Effects of stand density on the growth of young Douglas-fir trees. *Canadian Journal of Forest Research*, 32, 420–427. doi: [10.1139/x01-213](https://doi.org/10.1139/x01-213).
- Yuliantika., & Sudarti. (2021). Pengaruh Intensitas Cahaya terhadap Pertumbuhan Tanaman Kunyit. *Jurnal Penelitian Fisika dan Terapannya*, 2(2), 52-57.
- Yunianti, A., Imam, W., Iskandar, Z., & Gustan, P. (2011). Kualitas Kayu Jati Klon dengan Jarak Tanam yang Berbeda. *Jurnal Ilmu dan Teknologi Kayu Tropis*, 9(1), 93-100.
- Zahabu, E., Tumaini, R., Shabani, A., Omari, C., Iddi, S., & Rogers, E. (2015). Effect of Spacing Regimes on Growth, Yield, and Wood Properties of *Tectona grandis* at Longuza Forest Plantation, Tanzania. *International Journal of Forestry Research*, 2015, 1-6. doi: [10.1155/2015/469760](https://doi.org/10.1155/2015/469760).
- Zanin, D.K. (2005). *Feasibility of teak production for small holders in Eastern Panama* [M.S. thesis], Forestry Michigan Technological University.
- Zhou, Z., Liu, S., Liang, K., Ma, H., & Huang, G. (2017). Growth and mineral nutrient analysis of teak (*Tectona grandis*) grown on acidic soils in south China. *Journal of Forestry Research*, 28(3), 503-511.