

DAFTAR PUSTAKA

- Ahmad, A., Gilani, H., dan Ahmad, S.R. 2021. Forest aboveground biomass estimation and mapping through high-resolution optical satellite imagery—A literature review. *Forests* 12(7): 914.
- Atangana, A., Khasa, D., Chang, S., dan Degrande, A. 2014. *Tropical Agroforestry*. Springer, Dordrecht.
- Baggio, A.J., dan Heuveldop, J. 1982. Implantação, manejo e utilização do sistema agroflorestal cercas vivas de *Gliricidia sepium* (Jacq.) Steud. na Costa Rica. *Boletim de Pesquisa Florestal* 5: 19–52.
- Burkhart, H.E., dan Tomé, M. 2012. *Modeling Forest Trees and Stands*. Springer, Dordrecht.
- Cannell, M.G.R., van Noordwijk, M., dan Ong, C.K. 1996. The central agroforestry hypothesis: The trees must acquire resources that the crop would not otherwise acquire. *Agroforestry Systems* 34(1): 27–31.
- Canul-Solís, J., Alvarado-Canché, C., Castillo-Sánchez, L., Sandoval-Gío, J., Alayón-Gamboa, J., Piñeiro-Vázquez, A., Chay-Canul, A., Casanova-Lugo, F., dan Ku-Vera, J. 2018. *Gliricidia sepium* (Jacq.) Kunth ex Walp. Una especie arbórea multipropósito para la sustentabilidad de los agroecosistemas tropicales. *Agro Productividad* 11(10): 195–200.
- Chave, J., Réjou-Méchain, M., Búrquez, A., Chidumayo, E., Colgan, M.S., Delitti, W.B.C., Duque, A., Eid, T., Fearnside, P.M., Goodman, R.C., Henry, M., Martínez-Yrizar, A., Mugasha, W.A., Muller-Landau, H.C., Mencuccini, M., Nelson, B.W., Ngomanda, A., Nogueira, E.M., Ortiz-Malavassi, E., Péliissier, R., Ploton, P., Ryan, C.M., Saldarriaga, J.G., dan Vieilledent, G. 2014. Improved allometric models to estimate the aboveground biomass of tropical trees. *Global Change Biology* 20(10): 3177–3190.
- Clavero, T., dan Razz, R. 2002. Establecimiento vegetativo de *Gliricidia sepium*. *Revista Científica, FCV-LUZ* 12(Supl. 2): 587–588.

- Coe, R., Sinclair, F., dan Barrios, E. 2014. Scaling up agroforestry requires research ‘in’ rather than ‘for’ development. *Current Opinion in Environmental Sustainability* 6: 73–77.
- Diono, D.W., Rusolono, T., dan Bahruni, B. 2025. Determination of harvesting cycle of *Gliricidia sepium* for bioenergy using growth model. *Jurnal Ilmu Kehutanan* 19(1): 72–82.
- Edvan, R.L., Carneiro, M.S. de S., Silva, E.B. da, Albuquerque, D.R., Pereira, E.S., Bezerra, L.R., Silva, A.L. da, dan Araújo, M.J. de. 2016. Análise de crescimento da gliricídia submetida a diferentes manejos de corte. *Archivos de Zootecnia* 65(250): 163–169.
- Fakultas Kehutanan Universitas Gadjah Mada. 2024. Fakultas Kehutanan UGM dan PT Paiton Energy kembangkan hutan energi bersama masyarakat. 7 Maret 2024. Tersedia pada: <https://fkt.ugm.ac.id/2024/03/07/fakultas-kehutanan-ugm-dan-pt-paiton-energy-kembangkan-hutan-energi-bersama-masyarakat/>
- Fakultas Kehutanan Universitas Gadjah Mada. 2025. Kolaborasi untuk hutan energi: Sinergi UGM, PT Paiton Energy, dan pemerintah. 26 Februari 2025. Tersedia pada: <https://fkt.ugm.ac.id/2025/02/26/kolaborasi-untuk-hutan-energi-sinergi-ugm-pt-paiton-energy-dan-pemerintah/>
- Fekedulegn, D., Mac Siurtain, M.P., dan Colbert, J.J. 1999. Parameter estimation of nonlinear growth models in forestry. *Silva Fennica* 33(4): 327–336.
- Food and Agriculture Organization. 2017. *Voluntary Guidelines on National Forest Monitoring*. FAO, Rome.
- Forrester, D.I., Kohnle, U., Albrecht, A.T., dan Bauhus, J. 2013. Complementarity in mixed-species stands of *Abies alba* and *Picea abies* varies with climate, site quality and stand density. *Forest Ecology and Management* 304: 233–242.
- Forrester, D.I., Tachauer, I.H.H., Annighoefer, P., Barbeito, I., Pretzsch, H., Ruiz-Peinado, R., Stark, H., Vacchiano, G., Zlatanov, T., Chakraborty, T., Saha, S., dan Sileshi, G.W. 2017. Generalized biomass and leaf area allometric

- equations for European tree species incorporating stand structure, tree age and climate. *Forest Ecology and Management* 396: 160–175.
- Grossnickle, S.C. 2012. Why seedlings survive: Influence of plant attributes. *New Forests* 43: 711–738.
- Hafner, J.M., Steinke, J., Uckert, G., Sieber, S., dan Kimaro, A.A. 2021. Allometric equations for estimating on-farm fuel production of *Gliricidia sepium* (*Gliricidia*) shrubs and *Cajanus cajan* (pigeon pea) plants in semi-arid Tanzania. *Energy, Sustainability and Society* 11: 43.
- Intergovernmental Panel on Climate Change (IPCC). 2006. *2006 IPCC Guidelines for National Greenhouse Gas Inventories. Volume 4: Agriculture, Forestry and Other Land Use*. Institute for Global Environmental Strategies, Hayama, Japan. Tersedia pada: <https://www.ipcc-nggip.iges.or.jp/public/2006gl/vol4.html>
- IUSS Working Group WRB. 2022. *World Reference Base for Soil Resources: International Soil Classification System for Naming Soils and Creating Legends for Soil Maps*. 4th ed. International Union of Soil Sciences, Vienna.
- Jose, S. 2009. Agroforestry for ecosystem services and environmental benefits: An overview. *Agroforestry Systems* 76(1): 1–10.
- Karp, A., dan Shield, I. 2008. Bioenergy from plants and the sustainable yield challenge. *New Phytologist* 179(1): 15–32.
- Kelompok Tani Hutan Ranu Makmur. 2025. *Rencana Kelola Perhutanan Sosial (RKPS) KTH Ranu Makmur Tahun 2025–2034*. KTH Ranu Makmur, Probolinggo.
- Kelty, M.J. 2006. The role of species mixtures in plantation forestry. *Forest Ecology and Management* 233(2–3): 195–204.
- Kementerian Energi dan Sumber Daya Mineral Republik Indonesia. 2023. *Peraturan Menteri Energi dan Sumber Daya Mineral Republik Indonesia Nomor 12 Tahun 2023 tentang Pemanfaatan Bahan Bakar Biomassa sebagai Campuran Bahan Bakar pada Pembangkit Listrik Tenaga Uap*. Berita Negara Republik Indonesia Tahun 2023 Nomor 946. Jakarta.

- Kementerian Lingkungan Hidup dan Kehutanan Republik Indonesia. 2021. *Peraturan Menteri Lingkungan Hidup dan Kehutanan Republik Indonesia Nomor 9 Tahun 2021 tentang Pengelolaan Perhutanan Sosial*. Berita Negara Republik Indonesia Tahun 2021 Nomor 320. Jakarta.
- Ketterings, Q.M., Coe, R., van Noordwijk, M., Ambagau', Y., dan Palm, C.A. 2001. Reducing uncertainty in the use of allometric biomass equations for predicting above-ground tree biomass in mixed secondary forests. *Forest Ecology and Management* 146(1–3): 199–209.
- Lindenmayer, D.B., dan Likens, G.E. 2010. The science and application of ecological monitoring. *Biological Conservation* 143(6): 1317–1328.
- Liyanage, M.de S., Jayasundara, S., dan Liyanage, L.V.K. 1991. Evaluation of *Gliricidia sepium* provenances for the low country humid zone of Sri Lanka. *International Tree Crops Journal* 7: 83–94.
- MacLean, R.H., Litsinger, J.A., Moody, K., dan Watson, A.K. 1992. Increasing *Gliricidia sepium* and *Cassia spectabilis* biomass production. *Agroforestry Systems* 20: 199–212.
- Marroquín, I.M., Vargas Hernández, J., Velázquez Martínez, A., dan Etchevers Barra, J. 2005. Aboveground biomass production and nitrogen content in *Gliricidia sepium* (Jacq.) Walp. under several pruning regimes. *Interciencia* 30(3): 151–158.
- Mercer, D.E. 2004. Adoption of agroforestry innovations in the tropics: A review. *Agroforestry Systems* 61–62: 311–328.
- Mulyana, B., Soeprijadi, D., dan Purwanto, R.H. 2020a. Allometric model of wood biomass and carbon for gliricidia (*Gliricidia sepium* (Jacq.) Kunth ex Walp.) at bioenergy plantation in Indonesia. *Forestry Ideas* 26(1): 153–164.
- Mulyana, B., Soeprijadi, D., dan Purwanto, R.H. 2020b. Development of bioenergy plantation in Indonesia: Yield regulation and above-ground carbon storage in gliricidia (*Gliricidia sepium*) plantation. *E3S Web of Conferences* 202: 08009.
- Návar, J. 2010. Measurement and assessment methods of forest aboveground biomass: A literature review and the challenges ahead. Dalam: Momba, M. dan Bux, F. (eds.), *Biomass*. Sciyo, Rijeka, hlm. 27–64.

- Nygren, P., Vaillant, V., Desfontaines, L., Cruz, P., dan Domenach, A.M. 2000. Effects of nitrogen source and defoliation on growth and biological dinitrogen fixation of *Gliricidia sepium* seedlings. *Tree Physiology* 20(1): 33–40.
- Ong, C.K., dan Huxley, P.A. (eds.). 1996. *Tree–Crop Interactions: A Physiological Approach*. CAB International bekerja sama dengan International Centre for Research in Agroforestry, Wallingford.
- Parrotta, J.A. 1992. *Gliricidia sepium* (Jacq.) Walp.: *Gliricidia*, Mother of Cocoa. SO-ITF-SM-50. USDA Forest Service, Southern Forest Experiment Station, Institute of Tropical Forestry, New Orleans.
- Pattanayak, S.K., Mercer, D.E., Sills, E., dan Yang, J.C. 2003. Taking stock of agroforestry adoption studies. *Agroforestry Systems* 57(3): 173–186.
- Pemerintah Republik Indonesia. 2021. *Peraturan Pemerintah Republik Indonesia Nomor 23 Tahun 2021 tentang Penyelenggaraan Kehutanan*. Lembaran Negara Republik Indonesia Tahun 2021 Nomor 33, Tambahan Lembaran Negara Republik Indonesia Nomor 6635. Jakarta.
- Pemerintah Republik Indonesia. 2022. *Peraturan Presiden Republik Indonesia Nomor 112 Tahun 2022 tentang Percepatan Pengembangan Energi Terbarukan untuk Penyediaan Tenaga Listrik*. Lembaran Negara Republik Indonesia Tahun 2022 Nomor 181. Jakarta.
- PT Paiton Energy. 2023. *Paiton Energy – 2023 CSR Book*. PT Paiton Energy. Tersedia pada: https://paitonenergy.com/wp-content/uploads/2024/11/PE-CSR-book-2023-BINDING-per-page-80-pages-Completed-FINAL_compressed.pdf
- PT Paiton Energy. 2024. Paiton Energy perkuat sinergi Perhutanan Sosial dengan BPSKL Jawa. 1 November 2024. Tersedia pada: <https://paitonenergy.com/paiton-energy-perkuat-sinergi-perhutanan-sosial-dengan-bspkl-jawa/>
- PT Paiton Energy. 2025. PT Paiton Energy kembangkan Perhutanan Sosial menjadi hutan energi. 3 Januari 2025. Tersedia pada: <https://paitonenergy.com/pt-paiton-energy-kembangkan-perhutanan-sosial-menjadi-hutan-energi/>

- Raintree, J.B. 1991. *Socioeconomic Attributes of Trees and Tree Planting Practices*. Community Forestry Note No. 9. Food and Agriculture Organization of the United Nations, Rome. Tersedia pada: <https://www.fao.org/4/u4375e/u4375e00.htm>
- Rodrigues, A.M., Costa, M.M.G., dan Nunes, L.J.R. 2021. Short rotation woody coppices for biomass production: An integrated analysis of the potential as an energy alternative. *Current Sustainable/Renewable Energy Reports* 8(1): 70–89.
- Santucci, S., Eisenbies, M., dan Volk, T. 2024. Yield and survival of 19 cultivars of willow (*Salix* spp.) biomass crops over eight rotations. *Forests* 15(11): 2041.
- Sinclair, F.L. 1999. A general classification of agroforestry practice. *Agroforestry Systems* 46(2): 161–180.
- Stewart, J.L., Allison, G.E., dan Simons, A.J. (eds.). 1996. *Gliricidia sepium: Genetic Resources for Farmers*. Tropical Forestry Papers No. 33. Oxford Forestry Institute, University of Oxford, Oxford.
- Stolarski, M.J., Szczukowski, S., Tworkowski, J., Krzyżaniak, M., dan Załuski, D. 2019. Willow production during 12 consecutive years—The effects of harvest rotation, planting density and cultivar on biomass yield. *GCB Bioenergy* 11(4): 635–656.
- Tscharntke, T., Clough, Y., Bhagwat, S.A., Buchori, D., Faust, H., Hertel, D., Hölscher, D., Juhbandt, J., Kessler, M., Perfecto, I., Scherber, C., Schroth, G., Veldkamp, E., dan Wanger, T.C. 2011. Multifunctional shade-tree management in tropical agroforestry landscapes – a review. *Journal of Applied Ecology* 48(3): 619–629.
- United Nations Framework Convention on Climate Change (UNFCCC). 2015. *Paris Agreement*. UNFCCC, Bonn. Tersedia pada: <https://www.unfccc.int/process-and-meetings/the-paris-agreement>
- Vanbeveren, S.P.P., dan Ceulemans, R. 2018. Genotypic differences in biomass production during three rotations of short-rotation coppice. *Biomass and Bioenergy* 119: 198–205.

- Vergara, N.T. 1985. Agroforestry systems: A primer. *Unasyhva* 37(147): 22–28.
- Wang, M., Montes, C.R., Bullock, B.P., dan Zhao, D. 2020. An empirical examination of dominant height projection accuracy using difference equation models. *Forest Science* 66(3): 267–274.
- Weather Atlas. 2024. Climate and monthly weather forecast: Probolinggo, Indonesia. Updated 25 January 2024. Tersedia pada: <https://www.weather-atlas.com/en/indonesia/probolinggo-climate>
- Wiersum, K.F., dan Nitis, I.M. 1992. *Gliricidia sepium* (Jacq.) Kunth ex Walp. Dalam: 't Mannetje, L. dan Jones, R.M. (eds.), *Plant Resources of South-East Asia No. 4: Forages*. PROSEA Foundation, Bogor, hlm. 133–137.