

#### IV. DAFTAR PUSTAKA

- Agustin, A., Amin, M., & Tusi, A. (2022). Biosystem Engineering Analisis Zona Klasifikasi Iklim Oldeman untuk Kesesuaian Tanaman Padi (*Oryza sativa* L.) di Kabupaten Lampung Timur. *Jurnal Agricultural*, 1(2)(2), 172–176.
- Ali, M., & Mindari, W. (2016). *Effect of humic acid on soil chemical and physical characteristics of embankment*. *MATEC Web of Conferences*, 58. <https://doi.org/10.1051/mateconf/20165801028>
- Anwar S, Sudadi U. 2013. *Kimia Tanah*. Bogor (ID): Departemen Ilmu Tanah dan Sumberdaya Lahan, Fakultas Pertanian, Institut Pertanian Bogor.
- Astuti, P.;Idiawati, N.;& Destiarti, L. (2016). Validasi Metode Pengukuran Kadar Asam Humat Hasil Ekstraksi Kalium Hidroksida Dengan Spektrofotometri Ultraviolet. *Jkk Vol. 5*.
- Bintoro, A., Widjajanto, D, dan Isrun. 2017. Karakteristik Fisik Tanah pada Beberapa Penggunaan Lahan di Desa Beka Kecamatan Marawola Kabupaten Sigi. *Jurnal Agrotekbis*. 5(4): 423–430.
- Carranca, C.; Pedra, F.; Madeira, M. *Enhancing Carbon Sequestration in Mediterranean Agroforestry Systems: A Review*. *Agriculture* 2022, 12, 1598.
- Dai, S., Wei, T., Tang, J., Xu, Z., & Gong, H. (2023). *Temporal Changes in Litterfall and Nutrient Cycling from 2005–2015 in an Evergreen Broad-Leaved Forest in the Ailao Mountains, China*. *Plants*, 12(6), Article 6.
- Devianti, O. K.;& Tjahjaningrum, I. T. (2017). Studi Laju Dekomposisi Seresah Pada Hutan Pinus Di Kawasan Wisata Taman Safari Indonesia Ii Jawa Timur. *Jurnal Sains Dan Seni*.
- Dignac MF, Bahri H, Rumpel C, Rasse DP, Bardoux G, Balesdent J, Girardin C, Chenu C, Mariotti A (2005) *Carbon-13 natural abundance as a tool to study the dynamics of ligni monomer in soil: an appraisal at the Closeaux experimental field (France)*. *Geoderma* 128:3–17
- Fengel D, Wegener G. 1995. *Kayu; Kimia, Ultrastruktur, Reaksi-reaksi*. Terjemahan. Gadjah Mada University Press. Yogyakarta.
- Flores, R. M. (2014). Chapter 3 - Origin of Coal as Gas Source and Reservoir Rocks. In R. M. Flores (Ed.), *Coal and Coalbed Gas* (pp. 97–165). Elsevier. <https://doi.org/https://doi.org/10.1016/B978-0-12-396972-9.00003-3>
- Hu, C.; Xu, T.; Wang, S.; Bian, H.; Dai, H. *Effect of Aminating Lignin Loading with Arbuscular Mycorrhizal Fungi on Soil Aggregate Structure Improvement*. *Polymers* 2024, 16, 1701. <https://doi.org/10.3390/polym16121701>
- Kallenbach, C.M., Frey, S.D. and Grandy, A.S. 2016. *Direct evidence for microbial-derived soil organic matter formation and its ecophysiological controls*. *Nature Communications* 7, doi:10.1038/ncomms13630.

- Khairi, M. F, A. Jambak, Dwi P. T.J, Enni D. W. 2017. *Karakteristik Sifat Fisik Tanah Pada Sistem Pengolahan Tanah Konservasi (Studi Kasus: Kebun Percobaan Cikabayan)*. Buletin Tanah Dan Lahan, 1 (1) Januari 2017: 44-50.
- Kurniasari, F., Kurniawan, S., Nopriani, L. S., & Rachmanadi, D. (2020). Analisis Sifat Kimia Gambut Pasca Kebakaran Dengan Berbagai Upaya Pemulihan Hutan Di Kawasan Hutan Dengan Tujuan Khusus (Khdtk) Tumbang Nusa, Kalimantan Tengah. *Jurnal Tanah Dan Sumber daya Lahan*, 8(1), 221–230. <https://doi.org/10.21776/ub.jtsl.2021.008.1.25>
- Kusuma, M. N., & Yulfiah, Y. 2018. Hubungan Porositas Dengan Sifat Fisik Tanah Pada Infiltration Gallery. In *Prosiding Seminar Nasional Sains dan Teknologi Terapan*. Pp: 43-50.
- Lehr, M.; Miltner, M.; Friedl, A. Removal of wood extractives as pulp (pre-)treatment: A technological review. *SN Appl. Sci.* 2021, 3, 886.
- Lestari, O. P., Utami, S. R., & Agustina, C. (2022). Pengaruh Batuan Dan Seresah Pada Permukaan Tanah Terhadap Pendugaan Longsor Hasil Simulasi. *Jurnal Tanah Dan Sumberdaya Lahan Vol 9*.
- Lu'tzow MV, Ko" gel-Knabner I, Ekschmitt K, Matzner E, Guggenberger G, Marschner B, Flessa H (2006) *Stabilization of organic matter in temperate soils: mechanism and their relevance under different soil conditions – a review*. *Eur J Soil Sci* 57:426–445
- M.A. Mirza, S.P. Agarwal, M.A. Rahman, A. Rauf, N. Ahmad, A. Alam, Z. Iqbal, *Role of humic acid on oral drug delivery of an antiepileptic drug, Drug Dev. Ind. Pharm.* 37 (3) (2011) 310–319.
- Made P, Afandi, Hery N dan Karden E.S. Manik. 2016. *Kemantapan Agregat Tanah Pada Lahan Produksi Rendah Dan Tinggi di PT Great Giant Pineapple*. J. Agrotek Tropika. ISSN 2337-4993. Jurusan Agroteknologi, Fakultas Pertanian Universitas Lampung. Lampung.
- Mindari, W., Sassongko, P. E., & Syekhfani. (2022). *Asam Humat Sebagai Amelioran dan Pupuk (Edisi Pert)*. UPN "Veteran" Jawa Timur.
- Miroslaw K, Krystyna, Magdalena B, Piotr W, José M. (2018). Humic substances and aggregate stability in rhizospheric and non-rhizospheric soil. *Journal of Soils and Sediments (2018) 18:2777–2789*.
- Murti, M. M.;Samparia, D. A.;Juliastuti, S. R.;& Rachmaniah, O. (2022). Fraksinasi Lignoselulosa dari Tandan Kosong Kelapa Sawit (TKKS) menjadi Lignin secara Steam explosion dengan Kapasitas 400 ton/tahun. *Journal of Fundamentals and Applications of Chemical Engineering*.
- Naharuddin, N., Sari, I., Harijanto, H., & Wahid, A. 2020. Sifat Fisik Tanah pada Lahan Agroforestri dan Hutan Lahan Kering Sekunder di sub DAS Wuno, DAS Palu. *Jurnal Pertanian Terpadu*. 8(2): 189-200
- Neina, D. 2019. *The role of soil pH in plant nutrition and soil remediation. Applied and environmental soil science*. 2019: 1-9.

- Nuraini, Y., & Zahro, A. (2020). *Pengaruh Aplikasi Asam Humat Dan Pupuk Npk Phonska 15-15-15 Terhadap Serapan Nitrogen Dan Pertumbuhan Tanaman Padi Serta Residu Nitrogen Di Lahan Sawah*. *Jurnal Tanah Dan Sumberdaya Lahan*, 7(2), 195–200.
- Park, J., Kim, P., Jang, J., Wang, Z., Hwang, B., Devries, K., 2008. *Interfacial evaluation and durability of modified Jute fibers/polypropylene (PP) composites using micromechanical test and acoustic emission*. *Compos. Part B Eng.* 39, 1042–1061.
- Pettit. R.E. 2018. *Organic Matter, Humus, Humate, Humic Acid, Fulvic acid and Humin: Their Importance in Soil Fertility and Plant Health*. [https://humates.com/pdf/ORGANIC\\_MATTERPettit.pdf](https://humates.com/pdf/ORGANIC_MATTERPettit.pdf)
- Pranatasari dan Halwany, H. (2017). Dekomposisi Serasah dan Keanekaragaman Makroflora Tanah pada Hutan Tanaman Industri. *Jurnal Ilmu Kehutanan*, 11:212-223.
- Qian, Z.; Fan, Z.; Peng, W.; Du, H.; Hu, P. Source to Sink of Lignin Phenols in a Subtropical Forest of Southwest China. *Forests* 2023, 14, 1701. <https://doi.org/10.3390/f14091701>
- Ralph J, Lapierre C, Boerjan W (2019) *Struktur lignin dan tekniknya*. *Opini Saat Ini Bioteknologi* 56:240–249.
- Rostaman, T., & Kasno, A. (2018). Pengaruh aplikasi asam humat terhadap peningkatan produktivitas hasil jagung pada tanah inceptisol. *Prosiding Karya Ilmiah Tingkat Nasional*, 111–118.
- Rumambi, J. F., Langi, M. A., & Nurmawan, W. 2019. *Laju Dekomposisi Awal Serasah Palaquium obovatum, Spathodea campanulata dan Calophyllum soulattri Di Hutan Bron Warembungan Kabupaten Minahasa*. *Eugenia*, 24(3), 123–131.
- S. Gea and M. Harahap, *Selulosa Karakteristik dan Pemanfaatannya Sebagai Biomaterial*. USU Press, 2018.
- Setiawan Y, Sugiyanto, Wiryanto, 2003, Relationship of soil macrofauna and mesofauna populations with content of C, N, polyphenols, and ratio of C/N and polyphenols/N plant organic matter, *BioSMART*, Volume 5, Nomor 2, Halaman: 134–13797
- Sun, Y. and Cheng, J.Y. (2002) *Hydrolysis of Lignocellulosic Materials for Ethanol Production: A Review*. *Bioresource Technology*, 83, 1-11.
- Tambunan, R. A., Lubis, K. S., & Razali. (2019). Kajian Ph, C-Organik Serta Tekstur Tanah Ultisol Pada Beberapa Vegetasi. *Jurnal Agroekoteknologi Fp Usu*.
- Tang, Y., Ye, Z., & Jean, M. (2019). *Influence of lignin accessibility on chemical and biological decomposition of lignin/polyethylene composite thermoplastics*. *The Canadian Journal of Chemical Engineering*. doi:10.1002/cjce.23623
- Vanholme R, Ralph J, Akiyama T, Lu F, Rencoret Pazo J, Christensen J, Rohde A, Morreel K, DeRycke R, Kim H *et al.*: *Engineering traditional monolignols*

*out of lignins by concomitant up-regulation F5H1 and down-regulation of COMT in Arabidopsis*. Plant J 2010, 64:885-897.

- Wood, S. A., Tirfessa, D., Baudron, F. (2018). *Soil organic matter underlies crop nutritional quality and productivity in smallholder agriculture*. Agriculture, Ecosystems & Environment, 266, 100-108
- Wu, X.; Jiang, J.; Wang, C.; Liu, J.; Pu, Y.; Ragauskas, A.; Li, S.; Yang, B. *Lignin-derived electrochemical energy materials and systems*. Biofuels Bioprod. Biorefining 2020, 14, 650–672.
- Yang, Y.; Wei, H.; Lin, L.; Deng, Y.; Duan, X. *Effect of Vegetation Restoration on Soil Humus and Aggregate Stability within the Karst Region of Southwest China*. Forests 2024, 15, 292. [https:// doi.org/10.3390/f15020292](https://doi.org/10.3390/f15020292)