KERAGAMAN FRAKSI KARBON DAN NITROGEN, SERTA STOK KARBON ORGANIK TANAH PADA LAHAN DI BAWAH TEGAKAN
BAMBU DAN NON BAMBU DI LERENG SELATAN GUNUNG MERAPI
Lintang Panjali Siwi Pambayun, Prof. Dr. Ir. Benito Heru Purwanto, M.P., M.Agr.;Prof. Dr. Ir. Sri Nuryani Hidayah Utar
Universitas Gadjah Mada, 2023 | Diunduh dari http://etd.repository.ugm.ac.id/

DAFTAR PUSTAKA

Afdal. (2007). Siklus Karbon Di Atmosfer Dan Samudera. *Oseana*, *XXXII*(2), 29–41.

Agus, F. (1982). *Penetapan Berat Jenis Partikel Tanah*. 35–41.

Agus, F., Yusrial, & Sutono. (2019). Penetapan Tekstur Tanah dalam Sifat Fisik Tanah dan Metode Analisisnya. *Balai Besar Litbang Sumber Daya Lahan Pertanian*, 43–62.

Agus, F., Yustika, R. D., & Haryati, U. (2006). 3. Penetapan berat volum tanah. *Sifat Fisik Tanah Dan Metode Analisisnya*, 31–34.

Ahima, R. S. (2020). Global warming threatens human thermoregulation and survival. *Journal of Clinical Investigation*, *130*(2), 559–561. https://doi.org/10.1172/JCI135006

Aini, L. N., Mulyono, & Hanudin, E. (2016). Mineral Mudah Lapuk Material Piroklastik Merapi dan Potensi Keharaannya Bagi Tanaman. *Planta Tropika: Journal of Agro Science*, *4*(2), 84–94. https://doi.org/10.18196/pt.2016.060.84-94

Ampong, K., Thilakaranthna, M. S., & Gorim, L. Y. (2022). Understanding the Role of Humic Acids on Crop Performance and Soil Health. *Frontiers in Agronomy*, *4*(March). https://doi.org/10.3389/fagro.2022.848621

Anaba, B. D., Yemefack, M., Abossolo-Angue, M., Ntsomboh-Ntsefong, G., Bilong, E. G., Ngando Ebongue, G. F., & Bell, J. M. (2020). Soil texture and watering impact on pot recovery of soil-stripped oil palm (Elaeis guineensis Jacq.) seedlings. *Heliyon*, *6*(10). https://doi.org/10.1016/j.heliyon.2020.e05310

Anderson, T. R., Hawkins, E., & Jones, P. D. (2016). CO2, the greenhouse effect and global warming: from the pioneering work of Arrhenius and Callendar to today's Earth System Models. *Endeavour*, *40*(3), 178–187. https://doi.org/10.1016/j.endeavour.2016.07.002

Arfina, N., Hidayat, M., & Nisa, K. (2020). Simpanan Karbon pada Tanah di Kawasan Geothermal Ie Brok Seulawah Agam Desa Meurah Kecamatan Seulimeum Kabupaten Aceh Besar. *Prosiding Seminar Nasional Biotik*, *C*, 71–77.

Athira, M., Jagadeeswaran, R., & Kumaraperumal, R. (2019). Influence of soil organic matter on bulk density and available water capacity of soils. *International Journal of Chemical Studies*, *7*(3), 3520–3523.

Azmul, Yusran, & Irmasari. (2016). Sifat kimia tanah pada berbagai tipe penggunaan lahan di sekitar Taman Nasional Lore Lindu (Studi Kasus Desa Toro Kecamatan Kulawi Kabupaten Sigi Sulawesi Tengah). *Warta Rimba*, *4*(2), 24–31.

Babur, E., Dindaroğlu, T., Solaiman, Z. M., & Battaglia, M. L. (2021). Microbial respiration, microbial biomass and activity are highly sensitive to forest tree species and seasonal patterns in the Eastern Mediterranean Karst Ecosystems. *Science of the Total Environment*, *775*. https://doi.org/10.1016/j.scitotenv.2021.145868

Bakri, I., Thaha, R. ., & Isrun. (2016). STATUS BEBERAPA SIFAT KIMIA

UNIVERSITAS GADJAH MADA
KERAGAMAN FRAKSI KARBON DAN NITROGEN, SERTA STOK KARBON ORGANIK TANAH PADA LAHAN DI BAWAH TEGAKAN BAMBU DAN NON BAMBU DI LERENG SELATAN GUNUNG MERAPI
Lintang Panjali Siwi Pambayun, Prof. Dr. Ir. Benito Heru Purwanto, M.P., M.Agr.;Prof. Dr. Ir. Sri Nuryani Hidayah Utar
Universitas Gadjah Mada, 2023 | Diunduh dari http://etd.repository.ugm.ac.id/

TANAH PADA The Status of Some Soil Chemical Properties on Various Land use in Poboya Watershed South Palu District. *J. Agrotekbis*, *4*(5), 512–520.

Balittan. (2009). *Petunjuk Teknis Edisi 2 "ANALISIS KIMIA TANAH, TANAMAN, AIR, DAN PUPUK."* https://www.researchgate.net/publication/269107473_What_is_governance/link/548173090cf22525dcb61443/download%0Ahttp://www.econ.upf.edu/~reynal/Civil wars_12December2010.pdf%0Ahttps://think-asia.org/handle/11540/8282%0Ahttps://www.jstor.org/stable/41857625

Bardgett, R. D., Freeman, C., & Ostle, N. J. (2008). Microbial contributions to climate change through carbon cycle feedbacks. *ISME Journal*, *2*(8), 805–814. https://doi.org/10.1038/ismej.2008.58

Bargali, K., Manral, V., Padalia, K., Bargali, S. S., & Upadhyay, V. P. (2018). Effect of vegetation type and season on microbial biomass carbon in Central Himalayan forest soils, India. *Catena*, *171*(October 2017), 125–135. https://doi.org/10.1016/j.catena.2018.07.001

Baroroh, A., Setyono, P., & Setyaningsih, R. (2015). Analisis Kandungan Unsur Hara Makro Dalam Kompos Dari Serasah Daun Bambu Dan Limbah Padat Pabrik Gula (Blotong). *Bioteknologi*, *12*(2), 46–51. https://doi.org/10.13057/biotek/c120203

Benbi, D. K., & Richter, J. (2002). A critical review of some approaches to modelling nitrogen mineralization. *Biology and Fertility of Soils*, *35*(3), 168–183. https://doi.org/10.1007/s00374-002-0456-6

Brookes, P. C., Landman, A., Pruden, G., & Jenkinson, D. S. (1985). Chloroform fumigation and the release of soil nitrogen: A rapid direct extraction method to measure microbial biomass nitrogen in soil. *Soil Biology and Biochemistry*, *17*(6), 837–842. https://doi.org/10.1016/0038-0717(85)90144-0

Bu, R., Lu, J., Ren, T., Liu, B., Li, X., & Cong, R. (2015). Particulate organic matter affects soil nitrogen mineralization under two crop rotation systems. *PLoS ONE*, *10*(12), 1–17. https://doi.org/10.1371/journal.pone.0143835

Buraka, T., Elias, E., & Lelago, A. (2022). Soil organic carbon and its' stock potential in different land-use types along slope position in Coka watershed, Southern Ethiopia. *Heliyon*, *8*(8), e10261. https://doi.org/10.1016/j.heliyon.2022.e10261

Cambardella, C. A., & Elliott, E. T. (1992). Particulate Soil Organic-Matter Changes across a Grassland Cultivation Sequence. *Soil Science Society of America Journal*, *56*(3), 777–783. https://doi.org/10.2136/sssaj1992.03615995005600030017x

Chan, K. Y. (2003). Soil particulate organic carbon under different land use and management. *Soil Use and Management*, *17*(4), 217–221. https://doi.org/10.1079/sum200180

Chen, F. S., Zeng, D. H., Zhou, B., Singh, A. N., & Fan, Z. P. (2006). Seasonal variation in soil nitrogen availability under Mongolian pine plantations at the Keerqin Sand Lands, China. *Journal of Arid Environments*, *67*(2), 226–239. https://doi.org/10.1016/j.jaridenv.2006.02.017

Colliver, A., Dowd, A., Rodriguez, S., & Colliver, A. (2011). *Report on*

UNIVERSITAS GADJAH MADA
KERAGAMAN FRAKSI KARBON DAN NITROGEN, SERTA STOK KARBON ORGANIK TANAH PADA LAHAN DI BAWAH TEGAKAN
BAMBU DAN NON BAMBU DI LERENG SELATAN GUNUNG MERAPI
Lintang Panjali Siwi Pambayun, Prof. Dr. Ir. Benito Heru Purwanto, M.P., M.Agr.;Prof. Dr. Ir. Sri Nuryani Hidayah Utar
Universitas Gadjah Mada, 2023 | Diunduh dari http://etd.repository.ugm.ac.id/

International Carbon Capture and Storage Education Materials Energy Transformed Flagship.

Deng, Q., Hui, D., Dennis, S., & Reddy, K. C. (2017). Responses of terrestrial ecosystem phosphorus cycling to nitrogen addition: A meta-analysis. *Global Ecology and Biogeography*, *26*(6), 713–728. https://doi.org/10.1111/geb.12576

Desrochers, J., Brye, K. R., Gbur, E., Pollock, E. D., & Savin, M. C. (2020). Carbon and nitrogen properties of particulate organic matter fractions in an Alfisol in the mid-Southern, USA. *Geoderma Regional*, *20*, e00248. https://doi.org/10.1016/j.geodrs.2019.e00248

Dong, L., Liu, Y., Wu, J., Liao, Y., Li, J., Yu, J., Wang, S., Yu, Z., Shangguan, Z., & Deng, L. (2023). The distribution of soil C and N along the slope is regulated by vegetation type on the Loess Plateau. *Catena*, *226*(26), 107094. https://doi.org/10.1016/j.catena.2023.107094

Dwivedi, A. K., Kumar, A., Baredar, P., & Prakash, O. (2019). Bamboo as a complementary crop to address climate change and livelihoods – Insights from India. *Forest Policy and Economics*, *102*(March), 66–74. https://doi.org/10.1016/j.forpol.2019.02.007

Edwin, M. (2016). Penilaian Stok Karbon Tanah Organik pada Beberapa Tipe Penggunaan Lahan di Kutai Timur, Kalimantan Timur. *Jurnal Agrifor*, *15*(2), 279–288.

FAO. (2018). *Measuring and modelling soil carbon stocks and stock changes in livestock production systems*. http://www.fao.org/3/I9693EN/i9693en.pdf

Farrasati, R., Pradiko, I., Rahutomo, S., Sutarta, E. S., Santoso, H., & Hidayat, F. (2019). C-organik Tanah di Perkebunan Kelapa Sawit Sumatera Utara: Status dan Hubungan dengan Beberapa Sifat Kimia Tanah Soil Organic Carbon in North Sumatra Oil Palm Plantation: Status and Relation to Some Soil Chemical Properties. *Jurnal Tanah Dan Iklim* , *43*(2), 157–165.

Fiantis, D. (2018). *Morfologi dan Klasifikasi Tanah*. http://journal.um-surabaya.ac.id/index.php/JKM/article/view/2203

Frazão, L. A., Cardoso, P. H. S., Almeida Neta, M. N., Mota, M. F. C., Almeida, L. L. D. S., Ribeiro, J. M., Bicalho, T. F., & Feigl, B. J. (2021). Carbon and nitrogen stocks and organic matter fractions in the topsoil of traditional and agrisilvicultural systems in the Southeast of Brazil. *Soil Research*, *59*(8), 794–805. https://doi.org/10.1071/SR20150

Gao, X., Liu, X., Ma, L., & Wang, R. (2020). Root vertical distributions of two Artemisia species and their relationships with soil resources in the Hunshandake desert, China. *Ecology and Evolution*, *10*(6), 3112–3119. https://doi.org/10.1002/ece3.6135

Gautam, R. K., Navaratna, D., Muthukumaran, S., Singh, A., Islamuddin, & More, N. (2021). Humic Substances: Its Toxicology, Chemistry and Biology Associated with Soil, Plants and Environment. *Humic Substance [Working Title], October*. https://doi.org/10.5772/intechopen.98518

Gerke, J. (2022). The Central Role of Soil Organic Matter in Soil Fertility and Carbon Storage. *Soil Systems*, *6*(2). https://doi.org/10.3390/soilsystems6020033

UNIVERSITAS
GADJAH MADA
KERAGAMAN FRAKSI KARBON DAN NITROGEN, SERTA STOK KARBON ORGANIK TANAH PADA LAHAN DI BAWAH TEGAKAN BAMBU DAN NON BAMBU DI LERENG SELATAN GUNUNG MERAPI
Lintang Panjali Siwi Pambayun, Prof. Dr. Ir. Benito Heru Purwanto, M.P., M.Agr.;Prof. Dr. Ir. Sri Nuryani Hidayah Utar
Universitas Gadjah Mada, 2023 | Diunduh dari http://etd.repository.ugm.ac.id/

Gunadi, G., Juniarti, J., & Gusnidar, G. (2020). Hubungan Stok Karbon Tanah Dan Suhu Permukaan Pada Beberapa Penggunaan Lahan Di Nagari Padang Laweh Kabupaten Sijunjung. *Jurnal Solum*, *17*(1), 1. https://doi.org/10.25077/jsolum.17.1.1-11.2020

Handayani, S., & Karnilawati, K. (2018). Karakterisasi Dan Klasifikasi Tanah Ultisol Di Kecamatan Indrajaya Kabupaten Pidie. *Jurnal Ilmiah Pertanian*, *14*(2), 52–59. https://doi.org/10.31849/jip.v14i2.437

Herlambang, S., Maas, A., Nuryani, S., Utami, H., Pertanian, F., Yogyakarta, U. G. M., & Flora, J. (1997). *Karakterisasi asam humat dan asam fulvat pada ultisol dengan pemberian limbah segar organik dan pengalengan nenas*.

Huntingford, C., Burke, E. J., Jones, C. D., Jeffers, E. S., & Wiltshire, A. J. (2022). Nitrogen cycle impacts on CO2fertilisation and climate forcing of land carbon stores. *Environmental Research Letters*, *17*(4). https://doi.org/10.1088/1748-9326/ac6148

IPCC Climate Change. (2001). Climate Change 2001 "The Scientific Basic." In *Cambridge University Press*. https://doi.org/10.1016/S1058-2746(02)86826-4

Juhos, K., Madarász, B., Kotroczó, Z., Béni, Á., Makádi, M., & Fekete, I. (2021). Carbon sequestration of forest soils is reflected by changes in physicochemical soil indicators ─ A comprehensive discussion of a long-term experiment on a detritus manipulation. *Geoderma*, *385*(January). https://doi.org/10.1016/j.geoderma.2020.114918

Khorramdel, S., Shabahang, J., Ahmadzadeh Ghavidel, R., & Mollafilabi, A. (2019). Evaluation of Carbon Sequestration and Global Warming Potential of Wheat in Khorasan-Razavi province. *AgriTECH*, *38*(3), 330. https://doi.org/10.22146/agritech.28430

King, C., Van Der Lugt, P., Long, T. T., & Yanxia, L. (2021). *INBAR Working Paper Policy Brief Integration of Bamboo Forestry into Carbon Markets*. www.inbar.int.

Kopecký, M., Peterka, J., Kolář, L., Konvalina, P., Maroušek, J., Váchalová, R., Herout, M., Strunecký, O., Batt, J., & Tran, D. K. (2021). Influence of selected maize cultivation technologies on changes in the labile fraction of soil organic matter sandy-loam cambisol soil structure. *Soil and Tillage Research*, *207*(October 2020). https://doi.org/10.1016/j.still.2020.104865

Kusumawati, A., Hanudin, E., Purwanto, B. H., & Nurudin, M. (2020). Composition of organic C fractions in soils of different texture affected by sugarcane monoculture. *Soil Science and Plant Nutrition*, *66*(1), 206–213. https://doi.org/10.1080/00380768.2019.1705740

Kusumawati, A., Hanudin, E., Purwanto, B. H., & Nurudin, M. (2022). *Perubahan Sifat Tanah Akibat Penanaman Tebu Ratoon Jangka Panjang pada Tanah yang Berbeda Changes in Soil Properties Due to Long-Term Planting of Ratoon Sugarcane on Different*. *46*(2), 121–131.

Kwiatkowski, C. A., Pawłowska, M., Harasim, E., & Pawłowski, L. (2023). Strategies of Climate Change Mitigation in Agriculture Plant Production—A Critical Review. *Energies*, *16*(10), 1–27. https://doi.org/10.3390/en16104225

Lal, R. (2004). Soil carbon sequestration to mitigate climate change. *Geoderma*, *123*(1–2), 1–22. https://doi.org/10.1016/j.geoderma.2004.01.032

UNIVERSITAS
GADJAH MADA
KERAGAMAN FRAKSI KARBON DAN NITROGEN, SERTA STOK KARBON ORGANIK TANAH PADA LAHAN DI BAWAH TEGAKAN BAMBU DAN NON BAMBU DI LERENG SELATAN GUNUNG MERAPI
Lintang Panjali Siwi Pambayun, Prof. Dr. Ir. Benito Heru Purwanto, M.P., M.Agr.;Prof. Dr. Ir. Sri Nuryani Hidayah Utar
Universitas Gadjah Mada, 2023 | Diunduh dari http://etd.repository.ugm.ac.id/

Lal, R. (2005). Forest soils and carbon sequestration. *Forest Ecology and Management*, *220*(1–3), 242–258. https://doi.org/10.1016/j.foreco.2005.08.015

Lal, R. (2008). Carbon sequestration. *Philosophical Transactions of the Royal Society B: Biological Sciences*, *363*(1492), 815–830. https://doi.org/10.1098/rstb.2007.2185

Lal, R., Negassa, W., & Lorenz, K. (2015). Carbon sequestration in soil. *Current Opinion in Environmental Sustainability*, *15*(C), 79–86. https://doi.org/10.1016/j.cosust.2015.09.002

Lepcha, N. T., & Devi, N. B. (2020). Effect of land use, season, and soil depth on soil microbial biomass carbon of Eastern Himalayas. *Ecological Processes*, *9*(1). https://doi.org/10.1186/s13717-020-00269-y

Li, P., Zhou, G., Du, H., Lu, D., Mo, L., Xu, X., Shi, Y., & Zhou, Y. (2015). Current and potential carbon stocks in Moso bamboo forests in China. *Journal of Environmental Management*, *156*, 89–96. https://doi.org/10.1016/j.jenvman.2015.03.030

Liddicoat, C., Schapel, A., Davenport, D., & Dwyer, E. (2010). *PIRSA Discussion Paper Soil carbon and climate change Prepared by Rural Solutions SA For the Sustainable Systems Group, Agriculture, Food and Wine, Primary Industries and Resources SA Prepared by Rural Solutions SA, 2 PIRSA Sustainable Systems Group Ackno*. *June*.

Lu, X., Hou, E., Guo, J., Gilliam, F. S., Li, J., Tang, S., & Kuang, Y. (2021). Nitrogen addition stimulates soil aggregation and enhances carbon storage in terrestrial ecosystems of China: A meta-analysis. *Global Change Biology*, *27*(12), 2780–2792. https://doi.org/10.1111/gcb.15604

Lv, J., Shi, J., Wang, Z., Peng, Y., & Wang, X. (2023). Catena Effects of erosion and deposition on the extent and characteristics of organic carbon associated with soil minerals in Mollisol landscape. *Catena*, *228*(April), 107190. https://doi.org/10.1016/j.catena.2023.107190

Mangansige, C. T., Ai, N. S., & Siahaan, P. (2018). Panjang Dan Volume Akar Tanaman Padi Lokal Sulawesi Utara Saat Kekeringan Yang Diinduksi Dengan Polietilen Glikol 8000. *Jurnal MIPA*, *7*(2), 12. https://doi.org/10.35799/jm.7.2.2018.20618

Marriott, E. E., & Wander, M. M. (2006). Total and Labile Soil Organic Matter in Organic and Conventional Farming Systems. *Soil Science Society of America Journal*, *70*(3), 950–959. https://doi.org/10.2136/sssaj2005.0241

Martínez, J. M., Galantini, J. A., Duval, M. E., & López, F. M. (2017). Tillage effects on labile pools of soil organic nitrogen in a semi-humid climate of Argentina: A long-term field study. *Soil and Tillage Research*, *169*(3), 71–80. https://doi.org/10.1016/j.still.2017.02.001

Moore, J. M., Klose, S., & Tabatabai, M. A. (2000). Soil microbial biomass carbon and nitrogen as affected by cropping systems. *Biology and Fertility of Soils*, *31*(3–4), 200–210. https://doi.org/10.1007/s003740050646

Murtinah, V., Edwin, M., & Bane, O. (2006). *Dampak Kebakaran Hutan Terhadap Sifat Fisik dan Kimia Tanah di Taman Nasional Kutai, Kalimantan Timur*. *01*, 128–139.

UNIVERSITAS
GADJAH MADA
KERAGAMAN FRAKSI KARBON DAN NITROGEN, SERTA STOK KARBON ORGANIK TANAH PADA LAHAN DI BAWAH TEGAKAN BAMBU DAN NON BAMBU DI LERENG SELATAN GUNUNG MERAPI
Lintang Panjali Siwi Pambayun, Prof. Dr. Ir. Benito Heru Purwanto, M.P., M.Agr.;Prof. Dr. Ir. Sri Nuryani Hidayah Utar
Universitas Gadjah Mada, 2023 | Diunduh dari http://etd.repository.ugm.ac.id/

Nath, A. J., Das, G., & Das, A. K. (2009). Above ground standing biomass and carbon storage in village bamboos in North East India. *Biomass and Bioenergy*, *33*(9), 1188–1196. https://doi.org/10.1016/j.biombioe.2009.05.020

Okore, I. K., Tijani-Eniola, H., Agboola, A. A., & Aiyelari, E. A. (2007). Impact of land clearing methods and cropping systems on labile soil C and N pools in the humid zone Forest of Nigeria. *Agriculture, Ecosystems and Environment*, *120*(2–4), 250–258. https://doi.org/10.1016/j.agee.2006.09.011

Ontl, T. A., Cambardella, C. A., Schulte, L. A., & Kolka, R. K. (2015). Factors influencing soil aggregation and particulate organic matter responses to bioenergy crops across a topographic gradient. *Geoderma*, *255–256*, 1–11. https://doi.org/10.1016/j.geoderma.2015.04.016

Qian, Z., Sun, X., Gao, J., & Zhuang, S. (2021). Effects of bamboo (Phyllostachys praecox) cultivation on soil nitrogen fractions and mineralization. *Forests*, *12*(8), 1–15. https://doi.org/10.3390/f12081109

Rahmawati, A. (2011). Isolasi dan Karakterisasi Asam Humat dari Tanah Gambut. *Jurnal Phenomenon*, *2*(1), 117–136.

Ravn, N. R., Michelsen, A., & Reboleira, A. S. P. S. (2020). Decomposition of Organic Matter in Caves. *Frontiers in Ecology and Evolution*, *8*(October). https://doi.org/10.3389/fevo.2020.554651

Romansyah, E., Sinthia Dewi, E., Suhairin, S., Muanah, M., & Ridho, R. (2019). Identifikasi Senyawa Kimia Daun Bambu Segar Sebagai Bahan Penetral Limbah Cair. *Jurnal Agrotek Ummat*, *6*(2), 77. https://doi.org/10.31764/agrotek.v6i2.1219

Rosyidah, E., & Wirosoedarmo, R. (2013). Pengaruh Sifat Fisik Tanah Pada Konduktivitas Hidrolik. *Agritech*, *33*(3), 340–345.

Saidy, A. R. (2018). Bahan Organik Tanah: Klasifikasi, Fungsi dan Metode Studi. In *Lambung Mangkurat University Press*.

Saidy, A. R., Smernik, R. J., Baldock, J. A., Kaiser, K., & Sanderman, J. (2015). Microbial degradation of organic carbon sorbed to phyllosilicate clays with and without hydrous iron oxide coating. *European Journal of Soil Science*, *66*(1), 83–94. https://doi.org/10.1111/ejss.12180

Sandrawati, A., Marpaung, T., Devnita, R., Machfud, Y., & Arifin, M. (2019). Pengaruh Macam Bahan Organik terhadap Nilai pH, pH0, Retensi P dan P tersedia pada Andisol Asal Ciater. *SoilREns*, *16*(2). https://doi.org/10.24198/soilrens.v16i2.20861

Sanjaya, T. P., Syamsiyah, J., Ariyanto, D. P., & Komariah. (2014). Pelindian Unsur Kalium (K) dan Natrium (Na) Material Vulkanik Hasil Erupsi Gunung Merapi 2010. *Jurnal Ilmu Pertanian*, *39*(2), 87–95.

Santosa, E., & Widati, S. (2007). Estimasi C-Mikroba. In *Metode Analisis Biologi Tanah* (pp. 1–271).

Saptiningsih, E., & Haryanti, S. (2015). *KANDUNGAN SELULOSA DAN LIGNIN BERBAGAI SUMBER BAHAN ORGANIK SETELAH DEKOMPOSISI PADA TANAH LATOSOL*. *XXIII*, 34–42.

Schmid, I., & Kazda, M. (2002). Root distribution of Norway spruce in monospecific and mixed stands on different soils. *Forest Ecology and*

UNIVERSITAS GADJAH MADA
KERAGAMAN FRAKSI KARBON DAN NITROGEN, SERTA STOK KARBON ORGANIK TANAH PADA LAHAN DI BAWAH TEGAKAN
BAMBU DAN NON BAMBU DI LERENG SELATAN GUNUNG MERAPI
Lintang Panjali Siwi Pambayun, Prof. Dr. Ir. Benito Heru Purwanto, M.P., M.Agr.;Prof. Dr. Ir. Sri Nuryani Hidayah Utar
Universitas Gadjah Mada, 2023 | Diunduh dari http://etd.repository.ugm.ac.id/

Management, *159*(1–2), 37–47. https://doi.org/10.1016/S0378-1127(01)00708-3

Semenov, V. M., Lebedeva, T. N., & Pautova, N. B. (2019). Particulate Organic Matter in Noncultivated and Arable Soils. *Eurasian Soil Science*, *52*(4), 396–404. https://doi.org/10.1134/S1064229319040136

Sharifi, M., Zebarth, B. J., Burton, D. L., Grant, C. A., & Cooper, J. M. (2007). Evaluation of Some Indices of Potentially Mineralizable Nitrogen in Soil. *Soil Science Society of America Journal*, *71*(4), 1233–1239. https://doi.org/10.2136/sssaj2006.0265

Shi, J., Mao, S., Wang, L., Ye, X., Wu, J., Wang, G., Chen, F., & Yang, Q. (2021). Clonal integration driven by source-sink relationships is constrained by rhizome branching architecture in a running bamboo species (Phyllostachys glauca): A 15N assessment in the field. *Forest Ecology and Management*, *481*(November 2020), 118754. https://doi.org/10.1016/j.foreco.2020.118754

Sible, C. N., Seebauer, J. R., & Below, F. E. (2021). Plant biostimulants: A categorical review, their implications for row crop production, and relation to soil health indicators. *Agronomy*, *11*(7). https://doi.org/10.3390/agronomy11071297

Sijabat, L. M. T., Nurudin, M., Notohadisuwarno, S., & Utami, S. N. H. (2018). Labile carbon fraction, humic acid, and fulvic acid on organic and conventional farming of rice field in Imogiri and Berbah. *IOP Conference Series: Earth and Environmental Science*, *215*(1), 14–19. https://doi.org/10.1088/1755-1315/215/1/012005

Siringoringo, H. H. (2013). POTENSI SEKUESTRASI KARBON ORGANIK TANAH PADA PEMBANGUNAN HUTAN TANAMAN Acacia mangium Willd. *Jurnal Penelitian Hutan Dan Konservasi Alam*, *2013*(2), 193–213. https://doi.org/10.20886/jphka.2013.10.2.193-213

Siringoringo, H. H., Penelitian, P., Batu, J. G., & Box, P. (2014). *Peranan Penting Pengelolaan Penyerapan Karbon dalam Tanah*. *C*.

Sohel, M. S. I., Alamgir, M., Akhter, S., & Rahman, M. (2015). Carbon storage in a bamboo (Bambusa vulgaris) plantation in the degraded tropical forests: Implications for policy development. *Land Use Policy*, *49*, 142–151. https://doi.org/10.1016/j.landusepol.2015.07.011

Soil Survey Staff. (2014). Keys to soil taxonomy. *Soil Conservation Service*, *12*, 410. http://www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/nrcs142p2_051546.pdf

Song, X., Zhou, G., Jiang, H., Yu, S., Fu, J., Li, W., Wang, W., Ma, Z., & Peng, C. (2011). Carbon sequestration by Chinese bamboo forests and their ecological benefits: Assessment of potential, problems, and future challenges. *Environmental Reviews*, *19*(1), 418–428. https://doi.org/10.1139/a11-015

Soon, Y. K., Arshad, M. A., Haq, A., & Lupwayi, N. (2007). The influence of 12 years of tillage and crop rotation on total and labile organic carbon in a sandy loam soil. *Soil and Tillage Research*, *95*(1–2), 38–46. https://doi.org/10.1016/j.still.2006.10.009

Sootahar, M. K., Zeng, X., Su, S., Wang, Y., Bai, L., Zhang, Y., Li, T., & Zhang,

UNIVERSITAS GADJAH MADA
KERAGAMAN FRAKSI KARBON DAN NITROGEN, SERTA STOK KARBON ORGANIK TANAH PADA LAHAN DI BAWAH TEGAKAN BAMBU DAN NON BAMBU DI LERENG SELATAN GUNUNG MERAPI
Lintang Panjali Siwi Pambayun, Prof. Dr. Ir. Benito Heru Purwanto, M.P., M.Agr.;Prof. Dr. Ir. Sri Nuryani Hidayah Utar
Universitas Gadjah Mada, 2023 | Diunduh dari http://etd.repository.ugm.ac.id/

X. (2019). The effect of fulvic acids derived from different materials on changing properties of albic black soil in the Northeast Plain of China. *Molecules*, *24*(8), 1–12. https://doi.org/10.3390/molecules24081535

Stockmann, U., Adams, M. A., Crawford, J. W., Field, D. J., Henakaarchchi, N., Jenkins, M., Minasny, B., McBratney, A. B., Courcelles, V. de R. de, Singh, K., Wheeler, I., Abbott, L., Angers, D. A., Baldock, J., Bird, M., Brookes, P. C., Chenu, C., Jastrow, J. D., Lal, R., … Zimmermann, M. (2013). The knowns, known unknowns and unknowns of sequestration of soil organic carbon. *Agriculture, Ecosystems and Environment*, *164*(2013), 80–99. https://doi.org/10.1016/j.agee.2012.10.001

Sudomo, A., & Widiyanto, A. (2017). Produktifitas Serasah Sengon (Paraserianthes falcataria) dan Sumbangannya Bagi Unsur Kimia Makro Tanah. *Prosiding Seminar Nasional Geografi UMS 2017*, 561–569. https://publikasiilmiah.ums.ac.id/bitstream/handle/11617/9173/semnasgeo2017_49.pdf?sequence=1&isAllowed=y

Sugirahayu, L., & Rusdiana, O. (2011). Perbandingan Simpanan Karbon pada Beberapa Penutupan Lahan di Kabupaten Paser, Kalimantan Timur Berdasarkan Sifat Fisik dan Sifat Kimia Tanahnya. *Journal of Tropical Silviculture*, *2*(3), 149–155. https://journal.ipb.ac.id/index.php/jsilvik/article/view/5379

Sujarwo, W. (2016). Stand biomass and carbon storage of bamboo forest in Penglipuran traditional village, Bali (Indonesia). *Journal of Forestry Research*, *27*(4), 913–917. https://doi.org/10.1007/s11676-016-0227-0

Sumadiwanga, gusmailina dan suwardi. (1988). *ANALISIS KIMIA SEPULUH JENIS BAMBU DARI JAWA TIMUR* (Vol. 5, Issue 5).

Suprihatno, B., Hamidy, R., & Amin, B. (2012). Analisis Biomassa Dan Cadangan Karbon Tanaman Bambu Belangke (Gigantochloa pruriens). *Jornal of Enviromental Science*, *6*(1), 82–92. https://jil.ejournal.unri.ac.id/index.php/JIL/article/view/358

Suryani, I. (2014). Kapasitas Tukar Kation (KTK) Berbagai Kedalaman Tanah Pada Areal Konversi Lahan Hutan. *Jurnal Agrisistem*, *10*(2), 99–106.

Susilawati, -, Budhisurya, E., Anggono, R. C. W., & Simanjuntak, B. H. (2016). Analisis Kesuburan Tanah Dengan Indikator Mikroorganisme Tanah Pada Berbagai Sistem Penggunaan Lahan Di Plateau Dieng. *Agric*, *25*(1), 64. https://doi.org/10.24246/agric.2013.v25.i1.p64-72

Sutiyono, & Wardani, M. (2011). Karakteristik Tanaman Bambu Petung di Dataran Rendah di Daerah Subang, Jawa Barat. *Seminar Nasional VIII Pendidikan Biologi FKIP UNS*, 51–62.

Taroreh, F. L., Karwur, F., & Mangimbulude, J. (2016). Transformasi Nitrogen secara Biologis di Air Panas Sarongsong Kota Tomohon. *Prosiding Seminar Nasional Teknik Kimia Pengembangan Teknologi Kimia Untuk Pengolahan Sumber Daya Alam Indonesia*, *6*(3), 1–6. http://jurnal.upnyk.ac.id/index.php/kejuangan/article/view/1545/1418

Thakur, M. P., Milcu, A., Manning, P., Niklaus, P. A., Roscher, C., Power, S., Reich, P. B., Scheu, S., Tilman, D., Ai, F., Guo, H., Ji, R., Pierce, S., Ramirez, N. G., Richter, A. N., Steinauer, K., Strecker, T., Vogel, A., & Eisenhauer, N.

UNIVERSITAS
GADJAH MADA
KERAGAMAN FRAKSI KARBON DAN NITROGEN, SERTA STOK KARBON ORGANIK TANAH PADA LAHAN DI BAWAH TEGAKAN BAMBU DAN NON BAMBU DI LERENG SELATAN GUNUNG MERAPI
Lintang Panjali Siwi Pambayun, Prof. Dr. Ir. Benito Heru Purwanto, M.P., M.Agr.;Prof. Dr. Ir. Sri Nuryani Hidayah Utar
Universitas Gadjah Mada, 2023 | Diunduh dari http://etd.repository.ugm.ac.id/

(2015). Plant diversity drives soil microbial biomass carbon in grasslands irrespective of global environmental change factors. *Global Change Biology*, *21*(11), 4076–4085. https://doi.org/10.1111/gcb.13011

USDA-NRCS. (2014). Soil Health - Organic matter. *Soil Health, May 2014*. http://www.soilhealth.com/soil-health/organic/#one

Venkanna, K., Mandal, U. K., Solomon Raju, A. J., Sharma, K. L., Adake, R. V., Pushpanjali, Sanjeeva Reddy, B., Masane, R. N., Venkatravamma, K., & Peda Babu, B. (2014). Carbon stocks in major soil types and land-use systems in semiarid tropical region of southern India. *Current Science*, *106*(4), 604–611.

Wang, H., Boutton, T. W., Xu, W., Hu, G., Jiang, P., & Bai, E. (2015). Quality of fresh organic matter affects priming of soil organic matter and substrate utilization patterns of microbes. *Scientific Reports*, *5*(May), 1–13. https://doi.org/10.1038/srep10102

Wang, J., & Sainju, U. M. (2014). Soil carbon and nitrogen fractions and crop yields affected by residue placement and crop types. *PLoS ONE*, *9*(8). https://doi.org/10.1371/journal.pone.0105039

Wang, Y., Shao, M., Zhang, C., Liu, Z., Zou, J., & Xiao, J. (2015). Soil organic carbon in deep profiles under Chinese continental monsoon climate and its relations with land uses. *Ecological Engineering*, *82*, 361–367. https://doi.org/10.1016/j.ecoleng.2015.05.004

Watansen, S., Sudarmadji, Sugiharto, E., & Suprayogi, S. (2012). *DAMPAK TRANSFORMASI NITROGEN TERHADAP LINGKUNGAN BOTIK DI DANAU TONDANO PROVINSI SULAWESI UTARA* (pp. 143–149).

Wijanarko, A., & Purwanto, B. H. (2017). Effect of land use and organic matter on nitrogen and carbon labile fractions in a Typic Hapludult. *Journal of Degraded and Mining Lands Management*, *04*(03), 837–843. https://doi.org/10.15243/jdmlm.2017.043.837

Wong, M. T. F., & Swift, R. S. (2001). Application of fresh and humified organic matter to ameliorate soil acidity. *Understanding and Managing Organic Matter in Soils, Sediments, and Waters*, *August*, 235–242.

Wu, W., Chen, G., Meng, T., Li, C., Feng, H., Si, B., & Siddique, K. H. M. (2023). Effect of different vegetation restoration on soil properties in the semi-arid Loess Plateau of China. *Catena*, *220*(PA), 106630. https://doi.org/10.1016/j.catena.2022.106630

Wulaningsih, T., Humaida, H., Harijoko, A., & Watanabe, K. (2013). Major Element and Rare Earth Elements Investigation of Merapi Volcano, Central Java, Indonesia. *Procedia Earth and Planetary Science*, *6*(1949), 202–211. https://doi.org/10.1016/j.proeps.2013.01.027

Xiao, L., Li, C., Cai, Y., Zhou, T., Zhou, M., Gao, X., Shi, Y., Du, H., Zhou, G., & Zhou, Y. (2021). Interactions between soil properties and the rhizome-root distribution in a 12-year Moso bamboo reforested region: Combining ground-penetrating radar and soil coring in the field. *Science of the Total Environment*, *800*, 149467. https://doi.org/10.1016/j.scitotenv.2021.149467

Xing, T. ting, Cai, A. dong, Lu, C. ai, Ye, H. ling, Wu, H. liang, Huai, S. chang, Wang, J. yu, Xu, M. gang, & Lin, Q. mei. (2022). Increasing soil microbial biomass nitrogen in crop rotation systems by improving nitrogen resources

UNIVERSITAS
GADJAH MADA
KERAGAMAN FRAKSI KARBON DAN NITROGEN, SERTA STOK KARBON ORGANIK TANAH PADA LAHAN DI BAWAH TEGAKAN BAMBU DAN NON BAMBU DI LERENG SELATAN GUNUNG MERAPI
Lintang Panjali Siwi Pambayun, Prof. Dr. Ir. Benito Heru Purwanto, M.P., M.Agr.;Prof. Dr. Ir. Sri Nuryani Hidayah Uta
Universitas Gadjah Mada, 2023 | Diunduh dari http://etd.repository.ugm.ac.id/

under nitrogen application. *Journal of Integrative Agriculture*, *21*(5), 1488–1500. https://doi.org/10.1016/S2095-3119(21)63673-0

Yang, L., Liu, W., Jia, Z., Li, P., Wu, Y., Chen, Y., Liu, C., Chang, P., & Liu, L. (2022). Land-use change reduces soil nitrogen retention of both particulate and mineral-associated organic matter in a temperate grassland. *Catena*, *216*(PB), 106432. https://doi.org/10.1016/j.catena.2022.106432

Yiping, L., Yanxia, L., Buckingham, K., Henley, G., & Guomo, Z. (2010). Bamboo and Climate Change. *Technical Report*, *January*.

Zhang, L., Chen, X., Xu, Y., Jin, M., Ye, X., Gao, H., Chu, W., Mao, J., & Thompson, M. L. (2020). Soil labile organic carbon fractions and soil enzyme activities after 10 years of continuous fertilization and wheat residue incorporation. *Scientific Reports*, *10*(1), 1–10. https://doi.org/10.1038/s41598-020-68163-3

Zhou, D., Zhao, S. Q., Liu, S., & Oeding, J. (2013). A meta-analysis on the impacts of partial cutting on forest structure and carbon storage. *Biogeosciences*, *10*(6), 3691–3703. https://doi.org/10.5194/bg-10-3691-2013

Zul, D., Fibriarti, B. L., Yunita, M., & Halimah, S. (2013). Dampak Alih Fungsi Lahan Terhadap Biomassa Mikroba : Studi Kasus di Areal Bukit Batu , Riau. *Prosiding Semirata FMIPA Universitas Lampung*, 173–179.