

DAFTAR PUSTAKA

- Adha, I., A. Kurniasih, H. Nugroho, P. Rachwibowo. 2018. Kajian analisis sesar di Perbukitan Jiwo Barat, Kecamatan Bayat, Kabupaten Klaten, Jawa Tengah. *Jurnal Geosains dan Teknologi* Vol. 1(1): 8 – 18.
- Afu, S.M., Isong, I.A., Olim, D.M., Oruk, O.E., Aaron, M.E., Heung, B., K. John., 2024. The nexus of clay mineralogy and soil fertility under diverse parent materials in two distinct geomorphological settings. *Environmental Earth Sciences* 83: 653.
- Akhilraj, T.M., S.S. Inamati, Sneha S. Kambli, D. Soman, R. Vasudeva. 2023. Growth performance of mahogany (*swietenia macrophylla*) under different soil types in northern region of karnataka. *Indian Journal of Ecology*. 50(5): 1712-1715.
- Alfyan, M. F., N. I. Setiawan. 2014. Petrogenesis batuan metamorf di daerah Perbukitan Jiwo, Kecamatan Bayat, Kabupaten Klaten, Provinsi Jawa Tengah. Prosiding pada Seminar Nasional “Seminar Nasional Kebumihan Ke-7 dan Simposium Pendidikan Geologi Nasional”, Yogyakarta, 14 Oktober 2014.
- An, J., F. Zheng, X. Zhang. 2014. Effects of soil texture on runoff and sediment yield in the Loess Plateau. *Catena* Vol. 116: 1–12. An, X., K. Zhang, D. Xiong, Q. Zhang. 2014. Laboratory examination of rainwater runoff and particle transport from sandy soils. *Catena* Vol. 116: 81–88.
- Azmi, C. U., Zuraida, T. Arabia. 2022. Beberapa sifat kimia Inceptisol yang disawahkan satu dan dua kali setahun di Kecamatan Linge Kabupaten Aceh Tengah. *Jurnal Ilmiah Mahasiswa Pertanian* Vol. 7(3): 467–476.
- Brady, N. C. (2017). *The nature and properties of soils* (15th ed.). Pearson Education.
- Bronto, S. 2010. Identifikasi gunung api purba pendul di Perbukitan Jiwo, Kecamatan Bayat, Kabupaten Klaten, Jawa Tengah. *Jurnal Geologi dan Sumberdaya Mineral* Vol. 20(1): 3–13
- Calabrese, S., D. D. Richter, A. Porporato. 2018. The formation of clay-enriched horizons by lessivage. *Geophysical Research Letters* Vol. 45(15): 7588–7596.
- Carvalho, T. R. R. D., M. F. Leão, E. A. G. Marques. 2020. Characterization of phyllite weathering profiles developed under tropical climate on Quadrilátero Ferrífero region, MG, Brazil. *Journal of South American Earth Sciences*, 103, 102727.
- Certini, G., R. Scalenghe. 2023. The crucial interactions between climate and soil. *Science of the Total Environment* Vol. 856: 1–12
- Chanan, M., F. A. C. Wibowo, A. L. Nidha. 2022. Keseimbangan hara makro tegakan jati (*Tectona grandis* L.f.) dengan metode DRIS. *Jurnal Penelitian Hutan Tanaman* Vol. 19(1): 1 – 9.
- De Mastro, F., A. Traversa, C. Cocozza, M. Pallara, G. Brunetti. 2020. Soil Organic Carbon Stabilization: Influence of Tillage on Mineralogical and Chemical Parameters. *Soil Systems*, 4(3) : 1–14.
- Dhaliwal, S.S., Dubey, S.K., Kumar, D., Toor, A.S., Walia, S.S., Randhawa, M.K., Kaur, G., S. K. Brar. P. A. Khambalkar., Y. S. Shivey. 2024. Enhanced Organic Carbon Triggers Transformations of Macronutrients, Micronutrients, and Secondary Plant Nutrients and Their Dynamics in the Soil under Different Cropping Systems-A Review. *Journal of Soil Science and Plant Nutrition* 24: 5272–5292.

- Eviati, E., S. Sulaeman, L. Herawaty, L. Anggria, U. Usman, H. E. Tantika, R. Prihatini, P. Wuningrum. 2023. Petunjuk Teknis Edisi 3: Analisis Kimia Tanah, Tanaman, Air, dan Pupuk. Balai Pengujian Standar Instrumen Tanah dan Pupuk: Bogor
- Fajeriana, N., M. A. A. Gafur. 2023. Alfisol soil fertility before planting and after harvest as melon planting media with bioboost fertilization. *Jurnal Penelitian Pertanian Terapan* Vol. 23(1): 73–80.
- Fan, H., S. Sun, H. Le, F. Zhu, W. Wang, Y. Liu, J. Wang. 2020. An Experimental and Numerical Study of Diorite-Porphyrates With Different Weathered Degree in the Direct Shear Test. *Frontiers in Earth Science*, 7, 352:1 – 13.
- García-Díaz, A., M. J. Marqués, B. Sastre, R. Bienes. 2018. Labile and stable soil organic carbon and physical improvements using groundcovers in vineyards from central Spain. *Science of The Total Environment*, 621, 387–397.
- Ghani, A., K. Müller, J. Rother. 2019. Soil organic matter dynamics in calcareous soils under different land uses. *Geoderma* Vol. 337: 111–121.
- Han, T., A. Cai, K. Liu, J. Huang, B. Wang, D. Li, M. Qaswar, G. Feng, H. Zhang. 2019. The links between potassium availability and soil exchangeable calcium, magnesium, and aluminum are mediated by lime in acidic soil. *Journal of Soils and Sediments*, 19(3), 1382–1392.
- Hartosuwarno, S., J. Soesilo, B. T. Wibowo, H. Hamdalah, A. Majid, S. A. N. Shabrina. 2021. Karakteristik dan pembentukan batuan beku di Pegunungan Jiwo, Bayat, Jawa Tengah. *Jurnal Mineral, Energi, dan Lingkungan* Vol. 4(2): 18.
- Huang, L.-M., X.-H. Zhang, M.-A. Shao. 2016. Pedogenesis significantly decreases the stability of water-dispersible soil colloids in a humid tropical region. *Geoderma* Vol. 274: 45–53.
- Huang, M., J. Lan, S. Wang, J. Wang, X. Qi, L. Liu, K. Yue. 2024. Effects of soil exchangeable calcium in promoting the accumulation of soil organic carbon by karst vegetation restoration. *Journal of Soil Science and Plant Nutrition* Vol. 24: 843 – 854.
- Katili, H. A. 2025. Spatial distribution of nutrients to determine soil fertility in mixed farming based on geostatistical kriging. *Journal of Degraded and Mining Lands Management*. Vol. 12(3): 7723 - 7738.
- Kautsar, V., K. Faizah, A. I. Uktoro. 2024. Soil color comparison using munsell color chart and calibrated smartphone camera. *Teknotan* Vol. 18(1): 13–20
- Kurniasih, A., I. Adha, H. Nugroho, P. Rachwibowo. 2018. Petrogenesis batuan metamorf di Perbukitan Jiwo Barat, Bayat, Klaten, Jawa Tengah. *Jurnal Geosains dan Teknologi* Vol. 1(1): 1–7.
- Kurniawati. 2024. Pengaruh berbagai jenis tanah dengan berbagai faktor-faktor pembentuk yang berbeda terhadap lingkungan. Vol. 1(2): 41 - 48.
- Ladjinga, E., I. A. Rachman, L. Ishak, S. Robo, F. Fataha. 2025. Variasi tingkat perkembangan tanah berdasarkan ordo tanah di Kelurahan Moti Kota, Kota Ternate, Indonesia. *Cannarium* Vol. 23(1): 9–25.
- Liau, M., J. Low, K. H. Lee, T. B. Lim. 2025. Instrumental color determination of local soils and its variation with elemental profiles. *Forensic Chemistry* Vol. 43: 100644.

- Lourenço, I. B., L. F. Guimarães, M. B. Alves, M. G. Miguez. 2020. Land as a sustainable resource in city planning: The use of open spaces and drainage systems to structure environmental and urban needs. *Journal of Cleaner Production* Vol. 276: 1–19.
- Maharani, N. 2024. Indeks pelapukan tanah pada berbagai jenis tanah yang berasal dari berbagai jenis batuan di sebelah Barat Sungai Dengkeng, Bayat, Klaten. Fakultas Pertanian, Universitas Gadjah Mada. Yogyakarta. Skripsi
- Navarro-Hasse, E., C. Yáñez, A. Neaman, D. Pinochet. 2023. The effects of parent rock on soil clay mineralogy and soil physicochemical properties: A review. *Idesia (Arica)*, 41(4), 125 – 139.
- Neina, D. 2019. The role of soil organic matter in soil health and food security. *Soil Systems* Vol. 3(4): 1 – 14.
- Nóbrega, G. N., M. F. V. Santos, R. S. A. Nóbrega, E. S. D. Vasconcellos. 2023. Masked diversity and contrasting soil processes in tropical environments. *SOIL* Vol. 9: 445 – 464.
- Nurhuda, M., M. Inti, E. Nurhidayat, D. J. Anggraini, A. M. Rokim, I. R. Setyaningsih, N. C. Setiawan, Y. Wicaksana, Y. Maryani. 2021. Kajian struktur tanah rizosfer tanaman kacang hijau dengan perlakuan pupuk kandang dan kascing. *Jurnal Pertanian Agros* Vol. 23(1): 35 – 43.
- Nurza, I. S. A., P. I. Nursari, A. Zakhyana, M. Suryadi, N. Purnamasari, F. M. Khofifi, M. R. Wafyan, R. W. Noviyanti, N. Andreas. 2020. Uji kelayakan tanah terhadap penanaman tanaman pisang, singkong, dan ubi jalar di daerah sekitar villa silma Kecamatan Cilember Kabupaten Bogor. *Risenologi (Jurnal Sains, Teknologi, Sosial, Pendidikan, dan Bahasa)* 5(2): 26 – 31.
- Oktapiani, T., B. Widiarso, U. E. Suryadi. 2024. Kajian sifat fisika tanah Inceptisols pada tiga penggunaan lahan di Desa Semadin Lengkong Kabupaten Melawi. *Jurnal Sains Pertanian Equator* Vol. 13(2): 525.
- Ouallali, A., N. Bouhsane, S. Bouhlassa, V. Spalevic, S. Kader, R. Michael, P. Setras. 2024. Exploring soil pedogenesis through frequency-dependent magnetic susceptibility in varied lithological environments. *Euro-Mediterranean Journal for Environmental Integration* 10: 887 – 900.
- Ouyang, N., Y. Zhang, H. Sheng, Q. Zhou, Y. Huang, Z. Yu. 2021. Clay mineral composition of upland soils and its implication for pedogenesis and soil taxonomy in subtropical China. *Scientific Reports*, 11(1): 9707.
- Putra, D. P. E., D. Halim, S. S. Widagdo, R. R. S. Atmaja. 2020. Degradation of groundwater quality due to the occurrence of saltytasted water in Bayat District, Klaten, Central Java, Indonesia. *Journal Of Degraded and Mining Lands Management* Vol. 8(1): 2525 – 2536.
- Putri, I. I., E. Nurjani. 2018. Persepsi dan adaptasi petani padi lahan kering di Klaten terhadap variabilitas curah hujan. *Jurnal Bumi Indonesia* Vol. 7(3): 1 – 12.
- Putri, R. N., E. L. Pradita, S. Andari, W. Kurniawati. 2024. Pengaruh berbagai jenis tanah dengan berbagai faktor-faktor pembentuk yang berbeda terhadap lingkungan. Vol. 1(2): 41 - 48.

- Rahmawati, D., D. H. Barianto, W. Rahardjo. 2022. Analisis mikrofasis batugamping Formasi Wungkal-Gamping jalur Padasan, Gunung Gajah, Bayat, Klaten, Jawa Tengah. *Jurnal Teknik Geologi* Vol. 5(1): 1.
- Ran, C., M. Zhao, X. Huang, S. He, Y. Zhang. 2023. Threat of soil formation rate to health of karst ecosystems. *Science of the Total Environment* Vol. 894: 165116.
- Ratnasari, N., B. Susilo. 2017. Kajian keterkaitan toponim dengan karakteristik wilayah di Kecamatan Bayat, Kabupaten Klaten, Provinsi Jawa Tengah. *Jurnal Bumi Indonesia* Vol. 6(3): 1–10.
- Regasa, A., W. Haile, G. Abera. 2025. Variation in soil acidity across different land uses, soil types and altitudinal gradients in Western Oromia, Ethiopia. *Scientific Reports* 15: 31565.
- Rumeon, I., J. M. Matinahoru, M. H. Hadijah. 2023. Pengaruh jenis tanah bermikoriza terhadap pertumbuhan semai Samama (*Neolamarckia macrophylla* (Roxb.) Bosser) di persemaian. *MAKILA* Vol. 17(2): 163–176.
- Ruppel, O.C. 2022. Overview of international soil law. *Soil Security* 6: 1 – 6.
- Safitri, I. N., T. C. Setiawati, C. Bowo. 2018. Biochar dan kompos untuk peningkatan sifat fisika tanah dan efisiensi penggunaan air. *TECHNO: Jurnal Penelitian* Vol. 7(1): 116.
- Sahrawat, K. L. 2017. Importance of soil pH in nutrient availability and crop productivity in tropical soils. *Communications in Soil Science and Plant Analysis* Vol. 48(8): 957 – 966.
- Sarah, S., A. B. Baharuddin, B. Bustan. 2024. Sebaran nilai kapasitas tukar kation (k_{tk}) dan kemasaman (pH) tanah di tanah vertisol Kecamatan Sakra Kabupaten Lombok Timur. *Journal of Soil Quality and Management* Vol. 3(1): 1–6.
- Sholikah, D. H., S. S. Bratawijaya, A. J. Husada, R. Naufal, K. S. Wicaksono, S. Soemarno. 2024. Studi karakteristik fisika tanah zona perakaran dan produksi tanaman kopi (*Coffea* sp.) di Kecamatan Wajak, Kabupaten Malang. *Jurnal Ilmu Lingkungan* Vol. 22(3): 731 – 742.
- Soil Survey Staff. 2014. *Keys to Soil Taxonomy* (12th ed.). USDA-NRCS. Soil Survey Staff. 2014. *Keys to Soil Taxonomy Twelfth Edition*. United States Department of Agriculture National Resources Conservation Service, USA
- Sukarman, S., S. Ritung, M. Anda, E. Suryani. 2017. *Pedoman Pengamatan Tanah di Lapangan*. Badan Penelitian dan Pengembangan Pertanian, Kementerian Pertanian, Jakarta.
- Sun, Z. X., Y. Y. Jiang, Q. B. Wang, P. R. Owens. 2018. Geochemical characterization of the loess-paleosol sequence in northeast China. *Geoderma*, 321, 127–140.
- Sutarto, J. Soesilo, B. T. Wibowo, H. Hamdalah. 2020. *Atlas Batuan Pegunungan Jiwo Bayat, Kabupaten Klaten Jawa Tengah*. LPPM Universitas Pembangunan Nasional “Veteran” Yogyakarta, Yogyakarta.
- Tuas, M. A., K. T. P. Raharjo, O. B. Kapitan. 2022. Identifikasi sifat kimia tanah Entisol di lahan kering Desa Sekon Kecamatan Insana Kabupaten Timor Tengah Utara – NTT. *Jurnal BETA (Biosistem dan Teknik Pertanian)* Vol. 10(2): 396.
- Ulfa, N., Y. Yulnafatmawita, A. Rasyidin. 2024. Kajian sifat fisika tanah pada beberapa umur tanaman kelapa sawit (*Elaeis guineensis* Jacq.) rakyat di Nagari Ladang

- Panjang Kabupaten Pasaman, Sumatera Barat. *Jurnal Agrikultura* Vol. 35(2): 365–376.
- Umanailo, I., R. G. Risamasu, F. Puturuhu, M. Luhukay. 2025. Analisis perbandingan indeks kemiripan tanah pada toposekuens granit Gunung Sirimau di Kota Ambon. *Jurnal Pertanian Kepulauan*: Vol.9(2): 106 – 117.
- Vierra, E. J., H. Webb, G. H. Girty. 2018. Unravelling the development of a spheroidally weathered diorite-gabbro, Santa Margarita Ecological Reserve, Peninsular Ranges, Southern California, USA. *Catena* Vol. 163: 297–310.
- Wang, Y., M. Liu, Y. Chen, T. Zeng, X. Lu, B. Yang, Y. Wang, L. Zhang, X. Nie, F. Xiao, Z. Zhang, J. Sun. 2021. Plants and microbes mediate the shift on ecosystem multifunctionality from low to high patterns across alpine grasslands on the Tibetan Plateau. *Frontiers in Plant Science* Vol. 12: 1–11.
- Wanudara, W. P. 2024. Indeks pelapukan tanah pada berbagai jenis tanah yang berasal dari berbagai jenis batuan di sebelah Timur Sungai Dengkeng, Bayat, Klaten. Fakultas Pertanian, Universitas Gadjah Mada. Yogyakarta. Skripsi
- Wilson, M. J. 2019. The importance of parent material in soil classification: A review in a historical context. *Geoderma* Vol. 333: 100–114.
- Winarno, T., A. Kurniasih, J. Marin, I. A. Kusuma. 2017. Identifikasi jenis dan karakteristik lempung di Perbukitan Jiwo, Bayat, Klaten dan arahannya sebagai bahan galian industri. *Jurnal Teknik* Vol. 38(2): 65–70
- Yan, T., J. Xue. 2024. A vulnerable soil environment study in karst areas: A bibliometric analysis. *Frontiers in Environmental Science* Vol. 12: 1418913.
- Yu, Z., H. Y. H. Chen, E. B. Searle, J. Sardans, P. Ciais, J. Peñuelas, Z. Huang. 2020. “Whole Soil Acidification and Base Cation Reduction across Subtropical China.” *Geoderma* 361: 114107.
- Zacháry, D., T. Filep, G. Jakab, M. Ringer, R. Balázs, T. Németh, Z. Szalai. 2023. The effect of mineral composition on soil organic matter turnover in temperate forest soils. *Journal of Soils and Sediments* 23: 1389–1402.
- Zhang, J., X. Qu, X. Song, Y. Xiao, A. Wang, D. Li. 2023. Spatial variation in soil base saturation and exchangeable cations in tropical and subtropical China. *Agronomy* Vol. 13(781): 1–18
- Zhang, L., Q. Huang, Z. Wang. 2025. Leaching dynamics of base cations in carbonate-derived soils under varying pH conditions. *Soil Science Society of America Journal* Vol. 89(2): 345–359.