

## DAFTAR PUSTAKA

- Ajidirman. 2010. *Kajian Kandungan Mineral Alofan Dan Fenomena Fiksasi Fosfor Pada Andisols*. 15–20.
- Bohling, G. 2005. Introduction To Geostatistics and Variogram Analysis. *Religion and the Arts*, 5(1–2), 2–12. <https://doi.org/10.1163/156852901753498098>
- Charter, D., dan Agtrisari, I. 2002. *Desain dan Aplikasi Geographics Information Systems*. PT. Elex Media Komputindo Kelompok Gramedia. Jakarta.
- Cressie, N. A. C. 1993. *Statistics for Spatial Data*. John Wiley & Sons, Inc., New York.
- Darmawijaya, I. 1980. *Klasifikasi Tanah. Dasar Teori Baru Penelitian Tanah dan Pelaksanaan Pertanian di Indonesia*. Balai Penelitian Tanah dan Kimia Gambung. Bandung.
- Dharumarajan, S., Kalaiselvi, B., Suputhra, A., Lalitha, M., Vasundhara, R., Kumar, K. S. A., Nair, K. M., Hegde, R., Singh, S. K., and Lagacherie, P. 2021. Digital soil mapping of soil organic carbon stocks in Western Ghats, South India. *Geoderma Regional*, 25, e00387. <https://doi.org/10.1016/j.geodrs.2021.e00387>
- Fauzi, I., dan Hariyadi, E. S. 2018. Analisis Geostatistik dalam Menentukan Keseragaman Nilai Kepadatan Tanah Dasar. *Jurnal Teknik Sipil*, 25(3), 195. <https://doi.org/10.5614/jts.2018.25.3.4>
- Fiantis, D. 2003. *Modul Sistem Informasi Geografis*. Fakultas Pertanian Universitas Andalas, Padang.
- Fiantis, D. 2006. Laju Pelapukan Kimia Debu Vulkanis Gunung Talang dan Pengaruhnya Terhadap Proses Pembentukan Mineral Liat Non-Kristalin. *Universitas Andalas, Padang*, 43 hal.
- Fiantis, D., Ginting, F. I., Gusnidar, Nelson, M., and Minasny, B. 2019. Volcanic Ash, insecurity for the people but securing fertile soil for the future. *Sustainability (Switzerland)*, 11(11). <https://doi.org/10.3390/su11113072>
- Foth. 1994. *Ilmu Tanah*. Gadjah Mada University : Yogyakarta. 374 Hal
- Gunawan, H., Surono, Budianto, A., Kristianto, Prambada, O., McCausland, W., Pallister, J., and Iguchi, M. 2019. Overview of the eruptions of Sinabung Volcano, 2010 and 2013–present and details of the 2013 phreatomagmatic phase. *Journal of Volcanology and Geothermal Research*, 382, 103–119. <https://doi.org/10.1016/j.jvolgeores.2017.08.005>
- Harahap, I. 2007. Kajian Sifat Kimia Tanah Vulkanis Pasca Erupsi Gunung Talang 12 April 2005 Di Aie Batumbuk Kecamatan Gunung Talang Kabupaten Solok. [Skripsi] *Universitas Andalas : Padang*.
- Hikmatullah, H. 2017. Sifat-Sifat Tanah Yang Berkembang Dari Bahan Vulkan Di Halmahera Barat, Maluku Utara. *Jurnal Ilmu-Ilmu Pertanian Indonesia*, 12(1), 40–48. <https://doi.org/10.31186/jipi.12.1.40-48>

- Indrastuti, N., Nugraha, A. D., McCausland, W. A., Hendrasto, M., Gunawan, H., Kusnandar, R., Kasbani, and Kristianto. 2019. 3-D Seismic Tomographic study of Sinabung Volcano, Northern Sumatra, Indonesia, during the inter-eruptive period October 2010–July 2013. *Journal of Volcanology and Geothermal Research*, 382, 197–209. <https://doi.org/10.1016/j.jvolgeores.2019.03.001>
- Khusrizal, Basyaruddin, Rambe, R. D. H., dan Setiawan, I. 2018. Study of mineralogy composition, total, and exchangable content of k, ca, and mg of volcanic ash from sinabung mountain eruption in north Sumatera, Indonesia. *Emerald Reach Proceedings Series*, 1, 199–207. <https://doi.org/10.1108/978-1-78756-793-1-00029>
- Lubis, R. L., Juniarti, Rajmi, S. L., Armer, A. N., Hidayat, F. R., Zulkhakim, H., Yulanda, N., Syukri, I. F., and Fiantis, D. 2021. Chemical properties of volcanic soil after 10 years of the eruption of Mt. Sinabung (North Sumatera, Indonesia). *IOP Conference Series: Earth and Environmental Science*, 757(1). <https://doi.org/10.1088/1755-1315/757/1/012043>
- Munadi, S. 2005. *Pengantar Geostatistik*. Jakarta: Universitas Indonesia.
- Nguemezi, C., Tematio, P., Yemefack, M., Tsozue, D., and Silatsa, T. B. F. 2020. Soil quality and soil fertility status in major soil groups at the Tombel area, South-West Cameroon. *Heliyon*, 6(2). <https://doi.org/10.1016/j.heliyon.2020.e03432>
- Prahasta, E. 2002. *Konsep-konsep Dasar Sistem Informasi Geografi*. Informatika Bandung. Bandung.
- Pratomo, I. 2006. Klasifikasi gunung api aktif Indonesia, studi kasus dari beberapa letusan gunung api dalam sejarah. *Indonesian Journal on Geoscience*, 1(4), 209–227. <https://doi.org/10.17014/ijog.vol1no4.20065>
- Schmidth, F.H., and J.H.A Ferguson. 1951. *Rainfall Type Based on Wet and Dry Period Ratio for Indonesia With Western New Gurinea*. Djawatan Meteorologi dan Geofisika. Jakarta 42-77.
- Shoji, S., Nanzyo, M., and Dahlgren, R. 2013. volcanic ash soils. In *Africa's potential for the ecological intensification of agriculture* (Vol. 53, Issue 9, pp. 1689–1699).
- Shoji, S., and Takahashi, T. 2002. Environmental and agricultural significance of volcanic ash soils. *Global Environmental Research-English Edition*, 6(2), 113–135. [http://www.airies.or.jp/attach.php/6a6f75726e616c5f30362d32656e67/save/0/0/06\\_2-12.pdf](http://www.airies.or.jp/attach.php/6a6f75726e616c5f30362d32656e67/save/0/0/06_2-12.pdf)
- Sihaloho, N. K. 2021. *KAJIAN SIFAT KIMIA TANAH PADA LAHAN TERDAMPAK ABU VULKANIK GUNUNG SINABUNG*. 5(1), 57–66.
- Simanjuntak, C. M., Elfiati, D., Kehutanan, S., Pertanian, F., dan Utara, U. S. 2015. Dampak Erupsi Gunung Sinabung Terhadap Sifat Kimia Tanah Di Kabupaten Karo. *Peronema Forestry Science Journal*, 4(4), 53–58.

- Staff, S. S. 2010. *Soil Taxonomi*. USDA-NRCS, agriculture handbook No.436.
- Sudaryo, dan Sutjipto. 2009. *Identifikasi dan Penentuan Logam Pada Tanah Vulkanik Di Daerah Cangkringan Kabupaten Sleman*. November, 715–722.
- Sukarman, dan Dariah, A. 2014. Tanah Andosol di Indonesia: Karakteristik, Potensi, Kendala, dan Pengelolaannya untuk Pertanian. In *Balai Besar Penelitian dan Pengembangan Sumberdaya Lahan Pertanian, Kementerian Pertanian* (Issue 12).
- Sulistiyana, W. 1998. *Kriging Indikator Sebagai Metoda Alternatif Untuk Penaksiran Kadar Bijih Secara Geostatistik*. Prosiding Temu Ilmiah dan Reuni 1998 Jurusan Teknik Pertambangan UPN, Yogyakarta.
- Sutanto, R. 2005. *Dasar-dasar Ilmu Tanah*. Konsep dan Kenyataan. Kanisius : Yogyakarta
- Van Reeuwijk, L.P. 1992. Procedures for soil analysis. *technical paper, international soil reference and information centre, Wageningen, The Netherlands*. 4 th ed. p.100.
- Wahyuni, E. T., Triyono, S., and Suherman. 2012. Determination of Chemical Composition of Volcanic Ash from Merapi Mt. Eruption. *Jurnal Manusia Dan Lingkungan*, 19(2), 150–159. <https://doi.org/10.22146/jml.18531>
- Webster, R., and Burgess, T. M. 1980. Optimal Interpolation and Isarithmic Mapping of Soil Properties Iii Changing Drift and Universal Kriging. *Journal of Soil Science*, 31(3), 505–524. <https://doi.org/10.1111/j.1365-2389.1980.tb02100.x>
- Webster, R., and Margaret, A. O. 1990. *Geostatistical For Enviromental Scientist*. Second Edition. Oxford University (UK), Springer.
- Yousman, Y. 2004. *Sistem Informasi Geografis dengan MapInfo Professional*. Andi Offset : Yogyakarta.

