

DAFTAR PUSTAKA

- Ahmadi, A., M.R. Neyshaouri, H. Rouhipour & H. Asadi. 2011. Fractal Dimension of Soil Aggregates as an Index of Soil Erodibility. *Journal of Hydrology* 400, 305–311
- Aksakal, E.L., K. Barik, I. Angin, S. Sari & K.R. Islam. 2019. Fractal Dimension of Soil Aggregates as an Index of Soil Erodibility. *Journal of Hydrology* 400, 305–311
- Armynah, B., D. Tahir, M. Tadilayuk, Z. Djafar & W.H. Piarah. 2019. Potentials of Biochars Derived from Bamboo Leaf Biomass as Energy Sources: Effect of Temperature and Time of Heating. *Hindawi* Vol: 2019
- Arsyad, S. (2010). *Konservasi Tanah dan Air*. Bogor: IPB Press.
- Baronti, S., F.P. Vaccari, F. Miglietta, C. Calzolari, E. Lugato, S. Orlandini, R. Pini, C. Zulian & L. Genesio. 2014. Impact of Biochar Application on Plant Water Relations in *Vitis Vinifera* (L.). *Eur. J. Agron.* 53, 38–44
- Bar-Tal, A., U.K. Saha, M. Raviv, & M. Tuller. 2019. Inorganic and Synthetic Organic Components of Soilless Culture and Potting Mixtures. *Elsevier*
- Bedini, S., E. Pellegrino, L. Avio, S. Pellegrino, P. Bazzoffi, E. Argese & M. Giovannetti. 2009. Changes in Soil Aggregation and Glomalin-Related Soil Protein Content as Affected by the Arbuscular Mycorrhizal Fungal Species *Glomus Mosseae* and *Glomus Intraradices*. *Soil Biology and Biochemistry*. 41, 1491–1496
- Blanco-Canqui, H. 2017. Biochar and Soil Physical Properties. *Soil Science Society of America Journal*. 81, 687–711
- Blanco-Canqui, H., R. Lal, R.C. Izaurralde, W.M. Post & M.J. Shipitalo. 2006. Organic Carbon Influences on Particle Density and Rheological Properties for a Silt Loam Soil. *Soil Science Society of America Journal*. 70, 1407–1414
- Blanco, H. & R. Lal. 2008. *Principles of Soil Conservation and Management*. New York: Springer Dordrescht Heidelberg
- Blanco, H. & R. Lal. 2008. *Principles of Soil Conservation and Management*. New York: Springer Dordrescht Heidelberg
- Brewer, C.E., K. Schmidt-Rohr, J.A. Satrio & R.C. Brown. 2009. Characterization of Biochar from Fast Pyrolysis and Gasification Systems. *Environmental Progress & Sustainable Energy* 28:386–396
- Budianto, Y. & J. Sartohadi. 2016. Keterdapata Sensitive Clay pada Lokasi Longsorlahan di DAS Bompon, Kabupaten Magelang, Jawa Tengah. *Jurnal Bumi Indonesia*
- Burrell, L.D., F. Zehetner, N. Rampazzo, B. Wimmer & G. Soja. (2016). Longterm Effects of Biochar on Soil Physical Properties. *Geoderma* 282, 96–102
- Cabrera R.I. 2003. Fundamentals of Container Media Management: Part I Physical Properties. *Te State University of New Jersey Agricultural Experiment Station*

- Canasveras, J.C., V. Barron, M.C. Del Campillo, J. Torrent & J.A. Gomez. 2010. Estimation of Aggregate Stability Indices in Mediterranean Soils by Diffuse Reflectance Spectroscopy. *Geoderma* 158, 78–84
- Cha, J. S., S.H. Park, S. Jung, C. Ryu, J. Jeon, M. Shin & Y. Park. 2016. Production and Utilization of Biochar: a Review. *Journal of Industrial and Engineering Chemistry* 40, 1-15
- Deenik, J., A. Diarra, G. Uehara, S. Campbell, Y. Sumiyoshi & M. Antal Jr. 2011. Charcoal ash and Volatile Matter Effects on Soil Properties and Plant Growth in an Acid Ultisol. *Soil Science* 176, 336–345
- Du, L., S. Guo, X. Gao, W. Li, X. Li, F. Hou & R. Wang. 2020. Divergent Responses of Soil Fungal Communities to Soil Erosion and Deposition as Evidenced in Topsoil and Subsoil. *Science of the Total Environment*, 755
- Effendy, Z., M.A. Setiawan & D. Mardianto. 2019. Geospatial-Interface Water Erosion Prediction Project (GeoWEPP) Application for the Planning of Bompon Watershed Conservation-Prioritized Area, Magelang, Central Java, Indonesia. *IOP Conf. Ser: Earth Environ. Sci.* 256
- Fatter, M., Y. Fu, M. Ghestem, W. Ma, M. Fouloneau, J. Nespoulodus, Y. Le Bissonnais & A. Stokes. 2011. Effects of Vegetation Type on Soil Resistance to Erosion: Relationship between Aggregate Stability and Shear Strength. *Catena* 87, 60-69
- Getahun, G.T., L.J. Munkholm & P. Schjonning. 2016. The Influence of Clay-To-Carbon Ratio on Soil Physical Properties in a Humid Sandy Loam Soil with Contrasting Tillage and Residue Management. *Geoderma* 264, 94-102
- Glab, T., J. Palmowska, T. Zaleski & K. Gondek. 2016. Effect of Biochar Application on Soil Hydrological Properties and Physical Quality of Sandy Soil. *Geoderma* 281, 11–20
- Gur K., M. Zengin & R. Uyanöz. 1997. Importance of Pumice in Agriculture and Environment. *Isparta: Proceedings of the I. Isparta Pumice Symposium*, 125-132
- Horrocks, C.A., J. Arango, A. Arevalo, J. Nuñez. J.A. Cardoso & J.A.J. Dungait. 2019. Smart Forage Selection Could Significantly Improve Soil Health in the Tropics. *Science of the Total Environment* 688, 609–621
- Hseu, Z.Y., S.H. Jien, W.H. Chien & R.C. Liou. 2014. Impacts of Biochar on Physical Properties and Erosion Potential of a Mudstone Slopeland Soil. *Hindawi*
- Indriastuti, V. (2018). Pemetaan Stabilitas Agregat Tanah Permukaan di Sub Das Kaliwungu, Magelang, Jawa Tengah. *Skripsi*. Yogyakarta: Fakultas Geografi Universitas Gadjah Mada.
- Jamali, H., W. Quayle, C. Scheer, D. Rowlings & J. Baldock. 2016. Effect of Soil Texture and Wheat Plants on N₂O Fluxes: A Lysimeter Study. *Agricultural and Forest Meteorology* 223, 17-29

- Jenny, H. (1941). *Factors of Soil Formation*. New York: McGraw Hill
- Jien, S.H. & C.S. Wang. 2013. Effects of Biochar on Soil Properties and Erosion Potential in a Highly Weathered Soil. *Catena* 110, 225–233
- Klinghoffer, N. B., M.J. Castaldi & A. Nzihou. 2015. Influence of Char Composition and Inorganics on Catalytic Activity of Char. *Fuel*
- Le Bissonnais, Y. 2016. Aggregate stability and assessment of soil crustability and erodibility: I. Theory and methodology. *Eur. J. Soil Sci.* 67, 11–21
- Lehmann, J. & S. Joseph. 2009. *Biochar for Environmental Management Science and Technology*. London: Earthscan
- Li, J., L. Cao, Y. Yuan, R. Wang, Y. Wen & J. Man. 2018. Comparative Study for Microcystin-LR Sorption Onto Biochars Produced from Various Plant and Animal Wastes at Different Pyrolysis Temperatures: Influencing Mechanisms of Biochar Properties. *Bioresour Technol* 247, 794–803
- Li, X., H. Li & H. Liu. 2014. Mapping the Spatial Variability of Soil Properties: A Comparative Study of Spatial Interpolation Methods in Northeast China. *Applied Mechanics and Materials* 535, 483–488
- Li, Z.W., C. Liu, Y.T. Dong, X.F. Chang, X.D. Nie, L. Liu, H.B. Xiao, Y.M. Lu & G.M. Zeng. 2017. Response of Soil Organic Carbon and Nitrogen Stocks to Soil Erosion and Land Use Types in the Loess Hilly-Gully Region of China. *Soil and Tillage Research* 166, 1–9
- Liang, B., J. Lehmann, D. Solomon, J. Kinyangi, J. Grossman, B. O'Neill, Skjem, J. Theis, F.J. Luizao, J. Petersen & E.G. Neves. 2006. Black Carbon Increases Cation Exchange Capacity in Soils, *Soil. Sci Soc Am Journal* 70, 1719–1730
- Liu, C., H.L.X. Tang, Z. Guan, B.J. Reid, A. Upamali, R. Yong, S. Ok & H. Sun. 2016. Biochar Increased Water Holding Capacity But Accelerated Organic Carbon Leaching From a Sloping Farmland Soil in China. *Environ Sci Pollut Res* 23, 995–1006
- Ma, R.M., Z.X. Li, C.F. Cai & J.G. Wang. 2014. The dynamic response of splash erosion to aggregate mechanical breakdown through rainfall simulation events in Ultisols. *Catena* 121, 279–287
- Mardiah, U., T. Caruso, A. Gurnell & M.C. Rilig. 2015. Arbuscular Mycorrhiza Fungal Hyphae Reduce Soil Erosion by Surface Water Flow in a Greenhouse Experiment. *Applied Soil Ecology* 99, 137–140
- Meng, J., L. Wang, X. Liu, J. Wu, P.C. Brookes & J. Xu. 2013. Physicochemical Properties of Biochar Produced from Aerobically Composted Swine Manure and Its Potential Use as an Environmental Amendment. *Bioresour Technol* 142, 641–646
- Morgan, R.P.C. 2001. A Simple Approach to Soil Loss Prediction: a Revised Morgan–Morgan–

Finney Model. *Catena* 44, 305–322

- Morgan, R.C.P. 2005. *Soil Erosion and Conservation*. Oxford: Blackwell Publishing
- Nciizah, A.D. & I.I.C. Wakindiki. 2014. Physical Indicators of Soil Erosion, Aggregate Stability and Erodibility. *Archives of Agronomy and Soil Science*
- Omondi, M.O., X. Xia, A. Nahayo, X. Liu, P.K. Korai & G. Pan. 2016. Quantification of Biochar Effects on Soil Hydrological Properties Using Meta-Analysis of Literature Data. *Geoderma* 274, 28–34
- Pattanaik, D., S. Kumar, S.K. Bhuyan & S.C. Mishra. 2018. Effect of Carbonization Temperatures on Biochar Formation of Bamboo Leaves. *IOP Conf. Ser.: Mater. Sci. Eng.* 338
- Pastor-Villegas, J., J.F. Pastor-Valle, J.M. Rodriguez & M. Garcia. 2006. Study of commercial wood charcoals for the preparation of carbon adsorbents. *Journal of Analytical and Applied Pyrolysis*, vol 76, pp103–108
- Pierson, F.B. 1988. Spatial Variability of Aggregate Stability in The Palouse Region of Washington. *Dissertation*. Washington State University.
- Pulungan, N.A. & J. Sartohadi. 2018. New Approach to Soil Formation in the Transitional Landscape Zone: Weathering and Alteration of Parent Rocks. *Journal of Environment* 5, 1-7
- Ritchie, J.C., M.A. Nearing, M.H. Nichols & C.A. Ritchie. 2005. Patterns of Soil Erosion and Redeposition on Lucky Hills Watershed, Walnut Gulch Experimental Watershed, Arizona. *Catena* 61, 122–130
- Rokhmaningtyas, R.P. & M.A. Setiawan. 2017. Estimasi Kehilangan Tanah Aktual Terkait Pengaruh Vegetasi di DAS Bompon Kabupaten Magelang. *Jurnal Bumi Indonesia*, Volume 6(2)
- Sadeghi, S.H., Z. Hazbavi & M.K. Harchegani. 2015. Controllability of Runoff and Soil Loss From Small Plots Treated by Vinasseproduced Biochar. *Science of the Total Environment* 541, 483-490
- Sahin, U. & O. Anapali. 2006. Addition of Pumice Affects Physical Properties of Soil Used for Container Grown Plants. *Agriculturae Conspectus Scientificus*, Vol. 71, 59-64
- Sartohadi, J. 2011. Soil Geomorphological Approach for Natural Hazard Mapping. Global Soil Map Activities in the Indoensia Region. Jakarta: Kementerian Pertanian
- Sartohadi, J., Suratman, Jamulya & N. Dewi. 2014. *Pengantar Geografi Tanah*. Yogyakarta: Pustaka Pelajar
- Shi, P., K. Van Oost & R. Schulin. 2017. Dynamics of Soil Fragment Size Distribution Under Successive Rainfalls and Its Implication to Size-Selective Sediment Transport and Deposition. *Geoderma* 308, 104–111
- Siddiky, M., J. Schaller, T. Caruso & M. Rilig. 2012. Arbuscular Mycorrhizal Fungi and

- Collebola Non-Additively Increase Soil Aggregation. *Soil Biology & Biochemistry* 47, 93-99
- Sitorus, S.R.P., O. Haridjaja & K.R. Brata. 1983. *Penuntun Praktikum Fisika Tanah*. Departemen Ilmu-ilmu Tanah. Fakultas Pertanian. Bogor : Institut Pertanian Bogor.
- Smith, S.E. & D.J. Read. 2008. *Mycorrhizal Symbiosis, 3rd edn*. London: Academic Press
- Steinbeiss, S., G. Gleixner & M. Antonietti. 2009. Effect of Biochar Amendment on Soil Carbon Balance and Soil Microbial Activity. *Soil Biol Biochem* 41, 1301–1310
- Sukmawijaya, A. & J. Sartohadi. 2019. Kualitas Struktur Tanah pada Setiap Bentuklahan di DAS Kaliwungu. *Majalah Geografi Indonesia* 33, 14-20
- Tesfahunegn, G.B., L.Tamene & P.L.G. Vlek. 2014. Soil Erosion Prediction Using Morgan-Morgan-Finney Model in a GIS Environment in Northern Ethiopia Catchment. *Hindawi* Vol: 2014
- Van der Heijden, M. G. A., R.D.Bardgett & N.M. Van Straalen. 2008. The Unseen Majority: Soil Microbes as Drivers of Plant Diversity and Productivity in Terrestrial Ecosystems. *Ecol. Lett.* 11, 296–310
- Van Zwieten, L., S. Kimber, S. Morris, K.Y. Chan, A. Downie, J. Rust, S. Joseph & A. Cowie. 2010. Effects of Biochar from Slow Pyrolysis of Papermill Waste on Agronomic Performance and Soil Fertility. *Plant and Soil* 327, 235–246
- Wang, B., F. Zheng, M.J. Romkens & F. Darboux. 2013. Soil Erodibility for Water Erosion: A Perspective and Chinese Experiences. *Geomorphology* 187, 1-10
- Wardhana, G.M.K. 2017. Efektivitas Teknik Konservasi dalam Pengendalian Erosi Sebagai Upaya Pengelolaan DAS dengan Pendekatan Geomorfologi (Kasus DAS Bompon Kabupaten Magelang Provinsi Jawa Tengah). *Tesis*. Yogyakarta: Fakultas Geografi Universitas Gadjah Mada.
- Yagi, K., T. Matsuyama & O. Nanasaki. 1962. Density of Pumice, with Reference to the Mechanism of Formation of Welded Tuffs. *International Geology Review*, 876-883
- Yilmaz, E. & S. Mehmet. 2017. The Role of Organic/Bio-Fertilizer Amendment on Aggregate Stability and Organic Carbon Content in Different Aggregate Scales. *Soil and Tillage Research* 168, 118–124
- Zhang, F., C. Huang, M. Yang, J. Zhang & W. Shi. 2019. Rainfall Simulation Experiments Indicate That Biochar Addition Enhances Erosion of Loess-Derived Soils. *Land Degrad Dev*, 1-15
- Zhao, J., Z. Yang & G. Govers. 2019. Soil and Water Conservation Measures Reduce Soil and Water Losses in China But Not Down to Background Levels: Evidence From Erosion Plot Data. *Geoderma* 337, 729-741
- Zhi-guo, L., G. Chi-ming, Z. Run-hua, I. Mohamed, Z. Guo-shi, W. Li, Z. Run-qin, C. Fang & L.

- Yi. 2017. The Benefic Effect Induced by Biochar on Soil Erosion and Nutrient Loss of Slopping Land Under Natural Rainfall Conditions in Central China. *Agricultural Water Management* 185, 145-150
- Zhu, T.X. & A.X. Zhu. 2014. Assessment of Soil Erosion and Conservation on Agricultural Sloping Lands Using Plot Data in the Semi-Arid Hilly Loess Region of China. *Journal of Hydrology* 2, 69–83