



DAFTAR PUSTAKA

- Abiven, S., S. Menasseri, and C. Chenu. 2009. The effects of organic inputs over time on soil aggregate stability-A literature analysis. *Soil Biology & Biochemistry* 41 (1): 1–12.
- Angers, D.A. and J. Caron. 1998. Plant-induced changes in soil structure: processes and feedbacks. *Biogeochemistry* 42 (1) : 55–72.
- An, Shaoshan., A. Mentler, H. Mayer, and W.E.H. Blum. 2010. Soil aggregation, aggregate stability, organic carbon and nitrogen in different soil aggregate fractions under forest and shrub vegetation on the Loess Plateau, China. *Catena* 81 (1) : 226- 233.
- Atunnisa, R. 2013. Produktivitas, laju dekomposisi, pelepasan hara seresah pada tegakan jabon (*Anthocephalus cadamba* Miq.). Thesis. Institut Pertanian Bogor.
- Badan Pusat Statistik. 2016. Kabupaten Kulon Progo Dalam Angka 2016. <https://kulonprogokab.bps.go.id/index.php/Publikasi>. Diakses pada tanggal 24 Agustus 2019.
- Balai Penelitian Tanah. 2006. Sifat Fisika Tanah dan Metode Analisisnya. Balai Besar Litbang Sumberdaya Lahan Pertanian. Badan Penelitian dan Pengembangan Pertanian. Departemen Pertanian. Bogor.
- Badan Perencanaan Pembangunan Daerah. D.I Yogyakarta. 2016. Aplikasi Dataku Daerah Istimewa Yogyakarta. <http://bappeda.jogjaprov.go.id>. Diakses 24 Agustus 2019.
- Baldock, J.A. and Skjemstad, J. 2000. Role of the soil matrix and minerals in protecting natural organic materials against biological attack. *Organic Geochemistry* 31.
- Barral, M.T, M. Arias, J. Guérif .1998. Effects of iron and organic matter on the porosity and structural stability of soil aggregates. *Soil Till Res* 46(3) :261–272.
- Barto, E.K. and M.C. Rillig. 2010. Does herbivory really suppress mycorrhiza? A meta-analysis. *Journal of Ecology* 98 (1): 745 -753.
- Barto, E.K., F. Alt, Y.Oelmann, W.Wilcke, and M.C. Rilig. 2010. Contributions of biotic and abiotic factors to soil aggregation across a land use gradient. *Soil Biology and Biochemistry* 42(1) : 2316- 2324.
- Baskoro, D. P. T. dan H. D. Manurung. 2005. Pengaruh metoda pengukuran dan waktu pengayakan basah terhadap nilai indeks stabilitas agregat tanah. *J. Tanah Lingk.* 7: 54-57
- Baver, L. D. 1972. *Soil Physics*. Fourth Edition. Jhon Willey and Sons, Inc. New York.
- Bedini, S., E. Pellegrino, L. Avio, S. Pellegrini, P. Bazzoffi, E. Argese, and 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 & Biochemistry* 41(1): 1491–1496.

Blaud, A., T.Z. Lerch, T. Chevallier, N. Nunan, C. Chenu, and A. Brauman. 2012. Dynamics of bacterial communities in relation to soil aggregate formation during the decomposition of C-labelled rice straw. *Applied Soil Ecology* 53 (1): 1- 9.

Braunack, M.V., A. R. Dexter .1989. Soil aggregation in the seed bed: A Review. I. Properties of aggregates and beds of aggregates. *Soil and Tillage Research* 14: 281-298.

Chaudhary, V.B., M.A. Bowker, T.E. O' dell, J.B. Grace, A.E. Redman, M.C. Rillig, and N.C. Johnson. 2009. Untangling the biological contributions to soil stability in semiarid shrublands. *Ecological Applications* (1) 19: 110-122.

Chenu, C. 1995. Extracellular polysaccharides: An interface between microorganisms and soil constituents. In P.M. Huang et al. (Ed.), *Environmental Impact of Soil Component Interactions*. CRC Press, Boca Raton.

Dexter, A.R. 1988. Advances in Characterization of Soil Structure. *Soil Tillage Research* 11(1): 199 - 238.

Emerson, W.W. and D.J. Greenland. 1990. Soil aggregates-formation and stability. *Soil Colloids and Their Associations in Aggregates*. Plenum Press, New York and London.

Foth, H. D. and L. M. Turk .1972. Fundamental of Soil Science. Wiley, New York.

Franzluebber, A. J. and Arshed, M. A. 1997. Soil microbial biomass and mineralizable C of water stable aggregates. *Soil Science Society America Journal* 61: 1090-1097.

Gale, W.J., C.A. Cambardella, and T.B. Bailey. 2000. Root-derived carbon and the formation and stabilization of aggregates. *Soil Sci. Soc. Am. J* 64:201–207.

Hadas, A. 1987. Long-term tillage practice effects on soil aggregation modes and strength. *Soil Science Society of America Journal* 51 (1) : 191-197.

Hafif, B., S. Sabiham, I. Anas, A. Sutandi, dan Suyamto. 2011. Polisakarida dan stabilitas agregat tanah masam yang diperlakukan dengan Brachiaria, Mikoriza dan kompos jerami diperkaya kalium. *Jurnal Tanah Lingkungan*, 13(1) : 1-7.

Handayani,S and B.H. Sunarminto. 2002. Kajian struktur tanah lapis olah : agihan ukuran dan dispersitas agregat. *Jurnal Ilmu Tanah dan Lingkungan* 3(1) :10-17.

Hanke, D and D.P. Dick. 2016. Aggregat stability in soil with humic and histic horizons in a toposequence under araucaria forest. *Soil Processes and Properties*.

Hayes, M.H.B. 1990. Interaction in soil involving small and large organic molecules. *Interaction at The Soil Colloid Soil Solution Interface*. Kluwer Academic Publisher.



Hayes, M.H.B. and Swift, R.S. 1990. Genesis, isolation, composition and structures of soil humic substances. In: DeBoodt, M.F., Hayes, M.H.B., Herbillon, A. (Eds.), Soil Colloids and Their Associations in Aggregates. Plenum, New York.

Hayes, M.H.B and G.H. Bolt. 1991. Soil colloid and The Soil Solution. Interaction at The Soil Colloid-Soil Solution Interface. Kluwer Academic Publisher.

Inbar Y., Y. Chen and Y. Hadar. 1990. Humic Substances Formed during the Composting of Organic Matter. *Soil Sci. Soc. Am. J.* 54: p.1316-1323

Kobierski, M., K.K. Maciejewska, M.B. Szott, P. Wojewodzki, and J.M.P. Castejon. 2017. Humic substances and aggregate stability in rhizospheric and non-rhizospheric soil. *Journal of Soils and Sediments* 18(1) : 2777-2789.

Kononova, M.M., 1966. Soil Organic Matter : Its Nature, Its Role in Soil Formation and in Soil Fertility (translated from the Russian by T.Z. Nowakowski and A.C.D. Newman). 2nd englished. Pergamon Press Ltd. Oxford. P.199-205.

Kemper, E.W. and R.C. Rosenau . 1986. Aggregate stability and size distribution. In: A. Klute (Ed.) *Method of Soil Analysis* Part 1. 2nd ed. ASA. Madiso, Wisconsin.

Kusuma A. H., Izzati ,M. ,dan Saptiningsih, E. 2013. Pengaruh penambahan arang dan abu sekam dengan proporsi yang berbeda terhadap permeabilitas dan porositas tanah liat serta pertumbuhan kacang ijau (*Vigna radiata* L). *Buletin Anatomi dan Fisiologi*, 21(1).

Ladd, J.N., R.C. Foster, P. Nannipieri, and J.M. Oades. 1996. Soil structure and biological activity. *Soil Biochemistry*. Marcel dekker, Inc. New York Basel Hong Kong.

Lowe, L. E. 1993. Total and labile acid-extractable polysaccharide analysis of soils. In Carter, M. R. (ed.). *Soil Sampling and Methods of Analysis*. CRC Press, Boca Raton, FL, pp. 373-376.

Mullen, R. 2004. Soil pH and nutrient availability. *Agriculture and Natural Resources*, Ohio State USA.

Monreal, C.M., H.R. Schulten, and H. Kodama. 1997. Age, turnover and molecular diversity of soil organic matter in aggregates of a gleysol. *Canadian Journal of Soil Science* 77(1): 379–388.

Negasa, T., H. Ketema, A. Legesse, M. Sisay, and H. Temesgen. 2016. Variation in soil properties under different land use types managed by smallholder farmers along the toposequence in southern Ethiopia. *Geoderma* 290 (1) : 40- 50.

Nimmo, J.R. 2004. Aggregation: Physical Aspects. *Encyclopedia of Soils in the Environment*. Academic Press, London.

Oades, J.M. 1986. Agregasi Dalam Tanah. (alihbahasa B.D. Kertonegoro, 1995). Jurusan Ilmu Tanah Fakultas Pertanian Universitas Gadjah Mada, Yogyakarta.



Pratiwi, S.A. 2013. Pengaruh Faktor Pembentuk Agregat Tanah terhadap Kemantapan Agregat Tanah Latosol Dramaga pada Berbagai Penggunaan Lahan. Fakultas Pertanian Institut Pertanian Bogor. Skripsi.

Puget, P., C. Chenu., and J .Balesdent. 2000. Dynamics of soil organic matter associated with particle-size fractions of water-stable aggregates. European Journal of Soil Science, 51(1) : 595–605.

Rachman, A dan Abdurachman, A. 2006. Penetapan Kemantapan Agregat Tanah. Sifat Fisik Tanah dan Metode Analisisnya. Balai Besar Litbang Sumberdaya Lahan Pertanian, Bogor.

Refliaty dan Marpaung E.J. 2010. Kemantapan agregat ultisol pada beberapa penggunaan lahan dan kemiringan lereng. Jurnal Hidrolitan 1(2): 35-42.

Rohoskova, M. and M. Valla. 2004. Comparison of two methods for aggregate stability measurement – a review. Plant Soil Environ 50: 379–382.

Roseta, E. and M.J.S. Chinyere. 2006. Effect of humic acids on size distribution of aggregates in soils of different clay content. EJEAFChe 5: 1419-1428.

Santi, L.P., A. Dariah, dan D.H.Goenadi. 2008. Peningkatan kemantapan agregat tanah mineral oleh bakteri penghasil eksopolisakarida. Balai Penelitian Tanah, Bogor.

Schnitzer, M. 1989. Binding of humic substances by soil mineral colloids. In Interactions of Soil Minerals with Natural Organics and Microbes; Huang, P.M., Schnitzer, M., Eds.; Spec. Publ. No. 17; Soil Science Society of America: Madison, WI, 1989; 77–101 Journal.

Schwertmann, U., H. Kodama, W.R. Fischer .1986. Mutual interactions between organics and iron oxides. In: Huang PM, Schnitzer M (eds) Interactions of soil minerals with natural organics and microbes. Soil Sci Soc Amer Madison, Wisconsin.

Six, J., E.T. Elliott, and K. Paustian. 2000. Soil macroaggregate turnover and microaggregate formation: a mechanism for C sequestration under no-tillage agriculture. Soil Biology & Biochemistry 3214(1): 2099–2103.

Stevenson, F.J. 1994. Humus Chemistry – Genesis, Composition, Reactions, second ed. New York.

Tan, K.H. 1982. Principles of Soil Chemistry (Dasar-Dasar Kimia Tanah, alih bahasa : Goenadi, D.H dan Radjagukguk, B). Gadjah Mada Univ. Press, Yogyakarta.

Tobiasova, E., G. Barancikova, E. Gomoryova, B. Debska, and M. Banach-szott. 2018. Humus substances and soil aggregates in the soils with different texture. Soil & Water Research 13(1) : 44- 50.

Tohir. 2014. Agregat Tanah. < <http://chyrun.com/agregat-tanah/> >. Diakses tanggal 24 Agustus 2019.



Tisdall, J.M. and Oades, J.M. 1982. Organic matter and water-stable aggregates in soils. *Journal of Soil Science* 33 (1) : 141-163.

Wang, B. and Y.L. Qiu. 2006. Phylogenetic distribution and evolution of mycorrhizas in land plants. *Mycorrhiza* 16 (1): 299–363.

Watt, M., McCully M.E., and Canny, M.J .1994. Formation and stabilization of rhizosheaths of Zea mays L. *Plant Physiol* 106:179–186.

Watts, C.W., and A.R. Dexter. 1997. The influence of organic matter in reducing the destabilization of soil by simulated tillage. *Soil Tillage Res.* 42: 253–275.

Yimer, F., Ledin, S., and Abdulakdir, A., 2008. Concentrations of exchangeable bases and cation exchange capacity in soils of cropland, grazing and forest in the Bale Mountains, Ethiopia. *For. Ecol. Manag.* 256 (1): 1298–1302.

Yoder, R.E., 1936. A direct method of aggregate analysis of soils a study of the physical nature of erosion losses. *J. Am. Soc. Agron.* 28, 337–351.

Yuan, Y., X. Han, L. Li, and N.Li. 2012. Land use effects on soil aggregation and total organic carbon and polysaccharides in aggregates of a Chinese Mollisol. *Journal of Food, Agriculture & Environment* 10 (3&4): 1386-1391.

Zhao, J., S. Chen, R. Hu, and Y.Li. 2017. Aggregat stability and size distribution of red soils under different land uses integrally regulated by soil organic matter, and iron and aluminium oxides. *Soil and Tillage Research* 167 (1) : 73-79.