DAFTAR PUSTAKA

American Society for Testing and Materials. 2013. *ASTM D1762-84 Standard Test Method for Chemical Analysis of Wood Charcoal.* USA: American Society for Testing and Materials.

American Society for Testing and Materials. 2013. *ASTM D2395-14 Standard Test Methods for Density and Specific Gravity (Relative Density) of Wood and Wood-Based Materials.* USA: American Society for Testing and Materials.

American Society for Testing and Materials. 2002. ASTM D3172-89 *Standard Practice for Proximate Analysis of Coal and Coke*. USA: American Society for Testing and Materials.

Aqil, M., C. Rapar., dan Zubachtirodin. 2012. *Deskripsi Varietas Unggul Jagung Edisi 7*. Badan Penelitian dan Pengembangan Pertanian Kementrian Pertanian.

Atangana, A., D. Khasa, S. Chang, dan A. Degrande. 2014. *Tropical Agroforestry*. Springer.

Aung, A., S. H. Han, W. B. Youn, L. Meng, M. S. Cho, dan B. Bae. 2018. *Biochar* effects on the seedling quality of *Quercus serrata* and *Prunus sargentii* in a containerized production system. *Forest Science and Technology*.

Bailis, R. 2009. Modeling Climate Change Mitigation from Alternative Methods of Charcoal Production in Kenya. *Biomass Bioenergy* Vol. 33(11): 1491–1502.

Badan Pusat Statistik. 2018. *Hasil Survey Pertanian Antar Sensus (SUTAS) 2018*. Badan Pusat Statistik.

Badan Pusat Statistik. 2019. Diakses dari http://www.bps.go.id/ diakses pada tanggal 8 Mei 2019 pukul 11.10 WIB.

Basu, P. 2013. *Biomass Gasification, Pyrolysis and Torrefaction 2nd Edition*. Academic Press.

Biswas, B., N. Pandey, Y. Bisht, R. Singh, J. Kumar., dan T. Bhaskar. 2017. Pyrolysis of Agricultural Biomass Residues: Comparative Study of Corn Cob, Wheat Straw, Rice Straw and Rice Husk. *Bioresource Technology* Vol. 237: 57-63.

Budai, A., L. Wang, M. Gronli, L. T. Strand, M. J. Antal Jr., S. Abiven, A. Dieguez-Alonso, A. Anca-Couce, dan D. P. Rasse. 2014. Surface Properties and Chemical Composition of Corncob and Miscanthus *Biochar*s: Effects of Production Temperature and Method. *Journal of Agricultural and Food Chemistry* Vol. 62: 3791-3799.

Demiral, I., A. Eryazici, dan S. Sensoz. Bio-oil Production from Pyrolysis of Corncob I (*Zea mays*, L.). *Biomass and Bioenergy* Vol. 36: 43-49.

Demirbas, A. 2004. Effects of Temperature and Particle Size on Bio-char Yield from Pyrolysis of Agricultural Residues. *Journal of Analytical and Applied Pyrolysis* Vol. 72: 243-248.

Emrich, W. 1985. *Handbook of Charcoal Making*. Springer Science Business Media.

Gani, A. 2009. Potensi Arang Hayati "*Biochar*" sebagai Komponen Teknologi Perbaikan Produktivitas Lahan Pertanian. *Iptek Tanaman Pangan*. Vol. 4, No. 1.

Gaskin, J. W., C. Steiner, K. Harris, K. C. Das, dan B. Bibens. 2008. Effect of Low-Temperature Pyrolisis Conditions on *Biochar* for Agricultural Use. *American Society of Agricultural and Biological Engineers* Vol. 51(6): 2061-2069.

Goenadi, D. H., dan L. P. Santi. 2017. Kontroversi Aplikasi dan Standar Mutu *Biochar*. *Jurnal Sumberdaya Lahan* Vol 11 No.1: 23-32.

Gyori, Z. 2010. *Corn: Characteristics and Quality Requirements*. Woodhead Publishing Limited.

Hale, S. E., V. Alling, V. Martinsen, J. Mulder, G. D. Breedveld, dan G. Cornelissen. 2013. The Sorption and Desorption of Phosphate-P, Ammonium-N and Nitrate-N in Cacao Shell and Corn Cob *Biochars*. *Chemosphere* Vol. 91: 1612-1619.

Hardman, L. L dan J. L. Gunsolus. 1998. Corn Growth and Development. Extension Service. University of Minesota.

Haygreen, J. G., dan J. L., Bowyer. 1989. *Hasil Hutan dan Ilmu Kayu Suatu Pengantar*. Diterjemahkan oleh Sutjipto A. Hadikusumo. Gajah Mada University Press. Yogyakarta.

Haykırı-Acma, H. 2003. Combustion Characteristics of Different Biomass Materials. *Energy Conversion and Management* 44 (2003): 155–162.

International *Biochar* Initiative. 2015. *Standardized Product Definition and Product Testing Guidelines for Biochar That Is Used in Soil*. http://www.*biochar*international.org/characterizationstandard.

Iriany, R.N., M. Yasin H.G., dan Andi Takdir M. 2007. Asal, Sejarah, Evolusi, dan Taksonomi Tanaman Jagung. *Balai Penelitian Tanaman Serealia. Maros*.

Iskandar, T. dan U. Rofiatin. 2017. Karakteristik *Biochar* Berdasarkan Jenis Biomassa dan Parameter Proses Pirolisis. *Jurnal Teknik Kimia* Vol 12, No. 1 (September).

Kementerian Pertanian. 2013. *Deskripsi Varietas Unggul Tanaman Jagung Edisi 2013*. Pusat Penelitian dan Pengembangan Tanaman Pangan Badan Penelitian dan Pengembangan Pertanian Kementrian Pertanian.

Kementerian Pertanian. 2019. *Statistik Lahan Pertanian Tahun 2014-2018*. Pusat Data dan Sistem Informasi Pertanian Sekertariat Jenderal Kementrian Pertanian 2019.

Lehmann, J. dan S. Joseph. 2009. *Biochar Environmental Management Science and Technology*. Earthscan.

Lisar, S. Y. S., R. Motafakkerazad, M. M. Hossain dan I. M. M. Rahman. 2012. *Water Stress*. InTech Publissher.

Liu, X., Y. Zhang, Z. Li, R. Feng, dan Y. Zhang. 2014. Characterization of Corncob-Derived *Biochar* and Pyrolysis Kinetics in Comparison with Corn Stalk and Sawdust. *Bioresource Technology* Vol. 170: 76-82.

Masendra, T. Ashitani., K. Takahashi., M. Susanto., dan G. Lukmandaru. 2019. Hydrophilic Extracts of the Bark from Six Pinus Species. *Jurnal of Korean Wood Science Technology* Vol. 47(1): 80-89.

Meyer, S., L. Genesio, I. Vogel, H. P., Schmidt, G. Soja, E. Someus, S. Shackley, F. G. A. Verheijen dan B. Glaser. 2017. *Biochar* Standardization and Legislation Harmonization. *Journal of Environmental Engineering and Landscape Management*. Vo. 25(02): 175–191.

Novak, J. M., I. M. Lima, B. Xing, J. W. Gaskin, C. Steiner, K. C. Das, M. Ahmedna, D. Rehrah, D. W. Watts, W. J. Busscher, dan H. Schomberg. 2009. Characterization of Designer *Biochar* Produced at Different Temperatures and Their Effects on A Loamy Sand. *Ann. Environ. Sci.* Vol. 3: 195–206.

Nurida, N. L. Sutono, A. Dariah, dan A. Rachman. 2009. Efisikasi Formula Pembenah Tanah *Biochar* Dalam Berbagai Bentuk (Serbuk, Granular

Dan Pelet) dalam Meningkatkan Kualitas Lahan Kering Masam Terdegradasi. Bogor: Balai Penelitian Tanah.

Nurida, N. L., A. Dariah. dan A. Rachman. 2010. Kualitas limbah pertanian sebagai bahan baku pembenah tanah berupa *biochar* untuk rehabilitasi lahan. *Balai Tanah Litbang DEPTAN*: 211-218.

Nurida, N. L. 2014. Potensi Pemanfaatan *Biochar* untuk Rehabilitasi Lahan Kering di Indonesia. *Jurnal Sumberdaya Lahan Edisi Khusus*: 57-68.

Oktaviani, W., L. Khairani, dan N. P. Indriani. 2020. Pengaruh Berbagai Varietas Jagung Manis (*Zea mays saccharata* Sturt) Terhadap Tinggi Tanaman, Jumlah Daun dan Kandungan Lignin Tanaman Jagung. *Jurnal Nutrisi Ternak Tropis dan Ilmu Pakan* 2(2): 60-70.

Palniandy, L. K., L. W. Yoon, W. Y. Wong, S. T. Yong, dan M. M. Pang. 2019. Application of *Biochar* Derived from Di_erent Types of Biomass and Treatment Methods as a Fuel Source for Direct Carbon Fuel Cells. Energies Vol. 12, No. 2477.

Ralebitso-Senior, T. K. dan C. H. Orr. 2016. *Biochar Application Essential Soil Microbial Ecology*. Elsevier.

Rizal, A., Nurhaedah, dan E. Hapsari. 2012. Kajian Startegi Optimalisasi Pemanfaatan Lahan Hutan Rakyat di Sulawesi Selatan. *Jurnal Penelitian Sosial dan Ekonomi Kehutanan* Vol. 9 No. 4 Desember 2012, Hal. 216 – 228.

Rodrigues, T dan A. B. Junior. 2019. Charcoal: A Discussion on Carbonization Kilns. *Journal of Analytical and Applied Pyrolysis* 143.

Setiani, V., U. Priastuti, dan D. P. Yuniarta. Improvement of Soil Chemichal Properties using Corn Cob *Biochar* (BTJ). *Jurnal Presipitasi*. Vol. 18 No 1: 1-9.

Shaheen, A. dan S. T. A. Bukhari. 2019. Potential of sawdust and corn cobs derived *biochar* to improve soil aggregate stability, water retention, and crop yield of degraded sandy loam soil. *Journal of Plant Nutrition*. Vol. 41, No. 20: 2673–2682.

Singh, B., M. M. Dolk., Q. Shen, dan M. Camps-Arbestain. 2017. *Biochar: A Guide to Analytical Methods*. CSIRO Publishing.

Sokhansanj, S., A. Turhollow, J. Cushman, dan J. Cundi. 2002. Engineering Aspects of Collecting Corn Stover for Bioenergy. *Biomass and Bioenergy* 23: 347 – 355.

Sjöström, E. 1993. *Wood Chemistry Fundamentals and Application Second Edition.* Academic Press.

Steiner, C., and T. Harttung. 2014. *Biochar* as a Growing Media Additive and Peat Substitute. *Solid Earth* Vol. 5:995–999.

Steiner, C., M. A. Sánchez-Monedero, C. Kammann. 2015. Biochar as an Additive to Compost and Growing Media. *Biochar for Environmental Management*. Taylor and Francis Group.

Steiner, C. 2016. Considerations in *Biochar* Characterization. *Agricultural and Environmental Applications of Biochar: Advances and Barriers.*

Suastika, I. W., J. Purnomo., dan Y. Supriana. 2014. Pengelolaan Tanah dan Pupuk Untuk Pertanian. IAARD Press.

Surtinah. 2010. *Agronomi Tanaman Budidaya*. Alaf Riau.

Syahrinudin. 2018. *Biochar* yang Diproduksi dengan Tungku Drum Tertutup Retort Memberikan Pertumbuhan Tanaman yang Lebih Tinggi. *Jurnal Hujan Tropis* Vol. 2 (1): 49-58.

Telmo, C., J. Lousada, dan N. Moreira. 2010. Proximate Analysis, Backwards Stepwise Regression Between Gross Calorific Value, Ultimate and Chemical Analysis of Wood. *Bioresource Technology*.

Wang, L., M. Trninic, O. Skreiberg, M. Gronli, R. Considine, dan M. J. Antal, Jr. 2011. Is Elevated Pressure Required To Achieve a High Fixed-Carbon Yield of Charcoal from Biomass? Part 1: Round-Robin Results for Three Different Corncob Materials. *Energy Fuels* Vol. 25: 3251-3265.

Warisno. 2007. *Jagung Hibrida*. Kanisius. Yogyakarta.

Yang, H., S. Kudo, S. Hazeyama, K. Norinaga, O. Mašek, dan J. Hayashi.2013. Detailed Analysis of Residual Volatiles in Chars from the Pyrolysis of Biomass and Lignite. *Energy & Fuels* 130531120623003.

Zhang, Y., A. E. Ghaly, dan B. Li. 2012. Physical Properties of Corn Residues. *Journal Biochemichal Biotechnology* Vol. 8(2): 44–53.

Zhou, T., L. Wang, S. Li, Y. Gao, Y. Du 1, dan L. Zhao. 2019. Interactions Between Light Intensity and Phosphorus Nutrition Affect the P Uptake Capacity of Maize and Soybean Seedling in a Low Light Intensity Area. *Frontiers in Plant Science*.

Zubachtirodin, M. S. Pabbage, dan Subandi. 2007. Wilayah Produksi dan Potensi Pengembangan Jagung. *Balai Penelitian Tanaman Serelia Maros*.