

DAFTAR PUSTAKA

- Allison S. D. 2012. A Trait-Based Approach for Modelling Microbial Litter Decomposition. *Ecology Letters* 15: 1058–1070
- Ajmal M, Aipinga S, Awais M, Ullahc M.S, Saeede R, Uddinf S, Ahmada I, Zhoua B, Zihao X. 2020. Optimization of pilot-scale in-vessel composting process for various agricultural wastes on elevated temperature by using Taguchi technique and compost quality assessment. *Journal Process Safety and Environmental Protection*. 140:34-45
- Apriani K, Haryani Y, dan Kartika G.F. 2014. Produksi dan Uji Aktivitas Selulase dari Isolat Bakteri Selulolitik Sungai Indragiri. *JOM FMIPA*. Vol 1 no 2: 261-267
- Atkana Y, Siburian R. H. S, Noya A. 2019. Analisis Kompos Sampah Organik dan Aplikasinya Terhadap Anakan Gaharu. *EnviroScienteeae* Vol. 15 No. 2, Hal: 263-270
- Bayer E.A, Jean P. B, Yuval S, and RapHael L. 2004. The Cellulosomes: Multienzyme Machines for Degradation of Plant Cell Wall Polysaccharides. *Annu. Rev. Microbiol.* 58:521–54
- Beguín P and Aubert, J.P. 1992. La Degradation De La Cellulose Par Les Microorganismes. *Ann. Inst. Pasteur/ Actualites* 3, 91-115.
- Beguín P and Aubert J.P. 1994. The Biological Degradation of Cellulose. *FEMS Microbiology Reviews* 13. 25-58.
- Beveridge T.J. 2009. Use of the Gram Stain in Microbiology. *Journal Microbiology dan Histochemistry*. Volume 76. Pages 111-118
- Cappuccino J G and Sherman N. 2014. *Microbiology: A Laboratory Manual*. Tenth Edition. United States of America: Pearson Education.
- Cappuccino dan Wels. 2017. *Microbiology: A Laboratory Manual*. Eleven Edition
- Chairul1 dan Yoneda T. 2006. Leaf Longevity of Tropical Shrub Species in An Open Forest in Sumatra. *TROPICS* Vol. 15 (2), 201-207.

- Chioa C , Sain M, and Qin W. 2019. Lignin utilization: A review of lignin depolymerization from various aspects. *Renewable and Sustainable Energy Reviews*. 107: 232-249
- Eveleigh D.E, Mary M, Raymond A dan Charles R. 2009. Measurement of Saccharifying Cellulose. *Biotechnology for Biofuels*, 2:21
- Eviati dan Sulaeman. 2009. *Petunjuk Teknis Edisi 2 : Analisis Kimia Tanah, Tanaman, Air dan Pupuk*. Bogor : Balai Penelitian Tanah.
- Febrianto A, Iman R, dan Rika R. 2015. Characterization and Identification of Cellulolytic Bacteria from Gut of Worker Macrotermes Gilvus. *HAYATI Journal of Biosciences* 22. 197-200.
- Firmansyah M.A. 2010. *Teknik Pembuatan Kompos*. Pelatihan Petani Plasma Kelapa Sawit di Kabupaten Sukamara, Kalimantan Tengah. Hal 1-19
- Gupta P, Samant K, Sahur A. 2012. Isolation of Cellulose-Degrading Bacteria and Determination of Their Cellulolytic Potential. *Intl J Microbiol* 1: 1-5.
- Hamed, M.H., M.A. Desoky., A.M. Ghallab., M.A. Faragallah. 2014. Effect Of Incubation Periods and Some Organik Materials On PHosphorus Forms In Calcareous Soils. *International Journal Of Technology Enhancements And Emerging Engineering Research* Vol.2 (6); 2347-4289.
- Harholt J, Suttangkakul A, Scheller H.V. 2010. Biosynthesis of Pectins. *Plant Physiol* 153: 384–395
- Hatami S., Alikhani H. A., Besharati H., Salehrastin N., Afrousheh M., and Jahromi Z. Y. 2008. Investigation on Aerobic Cellulolytic Bacteria in Some of North Forest and Farming Soils. *American-Eurasian J. Agric. dan Environ. Sci.*, 3 (5): 713-716.
- Hidayati, Y., Kurnani, T., dan Marlina, T. 2011. Kualitas Pupuk Cair Hasil Pengolahan Fases Sapi Potong menggunakan Saccharomyces cerevicea. *Jurnal Ilmu Ternak*, 11(2), 104–107
- Hiremath P.S and Bannigidad P. 2011. Automated Gram-staining characterisation of bacterial cells using colour and cell wall properties. *Int. J. Biomedical Engineering and Technology*, Vol. 7, No. 3
- Idiawati N, Elliska M. H, and Lucy A. 2014. Produksi Enzim Selulase oleh Aspergillus niger pada Ampas Sagu. *Jurnal Natur Indonesia* 16(1) : 1–9

- Jannah,W Delita Z, Bernadeta L. F. 2014. Aplikasi Mikroorganisme Lignoselulolitik Indigenus Asal Tanah Gambut Riau dalam Pembuatan Kompos dari Limbah Tandan Kosong Kelapa Sawit (*Elaeis guineensis* Jacq.). *JOM FMIPA* Volume 1 No. 2
- Junaidi L, Warsidah , Prayitno D.I. 2019. Identifikasi Bakteri Serasah Daun *Avicennia lanata* yang Terdekomposisi pada Hutan Mangrove Desa Sungai Bakau Kecil. *Jurnal Laut Khatulistiwa*, 2(2): 49-53
- Karthika A, Seenivasagan R, Kasimani R, Babalola O.O, Vasanthi M. 2020. Cellulolytic Bacteria Isolation, Screening and Optimization of Enzyme Production From Vermicompost of Paper Cup Waste. *Waste Management* 116, 58-65.
- Kementerian Lingkungan Hidup dan Kehutanan. 2019. *Komposisi Sampah di Indonesia Didominasi Sampah Organik*. Katadata.co.id
- Kornievskaya E, Kurovsky A, Babenko A, Petrochenko K, and Sechko o. 2020. Microbial structure of nitrogen utilizers in *Populus nigra* L. compost and vermicompost. *IOP Conf. Series: Earth and Environmental Science* 433. 012001
- Kostylev M, Wilson D. 2012. Synergistic Interactions in Cellulose Hydrolysis. *Biofuels* 3 (1): 61-70
- Kurniawan, H. M. 2017. Isolasi dan Optimasi Ekstrinsik Bakteri Termo Proteolitik Isolat Sumber Air Panas Semurup, Kab. Kerinci, Jambi. *Scientia Journal*.(6): 64-67
- Kurniawan A, Prihanto A.A, Puspitasari S, Kurniawan A, Asriani E, Sambah A.B. 2017. Bakteri Selulolitik Serasah Daun Mangrove di Pulau Bangka. *Jurnal Ilmu Perikanan, Volume 8, No. 2*
- Ladeira , Erica C, Andréia B. D, João B. B, Meire L. L. M. 2015. Cellulase production by thermophilic *Bacillus* sp. SMIA-2 and its detergent compatibility. *Electronic Journal of Biotechnology*. 18, 110-115.
- Li F, Yingjie X, Xiang G, Mingxu S, Changchao S, Yan D.N, Anshan S. 2020. Screening of Cellulose Degradation Bacteria from Min Pigs and Optimization of Its Cellulase Production. *Electronic Journal of Biotechnology* 48, 29-35
- Liang Y.L, Zhang Z, Wu M, Wu Y, and Feng J.X. 2014. Isolation, Screening, and Identification of Cellulolytic Bacteria from Natural Reserves in the Subtropical

Region of China and Optimization of Cellulase Production by *Paenibacillus terrae* ME27-1. *BioMed Research International*. Vol 2014, 1-13

Llorens J.M.N, Antonio T, and Esteban M.G. 2010. Stationary pHase in gram-negatif bacteria. *FEMS Microbiol Rev* 34: 476–495

Lynd L. R, Paul J. W, Willem H. Zand, Isak S.P. 2002. Microbial Cellulose Utilization: Fundamentals and Biotechnology. *Microbiology and Molecular Biology Reviews*, p. 506–577 Vol. 66, No. 3

Meryandini A, Widosari W , Maranatha B , Sunarti T.C , Rachmania N , dan Satria H. 2009. Isolasi Bakteri Selulolitik Dan Karakterisasi Enzimnya. *Makara, Sains*, Vol. 13, No. 1: 33-38

Mood, S.H, Golfeshan, A.H, Tabatabaei, M, Jouzani, G.S, Najafi, G, Gholami, M, Ardjmand, M. 2013. Lignocellulosic Biomass to Bioethanol, A Comprehensive Review with A Focus on Pretreatment. *Renew. Sustain. Energy Rev.* 27, 77–93.

Murtiyaningsih. H and Hazmi. 2017. Isolation and Cellulase Enzyme Activities Assays In Cellulolytic Bacteria Origin From Soil Waste. *Agritrop*, Vol. 15 (2): 293 – 308

Nelson N. 1944. A Photometric Adaptation of The Somogyi Method for The Determination of Glucose. *J. Biol. Chem.* 153:375-380.

Nkohla A., Okaiyeto K., Nwodo U.U., Mabinya L.V., Okoh A.I. 2017. Endoglucanase and Xylanase Production by *Chryseobacterium* Species Isolatd from Decaying Biomass. *Pol. J. Environ. Stud.* 26 (6), 2651.

Nugraha R, Tri A, dan Suharjo. 2014. Eksplorasi Bakteri Selulolitik yang Berpotensi Sebagai Agen Biofertilizer dari Tanah Perkebunan Apel Kota Batu, Jawa Timur. *Jurnal Biotropika*. Vol. 2 No. 3

Nurtjahyani S.D, Oktafitria D, Wulan S , Maulidina N, Cintamulya I , Purnomo E , And Mustofa A. 2020. Utilization Of Leaves In Mine Reclamation Land As Organik Fertilizer With Bioactivatory Of Efecctive Microorganism 4 (Em4) And Molasses. *Journal Microbiology Indonesia*. Vol.14, No.2: 83-88

Ochoa S. J.L, dan Soto J.O. 2006. The Functional property of Bacillus for Shrimp Feeds. *Food Microbiol.* 23: 519-525.

Peraturan Pemerintah Republik Indonesia Nomor 82 Tahun 2001 Tentang Pengelolaan Kualitas Air dan Pengendalian Pencemaran Air.

- Preeti B. Subhedar, Parag R. Gogate. 2014. Enhancing the activity of cellulase enzyme using ultrasonic irradiations. *Journal of Molecular Catalysis B: Enzymatic* 101: 108–114
- Purushotham P, Ruoya H, Jochen Z. 2020. Architecture of a Catalytically Active Homotrimeric Plant Cellulose Synthase Complex. *Science* 10. 1126
- Puspitasari D, dan Ibrahim M. 2020. Optimasi Aktivitas Selulase Ekstraseluler Isolasi Bakteri EG 2 Isolasi dari Bungkil Kelapa Sawit (*Elaeis guineensis* jacq.). *LenteraBio*. Vol 9, Nomor 1: 42-50
- Putri D , Henny H, dan Siti S. 2013. Types of Ants (Hymenoptera: Formicidae) in Macaranga spp. (Euphorbiaceae) in the Biological Education and Research forest Andalas University. *Prosiding Semirata FMIPA Universitas Lampung*.
- Rizaldi., Mayrawita., Novarino W., Nurainas., Nurdin J., Idris M. 2018. *An Introduction to The Biological Education and Research Forest of Andalas University*. Padang: Andalas University Press.
- Rolfe M.D, Christopher J. R, Sacha L, Carmen P, Arthur T, Andrew D. S. C, Mark A, Michael F. S, Roy P. B, József B, Michael W. P, and Jay C. D. H. 2011. Lag Phase Is a Distinct Growth Phase That Prepares Bacteria for Exponential Growth and Involves Transient Metal Accumulation. *Journal of Bacteriology* p. 686 –701
- Romani A.M, Helmut F, Cecilia M.L, dan Lars J.T. 2006. Interactions Of Bacteria And Fungi On Decomposing Litter: Differential Extracellular Enzyme Activities. *Ecology*, 87(10), 2006, pp. 2559–2569
- Rose J.K.C, dan Lee S.J. 2010. Straying Off The Highway: Trafficking of Secreted Plant Proteins and Complexity in The Plant Cell Wall Proteome. *Plant Physiology* 153: 433–436
- Samah E dan Misdawati. 2019. Kemampuan Bakteri Selulolitik Degradasi (BLHD) merombak sampah organik menjadi kompos. *Jurnal pertanian tropik*. Vol.6. No.3. (60) 490- 499
- Sangmok L dan Koo Y. 2001. Pilot-Scale Production of Cellulase Using *Trichoderma Reesei* Rut C-30 In Fed-Batch Mode. *J Microbiol Biotechnol*. 11, 229
- Santi, D. P. 2013. *Potensi Jamur Pendegradasi Serasah Lantai Hutan Pendidikan dan Penelitian Biologi (HPPB) Universitas Andalas dalam Konversi Selulosa*. Masters Thesis, Universitas Andalas.

- Scheller H. V, dan Ulvskov P. 2010. Hemicelluloses. *Annu Rev Plant Biol* 61: 263–289
- Schwarz W. H. 2001. The Cellulosome and Cellulose Degradation by Anaerobic Bacteria. *Applied Microbiology and Biotechnology*, vol. 56, no. 5-6, pp. 634–649, 2001.
- Shaikh N. M, Patel A. A, Mehta S.A, dan Patel N.D. 2013. Isolation and Screening of Cellulolytic Bacteria Inhabiting Different Environment and Optimization of Cellulase Production. *Universal Journal of Environmental Research and Technology*. Volume 3, Issue 1: 39-49
- Silaban S, Dona B. M and Murniaty S. 2020. Isolation and Characterization of Amylase-Producing Amylolytic Bacteria from Rice Soil Samples. *Journal of Physics: Conf. Series* 1485 : 1-6
- Siregar P, Fauzi, and Supriadi. 2017. Effect of Giving Some Organik Matter and Incubation Period to some Chemical Fertility Aspects of Ultisol. *Jurnal Agroekoteknologi FP USU*. Vol.5.No.2, (34): 256- 264
- Snajdr J, Tomas C., Vendula V. K, Vera M., Mirka P., Peter S., Kaisu L dan Petr B. 2010. Transformation of *Quercus petraea* litter: Successive Changes in Litter Chemistry are Reflected in differential enzyme activity and Changes in The Microbial Community Composition. *FEMS Microbiol Ecol* 75 291–303
- Sriharti, Takiyah S. 2008. *Pemanfaatan Limbah Pisang untuk Pembuatan Kompos Menggunakan Komposter Rotary Drum*. Prosiding Seminar Nasional Teknoin
- Soares-Junior F.L, Dias A.C.F, Fasanella C.C. 2013. Endo-and Exoglucanase Activities in Bacteria from Mangrove Sediment. *Brazil J Microbiol* 44 (3): 969-976.
- Soares FL Jr, Melo IS, Dias ACF, Andreote, F.D. 2012. Cellulolytic Bacteria from Soils in Harsh Environments. *World J Microbiol Biotechnol* 28: 2195-2203.
- Standar Nasional Indonesia. 2004. *Spesifikasi Kompos Dari Sampah Organik Domestik*. Badan Standarisasi Nasional.
- Stoffella, P. J. and Kahn. 2001. *Compost Utilization in Horticultural Cropping System*. Lewis Publishers. Washington D. C. 414p.

- Surtinah. 2013. Pengujian Kandungan Unsur Hara Dalam Kompos Yang Berasal Dari Serasah Tanaman Jagung Manis (*Zea Mays Saccharata*). *Jurnal Ilmiah Pertanian* Vol. 11 No. 1. Hal 11-17.
- Suwatanti E.P.S dan Widiyaningrum P. 2017. Pemanfaatan MOL Limbah Sayur pada Proses Pembuatan Kompos. *Jurnal MIPA* 40 (1): 1-6
- Vanholme R, Morreel K , Ralph J and Boerjan W. 2008. Lignin engineering. *Current Opinion in Plant Biology*, 11:278–285
- Vries R.P.D and J. Visser. 2001. Aspergillus Enzymes Involved in Degradation of Plant Cell Wall Polysaccharides. *Microbiology and Molecular Biology Reviews*. p. 497–522
- Wahyuningsih N dan Zulaika E. 2018. Perbandingan Pertumbuhan Bakteri Selulolitik Pada Media Nutrient Broth dan Carboxy Methyl Cellulose. *Jurnal Sains dan Seni ITS* Vol. 7, No. 2, 2337-3520
- Widarti B. N., Wardah K. W., Edhi S. 2015. Pengaruh Rasio C/N Bahan Baku Pada Pembuatan Kompos dari Kubis dan Kulit Pisang. *Jurnal Integrasi Proses* Vol. 5, No. 2. Hal. 75 - 80
- Wilson D. B. 2011. Microbial Diversity of Cellulose Hydrolysis. *Current Opinion in Microbiology*, 14:1–5
- Wright M.S, dan Covich A.P. 2005. Relative Importance of Bacteria and Fungi in a Tropical Headwater Stream: Leaf Decomposition and Invertebrate Feeding Preference. *Microbial Ecology*. Volume XX, 1–11
- Zhang S., Shan D., Liu X., Sun M. 2018. Cellulose Degrading Strains: their Screening and Application to Corn Straw in Low-Temperature Environments. *Pol. J. Environ. Stud.* 27 (5), 2349.