DAFTAR PUSTAKA

Agilent. 2012. *Introduction to Quantitative PCR - Methods and Applications Guide*(1): 104.

Aisyah, S.N., J. Maldoni, I. Sulastri, W. Suryati, Y. Marlisa, L. Herliana, L. Syukriani, R. Renfiyeni dan J. Jamsari. 2019. Unraveling the optimal culture condition for the antifungal activity and IAA production of phylloplane *Serratia plymuthica*. *Plant Pathol. J.* 18 (1): 31-38.

Aisyah, S. N., S. Sulastri, R. Retmi, R.H. Yani, E. Syafriani, L. Syukriani, dan J. Jamsari. 2017. Suppression of *Colletotrichum gloeosporioides* by Indigenous Phyllobacterium and its Compatibility with Rhizobacteria. *Asian Journal of Plant Pathology* 11: 139-147.

Anandawarih, S. 2008. Optimasi Produksi Asam Indol asetat Oleh *Rhizobium* Sp. Dalam Medium Serum Lateks *Hevea brasiliensis* dengan Suplementasi Triptofan. [Skripsi]. IPB:Bogor.

Annisa S, K. Rahman dan Desmelati. 2015. Pembuatan Kurva Pertumbuhan *Selulase Rastrellinger* sp. [Skripsi]. Universitas Riau:Riau.

Antonius, S., D. Agustyani, D. Antonius, Imamuddin, Dewi, dan Laili.2014. Kajian Bakteri Penghasil Hormon Tumbuh IAA Sebagai Pupuk Organik Hayati dan Kandungan IAA selama Penyimpanan. *dalam* Rana, A., Mieke R.S., Abraham S..2018. Pengaruh Pupuk Hayati dan Anorganik terhadap Populasi Bakteri Pelarut Fosfat, Kandungan Fosfat (P), dan Hasil Tomat Hidroponik. *Jurnal Biodjati* 3(1):15-22.

Asosiasi Produsen Pupuk Indonesia (APPI).2019.Konsumsi Pupuk di Indonesia. http://www.appi.or.id/consumption-report. Diakses pada 18 Januari 2021.

Bhutani, N., R. Maheshwari, M. Negi dan P. Suneja. 2018. Optimization of IAA production by endophytic *Bacillus* spp. from *Vigna radiata* for their potential use as plant growth promoters. *Israel Journal of Plant Sciences*: 1 – 14.

BioRad 2006. *Real Time PCR Application Guide*. BioRad Laboratories, Inc, USA.

Chandrawijaya, Y., T. Tajuddin, H. P. Kusumaninggrum, dan A. Budiharjo. 2013. Pelacakan Fragmen Gen Penyandi Enzim ß-Ketoasil-ACP Sintase II (KAS II) dari Mesokarp Kelapa Sawit (*Elaeis guineensis* Jacq. L). *Jurnal Akademika Biologi* 2(2): 45-56.

Chen, J., R. C. Zheng, Y. G. Zheng, Y. C. Shen. 2009. Microbial Transformation of Nitriles to High-Value Acids or Amides. *Adv Biochem Engin/Biotechnol* 113: 33-77.

Devi, K. A., P. Pandey dan G. S. Sharma. 2016. Plant Growth-Promoting Endophyte *Serratia marcescens* AL2-16 Enhances the Growth of *Achyranthes aspera* L., a Medicinal Plant. *Hayati Journal of Biosciences* 23: 173-180.

Dubey M. K., M. Meena, M. Aamir, A. Zehra dan R. S. Upadhyay. 2019. Regulation and role of metal ions in secondary metabolite production by microorganisms. *Elsevier B.V.*: 259-277

Duca, D., D. R. Rose, dan B. R. Glick. 2014a.Characterization of a Nitrilase and a Nitrile Hydratase from Pseudomonas sp. Strain UW4 That Converts Indole-3-Acetonitrile to Indole-3-Acetic Acid. *Appl Environ Microbiol*.80(15): 4640–4649.

Duca, D., J. Lorv, C.L. Patten, D. Rose D., dan B.R. Glick. 2014b. Indole-3-acetic acid in plant-microbe interactions. *Antonie Van Leeuwenhoek* 106(1): 85-125.

Duca, D.R., D. R. Rose, dan B. R. Glick. 2018. Indole acetic acid overproduction transformants of the rhizobacterium *Pseudomonas* sp. UW4. *Antonie Van Leeuwenhoek*: 1-16.

Dufour, N. dan R. P. Rao. 2011. Secondary Metabolites and other Small Molecules as Intercellular Pathogenic Signals. *FEMS Microbiol Lett* 314(1): 10–17.

Fatchiyah, E.L. Arumningtyas, S. Widyarti, dan S. Rahayu. 2011. *Biologi Molekuler Prinsip Dasar Analisis.* Erlangga: Jakarta.

Fatiah, R., J. Jamsari, I. Suliansyah, dan D. H. Tjong. Genome sequence of *Serratia plymuthica* strain UBCF_13. *National Centre for Biotechnology Information* (NCBI) No. Asesi: CP068771.

Gokulan, K., S. Khare dan C. Cerniglia. 2014. *Metabolic Pathways: Production of Secondary Metabolites of Bacteria*. In: Encyclopedia of Food Microbiology, Batt, C. and M. Tortorello (Eds.)., 2nd Edn., Academic Press, San Diego, C.A.: 561-569.

Han, X., H. Zeng, P. Bartocci, F. Fantozzi dan Y. Yan. 2018. Phytohormones and Effects on Growth and Metabolites of Microalgae: A Review. *Fermentation* 4(25):1-15.

Hastuty, A., A. Choliq dan I. Hidayat. 2018. Production of Indole Acetic Acid (IAA) by *Serratia marcescens subsp. marcescens* and *Rhodococcus aff. qingshengii*. *International Journal of Agricultural Technology* 14(3):299-312.

Herdiyanto, D dan A. Setiawan. 2015. Upaya Peningkatan Kualitas Tanah Melalui Sosialisasi Pupuk Hayati, Pupuk Organik, dan Olah Tanah Konservasi di Desa Sukamanah dan Desa Nanggerang Kecamatan Cigalontang Kabupaten Tasikmalaya. *Dharmakarya: Jurnal Aplikasi Ipteks untuk Masyarakat* 4(1): 47-53.

Hidayatulloh, A., J. Gumilar dan E. Harlia. 2019. Potensi Senyawa Metabolit yang Dihasilkan *Lactobacillus plantarum* ATCC 8014 sebagai Bahan Biopreservasi dan Anti Bakteri pada Bahan Pangan Asal Hewan. *JITP* 7(2): 1-6.

Kalimuthu, R., P. Suresh, G. Varatharaju, N. Balasubramanian, K.M. Rajasekaran dan V. Shanmugaiah. 2019. Isolation and characterization of indole acetic acid (IAA) producing tomato Rhizobacterium *Pseudomonas* sp VSMKU4050 and its potential for plant growth promotion. *International Journal Current Microbiologi App.Sci*. 8(6) : 443-455.

Kholida, F. T. dan E. Zulaika. 2015. Potensi *Azotobacter* sebagai Penghasil Hormon IAA (*Indole-3-Acetic Acid*). *Jurnal Sains Dan Seni ITS* 4(2):2337-3520.

Koetsier, G., dan E. Cantor. 2019. A Practicle Guide to Analysing Nucleic Acid Concentration and Purity with Microvolume Spectrophotometer. *New England Biolabs Inc*.: 1-8

Kurniawati, L., E. Kusdiyantini dan Wijanarka. 2019. Pengaruh Variasi Suhu dan Waktu Inkubasi Terhadap Aktivitas Enzim Selulase dari Bakteri *Serratia marcescens*. *Jurnal Akademika Biologi* 8(1): 1-9.

Larosa, S.F., E. Kusdiyantini, B. Raharjo dan A. Sarjiya. 2013. Kemampuan Isolat Bakteri Penghasil Indole Acetic Acid (IAA) dari Tanah Gambut Sampit Kalimantan Tengah. *Jurnal Biologi* 2(3):41-54.

Lestari, P.L., D N. Susilowati, , E.I. dan Riyanti. 2007.Pengaruh Hormon Asam Indol Asetat yang Dihasilkan Azospirillum sp. terhadap Perkembangan Akar Padi. *Jurnal AgroBiogen* 3(2): 66-72.

Lee, J. C. dan K. S. Whang. 2016. Optimization of Indole-3-acetic Acid (IAA) Production by *Bacillus megaterium* BM5. *Korean Journal Soil Science Fert.* 49(5): 461-468.

Lwin, K. M., M.M. Myint, T. Tar dan W.Z.M. Aung. 2012. Isolation of plant hormone (Indole-3-acetic acid-IAA) producing Rhizobacteria and study on their effects on maize seedling. *Engineering Journal* 16: 137-144.

Merck. 2018. *Product's katalog*. https://www.sigmaaldrich.com/deepweb/assets/sigmaaldrich/product/documents/289/320/y3377dat.pdf. Di akses pada tanggal 20 September 2021.

Muharram, S. 2020. Kebijakan "Revolusi Hijau" Paman Birin dalam Menjaga Kerusakan Lingkungan di Provinsi Kalimantan Selatan. *Jurnal Analisis Kebijakan dan Pelayanan Publik* 6(1): 49-64.

Nalini, R. and Y. R. K. V. T. Rao. 2014. Effect of Different Carbon and Nitrogen Sources on Growth and Indole Acetic Acid Production by *Rhizobium* Species Isolated from Cluster Bean [*Cyamopsis tetragonoloba* (L.)]. *British Microbiology Research Journal* 4(11) : 1189-1197.

Ningrum, I. Y. 2018. *Isolasi dan Karakterisasi Plant Growth Promoting Bacteria Dari Limbah Cair Kelapa Sawit untuk Memacu Pertumbuhan Tanaman Cabai (Capsicum annuum L.)*. [Skripsi]. Universitas Sumatera Utara: Medan.

Prusty, R., P. Grisafi. dan G. Fink. 2004. The plant hormone indoleacetic acid induces invasive growth in Saccharomyces cerevisiae. *P Natl Acad Sci USA* 101: 4153–4157.

Rao, X., X. Huang, Z. Zhou, dan X. Lin. 2013. An improvement of the 2ˆ(–delta delta CT) method for quantitative real-time polymerase chain reaction data analysis. *Biostat Bioinforma Biomath* 3(3): 71-85.

Sanchez, S., A. Chávez, A. Forero, Y. García-Huante, A. Romero, M. Sánchez, D. Rocha, B. Sánchez, M. Ávalos dan S. Guzmán-Trampe. 2010. Carbon Source Regulation of Antibiotic Production. *The Journal of antibiotics* 63: 442.

Serepa, M. H., N.T. Tavengwa, dan V.M. Gray. 2015. Purification and characterization of tryptophan and indole-3-acetic acid produced by *Serratia marcescens* strain MCB associated with *Oscheius* sp. MCB (Nematoda: Rhabditidae) obtained from South African soil. *African Journal of Bacteriology Research* 7: 42-51.

Setiawati, M.R., P. Suryatmana, R. Hindersah, B.N. Fitriatin, dan D. Herdiyantoro. 2014. Karakterisasi Isolat Bakteri Pelarut Fosfat untuk Meningkatkan Ketersedian P pada Media Kultur Cair Tanaman Jagung (Zea mays L.). *Bionatura - Jurnal Ilmu-Ilmu Hayati dan Fisik* 16(1): 30–34.

Shokri, D. dan G. Emtiazi. 2010. Indole-3-acetic acid (IAA) Production in Symbiotic and Non-Symbiotic Nitrogen-Fixing Bacteria and its Optimization by Taguchi Design.*Current Microbiology* 61(3): 217-225.

Shu, C. H. 2007. Chapter 17 - Fungal Fermentation for Medicinal Products. *New Technologies and Applications*: 447-463.

Simanungkalit, R.D.M., A.S. Didi, S. Rasti, S. Diah, dan H. Wiwik. 2006. *Pupuk Organik dan Pupuk* Hayati.Balai Besar Penelitian dan Pengembangan Sumberdaya Lahan Pertanian: Bogor.

Singh, M., D. Singh, A. Gupta, K. D. Pandey, P. K. Singh, dan A. Kumar. 2019. Plant Growth Promoting Rhizobacteria. *PGPR Amelioration in Sustainable Agriculture*: 41–66.

Smetana, A. B., K. J. Klabunde, G. R. Marchin, dan C. M. Sorensen. 2008. Biocidal Activity of Nanocrystalline Silver Powders and Particles. Langmuir, 24, 7457–64.

Sonia N.M.O. dan J. Kusnadi. 2015. Isolasi dan Karakterisasi Parsial Enzim Selulase dari Isolat Bakteri OS-16 Asal Padang Pasir Tengger-Bromo. *Jurnal Pangan dan Agroindustri* 3(4):11-19.

Souza, Rocheli D., A. Ambrosini dan L. M. P. Passaglia. 2015. Plant Growth-Promoting Bacteria as Inoculants in Agricultural Soils.*Genetics and Molecular Biology* 38(4): 401-419.

Spaepen, S., J. Vanderleyden, dan R. Remans. 2007. Indole-3-acetic acid in microbial and Microorganism-plant signaling. *FEMS Microbiol* 31(4): 425- 448.

Sriwahyuni, P dan P. Parmila. 2019.Peran Bioteknologi dalam Pembuatan Pupuk Hayati. *Agricultural Journal* 2(1): 46-57.

Suciati, Y., A. R. Prijanti, dan M. Sadikin. 2012. Pola mRNA Hypoxia Inducible Factor-1a (HIF-1a) dan Exkspresi Protein HIF-1a Ginjal Tikus pada Hipoksia Sistemik Kronik. *Jurnal Kedokteran YARSI* 20(1): 01-13.

Suliasih dan S. Widawati. 2020. Isolation of Indole Acetic Acid (IAA) producing *Bacillus siamensis* from peat and optimization of the culture conditions for maximum IAA production. *IOP Conference Series: Earth and Environmental Science* 572: 1-12

Szkop, M., dan W. Bielawski, W. 2013. A simple method for simultaneous RP-HPLC determination of indolic compounds 46 related to bacterial biosynthesis of Indole-3-acetic acid. *Antonie Van Leeuwenhoek* 103: 683 – 691.

Thirumurugan, D., A. Cholarajan, S. S. S. Raja, dan R. Vijayakumar. 2018. An Introductory Chapter: Secondary Metabolites. *Intechopen*: 1-21.

Wagi, S. dan A. Ahmed. 2019. *Bacillus* spp.: potent microfactories of bacterial IAA. *PeerJ* 7(e7258): 1-14.

Wagner, E. M. 2013. Monitoring Gene Expression: Quantitative Real-Time RT-PCR. *Lipoproteins and Cardiovascular Disease* 1027: 19-45.

Wandira, T. A., S.N. Aisyah, M. Oktavioni, R. Fatiah, dan J. Jamsari. 2021. Different pH levels medium effects in *indole-3-acetic-acid* [IAA] production of phylloplane bacterium *Serratia plymuthica* strain UBCF_13. *IOP Conference Series: Earth and Enviromental Science* 741:012003.

Wong, Marisa L. dan J. F. Medrano. 2018. Real-time PCR for mRNA quantitation. *Biotechniques* 39 (1): 75-85.

Yusfi, L. A. 2021. *Optimasi Media untuk Produksi Indole-3-Acetic Acid (IAA) dan Analisis Ekspresi Gen pada Jalur Indole-3-Pyruvic Acid (IPA) Serratia plymuthica UBCF_13.* [Tesis]. Universitas Andalas: Padang.

Yusfi, L. A., D. H. Tjong, I. Chaniago dan Jamsari. 2021. Culture medium optimization for *Indole-3-Acetic Acid* production by *Serratia plymuthica* UBCF_13. *IOP Conference Series: Earth and Enviromental Science* 741:012059.

Yusuf, Z. K. 2010. *Polymerase Chain Reaction* (PCR). *Saintek* 5(6): 1-6.