

DAFTAR PUSTAKA

- Abhijith, R., Vennila, A., & Purushothaman, C. S. (2017). Occurrence of Phosphate-Solubilizing Bacteria in Rhizospheric and Pneumatophoric Sediment of *Avicennia marina*. *International Journal of Fisheries and Aquatic Studies*, 5(4), 284-288.
- Alexander, M. 1977. Introduction to Soil Microbiology 2nd. New York: John Wiley and Sons.
- Aliyat, F. Z., Maldani, M., El Guilli, M., Nassiri, L., & Ibijbjen, J. (2022). Phosphate-Solubilizing Bacteria Isolated from Phosphate Solid Sludge and Their Ability to Solubilize Three Inorganic Phosphate Forms: Calcium, Iron, and Aluminum Phosphates. *Microorganisms*, 10(5), 980.
- Batubara, M. S., & Ginting, N. (2018). Biotransformasi tartrazin oleh bakteri usus manusia. *Biologi Lingkungan Industri Kesehatan*, 4(2), 101-111
- Bhaduri, S., Debnath, N., Mitra, S., Liu, Y., & Kumar, A. (2016). Microbiologically Induced Calcite Precipitation Mediated by *Sporosarcina pasteurii*. *Journal of visualized experiments : JoVE*, (110), 53253. <https://doi.org/10.3791/53253>
- Billah, M., Khan, M., Bano, A., Hassan, T. U., Munir, A., & Gurmani, A. R. (2019). Phosphorus and phosphate solubilizing bacteria: Keys for sustainable agriculture. *Geomicrobiology Journal*, 36(10), 904-916. <https://doi.org/10.1080/01490451.2019.1654043>
- Behera¹, B. C., Parida, S., Dutta, S. K., & Thatoi, H. N. (2014). Isolation And Identification Of Cellulose Degrading Bacteria From Mangrove Soil Of Mahanadi River Delta And Their Cellulase Production Ability. *American Journal Of Microbiological Research*, 2(1), 41-46.
- Behera², B. C., Singdevsachan, S. K., Mishra, R. R., Dutta, S. K., & Thatoi, H. N. (2014). Diversity, mechanism and biotechnology of phosphate solubilising microorganism in mangrove—a review. *Biocatalysis and Agricultural Biotechnology*, 3(2), 97-110.
- Behera, B. C., Singdevsachan, S. K., Mishra, R. R., Sethi, B. K., Dutta, S. K., & Thatoi, H. N. (2016). Phosphate solubilising bacteria from mangrove soils of Mahanadi river delta, Odisha, India. *World journal of agricultural research*, 4(1), 18-23.
- Bonita, M. K. (2016). Analisis Perbedaan Faktor Habitat Mangrove Alam Dengan Mangrove Rehabilitasi di Telut Sepi Desa Buwun Mas Kecamatan

Sekotong Kabupaten Lombok Barat. *Jurnal Sangkareang Mataram*, 2(1), 6-12.

Cao, Y., Fu, D., Liu, T., Guo, G., & Hu, Z. (2018). Phosphorus solubilizing and releasing bacteria screening from the rhizosphere in a natural wetland. *Water*, 10(2), 195.

Chawngthu, L., Hnamte, R., & Lalfakzuala, R. (2020). Isolation and characterization of rhizospheric phosphate solubilizing bacteria from wetland paddy field of Mizoram, India. *Geomicrobiology Journal*, 37(4), 366-375.

Chen, Y. P., Rekha, P. D., Arun, A. B., Shen, F. T., Lai, W. A., & Young, C. C. (2006). Phosphate solubilizing bacteria from subtropical soil and their tricalcium phosphate solubilizing abilities. *Applied Soil Ecology*, 34(1), 33-41.

Ciardo DE, Schar G, Bottger EC, Altwegg M, Bosshard PP. 2006. Internal Transcribed Spacer Sequencing Versus Biochemical Profiling for Identification of Medically Important Yeasts. *Journal of Clinical Microbiology*. 44(1):77- 84. <https://doi.org/10.1128/JCM.44.1.77-84.2006>

Clarridge III, J. E. (2004). Impact of *16S rRNA* gene sequence analysis for identification of bacteria on clinical microbiology and infectious diseases. *Clinical Microbiology Reviews*, 17(4), 840-862. <https://doi.org/10.1128/CMR.17.4.840-862.2004>

Darmayasa, I. B. G., & Kawuri, R. (2014). Isolasi dan Identifikasi Bakteri Pelarut Fosfat Potensial Pada Tanah Konvensional dan Tanah Organik. *Simbiosis: Journal of Biological Sciences II*(1), 173-183

Dastager, S. G., & Damare, S. (2013). Marine actinobacteria showing phosphate-solubilizing efficiency in Chorao Island, Goa, India. *Current microbiology*, 66(5), 421-427.

de Sousa, R. S., de Moraes Nogueira, A. O., Marques, V. G., Clementin, R. M., & de Lima, V. R. (2013). Effects of α -eleostearic acid on asolectin liposomes dynamics: Relevance to its antioxidant activity. *Bioorganic Chemistry*, 51, 8-15.

Destriana, D., Azhar, M., & Oktavia, B. (2016). Identifikasi Molekuler Gen *16S rRNA* Isolat Bakteri Pendegradasi Inulin dari Rizosfer Umbi Dahlia. *Periodic*, 5(2), 16-21.

Dharmayanti, N. L. P. I. (2011). Filogenetika molekuler: metode taksonomi organisme berdasarkan sejarah evolusi. *Wartazoa*, 21(1), 1-10.

Dharni S, Srivastava AK, Samad A, Patra DD (2014) Impact of plant growth promoting *Pseudomonas monteilii* PsF84 and *Pseudomonas plecoglossicida* PsF610 on metal uptake and production of secondary metabolite (monoterpenes) by rose-scented geranium (*Pelargonium graveolens* cv. bourbon) grown on tannery sludge amended soil. *Chemosphere* 117:433–439. <https://doi.org/10.1016/j.chemosphere.2014.08.001>

Elshaghabee, F. M., Rokana, N., Gulhane, R. D., Sharma, C., & Panwar, H. (2017). *Bacillus* as potential probiotics: status, concerns, and future perspectives. *Frontiers in microbiology*, 1490.

El-Tarabily, K. A., & Youssef, T. (2010). Enhancement of morphological, anatomical and physiological characteristics of seedlings of the mangrove *Avicennia marina* inoculated with a native phosphate-solubilizing isolate of *Oceanobacillus picturae* under greenhouse conditions. *Plant and soil*, 332, 147-162.

Feliatra, F., T. Nugroho, T. Silalahi, dan S.Y. Oktavia. (2011). Skrining Bakteri *Vibrio* sp Asli Indonesia sebagai Penyebab Penyakit Udang Berbasis Teknik 16S Ribosomal DNA. *Jurnal Ilmu dan Teknologi Kelautan Tropis*. 3(2): 85-99.

Habibah, N., Sri Dhyanaputri, I., Karta, I. W., Cok Dewi, W. H. S., & Choirul Hadi, M. (2018). A simple spectrophotometric method for the quantitative analysis of phosphate in the water samples. *Jurnal Sains dan Teknologi*, 7(2), 198-204. ISSN 2548-8570

Heidari-Bafroui, H., Charbaji, A., Anagnostopoulos, C., & Faghri, M. (2021). A colorimetric dip strip assay for detection of low concentrations of phosphate in seawater. *Sensors*, 21(9), 3125.

Henze, J., Randall, DG. (2018). "Microbial induced calcium carbonate precipitation at elevated pH values (>11) using *Sporosarcina pasteurii*". *Journal of Environmental Chemical Engineering*. 6 (4): 5008–5013.

Hidayah, N., & Shovitri, M. (2012). Adaptasi Isolat Bakteri Aerob Penghasil Gas Hidrogen pada Medium Limbah Organik. *Jurnal Sains dan Seni ITS*, 1(1), E16-E18.

Hii, Y. S., Yen San, C., Lau, S. W., & Danquah, M. K. (2020). *Isolation and characterisation of phosphate solubilizing microorganisms from peat. Biocatalysis and Agricultural Biotechnology*, 26, 101643. doi:10.1016/j.bcab.2020.101643

- Holguin, G., Vazquez, P., & Bashan, Y. (2001). The role of sediment microorganisms in the productivity, conservation, and rehabilitation of mangrove ecosystems: an overview. *Biology and Fertility of Soils*, 33(4), 265-278. <https://doi.org/10.1007/s003740000319>
- Huang, L. M., Jia, X. X., Zhang, G. L., & Shao, M. A. (2017). Soil organic phosphorus transformation during ecosystem development: a review. *Plant and Soil*, 417(1), 17-42. <https://doi.org/10.1007/s11104-017-3240-y>
- Ibnul, N. K., & Tripp, C. P. (2021). A solventless method for detecting trace level phosphate and arsenate in water using a transparent membrane and visible spectroscopy. *Talanta*, 225, 122023.
- Jain, A., Jain, R., & Jain, S. (2020). Sub-culturing of bacteria, fungi and actinomycetes. In: *Basic Techniques in Biochemistry, Microbiology and Molecular Biology*. Humana, New York, NY. pp. 101-103.
- Keneni, A., Assefa, F., & Prabu, P. C. (2010). Isolation of phosphate solubilizing bacteria from the rhizosphere of faba bean of Ethiopia and their abilities on solubilizing insoluble phosphates. *Journal of Agricultural Science and Technology*, 12(1), 79-89.
- Kesaulya, H., Zakaria, B., & Syaiful, S. A. (2015). The ability phosphate solubilization of bacteria rhizosphere of potato Var. Hartapel from Buru Island. *International Journal of Current Microbiology and Applied Sciences*, 4(1), 404-409.
- Khan, M. D., Zaidi, A., & Ahmad, E. (2014). Mechanism of phosphate solubilization and physiological functions of phosphate-solubilizing microorganisms. In *Phosphate solubilizing microorganisms* (pp. 31-62). Springer, Cham. https://doi.org/10.1007/978-3-319-08216-5_2
- Kusumahadi, K. S., Yusuf, A., & Maulana, R. G. (2020). Analisis Keanekaragaman Jenis Vegetasi Mangrove Di Kawasan Hutan Lindung Angke Kapuk Dan Taman Wisata Alam Angke Kapuk Muara Angke Kota Jakarta Utara. *Jurnal Ilmu Dan Budaya*, 41(69), 8123–8134.
- Li, C., Li, Q., Wang, Z., Ji, G., Zhao, H., Gao, F., ... & Li, H. (2019). Environmental fungi and bacteria facilitate lecithin decomposition and the transformation of phosphorus to apatite. *Scientific reports*, 9(1), 1-8. <https://doi.org/10.1038/s41598-019-51804-7>
- Liao, L., Chen, B., Deng, K., He, Q., Lin, G., Guo, J., & Yan, P. (2023). Effect of the N-hexanoyl-L-homoserine Lactone on the Carbon Fixation Capacity of the Algae–Bacteria System. *International Journal of Environmental Research and Public Health*, 20(6), 5047.

Lindang, H. U., SUBBIAH, V. K., Rodrigues, K. F., & Budiman, C. (2021). Isolation, identification, and characterization of phosphate solubilizing bacteria, *Paenibacillus* sp., from the soil of Danum Valley Tropical Rainforest, Sabah, Malaysia. *Biodiversitas Journal of Biological Diversity*, 22(10).

Madhaiyan, M., Wirth, J. S., & Saravanan, V. S. (2020). Phylogenomic analyses of the Staphylococcaceae family suggest the reclassification of five species within the genus *Staphylococcus* as heterotypic synonyms, the promotion of five subspecies to novel species, the taxonomic reassignment of five *Staphylococcus* species to *Mammaliococcus* gen. nov., and the formal assignment of *Nosocomiicoccus* to the family Staphylococcaceae. *International Journal of Systematic and Evolutionary Microbiology*, 70(11), 5926-5936.

Manzoor, M., Abbasi, M. K., & Sultan, T. (2017). Isolation of phosphate solubilizing bacteria from maize rhizosphere and their potential for rock phosphate solubilization–mineralization and plant growth promotion. *Geomicrobiology Journal*, 34(1), 81-95. <https://doi.org/10.1080/01490451.2016.1146373>

Marchessi JR, Sato T, Weightman AJ, Martin TA, Fry JC, Hiom SJ, Wade WG. 1998. Design and Evaluation of Useful Bacterium Specific PCR Primers That Amplify Genes Coding for Bacterial 16S rRNA. *Application of Environment Microbiology*. 64: 795-799. <https://doi.org/10.1128/AEM.64.2.795-799.1998>

Marra, L. M., Oliveira, S. M. de, Soares, C. R. F. S., & Moreira, F. M. de S. (2011). *Solubilisation of inorganic phosphates by inoculant strains from tropical legumes*. *Scientia Agricola*, 68(5), 603–609. doi:10.1590/s0103-90162011000500015

Meena, V. S., Maurya, B. R., Meena, S. K., Meena, R. K., Kumar, A., Verma, J. P., & Singh, N. P. (2016). *Can Bacillus Species Enhance Nutrient Availability in Agricultural Soils? Bacilli and Agrobiotechnology*, 367–395. doi:10.1007/978-3-319-44409-3_16

Mei, C., Chretien, R. L., Amaradasa, B. S., He, Y., Turner, A., & Lowman, S. (2021). Characterization of phosphate solubilizing bacterial endophytes and plant growth promotion in vitro and in greenhouse. *Microorganisms*, 9(9), 1935.

Murphy J, Riley JP. 1962. A modified single solution method for the determination of phosphate in natural waters. *Anal Chem Acta* 27: 31–36

- Noer, S. (2021). Identifikasi Bakteri secara Molekular Menggunakan *16S rRNA*. *EduBiologia: Biological Science and Education Journal*, 1(1), 1-6.
- Oliveira, C. A., Alves, V. M. C., Marriel, I. E., Gomes, E. A., Scotti, M. R., Carneiro, N. P., & Sá, N. M. H. (2009). Phosphate solubilizing microorganisms isolated from rhizosphere of maize cultivated in an oxisol of the Brazilian Cerrado Biome. *Soil Biology and Biochemistry*, 41(9), 1782-1787.
- Pangestika, Y., Budiharjo, A., & Kusumaningrum, H. P. (2015). Analisis filogenetik *Curcuma zedoaria* (temu putih) berdasarkan gen Internal Transcribed Spacer (ITS). *Jurnal Akademika Biologi*, 4(4), 8-13.
- Petti, C.A., C.R. Polage dan P. Schreckenberger. 2005. The Role of *16S rRNA* Gene Sequencing in Identification of Microorganisms Misidentified by Conventional Methods. *Journal of Clinical Microbiology* 12 (43) : 6123-6125. <https://doi.org/10.1128/JCM.43.12.6123-6125.2005>
- Premono, M. E., Moawad, A. M., & Vlek, P. L. G. (1996). *Effect of phosphate-solubilizing Pseudomonas putida on the growth of maize and its survival in the rhizosphere* (No. REP-12113. CIMMYT.).
- Prihanto, A. A., Timur, H. D. L., Jaziri, A. A., Nurdiani, R., & Pradarameswari, K. A. (2018). Isolasi dan identifikasi bakteri endofit mangrove *Sonneratia alba* penghasil enzim gelatinase dari Pantai Sendang Biru, Malang, Jawa Timur. *Indonesia Journal of Halal*, 1(1), 31-42.
- Putri, L., Yulianda, F., & Wardiatno, Y. (2015). Mangrove Zonation and its Associated Macrozoobenthos in Pantai Indah Kapuk, Jakarta. *Bonorowo Wetlands*, 5(1), 29-43. E-ISSN: 2088-2475
- Rao, N. S. 1994. *Biofertilizers in Agriculture and Forestry*. 3rd Edition. New Delhi: Oxford and IBH Publishing Co. Pvt. LTD., PP: 129-135.
- Reef, R., Feller, I. C., & Lovelock, C. E. (2010). Nutrition of mangroves. *Tree physiology*, 30(9), 1148-1160.
- Renuka, R., Sandeep, S., & Sujatha, M.P. (2018). Phosphorus Transformations in Mangrove Soils Under Microcosm Study. *International Research Journal of Environmental Science*, 7(12), 21-35. ISSN 2319-1414
- Rincon-Leon, F. (2003). *Encyclopedia of Food Science and Nutrition*. Cordoba : Academic Press. p 2827-2832
- Ritonga, M., Sitorus, B., & Sembiring, M. (2015). Perubahan bentuk P oleh mikroba pelarut fosfat dan bahan organik terhadap P-tersedia dan produksi kentang (*Solanum tuberosum* L.) pada Tanah Andisol terdampak erupsi

Gunung Sinabung. *Jurnal Agroekoteknologi Universitas Sumatera Utara*, 4(1), 107574.

Rosidiani, E. P., Arumingtyas, E. L., & Azrianingsih, R. (2013). Analisis Variasi Genetik *Amorphophallus muelleri* Blume dari Berbagai Populasi di Jawa Timur Berdasarkan Sekuen Intron trnL. *Floribunda*, 4(6), 129–137.

Sabat, A. J., van Zanten, E., Akkerboom, V., Wisselink, G., van Slochteren, K., de Boer, R. F., ... & Kooistra-Smid, A. M. M. (2017). Targeted next-generation sequencing of the *16S-23S rRNA* region for culture-independent bacterial identification-increased discrimination of closely related species. *Scientific Reports*, 7(1), 1-12.

Satyaprakash, M., Nikitha, T., Reddi, E. U. B., Sadhana, B., & Vani, S. S. (2017). Phosphorous and phosphate solubilising bacteria and their role in plant nutrition. *International Journal of Current Microbiology and Applied Sciences*, 6(4), 2133-2144

Schachtman, D. P., Reid, R. J., & Ayling, S. M. (1998). Phosphorus uptake by plants: from soil to cell. *Plant physiology*, 116(2), 447-453. <https://doi.org/10.1104/pp.116.2.447>

Selvi, K. B., Paul, J. J. A., Vijaya, V., & Saraswathi, K. (2017). Analyzing the efficacy of phosphate solubilizing microorganisms by enrichment culture techniques. *Biochemistry and Molecular Biology Journal*, 3(1), 1-7.

Sembiring, M., & Sabrina, T. (2022). Diversity of phosphate solubilizing bacteria and fungi from andisol soil affected by the eruption of Mount Sinabung, North Sumatra, Indonesia. *Biodiversitas Journal of Biological Diversity*, 23(2).

Singh, B., & Satyanarayana, T. (2011). Microbial phytases in phosphorus acquisition and plant growth promotion. *Physiology and Molecular Biology of Plants*, 17(2), 93-103. <https://doi.org/10.1007/s12298-011-0062-x>

Smil, V. (2000). Phosphorus in the environment: natural flows and human interferences. *Annual review of energy and the environment*, 25(1), 53-88.

Spagnoletti, F. N., Tobar, N. E., Di Pardo, A. F., Chiochio, V. M., & Lavado, R. S. (2017). Dark septate endophytes present different potential to solubilize calcium, iron and aluminum phosphates. *Applied Soil Ecology*, 111, 25-32.

Tamura K, Peterson D, Peterson N, Stecher G, Nei M, Kumar S. 2011. MEGA5: Molecular Evolutionary Genetics Analysis Using Maximum Likelihood, Evolutionary Distance, and Maximum Parsimony Methods. *Journal of*

Molecular Biology and Evolution. 28(10): 2731-2739.
<https://doi.org/10.1093/molbev/msr121>

Teng, Z., Chen, Z., Zhang, Q., Yao, Y., Song, M., & Li, M. (2019). Isolation and characterization of phosphate solubilizing bacteria from rhizosphere soils of the Yeyahu Wetland in Beijing, China. *Environmental Science and Pollution Research*, 26(33), 33976-33987.

Thompson, C. E., Beys-da-Silva, W. O., Santi, L., Berger, M., Vainstein, M. H., & Vasconcelos, A. T. R. (2013). A Potential Source For Cellulolytic Enzyme Discovery And Environmental Aspects Revealed Through Metagenomics Of Brazilian Mangroves. *AMB Express*, 3(1), 1-18.

Tian, J., Ge, F., Zhang, D., Deng, S., & Liu, X. (2021). Roles of phosphate solubilizing microorganisms from managing soil phosphorus deficiency to mediating biogeochemical P cycle. *Biology*, 10(2), 158.
<https://doi.org/10.3390/biology10020158>

Ubaidillah, R. dan Sutrisno H. 2009. Pengantar Biosistemik: Teori dan Praktikum. LIPI Press, Jakarta

Wang, F., Cheng, P., Chen, N., & Kuo, Y. M. (2021). Tidal driven nutrient exchange between mangroves and estuary reveals a dynamic source-sink pattern. *Chemosphere*, 270, 128665.
<https://doi.org/10.1016/j.chemosphere.2020.128665>

Wang, Y. Y., Li, P. S., Zhang, B. X., Wang, Y. P., Meng, J., Gao, Y. F., ... & Hu, X. M. (2020). Identification of phosphate-solubilizing microorganisms and determination of their phosphate-solubilizing activity and growth-promoting capability. *BioResources*, 15(2), 2560-2578.

Woese, C. R., Stackebrandt, E., Macke, T. J., & Fox, G. E. (1985). A phylogenetic definition of the major eubacterial taxa. *Systematic and Applied Microbiology*, 6(2), 143-151. [https://doi.org/10.1016/S0723-2020\(85\)80047-3](https://doi.org/10.1016/S0723-2020(85)80047-3)

Yadav, A. N., Sachan, S. G., Verma, P., & Saxena, A. K. (2016). Bioprospecting of plant growth promoting psychrotrophic Bacilli from the cold desert of north western Indian Himalayas. *Indian Journal of Experimental Biology*, 54, 142-150

Yahya, Y., Nursyam, H., Risjani, Y., & Soemarno, S. (2014). Karakteristik Bakteri di Perairan Mangrove Pesisir Kraton Pasuruan (Characterization of Bacteria Isolated from Mangrove Coastal Waters of Kraton, Pasuruan). *ILMU KELAUTAN: Indonesian Journal of Marine Sciences*, 19(1), 35-42.

Yuan, Z. S., Liu, F., & Zhang, G. F. (2015). Characteristics and biodiversity of endophytic phosphorus-and potassium-solubilizing bacteria in Moso Bamboo (*Phyllostachys edulis*). *Acta Biologica Hungarica*, 66, 449-459.

