

## DAFTAR PUSTAKA

- Adelekan, B.A. 2010. Investigation of ethanol productivity of cassava crop as a sustainable source of biofuel in tropical countries. *African Journal of Biotechnology*, 9(35):5643-5650.
- Afsal, A., Bano, A. 2008. Rhizobium and phosphate solubilizing bacteria improve the yield and phosphorus uptake in wheat (*Triticum aestivum*). *International Journal of Agriculture and Biology*. 10: 85-88.
- Agung, G., Sardiana, K., Diara, W., Nurjaya, O. 2013. Adaptation, biomass and ethanol yields of sweet sorghum (*Sorghum bicolor* (L.) Moench) varieties at dryland farming areas of Jimbaran Bali, Indonesia. *Journal of Biology, Agriculture and Healthcare*, 3(17): 111-115.
- Ahmad, F., Ahmad, I., Kha, M.S. 2005. Indole acetic acid production by the indigenous isolates of *Azotobacter* and fluorescent *Pseudomonas* in the presence and absence of tryptophan. *Turkish Journal of Biology*, 29: 29-34.
- Ahmad, I., Pichtel, J., Hayat, S. 2008. *Plant-Bacteria interactions: strategies and techniques to promote plant growth*. Wiley-VCH Verlag GmbH & Co. KgaA.
- Almodares, A., Hadi, M.R. 2009. Production of bioethanol from sweet sorghum: A review. *African Journal of Agricultural Research*, 4: 772-780.
- Almodares, A., Ranjbar, M., Hadi, M.R. 2010. Effects of nitrogen treatments and harvesting stages on the aconitic acid, invert sugar and fibre in sweet sorghum cultivars. *Journal of Environmental Biology*, 31: 1001-1005.
- Almodares, A., Sepahi, A. 1996. Comparison among sweet sorghum cultivars, lines and hybrids for sugar production. *Annual Review of Plant Physiology*, 10: 50-55.
- Almodares, A., Sepahi, A., Karve, A. 1994. Effect of planting date on yield and sugar production of sweet sorghum. *Annual Review of Plant Physiology*, 8: 49-54.

- Almodares, A, Taheri, R, Chung, M, Fathi, M. 2008. The effect of nitrogen and potassium fertilizers on growth parameters and carbohydrate content of sweet sorghum cultivars. *Journal of Environment Biology*, 29: 849-852.
- Andreote, F.D., Rocha, U.N., Araujo, W.L., Azevedo, J.L., van Overbeek, L.S. 2010. Effect of bacterial inoculation, plant genotype, and developmental stage on root-associated and endophytic bacterial communities in potato (*Solanum tuberosum*). *Antonie van Leeuwenhoek*, 97: 389-399.
- Anglani, C. 1998. Sorghum carbohydrates: a review. *Plant Food Human Nutrition*, 52: 77-83.
- Assumpção, L.C., Lavaca, P.T., Dias, A.C.F, Menten, J. 2009. Diversity and biotechnological potential of endophytic bacterial community of soybean seeds. *Pesquisa Agropecuária Brasileira*, 44(5):503-510.
- Ayala, S., Rao, E.V.S.P. 2002. Perspective of soil fertility management with a focus on fertilizer use for crop productivity. *Current Science*, 82: 797–807.
- Bak, S., Tax, F.E., Feldmann, K.A., Galbraith, D.W., Feyereisen, R. 2001. CYP83B1, a cytochrome P450 at the metabolic branch point in auxin and indole glucosinolate biosynthesis in *Arabidopsis*. *Plant Cell*. 13: 101–111.
- Barazani, O.Z., Friedman, J. 2000. Effect of exogenously applied L-tryptophan on allelochemical activity of plant growth promoting rhizobacteria (PGPR). *Journal of Chemical Ecology*. 26(2): 343-349.
- Bartling, D., Seedorf, M., Mithofer, A., Weiler, E.W. 1992. Cloning and expression of an *arabidopsis* nitrilase which can convert indole-3-acetonitrile to the plant hormone indole-3-acetic acid. *European Journal of Biochemistry*, 205: 417-424.
- BATAN. 2014. Sorgum sebagai bahan baku bioetanol. [http://www.batan.go.id/patir/\\_berita/pert/sorgum/sorgum\\_etanol.html](http://www.batan.go.id/patir/_berita/pert/sorgum/sorgum_etanol.html). Diakses 28 November 2015.
- Beneduzi, A., Moreira, F., Costa, P.B., Vargas, L.K., Lisboa, B.B., Favreto, R., Baldani, J.I., Passaglia, L.M.P. 2013. Diversity and plant growth promoting evaluation abilities of bacteria isolated from sugarcane cultivated in the South of Brazil. *Applied Soil Ecology*, 63: 94–104.

- Benhizia, Y., Benhizia, H., Benguedouar, A., Muresu, R., Giacomini, A., Squartini, A. 2004. Gamma proteobacteria can nodulate legumes of the genus *Hedysarum*. *Systematic and Applied Microbiology*, 27:462-468.
- Blackwood, Christopher B., Marsh T., Kim S., Paul E.A. 2003. Terminal restriction fragment length polymorphism data analysis for quantitative comparison of microbial communities. *Applied and Environmental Microbiology*, 69(2): 926-932.
- Borneman, J., Skroch, P.W., O'Sullivan, K.M., Palus, J.A., Rumjanek, N.G., Jansen, J.L., Nienhuis, J., Triplett, E.W. 1996. Molecular microbial diversity of an agricultural soil in Wisconsin. *Applied and Environmental Microbiology*, 62: 1935-1943.
- Bottomley, P.J., Myrold, D.D. 2007. *Soil microbiology, ecology and biochemistry*. Third Edition: Biological N Inputs. Elsevier Inc., USA.
- Budi, S.W., van Tuinen, D., Martinotti, G., Gianinazzi, S. 1999. Isolation from the *Sorghum bicolor* mycorrhizosphere of a bacterium compatible with arbuscular mycorrhiza development and antagonistic towards soilborne fungal pathogens. *Applied and Environmental Microbiology*, 65:5148–50.
- Budzikiewicz, H. 2001. Siderophore-antibiotic conjugates used as trojan horses against *Pseudomonas aeruginosa*. *Current Topics in Medicinal Chemistry*, 1: 73-92.
- Chen, C., Bauske, E.M., Musson, G., Rodriguez-Kabana, R., Klopfer, J.W. 1994. Biological control of *Fusarium* wilt on cotton by use endophytic bacteria. *Biological Control*, 5:83-91.
- Chiarini, L., Bevivino, A., Dalmastri, C., Nacamulli, C., Tabacchioni, S. 1998. Influence of plant development, cultivar and soil type on microbial colonization of maize roots. *Applied Soil Ecology*, 8:11–18.
- Chimwamuombe, P.M., Gronemeyer, J.L., Reinhold-Hurek, B. 2016. Isolation and characterization of culturable seed-associated bacterial endophytes from gnotobiotically grown Maramba bean seedlings. *FEMS Microbiology Ecology*, 92:1–11.

- Choo, Q.C., Samian, M.R., Najimudin, N. 2003. Phylogeny and characterization of three *nifH*-homologous genes from *Paenibacillus azotofixans*. *Applied and Environmental Microbiology*, 69, 3658-3662.
- Conn, V. M., Franco, C. M. M. 2004. Analysis of the endophytic actinobacterial population in the roots of wheat (*Triticum aestivum* L.) by terminal restriction fragment length polymorphism and sequencing of 16S rRNA clones. *Applied and Environmental Microbiology*, 70:1787-1794.
- Coombs, J.T., Franco, C.M.M. 2003. Isolation and identification of actinobacteria from surface-sterilized wheat roots. *Applied and Environmental Microbiology*, 69: 5603-5608.
- Correa-Galeote, D., Bedmar, E.J., Arone, G.J. 2018. Maize endophytic bacterial diversity as affected by soil cultivation history. *Frontiers in Microbiology*, 9: 484.
- Da Motta, F.F., Gomes, E.A., Seldin, L. 2008. Auxin production and detection of the gene coding for the auxin efflux carrier (AEC) protein in *Paenibacillus polymyxa*. *The Journal of Microbiology*, 46(3): 257-264.
- Dey, R., Pal, K.K, Bhatt, D.M., Chauhan, S.M. 2004. Growth promotion and yield enhancement of peanut (*Arachis hypogaea* L.) by application of plant growth-promoting rhizobacteria. *Microbiology Research*, 159: 371-389.
- Dörr, J., Hurek, T., Reinhold-Hurek, B. 1998. Type IV pili are involved in plant microbe and fungus-microbe interactions. *Molecular Microbiology*, 30: 7–17.
- Dodd, J.L.O. 1980. The role of plant stresses in development of corn stalk rots. *Plant Disease*, 64: 533-537.
- El-Yazeid, A.A., Abou-Aly, H.A., Mady, M.A., Moussa, S.A.M. 2007. Enhancing growth, productivity and quality of squash plants using phosphate dissolving microorganisms (bio phosphor) combined with boron foliar spray. *Research Journal of Agriculture and Biological Sciences*, 3(4): 274-286.
- Fahmi, A., Syamsudin, Utami, S.N.H., Radjagukguk, B. 2010. Pengaruh interaksi hara nitrogen dan fosfor terhadap pertumbuhan tanaman jagung (*Zea Mays* L.) pada tanah regosol dan latosol. *Berita Biologi*. 10(3): 297-304.

- Farhat, M.B., Farhat, A., Bejar, W., Kammon, R., Bouchaala, K., Fourati, A., Antoun, H., Bejar, S., Chouayekh, H. 2009. Characterization of mineral phosphate solubilizing activity of *Serratia marcescens* CTM 50650 isolated from the phosphate mine of Gafsa. *Archives of Microbiology*, 191: 815-824.
- Fierer, N., Jackson, R.B. 2006. The diversity and biogeography of soil bacterial communities. *Proc. Natl. Acad. Sci. USA*. 103:626-631.
- Frankowski, J., Lorito, M., Scala, F., Schmid, R., Berg, G., Bahl, H. 2001. Purification and properties of two chitinolytic enzymes of *Serratia plymuthica* HRO-C48. *Archives of Microbiology*. 176(6): 421-426.
- Fujita, K., Furuya, S., Kohno, M., Suzuki, S., Takayanagi, T. 2010. Analysis of microbial community in japanese vineyard soils by culture-independent molecular approach. *Internasional Journal of Wine Research*, 2: 75-104.
- Genersch, E., Otten, C. 2003. The use of repetitive element pcr fingerprinting (rep-PCR) for genetic subtyping of german field isolates of *Paenibacillus larvae* subsp. *larvae*. *Apidologie*, 34: 195-206.
- Gerik, T, Bean, B., Vanderlip, R. 2013. *Sorghum growth and development*. Texas Cooperative Extension. The Texas A & M University System.
- Ghosh, S., Sengupta, C., Maiti, T.K., Basu, P.S. 2008. Production of 3-indolylacetic acid in root nodules and culture by a *Rhizobium* species isolated from root nodules of the leguminous pulse *Phaseolus mungo*. *Folia Microbiologica*, 53(4): 351-355.
- Glick, B.R. 1995. The enhancement of plant growth by free-living bacteria. *Canadian Journal of Microbiology*, 41(2): 109-117.
- Glick, B.R. 2012. Plant growth-promoting bacteria: mechanisms and applications. *Scientifica*, 2012: 1-15.
- Grönemeyer, J.L., Burbano, C.S., Hurek, T., Reinhold-Hurek, B. 2012. Isolation and characterization of root-associated bacteria from agricultural crops in the Kavango region of Namibia. *Plant and Soil*, 356: 67-82.
- Gupta, G., Panwar, J., Akhtar, M.S., Jha. P.N. 2012. *Endophytic nitrogen-fixing bacteria as biofertilizer*, pp.183-221 in. Sustainable Agriculture Reviews 11 Publisher: Springer Dordrecht, The Netherlands.

- Gyaneshwar, P., Kumar, G.N., Parekh, L.J., Poole., P.S. 2002. Role of soil microorganism in improving p nutrition of plants. *Plant and Soil*, 245: 83-93.
- Hallmann, J., Berg, G. 2006. *Spectrum and population dynamics of bacterial root endophytes*. In *Microbial Root Endophytes* (Schulz, B.J.E. et al., eds), pp. 15–31, Springer
- Hallmann J, Quadt-Hallmann, A., Mahaffee, W.F., Kloepper, J. 1997. Bacterial endophytes in agricultural crops. *Canadian Journal of Microbiology*, 43:895–914.
- Hartman, A., Singh, M., Klingmuller, W. 1983. Isolation and characterization of *Azospirillum* mutans excreting high amount of indole-acetic acid. *Canadian Journal of Microbiology*, 29: 916-923.
- Hartono, A. 2000. Pengaruh pupuk fosfor, bahan organik dan kapur terhadap pertumbuhan jerapan P pada tanah masam latosol darmaga. *Gakuryoku*, 6(1): 73-78.
- Homma, T., Nitta, Y., Asagi, N., Matsuda, T., Kamiyama, A., Umehara, R., Kobayashi, R., Inoue, L. E., Narisawa, K., Tatsuo Sato Y., Kato, T., Nakamura, S., Goto, Y. 2010. Variety choice of sweet sorghum (*Sorghum bicolor* L.) as a view of bio-fuel crop. *Japanese Journal of Crop Science*, 79(1): 266-267.
- Hugenholtz, P. 2002. Exploring prokaryotic diversity in the genomic era. *Genom Biology*, 3:1-8.
- Hulton, C.S.I., Higgins, C.F., Sharp, P.M. 1991. ERIC sequence: a novel family of repetitive elements in the genomes of *Escherichia coli*, *Salmonella typhimurium* and other enterobacteria. *Molecular Microbiology*, 5: 762-825.
- Hurek, T., Handley L.L., Reinhold-Hurek, B., Piché, Y. 2003. *Azoarcus* sp. strain Bh72 as a model for nitrogen-fixing gass endophytes. *Journal of Biotechnology*, 19 169-178.
- James, E.K., Olivares, F.L. 1997. Infection and colonization of sugar cane and other gaminaceous plants by endophytic diazotrophs. *Critical Reviews in Plant Science*, 17: 77–119.

- James, E.K. 2000. Nitrogen fixation in endophytic and associative symbiosis. *Field Crop Research*, 65:197–209.
- Ji, S.H., Gururani, M.A., Chun, S. 2014. Isolation and characterization of plant growth promoting endophytic diazotrophic bacteria from Korean rice cultivars. *Microbiology Research*, 169:83– 98.
- Jin, D., Wang, P., Bai, Z., Wang, Z., Peng, H., Qi, R., Yu, Z., Zhuang, G. 2011. Analysis of bacterial community in bulking sludge using culture-dependent and independent approaches. *Journal Environmental Science*, 23(11): 1880-1887.
- Jonsson, L.M., Nilsson, M.C., Wardle, D.A., Zackrisson, O. 2001. Context dependent effects of ectomycorrhizal species richness on tree seedling productivity. *Oikos* 93: 353–364.
- Joshi, K.K, Kumar, V., Dubey, R.C., Maheshwari, D.K. 2006. Effect of chemical fertilizer adaptive variants, *Pseudomonas aeruginosa* GC2 and *Azotobacter chroococcum* AC1 on *Macrophomina phaseolina* causing charcoal rot of *Brassica juncea*. *Korean Journal of Environmental Agriculture*, 25: 228–235.
- Kamilova, F., Kravchenko, L.V., Shaposhnikov, A.I., Azarova, T., Makarova, N., Lugtenberg, B. 2006. organic acids, sugars, and L-tryptohane in exudates of vegetables growing on stonewool and their effects on activities on rhizosphere bacteris. *Molecular Plant-Microbe Interactions*. [Abstract].
- Karlidag, H., Ertam Y., Metin T., Mucahit, P., Figen D. 2013. Plant growth-promoting rhizobacteria mitigate deleterious effects of salt stress on strawberry plants. *Hortscience*, 48(5):563–567.
- Kent A.D., Smith D.J., Benson B.J., Triplett E.W. 2003. Web-based phylogenetic assignment tool for analysis of terminal restriction fragment length polymorphism profiles of microbial communities. *Applied and Environmental Microbiology*, 69: 6768-6776.
- Khan, Z., Doty, S.L. 2009. Characterization of bacterial endophytes of sweet potato plants. *Plant and Soil*, 322: 197-207.
- Kim, Y.C., Jung, H., Kim, K.Y., Park, S.K. 2008. An effective biocontrol bioformulation against *Phytophthora* blight of pepper using growth mixtures



- of combined chitinolytic bacteria under different field conditions. *European Journal of Plant Pathology*, 120(4): 373–382.
- Kim, M., Day, D.F. 2011. Composition of sugar cane, energy cane, and sweet sorghum suitable for ethanol production at Louisiana sugar mills. *Journal of Industrial Microbiology and Biotechnology*, 38:803–807.
- Kirchhof, G., Reis, V.M., Baldani, J.I., Eckert, B., Dobereiner, J., Hartmann, A. 1997. Occurrence, physiological and molecular analysis of endophytic diazotrophic bacteria in gamineous energy plants. *Plant and Soil*, 194: 45-55.
- Kobayashi, M., Suzuki, T., Fujita, T., Masuda, M., Shimizu, S. 1995. Occurrence of enzymes involved in biosynthesis of indole-3-acetic acid from indole-3-acetonitrile in plant-associated bacteria, *Agrobacterium* and *Rhizobium*. *Proceedings of the National Academy of Sciences*, 92: 714-718.
- Kuklinsky-Sobral, J., Araujo, W. L., Mendes, R., Geraldi, I. O., Pizzirani-Kleiner, A. A., Azevedo, J. L. 2004. Isolation and characterization of soybean-associated bacteria and their potential for plant growth promotion. *Environmental Microbiology*, 6:1244-1251.
- Kumar, S., Pandey, P., Maheshwari, D.K. 2009. Reduction in dose of chemical fertilizers and growth enhancement of sesame (*Sesamum indicum*) with application of rhizospheric competent *Pseudomonas aeruginosa* LES4. *European Journal of Soil Biology*, 45: 334–340.
- Latha, P., Karthikeyan, M., Rajeswari, E. 2019. *Endophytic bacteria: prospects and application for the plant disease management* pp.1-50 in Ansari, A.R., Mahmood, I. Plant health under biotic stress. Springer Nature Singapore Pte Ltd.
- Lee, S., Reth, A., Meletzus, D., Sevilla, M., Kennedy, C. 2000. Characterization of major cluster of nif, fix, and associated genes in sugarcane endophyte, *Acetobacter diazotrophicus*. *Journal Bacteriology*, 182(24): 7088-7091.
- Lin, L., Qiao, Y.S., Ju, Z.Y., Ma, C.W., Liu, Y.H., Zhou, Y.J., Dong, H.S. 2009. Isolation and characterization of endophytic *Bacillus subtilis* antagonist of eggplant *Verticillium Wilt*. *Bioscience, Biotechnology & Biochemistry*, 73, 1489-1493.



- Lugtenberg B, Kamilova F. 2009. Plant growth promoting rhizobacteria. *Annual Review of Microbiology*, 63:541–556.
- Maela, P.M., Sarepa-Dlamini, M.H. 2019. Current understanding of bacterial endophytes, their diversity, colonization, and their roles in promoting plant growth. *Applied Microbiology: Open Access*, 5(1): 1-12.
- Maherali, H., Klironomos, J.N. 2007. Influence of phylogeny on fungal community assembly and ecosystem functioning. *Science*, 316: 1746–1748.
- Mariana, Z.T., Razie, F., Septiana, M. 2007. Aktivitas bakteri asidofil pengoksidasi besi dan sulfur pada lahan pasang surut Kalimantan Selatan. *Jurnal Agritek*, 15(4): 888– 895.
- Marschner, P., Crowley, D.E., Yang, C.H. 2004. Development of specific rhizosphere bacterial communities in relation to plant species, Nutrition and Soil Type. *Plant and Soil*, 261: 199-208.
- Mareque, C., Taule, C., Beracochea, M., Battistoni, F. 2015. Isolation, characterazation and plant growth promotion effect of putative bacterial endophytes associated with sweet sorghum (*Sorghum bicolor* (L) Moench). *Annals of Microbiology*, 65: 1057-1067.
- Matos, A.D.M., Gomes, I.C.P., Nietzsche, S., Xavier, A.A., Gomes, W.S., Neto, J.A.D., Pereira, M.C.T. 2017. Phosphate solubilization by endophytic bacteria isolated from banana trees. *Annals of the Brazilian Academy of Science*, 1: 1-10.
- Melliawati, R., Widyaningum, D.N., Djohan, A.C., Sukiman, H. 2006. Pengkajian bakteri endofit penghasil senyawa bioaktif untuk proteksi tanaman. *Biodiversitas*, 7(3): 221-224.
- Meyer, J.M. 2000. Piyoverdins: pigments, siderophores and potential taxonomic markers of flourescent *Pseudomonas* species. *Archives of Microbiology*, 174(3): 135-142.
- Mia, M., Baset, A., Shamsuddin, Z.H., Wahab, Z., Marziah, M. 2009. The effect of rhizobacterial inoculation on growth and nutrient accumulation of tissue cultured banana plantlets under low n-fertilizer regime. *African Journal of Biotechnology*, 8(21), 5855-5866.

- Nagasawa, T., Mauger, J., Yamada, H. 1990. A novel nitrilase, arylacetonitrilase, of *Alcaligenes faecalis* JM3—purification and characterization. *European Journal of Biochemistry*, 194: 765-772.
- Naureen, Z., Rehman, N.U., Hussain, H., Hussaiun, J., Gilani, S.A., Al Housni, S.K., Mabood, F., Khan, A.L., Farooq, S., Abbas, G., Harrasi, A.A. 2017. Exploring the potentials of *Lysinibacillus sphaericus* ZA9 for plant growth promotion and biocontrol activities against phytopathogenic fungi. *Front Microbiology*, 8: 1477-1484.
- Neilands, J.B. 1995. Siderophores: structure and functional of microbial iron transport compounds. *The Journal of Biological Chemistry*, 270(45): 26723-26726.
- Nitta, Y., Kamiyama, A., Matsuda, T., Nakamura, S., Goto, Y., Inoue, E., Narisawa, K., Kurusu, Y., Ohta, H., Chonan, S., Toyoda, A., Kato, T., Kobayashi, H., Komatsuzaki, M., Sato, T. 2008. Sweet sorghum cultivation as a bio-fuel crop in Ibaraki prefecture. *Japanese Journal of Crop Science*, 77 (1): 90-91.
- Oberhansli, T., Defag, G., Haas, D. 1991. Indole-3-acetic acid (IAA) synthesis in the biocontrol strain CHA0 of *Pseudomonas fluorescens* – role of tryptophan side-chain oxidase. *Journal of General Microbiology*, 137: 2273–2279.
- Olivares, F.L., Baldani, V.L.D., Reis, V.M., Baldani, J.I., Döbereiner, J. 1996. Occurrence of the endophytic diazotrophs *Herbaspirillum* spp. In roots, stems, and leaves, predominantly of Gamineae. *Biol Fertil Soils*, 21:197–200.
- Ordentlich, A., Elad, Y., Chet, I. 1998. The role of chitinase of *Serratia marcescens* in biocontrol of *Sclerotium rolfsii*. *Phytopathology*, 78: 84-88.
- Padda, K.P., Puri, A., Chanway, C.P. 2018. Isolation and identification of endophytic diazotrophs from lodgepole pine trees growing at unreclaimed gravel mining pits in central interior British Columbia, Canada. *Canadian Journal of Forest Research*, 48(12): 1601-1606.

- Pan, D., Mionetto, A., Tiscornia, S., Bettuci, L. 2015. Endophytic bacteria from wheat grain as biocontrol agents of *Fusarium graminearum* and deoxynivalenol production in wheat. *Mycotoxin Research*, 31(3): 137-143.
- Parley, J.W., Stowe, B.B. 1966. On the ability of *Taphrinade formans* to produce indoleacetic acid from tryptophan by way of tryptamine. *Plant Physiology*, 41: 234-237.
- Poly, F., Ranjard, L., Nazaret, S., Gourbière, F., Monrozier, L.J. 2001. comparison of *nifH* gene pools in soils and soil microenvironments with contrasting properties. *Applied and Environmental Microbiology*, 67:2255–2262.
- Prasad, S., Singh, A., Jain, N., Joshi, H.C. 2007. Ethanol production from sweet sorghum syrup for utilization as automotive fuel in India. *Energy Fuels*, 21: 2415-2420.
- Ranjbariyan, A.R, Shams-Ghahfarokhi, M., Kalantari, S., Razzaghi-Abyaneh, M. 2011. Molecular identification of antagonistic bacteria from Tehran soils and evaluation of their inhibitory activities toward pathogenic fungi. *Iran Journal of Microbiology*, 3: 140-146.
- Ratnavathi, C.V., Chakravarthy, S.K., Komala, V.V., Chavan, U.D., Patil, J.V. 2011. Sweet Sorghum as Feedstock for Biofuel Production: A Review. *Sugar Technology*, 13(4): 399-407.
- Rao, N.S.S. 1994. *Mikroorganisme Tanah dan Pertumbuhan Tanaman*. (Terjemahan Lukman & Suharyono). Bandung: Institut Teknologi Bandung. Press.
- Reddy, B.V.S., Ramesh, S., Reddy, P.S., Ramaiah, B., Salimath, P.M., Kachapur, R. 2005. Sweet sorghum—a potential alternate raw material for bio-ethanol and bio-energy. *International Sorghum and Millets Newsletter*, 46: 79-86.
- Reddy, B.V.S., Sanjana, R.P. 2003. Sweet sorghum: characteristics and potential. *International Sorghum and Millets Newsletter*, 44: 26-28.
- Reddy, B.V.S, Ramesh, S., Reddy, P.S., Kumar, A.A., Sharma, K.K., Chetty, S.M.K., Palaniswamy, A.R.. 2006. *Sweet Sorghum: Food, Feed, Fodder and Fuel Crop*, India: ICRISAT.

- Rego, T.J., Rao, V.N., Seeling, B., Pardhasaradhi, G., Rao, J.V.D.K. 2003. Nutrient balances a guide to improving sorghum and ground based dry land cropping systems in semi-arid topical India. *Field Crop Research*, 81: 53-68.
- Reinhold-Hurek, B., Hurek, T. 1998. Life in gasses: diazotrophic endophytes. *Trends Microbiology*, 6: 139-144.
- Rina, D. 2015. *Manfaat unsur N, P, dan K bagi tanaman*. BPTP Kaltim, Badan Litbang Pertanian, RI.
- Roberti, R., Selmi, C. 1999. Biological control of plant pathogens by *Bacillus subtilis*. *Informatore Fitopatologico*, 37, 256-265.
- Rokhzadi, A., Asgharzadeh, A., Darvish, F., Nourmohammadi, G., Majidi, E. 2008. Influence of plant growth-promoting rhizobacteria on dry matter accumulation and yield of chickpea (*Cicer arietinum* L.) under field condition. *Journal of Agriculture and Environmental Science*, 3(2): 253-257.
- Rosenblueth, M., Martinez-Romero, E. 2006. Bacterial Endophytes and Their Interaction with Host. *The American Phytopathological Society*. 19(8): 827-837.
- Sanguin, H., Remenant, B., Dechesne, A., Thioulouse, J., Vogel, T. M., Nesme, X. 2006. Potential of a 16S rRNA-based taxonomic microarray for analyzing the rhizosphere effects of maize on *Agrobacterium* spp. and bacterial communities. *Applied and Environmental Microbiology*, 72, 4302-4312. doi: 10.1128/AEM.02686-05.
- Sarig, S., Okon, Y., Blum, A. 1990. Promotion of leaf area development and yield in *Sorghum bicolor* with *Azospirillum brasilense*. *Symbiosis*, 9: 235-245.
- Sarwar, M., Kremer, R.J. 1995. Determination of bacterially derived auxins using a microplate method. *Letters in Applied Microbiology*, 20: 282-285.
- Schulz, B., Boyle, C. 2006. *What are endophytes?* pp 1-10 in Schulz, B., Boyle, C. and Sieber, T.N. *Soil Microbiology* Vol. 9. Springer-Verlag Berlin Heildeberg.
- Schwyn, B., Neilands, J.B. 1987. Universal chemical assay for detection and determination of siderophores. *Annals Biochemistry*, 160(1): 47-56.

- Sekine, M., Watabane, K., Syono, K. 1989. Molecular cloning of a gene for indole-3-acetamide hydrolase from *Bradyrhizobium japonicum*. *Journal of Bacteriology*, 171: 1718-1724.
- Sessitsch, A., Hardoim, P., Döring, J., Weilharter, A., Krause, A., Woyke, T., Mitter, B., Hauberg-Lotte, L., Friedrich, F., Rahalkar, M., Hurek, T., Sarkar, A., Bodrossy, van Overbeek, L., Brar, D., van Elsas, J.D., Reinhold-Hurek, B. 2012. Functional characteristics of an endophyte community colonizing rice roots as revealed by metagenomic analysis. *Molecular Plant-Microbe Interaction*, 25: 28-36.
- Shoemaker, C.E., Bransby, D.I. 2010. *The role of sorghum as a bioenergy feedstock*. In: Sustainable alternative fuel feedstock opportunities, challenges and roadmaps for six U.S. regions. Soil and Water Conservation Society. Braun, R., Karlen, D.L., Johnson, D. Ankeny. pp 149–159.
- Shyu, C., Soule T., Bent S.J., Foster J.A., Forney L.J. 2007 MiCA: a web-based tool for the analysis of microbial communities based on terminal-restriction fragment length polymorphism of 16S and 18S rRNA genes. *Journal of Microbial Ecology*, 53:562-570.
- Singh, P.P., Shin, Y.C., Park, C.S., Chung, Y.R. 1999. Biological control of *Fusarium wilt* of cucumber by chitinolytic bacteria. *Phytopathology*, 89(1): 92-99.
- Spaepen, S., Vanderleyden, J., Remans, R. 2007. Indole-3-acetic acid in microbial and microorganism-plant signaling. *FEMS Microbiology Reviews*, 10: 1-24.
- Stackebrandt, E., Goebel, B.M. 1994. Taxonomic note: a place for dna-dna reassociation and 16s rRNA sequence analysis in the present species definition in bacteriology. *International Journal of Systematic and Evolutionary Microbiology*, 44(4): 846-849.
- Stern, M.J., Ames, G.F.L., Smith, N.H., Robinson, E.C., Higgins, C.F. 1984. Repetitive extragenic palindromic sequence: a major component of the bacterial genome. *Cell*, 37: 1015-1026.
- Stoica, E. 2009. Application of T-RFLP Analysis to the study of the coastal black sea bacterioplankton. *Romanian Biotechnological Letters*, 14(5): 4710-4719.

- Strobel, G., Daisy, B. 2003. Bioprospecting for microbial endophytes and their natural product. *Microbiology and Molecular Biology Reviews*, 67(4): 491-502.
- Subagio, H., Aqil, M. 2014. Perakitan dan pengembangan varietas unggul sorgum untuk pangan, pakan, dan bioenergi. *Iptek Tanaman Pangan*, 9(1): 39-50.
- Sumantri, A., Purnomo, E. 1997. Sweet sorghum research and development in Indonesia. Proc. 1st Int. Sweet Sorghum. *Conf., Inst. Bot. Chin. Acad. Sci., China*. 49–57.
- Sun, H., He, Y., Xiao, Q., Ye, R., Tian, Y. 2013. Isolation, characterization, and antimicrobial activity of endophytic bacteria from *Polygonum cuspidatum*. *African Journal of Microbiology Research*, 7(16), 1496-1504.
- Sundara, B., Natarajan, V., Hari, K. 2002. Influence of phosphorus solubilizing bacteria on the changes in soil available phosphorus and sugarcane and sugar yields. *Field Crops Research*, 77: 43-49.
- Tesso, T.T., Claflin, L.E., Tuinstra, M.R. 2005. Analysis of stalk rot resistance and genetic diversity among drought tolerant sorghum genotypes. *Crop Science*, 45: 645-652.
- Theunis, M., Kobayashi, H., Broughton, W.J., Prinsen, E. 2004. Flavonoids, NodD1, NodD2, and Nod-box nb15 modulate expression of the y4wefg locus that is required for indole-3-acetic acid synthesis in *Rhizobium* sp. strain NG234. *Molecular Plant-Microbe Interactions*, 17: 1153-1161.
- Thies, J.E. 2007. Soil microbial community analysis using terminal restriction fragment length polymorphisms. *Soil Science Society America Journal*, 71: 579-591.
- Tsialtas, J.T., Maslaris, N. 2005. Effect of N fertilization rate on sugar yield and non-sugar impurities of sugar beets (*Beta vulgaris*) grown under mediterranean conditions. *Journal of Agronomy and Crop Science*, 191: 330-339.
- Tsuchihashi, N., Goto, Y. 2004. Cultivation of sweet sorghum (*Sorghum bicolor* (L.) Moench) and determination of its harvest time to make use as the raw material for fermentation, practiced during rainy season in dry land of Indonesia. *Plant Production Science*, 7: 442-448.

- Ulrich, K., Ulrich, A., Ewald, D., 2008. Diversity of endophytic bacterial communities in poplar grown under field conditions. *FEMS Microbiology Ecology*, 63: 169–180.
- van der Heijden, M.G.A., Klironomos, J.N., Ursic, M., Moutoglou, P., Engel, R.S., Boller, T. 1998. Mycorrhizal fungal diversity determines plant biodiversity, ecosystem variability and productivity. *Nature*, 396: 72–75.
- van der Heijden, M.G.A., Bardgett, R.D., van Straalen, N.M. 2008. The unseen majority: soil microbes as drivers of plant diversity and productivity in terrestrial ecosystem. *Ecology Letters*, 11: 296-310.
- van Overbeek, L., van Elsas, J.D. 2008. Effects of plant genotype and growth stage on the structure of bacterial communities associated with potato (*Solanum tuberosum* L.). *FEMS Microbiology Ecology*, 64: 283-296.
- Vendan, R.T., Yu, Y.J., Rhee, Y.H. 2010. Diversity of endophytic bacteria in ginseng and their potential for plant growth. *Journal of Microbiology*, 48(5): 559-565.
- Verma, P., Yadav, A.N., Khannam, K.Z., Panjiar, N., Kumar, S., Saxena, A.K., Suman, A. 2015. Assessment of genetic diversity and plant growth promoting attributes of psychrotolerant bacteria allied with wheat (*Triticum aestivum*) from the northern hills zone of India. *Annals of Microbiology*, 65: 1885–1899.
- Versalovic, J., de Bruijn, F.J., Lupski, J.R. 1999. Repetitive sequence-based PCR (rep-PCR) DNA fingerprinting of bacterial genomes. *Bacterial Genome: Physical Struktur and Analysis*, 437-454.
- Vessey, J.K. 2003. plant growth promoting rhizobacteria as biofertilizers. *Plant and Soil*, 255: 571-586.
- Woodward, A.W., Bartel, B. 2005. Auxin: regulation, action, and interaction. *Annals of Botany*, 95: 707-735.
- Yasmin, F., Othman, R., Sijam, K., Saad, M.S. 2009. Characterization of beneficial properties of plant growth promoting rhizobacteria isolated from sweet potato rhizosphere. *African Journal of Microbiology Research*, 3(11): 815-821.



- Zabed, H., Sahu, J.N., Suely, A., Boyce, A.N., Faruq, G. 2017. Bioethanol production from renewable sources: Current perspectives and technological progress. *Renewable and Sustainable Energy Reviews*, 71: 475-501.
- Zhang, L., Xu, Z. 2008. Assessing bacterial diversity in soil. *Journal of Soils and Sediments*, 8: 379-388.
- Zhao, Y., Christensen, S.K., Frakhauser, C., Cashman, J.R., Cohen, J.D., Weigel, D., Chory, J. 2001. A role for flavin monooxygenase like enzymes in auxin biosynthesis. *Science*, 291: 306-309.
- Zhao, Y. 2010. Auxin biosynthesis and its role in plant development. *Annual Review of Plant Biology*, 61: 49-64.
- Zhu, Y., She, X. 2018. Evaluation of the plant-growth-promoting abilities of endophytic bacteria from the psammophyte *Ammodendron bifolium*. *Canadian Journal of Microbiology*. 64(4): 253-264.
- Zinniel, D.K., Lambrecht, P., Harris, N.B., Feng, Z., Kuczmarski, D., Higley, P., Ishimaru, C.A., Arunakumari, A., Barletta, R.G., Vidaver, A.K. 2002. Isolation and characterization of endophytic colonizing bacteria from agonomic crops and prairie plants. *Applied and Environmental Microbiology*, 68: 2198-2208
- Živković, S., Stojanovic, S., Ivanović, Ž., Gavrilović, V., Popović, P., Balaž, J. 2010. Screening of antagonistic activity of microorganisms against *Colletotrichum acutatum* and *Colletotrichum gloeosporioides*. *Archives of Biological Science Belgade*, 62(3): 611-623.
- Zolman, B.K., Yoder, A., Bartel, B. 2000. Genetic analysis of indole-3-butyric acid responses in *Arabidopsis thaliana* reveals four mutant classes. *Genetics*, 156: 1323-1337.