DAFTAR PUSTAKA

Aibinu, I., Adenipekun, T., Adelootan, T., Ogunsanya, T., and Odugbemi, T. 2007. Evaluation of the antimicrobial properties of different parts of *Citrus aurantifolia* (lime fruit) as used locally. *Afr. J. Trad. Complement, Altern. Med.* 4(2): 185-190.

Akharaiyi, F. C. 2011. Antibacterial, phytochemical and antioxidant activities of *Datura metel*. *Int. J. PharmTech Res.* 3(1): 478-483.

Akpa, E., Jacques, P., Wathelet, B., Paquot, M., Fuchs, R., Budzikiewics, H., and Thonart, P. 2001. Influence of culture condition on lipopeptide production by *Bacillus subtilis*. *Appl. Biochem. Biotechnol.* 91: 537-547.

Algam, S. A., Guan-lin, X., and Coosemans, J. 2005. Delivery methods for introducing endophytic *Bacillus* into tomato and their effect on growth promotion and suppression of tomato wilt. *Plant Pathol. J.* 4(1): 69-74.

Ambrosini, A., Beneduzi, A., Stefanski, T., Pinheiro, F. G., Vargas, L. K., and Passaglia, L. M. P. 2012. Screening of plant growth promoting rhizobacteria isolated from sunflower (*Helianthus annuus* L.). *Plant Soil*. 356: 245-264.

Andreote, F. D., Rossetto, P. B., Mendes, R., Avila, L. A., Labate, C. A., Pizzirani-Kleiner, A., A., Azevedo, J. L., and Araujo, W. L. 2009. Bacterial community in the rhizosphere and rhizoplane of wild type and transgenic *Eucalyptus*. *World J. Microbiol. Biotechnol.* 25: 1065-1073.

Andreote , F. D., da 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.

Anjum, N., and Chandra, R. 2015. Endophytic bacteria optimization of isolation procedure from various medicinal plants and their preliminary characterization. *Asian J. Pharm. Clin. Res.* 8(4): 233-238.

Aranda, S., Montes-Borrego, M., Jjimenez-Diaz, R. M., and Landa, B. B. 2011. Microbial communities associated with the root system of wild olives (*Olea europaea* subsp. *europaea* var. *sylvestris*) are good reservoirs of bacteria with antagonistic potential against *Verticillium dahliae*. *Plant Soil*. 343: 329-345.

Araujo, W. L., Maccheroni, W. Jr., Aguilar-Vildoso, C. I., Barroso, P. A. V., Saridakis, H. O., and Azevedo, J. L. 2001. Variability and interaction between endophytic bacteria and fungi isolated from leaf tissues of *Citrus* rootstock. *Can. J. Microbiol*. 47: 229-236.

Ardanov, P., Sessitsch, A., Haggman, H., Kozyrovska, N., and Pirttila, A. M. 2012. *Methylobacterium*-induced endophyte community changes correspond with protection of plant against pathogen attack. *Plos One*. 7 (10): e46802.

Arianandа, W. 2011. Isolasi senyawa Triterpen non kuasinoid dan uji aktivitas antibakteri dari fraksi semi polar biji malua (*Brucea sumatrana* Roxb.). *Skripsi*. Fakultas Farmasi Universitas Andalas, Padang.

Asha, D. S., and Ben, C. P. 2014. Last concerned bark and stipules of *Artocarpus* species (Moraceae) – An effective antibacterial agent. *Int. Res. J. Biolog. Sci.* 3(2): 25-29.

Aslani, F., Juraimi, A. S., Ahmad-Hamdani, M. S., Omar, D., Alam, M. A., Hakim, M. A., and Uddin, M. K. 2013. Allelopathic effects of Batawali (*Tinospora tuberculata*) ongermination and seedling growth of plants. *Res. Crops.* 14(4): 1222-1231.

Aslamiyah, Wati, E. E., Utami, S., Mulyadi, K., Yudistira, dan Sari, F. W. 2010. *Pengenalan Tumbuhan Penghasil Pestisida Nabati dan Pemanfaatannya secara Tradisional*. Kementrian Kehutanan Badan Penelitian dan Pengembangan Kehutanan, Palembang.

Asraful, S. M. A., Math, R. K., Kim, J. M., Yun, M. G., Cho, J. J., Kim, E. J., Lee, Y. H., and Yun, H. D.2010. Effect of plant age on endophytic bacterial diversity of balloon flower (*Platycodon grandiflorum*) root and their antimicrobial activities. *Curr. Microbiol*. 61: 346-356.

Astuti, D, I. 2003. *Pemanfaatan Kultur Campuran Isolat Mikroba Lokal untuk Degradasi Minyak Bumi dan Produksi Biosurfaktan*. Disertasi Doktor Institut Teknologi Bandung, Bandung.

Atomssa, T., and Gholap, A. V. 2011. Characteriation of caffeine and determination of caffeine in tea leaves using uv-visible spectrometer. *Afr. J. Pure Appl. Chem.* 5(1): 1-8.

Awais, M., Pervez, A., Yaqub, A., and Shah, M. M. 2010. Production of antimicrobial metabolites by *Bacillus subtilis* immobilized in polyacrylamide gel. *Pakistan J. Zool*. 42(3): 267-275.

Ayyanar, M., and Subash-Babu, P. 2012. *Syzygium cumini* (L.) Skeels: A review of its phytochemical constituents and traditional uses. *Asian Pac. J. Trop. Biomed*. 2(3): 240-246.

Baldani, J. I., Baldani, V. L., Goi, S., and Dobereiner, J. 1997. Recent advances in BNF with non-legume plants. *Soil Biol. Biochem*. 29: 911–922.

Baldani, J. I., and Baldani, V. L. D. 2005. History on the biological nitrogen fixation research in graminaceous plants: Special emphasis on the Brazilian experience.*Ann. Brazilian Acad. Sci*.**77**(3): 549-575.

Baldotto, L. E. B., Olivares, F. L., and Bressan-Smith, R. 2011. Structural interaction between GFP-labeled diazotrophic endophytic bacterium *Herbaspirillum seropedicae* RAM10 and pineapple plantlets 'Vitoria'. *Brazilian J. Microbiol*. 42 (1): 114-125.

Barretti, P. B., de Souza, R. M., Pozza, E. A., and de Souza, J. T. 2012. Combination of endophytic bacteria and resistant cultivars improves control of *Ralstonia* wilt of tomato. *Aus. Plant Pathol.* 41: 189-195.

Bashra, J., Fariha, H., Abdul, H., and Safia, A. 2007. Isolation of *Bacillus subtilis* MH-4 from soil and its potential of polypeptidic antibiotic production. *Pakistan J. Pharmaceut. Scii.* 20: 26-31.

Battu, P. R., and Reddy, M. S. 2009. Isolation of secondary metabolites from *Pseudomonas flourescens* and its characterization. *Asian J. Res. Chem*. 2(1): 26-29.

Becerra-Castro, C., Kidd, P. S., Prieto-Fernandez, A., Weyens, N., Acea, M., and Vangronsveld, J.2011. Endophytic and rhizoplane bacteria associated with *Cytisus striatus* growing on hexachlorocyclohexane-contaminated soil: Isolation and caracterization. *J. Plant Soil*. 340: 413-433.

Beltran-Garcia, E., Macedo-Raygoza, E., Villafana-Rojas, J., Martinez-Rodriguez, A., Chavez-Castrillon, Y. Y., Espinosa-Escalante, F. M., Mascio, P. D., Ogura, T., and Beltran-Garcia, M. J. 2017. Production of lipopeptides by fermentation processes: Endophytic bacteria, fermentation strategies and easy methods for bacterial selection. *Fermentation Processes*. InTech. 199-222.

Berg, G., Elberl, L., and Hartmann, A. 2005. The rhizosphere as a reservoir for opportunistic human pathogenic bacteria. *Environ. Microbiol.* 7: 1673-1685.

Berg, G., and Hallmann, J. 2006. Control of plant pathogenic fungi with bacterial endophytes. In: Schulz, B., Boyle, C., and Sieber, T. N. (eds). *Soil Biologi 9: Microbial Root Endophytes*. Springer, Berlin. 63-67.

Bhargavi, S., Kanakaiah, B., Sowmya, D. K., Ravi, B., and Nama, S. 2013. An evaluation of the antibacterial activity of root extract of *Manilkara zapota* against *Staphylococcus aureus* and *E. coli*. *Int. J. Phytopharm*. 4(3): 171-173.

Bhoonobtong, A., Sawadsitang, S., Sodngam, S., and Mongkolthanaruk, W. 2012. Characterization of endophytic bacteria, *Bacillus amyloliquefaciens* for antimicrobial agent production. *International Converence on Biological and Life Sciences*. 40: 6-11.

Black, J. 1999. *Microbiology Principles and Explorations*. Prentice Hall Upper Saddle River, New Jersey.

Bloemberg G. V., and Lugtenberg, B. J. J. 2001. Molecular basis of plant growth promotion and biocontrol by rhizobacteria. *Curr. Opin. Plant Biol.* 4: 343-350.

Bodenhausen, N., Horton, M. W., and Bergelson, J.2013. Bacterial communities associated with the leaves and the roots of *Arabidopsis thaliana*. *Plos One*. 8(2): e56329.

Buchanan, R. E., dan Gibbons, N. E. 1974. *Bergey's Manual of Determinative Bacteriology*, 8th Edition. The William and Wilkins Co., Baltimore.

Bulgarelli, D., Rott, M., Schlaeppi, K., van Themaat, E. V. L., Ahmadinejad, N., Assenza, F., Rauf, P., Huettel, B., Reinhardt, R., Schmelzer, E., Peplies, J., Gloeckner, F. O., Amann, R., Eickhorst, T., and Schulze-Lefert, T. 2012. Revealing structure and assembly cues for *Arabidopsis*root-inhabiting bacterial microbiota. *Nature*. 488: 91-96.

Bundale, S., Begde, D., Nashikkar, N., Kadam, T., and Upadhyay, A. 2015. Optimization of culture condition for production of bioactive metabolites by *Streptomyces* spp. isolated from soil. *Adv. Microbiol*. 5: 441-451.

Burch, G., and Sarathchandra, U. 2006. Activities and survival of endophytic bacteria in white clover (*Trifolium repens* L.). *Can. J. Microbiol.* 52(9): 848-856.

Burkhead, K. D., Schisler, D. A., and Slininger, P. J. 1995. Bioautography shows antibiotic to fungal dry rot of potatoes. *Soil Biol. Biochem*. 27: 1611-1616.

Caldwell, D. R. 1995. *Microbial Physiology and Metabolism*. Wm. C. Brown Publishers, Dubuque.

Capucino, J. G., and Sherman, N. 2014. *Microbiology : A Laboratory Manual*. Pearson Education, Boston.

Cao, J. W., and Ma, H. W. 2002. *Microbial Engineering*. Science Press, Beijing.

Carrim, A. J. I., Barbosa, E. C., and Viera, J. D. G. 2006. Enzymatic activity of endophytic bacterial isolates of *Jacaranda decurrens* Cham. (Corobinha-do-campo). *Brazilian Arch. Biol. Tech.* 49(3): 353-359.

Castillo, U. F., Strobel, G. A., Ford, E. J. F., Hess, W. M. H., Porter, H., Jensen, J. B. J., Albert, H., Robinson, R., Condron, M. A. M., Teplo, D. B., Stevens, D., and Yaver, D. 2002. Munumbicins, wide-spectrum antibiotics produced by *Streptomyces* NRRL 30562, endophytic on *Kennedia nigriscans*. *Microbiol*. 148: 2675–2685.

Chaiharn, M., Chunhaleuchanon, S., and Lumyong, S. 2009. Screening siderophore producing bacteria as potential biological control agent for fungal rice pathogens in Thailand. *World. J. Microbiol. Biotechnol.* 25: 1919-1925.

Chen, W., Tang, Y., Mori, K., and Wu, X. 2012. Distribution of culturable endophytic bacteria in aqua plant and their potential for bioremediation in polluted waters. *Aqua. Biol.* 15: 99-110.

Cho, K., Hong, S., Lee, S., Kim, Y., Kahng, G., Lim, Y., Kim, H., and Yun, H. 2007. Endophytic bacteria communities in ginseng and their antifungal activity against pathogens. *Microbiol. Ecol*. 54: 341-351.

Chojnacka, K. 2010. Fermentation products. *Chem. Eng. Chem. Process Tech.*. 5.

Chukwuka, K. S., Ikheloa, J. O., Okonko, I. O., Moody, J. O., and Mankinde, T. A. 2011. The antimicrobial activities of some medicinal plants on *Escherichia coli* as an agent of diarrhea in livestock. *Adv. Appl. Sci. Res*. 2(4):37-48.

Chun, J., and Sook, K. B. 2000. Phylogenetic analysis of *Bacillus subtilis* and related taxa based on partial *gyrA* gene sequence. *Antonie van Leeuwenhoek*. 78: 123-127.

Compant, S., Reiter, B., Sessitsch, A., Nowak, J., Clement, C., and ait Barka, E. 2005. Endophytic colonization of *Vitis vinifera* L. by plant growth-promoting bacterium *Burkholderia* sp. strain PsJN. *Appl. Environment. Microbiol*. 71(4): 1685-1693.

Compant, S., Kaplan, H., Sessitsch, A., Nowak, J., ait Barka, E., and Clement, C. 2008. Endophytes colonization of *Vitis vinifera* L. by *Burkholderia phytofirmans* strain PsJN: from rhizosphere to inflorescence tissues. *FEMS Microbiol. Ecol*. 63: 84-93.

Compant, S., Clement, C., and Sessitsch, A. 2010. Plant growth-promoting bacteria in the rhizo- and endosphere of plants: Their role, colonization, mechanism involved and prospects for utilization. *Soil Biol. Biochemis.* 42: 669-678.

Cooper, D. G., MacDonald, C. R., Duff, S. J. B., and Kosaric, N. 1981. Enhanced production of surfactin from *Bacillus subtilis* by continuous product removal and metal cation additions. *Appl. Environ. Microbiol*. 42: 408-412.

Correa, V. R., Majerczak, D. R., Ammar, E., Merighi, M., Pratt, R. C., Hogenhout, S. A., Coplin, D. L., and Redinbaugh, M. G. 2012. The bacterium *Pantoea stewartii* uses two different type III secretion systems to colonize its plant host and insect vector. *Appl. Environmen. Microbiol*. 78(17): 6327-6336).

Crueger, W., Crueger, A. 1984. *Biotechnology: A Textbook of Industrial Microbiology*. Sinauer Associates, Inc. Sunderland.

Dalal, J., and Kulkarni, N. 2013. Antagonistic and plant growth promoting potentials of indigenous endophytic bacteria of soybean (*Glycine max* (L.) Merril). *Curr. Res. in Microbiol. Biotechnol.* 1(2): 62-69.

Dash, S., Jin, C., Lee, O. O., Xu, Y., and Qian, Y. P. 2009. Antibacterial and antilarval-settlement potential and metabolite profiles of novel sponge-associated marine bacteria. *J. Indust. Microbiol. Biotechnol.* 36: 1047-1056.

Datta, A. R., and Kothary M. H. 1993. Effects of glucose, growth temperature, and pH on listreriolysin O production in *Listeria monocytogenes*. *App. Environ. Microbiol*. 59: 3495-3497.

Davis, W. W., and Stout, T. R. 1971. Disc plate methods of microbiological antibiotic assay. *Microbiol.* 22(4)**:** 659-665.

Demain, A. L. 1989. Carbon source regulation of idiolite biosynthesis in actinomycetes. In: Shapiro, S. *Regulation of Secondary Metabolism in Actinomycetes*. CRC Press, Boca Raton. 127-134

Demirkan, E., and Usta, A. 2013. The effect of growth parameters on the antibiotic activity and sporulation in *Bacillus* spp. isolated from soil. *J. Microbiol. Biotechnol. Food Sci*. 2(5): 2310-2313.

de Carvalho, A. L. U., de Oliveira, F. H. P. C., Mariano, R. dL. R. M., Gouveia, E. R., and Souto-Maior, A. M. 2010. Growth, sporulation and production of bioactive compounds by *Bacillus subtilis* R14. *Brazilian Arch. Biol. Technol*. 53(3): 643-652.

de Melo, F. M. P., Fiore, M. F., de Morales, L. A. B., Silva-Stenico, M. E., Scramin, S., Teixeira, M. A., and de Melo, I. S. 2009. Antifungal compound produced by the cassava endophyte *Bacillus pumilus* MAIIIM4A. *Sci. Agric*. 66(5): 583-592.

de Melo Pereira, G. V., Magalhaes, K. T., Lorenzetti, E. R., Souza, T. P., and Schwan, R. F. 2012. A multiphasic approach for the identification of endophytic bacterial in strawberry fruit and their potential for plant growth promotion. *Microb. Ecol*. 63: 405-417.

de Oliveira, G. F., Furtado, N. A. J. C., Filho, A. A. S., Martins, C. H. G., Bastos, J. K., Cunha, W. R., and Silva, M. L. A. 2007. Antimicrobial activity of *Syzygium cumini* (Myrtaceae) leaves extract. *Brazilian J. Microbiol.* 38: 381-384.

Djamaan, A., Agustien, A., dan Yuni, D. 2012. Isolasi bakteri endofit dari tumbuhan surian (*Toona sureni* Blume Merr.) yang berpotensi sebagai penghasil antibakteri. *Jurnal Bahan Alam Indonesia*. 8(1): 37-40.

Djunaedy, A. 2009. Biopestisida sebagai pengendali organisme pengganggu tanaman (OPT) yang ramah lingkungan. *Embryo*. 6(1): 88-95.

Doeloe, H. W. 1994. *Microbial Process Development*. Word Scientific Publishing Co. Pte. Ltd., Singapore.

Duffy, B. K., and Defago, G. 1999. Environmental factors modulating antibiotic and siderophore biosynthesis by *Pseudomonas flourescens* biocontrol strains. *Appl. Environ. Microbiol.* 65: 2429-2438.

Duraipandiyan, V., Al-Harbi, N. A., Ignacimuthu, S., and Muthukumar, C. 2012. Antimicrobial activity of sesuquiterpene lactones isolated from traditional medicinal plant, *Costus speciosus* (Koen ex. Retz.) Sm. *BMC Compl. Altern. Med*. 12(13): 1-6.

Eisai. 1995. *Medical Herbs Index in Indonesia*. Jakarta. 453.

Elad, Y., and Chet, I. 1995. Practical approaches for biocontrol implementation. In: Reuveni, R. (ed). *Novel Approaches to Integrated Pest Management*. Lewis Publisher, CRC Press, Boca Raton. 323-338.

Elibol, M., and Mavituna, F. 1998. Effect of sucrose on actinorhodin production by *Streptomyces coelicolor* A3 (2). *Process Biochem*. 33: 307-311.

Elibol, M. 2004. Optimization of medium compotition for actinorhodin production by *Streptomyces coelicolor* A3 (2) with response surface methodology. *Process Biochem*. 39: 1057-1062.

El-Banna, N. M. 2006. Effect of carbon source on the antimicrobial activity of *Corynebacterium kutscheri* and *Corynebacterium xerosis. Afr. J. Biotechnol*. 33:307-311.

El-Bendary, M. A. 2006. *Bacillus thuringiensis* and *Bacillus sphaericus* biopesticides production. *J. Basic Microbiol*. 46(2): 158-170.

Fardiaz, S. 1998. *Fisiologi Fermentasi*. Pusat Antar Universitas Pangan dan Gizi IPB, Bogor.

Fedi, S., Tola, E., Moenne-Loccoz, Y., Dowling, D. N., and Smith, L. M. 1997. Evidence for signalling between the phytopathogenic fungus *Phytium ultimum* and *Pseudomonas flourescens* F113 – *P. ultimum* represses the expression of gene in *P. flourescens* F113, resulting in a altered ecological fitness. *Appl. Environ. Microbiol*. 63: 4261-4266.

Feng, H., Li, Y., and Liu, Q. 2013. Endophytic bacteria communities in tomato plant with differential resistance to *Ralstonia solanacearum*. *Afr. J. Microbiol. Res*. 7(15): 1311-1318.

Fischer, D., Pfitzner, B., Schmid, M., Simões-Araújo, J. L., Reis, V. M., Pereira, W., Ormeño-Orrillo, E., Hai, B., Hofmann, A., Schloter, M., Martinez-Romero, E., Baldani, J. I., and Hartmann, A. 2012. Molecular characterisation of the diazotrophic bacterial community in uninoculated and inoculated field-grown sugarcane (*Saccharum* sp.). *Plant Soil*. 356: 83-99.

Forchetti, G., Masciarelli, O., Alemano, S., Alvarez, D., and Abdala, G. 2007. Endophytic bacteria in sunflower (*Helianthus annus* L.) isolation,

characterization and production of jasmonates and abcisic acid in culture medium. *Appl. Microbiol. Biotechnol*. 76: 1145-1152.

Forchetti, G., Masciarelli, O., Izaguirre, M. J., Alemano, S., Alvarez, D., and Abdala, G. 2010. Endophytic bacteria improve seedling growth of sunflower under water stress, produce salicylic acid, and inhibit growth of pathogenic fungi. *Curr. Microbiol*. 61: 485-493.

Francis, I. Holster, M., and Vereecke, D. 2010. The Gram-positive side of plant-microbe interactions. *Environment. Microbiol*. 12(1): 1-12.

Gajalaksmi, S., Vijayalakshmi, S., and Rajeswari, D. 2012. Phytochemical and pharmacological properties of *Annona muricata*: A review. *Int. J. Phar. Pharm. Sci.* 4(2): 3-6.

Garg, R., Mohana, D. C., and Manunath, K. 2013. *In vitro* antibacterial activity and phytochemical analysis of some traditional herbs. *Int. J. Pharm. Biol. Sci.* 4(1): 994-1003.

Gayathri, S., Saravanan, D., Radhakrisnan, M., Balagurunathan, R., and Kathiresan, K. 2010. Bioprospecting potential of fast growing endophytic bacteria from leaves of mangrove and salt-marsh plant species. *Indian J. Biotechnol.* 9: 397402.

Gende, L. B., Floris, I., Fritz, R., Eguaras, M. J. 2008. Antimicrobial activity of cinnamon (*Cinnamomum zeylanicum*) essential oil and its main components against *Paenibacillus larvae* from Argentine. *Bull. of Insect.* 61(1): 1-4.

Genin, S., and Boucher, C. 2004. Lessons learned from the genome analysis of *Ralstonia solanacearum*. *Ann. Rev. Phytopathol*. 42: 107-134.

Ghribi, D., Abdelkefi-Mesrati, L., Mnif, I., Kammoun, R., Ayadi, I., Saadaoui, L., Maktouf, S., and Chaabouni-Ellouze, S. 2012. Investigation of antimicrobial activity and statistical optimization of *Bacillus subtilis* SPB1 biosurfactant production in solid state fermentation. *J. Biomed. Biotechnol*. 2012: 1-12.

Glazer, A. N., and Nikaido, H. 2007. *Microbial Biotechnology: Fundamentals of Applied Microbiology* 2nd edition. Cambridge University Press, Cambridge.

Gori, S. S., and Vasantha, K. 2010. Phytochemical screening and antibacterial activity of *Syzygium cumini* (L.) (Myrtaceae) leaves extract. *Int. J. PharmTech Res.* 2(2): 1569-1573.

Gumbira, S. E. 1987. *Bioindustri Penerapan Teknologi Fermentasi*. Penerbit PT Mediayatama Perkasa, Jakarta.

Guo, B., Wang, Y., Sun, X., and Tang, K. 2008. Bioactive natural products from endophytes: A review. *Appl. Microbiol. Biotechnol.* 44(2): 136-142.

Gupta, S., and Dikshit, A. K. 2010. Biopesticides: An ecofriendly approach for pest control. *J. Biopest*. 3(1): 186-188.

Haas, D., and Defago, G. 2005. Biological control of soil-borne pathogens by fluorescent pseudomonads. *Nat. Rev. Microbiol*. 3: 307-319.

Haas, D., and Keel, C. 2003. Regulation of antibiotic production in root-colonizing *Pseudomonas* spp. And relevance for biological control of plant disease. *Annu. Rev. Phytopathol*. 41: 117-153.

Hadiwiyono and Widono, S. 2012. Endophytic *Bacillus*: The potentiality of antagonism to wilt pathogen and promoting growth to micro-plantlet of banana in vitro. *Biomirror J*. 3(6): 1-4.

Hallmann, J,. Quadt-Hallmann, A., Mahaffee, W. F., and Kloepper, J. W. 1997. Bacterial endophytes in agricultural crops. *Can. J. Microbiol*. 43: 895-914.

Hallmann, J., Quadt-Hallmann, A., Miller, W. G., Sikora, R. A., and Lindow, S. E. 2001. Endophytic colonization of plants by the biocontrol agent *Rhizobium etli* G12 in relation to *Meloidogyne incognita* infection. *Phytopathol*. 91(4): 415-422.

Handayani, D., Sandrawaty, N., Murniati, M., and Regina, R. 2015. Screening of endophytic bacteria isolated from marine sponge *Haliclona fascigera* for inhibition against clinical isolates of Methicillin Resistant *Staphylococcus aureus* (MRSA). *J. Appl. Pharm. Sci*. 5(9): 139-142.

Hanson, J. R. 2003. *Natural Products: The Secondary Metabolites Tutorial Chemistry Texts*. Royal Society of Chemistry, Cambridge.

Hardoim, P. R., van Overbeek, L. S., and van Elsas, J. D. 2008. Properties of bacterial endophytes and their proposed role in plant growth. *Trend Microbiol.* 16: 463-471.

Hardoim, P. R., Hardoim, C. C. P., van Overbeek, L. S., and van Elsas, J. D. 2012. Dynamics of seed-borne rice endophytes on early plant growth stages. *Plos One*. 7(2): e30438.

Harley, J., and Prescott, L. 2002. Laboratory Exercises in Microbiology, 5th Edition. The McGraw−Hill Companies, New York.

Hayne, K. 1987[a]. *Tumbuhan Berguna Indonesia Jilid I*. Yayasan Sarana Wana Jaya, Jakarta.

Hayne, K. 1987[b]. *Tumbuhan Berguna Indonesia Jilid II*. Yayasan Sarana Wana Jaya, Jakarta.

Hayne, K. 1987[c]. *Tumbuhan Berguna Indonesia*,Vol. 2. Badan Litbang Kehutanan Departemen Kehutanan RI, Jakarta.

He, C. P., Fan, L. Y., Wu, W. H., Liang, Y. Q., Li, R., Tang, W., Zheng, X. L., Xiao, Y. N., Liu, Z. X., and Zheng, F. C. 2017. Identification of lipopeptides produced by *Bacillus subtilis* Czk1 isolated from the aerial roots of rubber trees. *Genet. Mol. Res.* 16(1): 1-13.

Himabindu, M., and Jetty, A. 2006. Optimization of nutritional requirements for gentamicin production by *Micromonospora echinospora*. *Indian J. Exp. Biol.* 44: 842-848.

Hogg, S., 2005. *Essential Microbiology*. John Wiley & Sons, Ltd. New Jersey.

Holt, J. G., Krieg, N. R., Sneath, P. H. A., Staley, J. T, and Williams, S. T. 1994. *Bergey's Manual of Determinative Bacteriology* 9th edition. Williams and Wilkins, Baltimore.

Hong, H. A., Huang, J. -M., Khaneja, R., Hiep, L. V., Urdaci, M. C., and Cutting, S. M. 2008. The safety of *Bacillus subtilis* and *Bacillus indicus* as food probiotics. *J. Appl. Microbiol*. 105: 510-520.

Huang, C. J., Wang, T. K., Chung, S. C., and Chen, C. Y. 2005. Identification of an antifungal chitinase from a potential biocontrol agent *Bacillus cereus* 28-9. *J. Biochemis. Molecul. Biol.* 38(1): 82-88.

Hurek, T., Handley, L. L., Reinhold-Hurek, B., and Piche, Y. 2002. *Azoarcus* grass endophytes contribute fixed nitrogen to the plant in an unculturable state. *Mol. Plan-Microbe Interact*. 15: 233-242.

Islam, M. R., Jeong, Y. T., Lee, Y. S., and Song, C. H. 2012. Isolation and identification of antifungal compounds from *Bacillus subtilis* C9 inhibiting the growth of plant pathogenic fungi. *Mycobiol*. 40(1): 59-66.

Islam, M. R., Parvin, M. S., Banu, M. R., Jahan, N., Das, N., Islam, M. E. 2013 Antibacterial and phytochemical screening of ethanol extract of *Manilkora zapota* leaves and bark. *Int. J. Pharm. Sci.* 3(6): 394-397.

Issazadeh, K., Rad, S. K., Zarrabi, S., and Rahimibashar, M. R. 2012. Antagonism of *Bacillus* species against *Xanthomonas campestris* pv. *Campestris* and *Pectobacterium corotovorum* subsp. *corotovorum*. *Afr. J. Microbiol. Res.* 6(7): 1615-1620.

Jackson, P., Stanley, K., Luzio, J. P. 1986. Specific fluorescent detection of disulphide-bridged peptides on thin-layer chromatograms. *Biochem. Soc. Trans.*. 14(4): 750–751.

Jacobs, J. M., Pesce, C., Lefeuvre, P., and Koebnik, R. 2015. Comparative genomics of cannabis pathogen reveals insight into the evolution of pathogenicity in *Xanthomonas*. *Frontier Plant Sci.* 6: 431.

Jacobsen, B. J., Zidaek, N. K., and Larson, B. J. 2004. The role of *Bacillus*-based biological control agents in integrated pest management systems: Plant diseases. *Phytopathol*. 94: 1272-1275.

Jafari, S., Esfahani, S., Faeli, M. R., Jamalifar, H., Samadi, M., Samadi, N., Toosi, A. N., Ardekani, M. R. S., and Khanavi, M. 2011. Antimicrobial activity of lime essential oil against food-borne pathogens isolated from cream-filled cakes and pastries. *Int. J. Biol. Chem.* 5(4): 258-265.

Javaid, A., Shafiue, S., and Shafiue, S. 2008. Herbicida activity of *Datura metel* L. against *Phalaris minor* Retz. *Pak. J. Weed Sci. Res.* 14(3-4): 209-220.

Jayaraman, S. K., Manoharan, M. S., and Illachezian, S. 2008. Antibacterial, antifungal and tumor cell suppression potential of *Morinda citrifolia* fruit extracts. *Int. J. Integ. Biol.* 3(1): 44-49.

Ji, D., Yi, Y., and Kang, G. H. 2004. Identification of an antibacterial compound, benzylideneacetone, from *Xenorhabdus nematophila* against major plant pathogenic bacteria. *FEMS Microbiol. Lett*. 239(2): 241-248.

Ji, X., Lu, G., Gai, Y., Zheng, C., and Mu, Z. 2008. Biological control against bacterial wilt and colonization of mulberry by an endophytic *Bacillus subtilis* strain. *FEMS Microbiol. Ecol*. 65(3): 565-573.

Johnston-Monje, D., and Raizada, M. N. 2011. Conservation and diversity of seed associated endophytes in *Zea* acros boundaries of evolution, ethnography and ecology. *Plos One*. 6(6): e20396.

Joshi, S., Bharucha, C., and Desai, A. J. 2008. Production of biosurfactant and antifungal compound by fermented food isolate *Bacillus subtilis* 20B. *Bioresource Tech*. 99: 4603-4608.

Kamal, T., Muzammil, A., and Omar, M. N. 2012. Evaluation of antimicrobial activity of *Artocarpus altilis* on pathogenic microorganisms. *Sci. Ser. Data Rep.* 4(9): 41-48.

Karthikeyan, J. Reka, V., and Giftson, R. V. 2012. Characterisation of bioactive compounds in *Costus speciosus* (Koen) by reverse phase HPLC. *Int. J. Pharm. Sci. Res.* 3(5): 1461-1465.

Kator, L., Hosea, Z. Y., and Oche, O. D. 2015. *Sclerotium rolfsii*: Causative organism of southern blight, stem root, white mold and sclerotia root disease. *Ann. Biol. Res.* 6(11): 78-89.

Kaur, S., and Mondal, P. 2014. Study of total phenolic and flavonoid content, antioxidant activity and antimicrobial properties of medicinal plants. *J. Microbiol. Exp.* 1(1): 1-6.

Kauria, P., Matiru, V., and Ndungu, M. 2012. Antimicrobial activities of secondary metabolites produced by endophytic bacteria from selected indigenous Kenyan plants. *Afr. J. Microbiol. Res*. 6(45): 7253-7258.

Kavitha, K. S., and Satish, S. 2013. Evaluation of antimicrobial and antioxidant activities from *Toona ciliata* Roemer. *J. Anal. Sci. Tech.* 4(23): 1-7.

Kleijn, R. J., Buescher, J. M., Chat, L. L., Jules, M., Aymerich, S., and Sauer, U. 2009. Metabolic fluxes during strong carbon catabolite repression by malate in *Bacillus subtilis*. *J. Biol. Chem*. 285: 1587-1596.

Kluepfel, D. 1993. The behaviour and tracking of bacterial in the rhizosphere. *Ann. Rev. Phytopathol*. 31: 441-471.

Kobayashi, D. Y., Reedy, R. M., Bick, J. A., Oudemans, P. V. 2002. Characterization of chitinase gene from *Stenotrophomonas maltophila* strain 34 SI and its involvement in biological control. *Appl. Environ. Microbiol*. 68: 1047-1054.

Kothari, V., Seshadri, S., and Mehta, P. 2011. Fractionation of antibacterial extract of *Syzygium cumini* (Myrtaceae) seeds. *Res. in Biotechnol.* 2(6): 53-63.

Kovacs, G. Burghardt, J., Pradella, S., Schumann, P., Stackebrandt, E., and Marialligeti, K. 1999. *Kocuria palustris* sp. nov. and *Kocuria rhixophila* sp. nov., isolated from rhizoplane of the narrow-leaved cattail (*Typha angustifolia*). *Int J. System. Bacteriol.* 49(1): 167-173.

Krishnan, P., Bhat, R., Kush, A., and Ravikumar, P. 2012. Isolation and functional characterization of bacterial endophytes from *Carica papaya* fruits. *J. Appl. Microbiol*. 113: 308-317.

Kumar, A., John, L., Maity, S., Manchanda, M., Sharma, A., Saini, N., Chakraborty, K., and Sengupta, S. 2011. Converging evidence of mitochondrial dysfunction in a yeast model of homocysteine metabolism imbalance. *J. Biol. Chem.* 286: 21779-21795.

Kuete, V., Ango, P. Y., Fotso, G. W., Kapche, G. D. W. F., Dzoyem, J. P., Wouking, A. G., Ngadjui, B. T., and Abegaz, B. M. 2011. Antimicrobial activities of the methanol extract and compounds from *Artocarpus communis* (Moraceae). *BMC Complement. Altern. Med.* 11(42): 1-5.

Kuganathan, N., and Ganeshalingan, S. 2011. Chemical analysis of *Datura metel*leaves and investigation of the acute toxicity on grasshoppers and red ants. *E-J. Chem*. 8(1): 107-112.

Kumar, K. T., Panda, D. S., Nanda, U. N., and Khuntia, S. 2010. Evaluation of antibacterial, antifungal and antihelmintic activity of *Morinda citrifolia* L. (Noni). *Int. J. PharmTech Res*. 2(2): 1030-1032.

Kumar, S., Rana, M., Kumar, D., Kashyap, D., and Rana, M. 2012. A mini review on the phytochemistry and pharmacological activities of the plant *Toona ciliata* (Meliaceae). *Int. J. Phytothear. Res.* 2(1): 9-18.

Kumar, S. N., Nambisan, B., Ramya, R., and Mohandas, C. 2012. Influence of six carbon sources with yeast extract on antimicrobial metabolite production by bacterium associated with entomopathogenic nematode. *Dyn. Biochemis. Process Biotechnol. Biol.* 6(Special Issue 2): 86-91.

Lamessa, G., and Zeller, W. 2007. Screening rhizobacteria for biological control of *Ralstonia solanacearum* in Ethiopia. *Biol. Control*. 49: 277-285.

Larkin, P. J. 2011. *IR and Raman Spectroscopy: Principles and Spectral Interpretation*. Elsevier Publications, San Diego.

Larran, S., Perello, A., Simon, M. R., and Moreno, V. 2002. Isolation and analysis of endophytic microorganisms in wheat (*Triticum aestivum* L.) leaves. *World J. Microbiol. Biotechnol.* 18: 683-686.

Li, J., Yang, Q., Zhao, L., Zang, S., Wang, Y., and Zhao, X. 2009. Purification and characterization of novel antifungal protein from *Bacillus subtilis* strain B29. *J. Zhejiang Univ. Sci. B.* 10(4): 264-272.

Liu, B., Huang, L., Buchenauer, H., and Kang, Z. 2010. Isolation and partial characterization of an antifungal protein from the endophytic *Bacillus subtilis* strain EDR4. *Pest. Biochemis. Physiol.* 98: 305-311.

Liu, Y., Zuo, S., Zou, Y., Wang, J., and Song, W.2012a. Investigation on diversity and population succession dynamics of indigenous bacteria of the maize spermosphere. *World J. Microbiol. Biotechnol.* 28: 391-396.

Liu, Y., Zuo, S., Zou, Y., Wang, J., and Song, W. 2012b. Investigation on diversity and population succession dynamics of endophytic bacteria from seeds of maize (*Zea mays* L., Nongda108) at different growth stages. *Ann. Microbiol*. 63(1): 71-79.

Ma, L., Cao, Y., and Cheng, M. 2013. Phylogenetic diversity of bacterial endophytes of *Panax notoginseng* with antagonistic characteristics towards pathogens of root-rot disease complex. *Antonie van Leeuwenhoek*. 103(2): 299-312.

Madigan, T. M., Martinko, J. M., Stahl, D. A., and Clark, D. P. 2006. *Brock Biology of Microorganisms* 13th edition. Benjamin Cummings, San Fransisco.

Magnani, G. S. Didonet, C. M., Cruz, L. M., Picheth, C. F., Pedrosa, F. O., and Souza, E. M. 2010. Diversity of endophytic bacteria in Brazilian sugarcane. *Gen. Molecul. Res.* 9(1): 250-258.

Maheswari, O, N., Khan, A., and Chopade, B. A. 2012. Rediscovering the medicinal properties of *Datura* sp.: A review. *J. Med. Plants Res*. 7(39): 2885-2897.

Melliawati, R., Widyaningrum, D. N., Djohan, A. C., and Sukiman, H. 2006. Study on endophytic bacteria for bioactive compound production use as plant protection agent. *J. Biodiver*. 7(3): 221-224.

Manjula, K., Singh, S. D., and Kishore, K. G. 2002. Role of endophytic bacteria in biological control of plant diseases. *Ann. Rev. Plant Pathol*. 1: 231-252.

Mano, H., and Morisaki, H. 2008. Endophytic bacteria in the rice plant. *Micro. Environ*. 23(2): 109-117.

Martin, J. F. 1977. Control of antibiotic synthesis by phosphate. *Adv. Biochem. Engg*. 6: 105-127.

Mbaeyi-Naoha, I. E., and Onuka, C. P. 2014. Comparative evaluation of antimicrobial properties and phytochemical composition of *Artocarpus altilis* leaves using ethanol, n-hexane and ater. *Afr. J. Microbiol. Res.* 8(37): 3409-3421.

McGuinness, M., and Dowling, D. 2009. Plant-associated bacterial degradation of toxic organic compounds in soil. *Int. J. Environ. Res. Public Health*. 6(8): 2226-2247.

Medraro, E. G., and Bel, A. A. 2007. Role of *Pantoea agglomerans* in opportunistic bacterial seed and boll rot of cotton (*Gossypium hirsutum*) grown in field. *J. Appl. Microbiol*. 102: 134-143.

Meshram, G. A., Yadav, S. S., Shinde, D., Patil, B., and Singh, D. 2011. Antibacterial study and effect of ethanolic extract of *Syzygium cumini* seeds powder on glucoamylase *in vitro*. *J. Pharm. Sci. Res.* 3(2): 1060-1063.

Milosevic, N. A., Marinkovic, J. B., and Tintor, B. B. 2011. Mitigating abiotic stress in crop plants by microorganisms. *Proc. Nat. Sci. Matica Srpska Novi Sad*.123: 17-26.

Moat, A. G., Foster, J. W., and Spector, M. P. 2002. *Microbial Physiology* 4th edition. Jhon Wiley and Sons, Inc. Publication. New York.

Mohammed, A. I. C., Manish, G., and Dinesh, C. K. 2012. Antimicrobial activity of *Tinospora crispa* root extracts. *Int. J. Res. Ayurveda Pharm*. 3(3): 417-419.

Monira, K. M., and Munan, S. M. 2012. Review on *Datura metel*: A potential medicinal plant. *Global J. Res. Medicin. Indigen. Med*. 1(4): 123–132.

Montanez, A., Abreu, C., Gill, P. R., Hardarson, G., and Sicardi, M. 2009. Biological nitrogen fixation in maize (*Zea mays* L.) by ^{15}N isotope-dilution

and identification of associated culturable diazotrophs. *Biol. Fertil. Soils.* 45: 253-263.

Monteiro, L., Mariano, R. L. R., and Souto-Maior, A. M. 2005. Antagonism of *Bacillus* spp. against *Xanthomonas campestris* pv. *campestris*. *Brazilian Arc. Biol. Technol.* 43: 23-29.

Moyne, A. L., Cleveland, T. E., Tuzun, S. 2004. Molecular characterization and analysis of the operon encoding the antifungal lipopeptide bacillomycin. *FEMS Microbiol. Lett.* 234: 43-52.

Mueller, D., Ferrao, M. F., Marder, L., da Costa, A. B., and Schneider, R. C. S. 2013. Fourier transform infrared spectroscopy (FTIR) and multivariate analysis for identification of different vegetable oils used in biodiesel production. *Sensor*. 13: 4258-4271.

Mulyadi, M., Wuryanti, dan Ria, P. 2013. Konsentrasi hambat minimum (KHM) kadar sampel alang-alang (*Imperata cylindrica*) dalam etanol melalui metode difusi cakram. *Chem. Info*. 1(1): 35-42.

Munif, A., Hallman, J., and Sikora, R. 2012. Isolation of endophytic bacteria from tomato and their biocontrol activities against fungal diseases. *Microbiol. Indones.* 6(4): 148-156.

National Institute of Science Communication and Information Resources. *The Wealth of India: First Suplement Series (Raw Material)*. 2: 211-2013.

Neidhart, C. F., Ingraham, J. L, and Schaechter, M.1990. *Physiology of The Bacterial Cell A Molecular Approach*. Sinauer Associates, Inc. Publishers, Sunderland.

Nelson, S. C. 2006. *Morinda citrifolia*. In: Elevitch, C. R. (ed.). *Traditional Trees of Pacific Island: Their Culture, Environment, and Use*. Permanent Agriculture Resources, Hawai'i. 1-19.

Njoloma, J., Tanaka, K., Shimizu, T., Nishiguchi, T., Zakria, M., Akashi, R., Oota, M., and Akao, S. 2005. Infection and colonization of aseptically micropropagated sugarcane seedlings by nitrogen-fixing endophytic bacterium, *Herbaspirillum* sp. B501*gfp*1. *Biol. Fertil. Soils.* 43: 137-147.

Niyaz, A. M. I. 2012. Isolation and identification of secondary metabolites producing organism from marine sponge. *Discovery*. 1(1): 14-17.

Nofiani, R., Nurbetty, S., dan Sapar, A. 2009. Aktivitas antimikroba methanol bakteri berasosiasi spons dari Pulau Lemukutan Kalimantan Barat. *Jurnal Ilmu dan Teknologi Kelautan Tropis*. 1(2): 33-34.

Ojiezeh, T. T., Nachukwu, S. E., and Udoh, S. J. 2011. Antimicrobial effect of *Citrus aurantifolia* juice and *Veronica amygdalina* on common bacteria isolates. *Der Pharm. Chem*. 3(1): 1-7.

Okwu, D. E., and Igara, E. C. 2009. Isolation, characterization and antibacterialactivity of alkaloid from *Datura metel* Linn. leaves. *Afr. J. Pharm. Pharmacol.* 3:277-281.

Ongena, M., Duby, J., Jourdan, E., Beaudry, T., Jadin, V., Dommes, J., and Thonart, P. 2005. *Bacillus subtilis* M4 decrease plant susceptibility towards fungal pathogens by increasing host resistance associated with differential gene expression. *Appl. Microbiol. Biot*. 67: 692-698.

Ortoneda, M., Guarro, J., Marta, P. M., Caracuel, Z. M., Roncero, I. G., Mayayo, E., and Antonio, D. P. 2004. *Fusarium oxysporum* as a multihost model for genetic dissection of fungal virulence in plant and mammals. *Infect. Immun.* 72(3): 1760-1766.

Osman, M. A., Aiz, M. A., Habib, M. R., and Karim, M. R. 2011. Antimicrobial investigation on *Manilkora zapota* (L.) P. Royen. *Int. J. Drug Dev. Res*. 3(1): 15-190.

Patel, P. R., and Rao, T. V. R. Antibacterial activity of underutilized fruits of jamun (*Syzygium cumini* (L.) Skeels). *Int. J. Curr. Pharm. Res.* 4(1): 36-39.

Peighami-Ashnaei, S., Sharifi-Tehrani, A., Ahmadzadeh, M., and Behboudi, K. 2009. Interaction of different media on production and biocontrol efficacy of *Pseudomonas flourescens* P-35 and *Bacillus subtilis* B-3 against grey mould of apple. *J. Plant Pathol*. 91(1): 65-70.

Pliego, C., Ramos, C., de Vicente, A., and Cazorla, F. M. 2011. Screening for candidate bacterial biocontrol agents against soilborne fungal plant pathogens. *Plant Soil*. 340: 505-520.

Poonam, K., and Pratap, S. K. 2012. Antimicrobial activities of *Ricinus communis* against some human pathogens. *Int. Res. J. Pharm*. 3(7): 209-210.

Posada, F., and Vega, F. E. 2005. Establishment of the fungal entomophatogen *Beauveria bassiana* (Ascomycota: Hypocreales) as an endophyte in cocoa seedling (*Theobroma cacao*). *Mycologia*. 97: 1195-1200.

Pradhan, C., Mohanty, M. and Rout, A. 2012. Phytochemical screening and comparative bioefficacy assessment of *Artocarpus altilis* leaf extract for antimicrobial activity. *Front. Life Sci.* 6(3-4): 71-76.

Pradhan, C., Mohanty, M. Rout, A., Das, A. B., Satapathy, K. B., and Patra, H. K. 2013. Phytoconstituent screening and comparative assessment of antimicrobial potentiality of *Artocarpus altilis* fruit extracts. *Int. J. Phar. Pharm. Sci*. 5(3): 840-843.

Prayitno, J., and Rolfe, B. 2010. Characterization of endophytic diazotroph bacteria isolated from rice. *Hayati J. Biosci*. 17(2): 73-78.

Priya, S. S. L., Devi, P. R., Eganathan, P., and Kingsley, J. 2013. *In vitro* antimicrobial activity of *Syzygium cumini* fruit peel and identification of anthocyanins. *Afr. J. Pharm. Pharmacol*. (25): 1719-1728.

Procopio, R. E. L., Araujo, W. L., and Andreote, F. D. 2011. Characterization of a small cryptic plasmid from endophytic *Pantoea agglomerans* and its use in the construction of an expression vector. *Gen. Mol. Biol*. 34(1): 103-109.

Pukelai, P., and Kato-Noguchi, H. 2012. Allelopathic potential of *Tinospora tuberculata* Beumee on twelve test plant species. *J. P.Biol. Res.* 1(1): 19-28.

Ragone, D. 2011. *Farm and Forestry Production and Marketing Profile for Breadfruit (Artocarpus altilis*). Permanent Agriculture Resources (PAR), Hawaii.

Raman, V., Sudhahar, D., and Anandarajagopal, K. 2012. Preliminary phytochemical investigation and screening of antimicrobial activity of leaf extracts of *Artocarpus altilis*. *Asian J. Biol. Life Sci.* 1(2): 104-107.

Ramesh, S., Radhakrishnan, M., Anburaj, R., Elangomathavan, R., and Patharajan, S. 2012. Physicochemical, phytochemical and antimicrobial studies on *Morinda citrifolia* L. fruits at different maturity stages. *Int. J. Phar. Pharm. Sci.* 4(Suppl 5): 473-476.

Rampelotti-Ferreira, F., Ferreira, A., Vendramim, J. D., Lacava, P. T., Azevedo, J. L., Araujo, W. L. 2010. Colonization of rice and *Spadoptera frugiperda* J. E. Smith (Lepidoptera: Noctuidae) larvae by genetically modified endophytic *Methylobacterium mesophilicum*. *Neurotrop. Ento*. 39(2): 308-310.

Rao, G. V., Sahoo, M. R., Madhavi, M. S. L., and Mukhopadhyay, T. 2014. Phytoconstituents from the leaves and seed of *Manilkara zapota* Linn. *Der Pharm. Lett*. 6(2): 69-73.

Ratti, R. P., Serrano, N. F. G., Hokka, C. O., and Sausa, C. P.2008. Antagonistic properties of some microorganisms isolated from Brazilian tropical savannah plants against *Staphylococcus c*oagulase-positive strain. *J. Venom. Anim. Toxins Incl. Trop. Dis*. 14(2): 294-302.

Raudales, R. E., and Gardener, B. B. M. 2008. *Microbial Biopesticides for the Control of Plant Diseases in Organic Farming*. Fact Sheet Agriculture and Natural Resources The Ohio State University, Ohio.

Reddy, L. J., Jalli, R. D., Jose, B., and Gopu, S. 2012. Evaluation of antibacterial and antioxidant activities of the leaf essential oil and leaf extract of *Citrus aurantifolia*. *Asian J. Biochem. Pharm. Res.* 2(2): 346-354.

Roper, M. C. 2011. *Pantoea stewartii* subsp. *stewartii*: Lessons learned from xylem-dwelling pathogen of sweet corn. *Mol. Plant. Pathol.* 12(7): 628-637.

Rosenblueth, M., and Martinez-Romero, E. 2006. Bacterial endophytes and their interaction with host. *Mol. Plant-Microbes Inter*. 19(8): 827-837.

Rug, M., and Ruppel, A. 2000. Toxic activities of the plant *Jatropha curcas*against intermediatesnail hosts and larvae of schistosomes. *Trop. Med. Int. Health*. 5(6): 423-430.

Ryan, R. P., Germaine, K., Franks, A., Ryan, D. J., and Dowling, D. N, 2008. Bacterial endophyte: Recent developments and applications. *FEMS Microbiol.* Left. 278: 1-9.

Sadhily, H. 1990. *Ensiklopedi Indonesia: Volume 1*. PT. Ichtiar Baru-Van Hoeve, Jakarta.

Saifudin, A. 2014. *Senyawa Alam Metabolit Sekunder: Teori Konsep, dan Teknik Pemurnian*. Penerbit Deepublish, Yogyakarta.

Sandoval-Montemayor, N. E., Garcia, A., Elizondo-Trevino, E., Gara-Gonzalez, E., Alvare, L., and Camacho-Corona, M. R. 2012. Chemical composition of hexane extract of *Citrus aurantifolia* and anti-*Mycobacterium tuberculosis* activity of some of its constituents. *Mol*. 17: 11173-11184.

Saraf, A. 2010. Phytochemical and antimicrobial studies of medicinal plant *Costus speciosus* (Koen.). *E- J. Chem*. 7(S1): 405-413.

Satish, S., Raveesha, K. A., and Janardhana, G. R. 1999. Antibacterial activity of plant extracts on phytophatogenic *Xantomonas campestris* pathovars. *Lett. Appl. Microbiol.* 28: 145-147.

Schmidt, M. A., Souza, E. M., Baura, V., Wassem, R., Yates, M. G., Pedrosa, F. O., and Monteiro, R. A. 2011. Evidence for the endophytic colonization of *Phaseolus vulgaris* (common bean) roots by the diazotrophic *Herbaspirillum seropedicae*. *Brazilian J. Med. Biolog. Res*. 44(3): 182-185.

Scortichini, M., and Loreti, S. 2007. Occurrence of an endophytic, potentially pathogenic strain of *Pseudomonas syringae* in symptomless wild trees of *Corylus avellana* L. *J. Plant Pathol.* 89 (3): 431-434.

Selvakumar, G., Kundu, S., Gupta, A. D., Shouche, Y. S., and Gupta, H. S. 2008. Isolation and characterization of nonrhizobial plant growth promoting bacteria from nodules of Kudzu (*Pueraria thunbergiana*) and their effect on wheat seedling growth. *Curr. Microbiol*. 56: 134-139.

Selvam, P., Raj, K., Vimisha, V., Harikrishnan, R., Sarija, K. S., and Umalekshmi, R. 2009. Antimicrobial activity of fruit extracts of *Morinda citrifolia*. *J. Appl. Chem. Res*.10: 61-63.

Sen, R., and Swaminathan, T. 2004. Response surface modelling and optimization to elucidate and analyse the effects of inoculum age and size on surfactin production. *Biochem. Engg. J.* 21(2): 141-148.

Setiawan, D. 2008. *Atlas Tumbuhan Obat Indonesia*. Puspa Swara, Jakarta.

Sharma, S., Mehta, B. K., Mehta, D., Nagar, H., and Mishra, A. 2012. A review on pharmacological activity of *Syzygium cumini* extract using different solvent and their effective doses. *Int. Res. J. Pharm.* 3(12): 54-58.

Sharrock, K., Parkes, S., Jack, H., Rees-George, J., and Hawthorne, B. 1991. Involvement of bacterial endophytes in storage rots of buttercup squash (*Cucurbita maxima* D. hybrid 'Delicia"). *New Zealand J. Crop Horti. Sci*. 19: 157-165.

Shuler, M. L., and Kargi, F. 1992. *Bioprocess Engineering: Basic Concepts*. Prentice-Hall International, Inc., New Jersey.

Sihem, B. M., Rafik, E., Frorence, M., Mohamed, C., and Ahmed, L. 2011. Identification and partial characterization of antifungal and antibacterial activities of two *Bacillus* sp. strains isolated from salt soil in Tunisia. *Afr. J. Microbiol. Res.* 5(13): 1599-1608.

Singh, N., Rai, V., and Tripathi, C. 2012. Production and optimisation of oxytetracycline by a new isolate *Streptomyces rimosus* using response surface methodology. *Med. Chem. Res*. 21: 3140-3145.

Smith, F. 1993. Regulatory proteins that control late-growth development. In: Sonenshein, A. L., Hoch, J., and Losick, R. (Eds). *Bacillus subtilis and Other Gram-Positive Bacteria*. American Society for Microbiology, Washington. 785-800.

Solomon-Wisdom, G. O., Ugoh, S. C., and Mohammed, B. 2014. Phytochemical screening and antimicrobial activities of *Annona muricata* (L) leaf extract. *American J. Biolog. Chem. Pharm. Sci*. 2(1): 1-7.

Shuler, M. L., and Kargi, F. 1992. *Bioprocess Engineering: Basic Concepts*. Prentice-Hall International, Singapore.

Song, Q., Huang, Y., and Yang, H. 2012. Optimization of fermentation condition for antibiotic production by actinomycetes YJ1 strain against *Sclerotinia sclerotiorum*. *J. Agric. Sci.* 4(7) 95-102.

Soria, S., Alonso, R., and Bettucci, L. 2012. Endophytic bacteria from *Pinus taeda* L. asbiocontrol agents of *Fusarium circinatum* Nirenberg & O'Donnell. *Chilean J. Agri. Res*. 72(2): 281-284.

Sotropa, A. I., Pacular, M., Buta, C., Iederan, S., and Sana, M. S. 2010. Peat lands–between exploitation and conservation of biodiversity. *ProEnvironment*. 3: 407-409.

Souza, S. A., Xavier, A. A., Costa, M. R., Cardoso, A. M. S., Pereira, M. C. T., and Nietsche, S. 2013. Endophytic bacteria diversity in banana 'Prata Ana' (*Musa* spp.) roots. *Gen. Mol. Biol.* 36(2): 252-264.

Souza, A., Cruz, J. C., Sousa, N. R., Procopio, A. R. L., and Silva, G. F. 2014. Endophytic bacteria from banana cultivars and their antifungal activity. *Gen. Molecul. Res*. 13(4): 8661-8670.

Srinivasan, R. 2012. Integrating biopesticides in pest management strategies for tropical vegetable production. *J. Biopest*. 5(Supplementary): 36-45.

Stanbury, P. F., Whitaker, A., and Hall, S. J. 2003. *Principles of Fermentation Technology* 2nd Edition. Butterworth Heinemann, Oxford.

Sreerag, R. S., Jacob, J., Nisha, G. V., Asha, A., and Kumar, S. N. 2012. Influence of six nitrogen sources with fructose on antimicrobial metabolite production by bacterium associated with entomopathogenic nematode. *Int. J. Pharm. Pharm. Sci.* 6(5): 299-304.

Stackenbrandt, E., and Goebel, B. M. 1994. Taxonomic note: a place for DNA-DNA reassociation and 16S rRNA sequence analysis in the present species definition in bacteriology. *Int. J. Sys. Bacteriol.* 44: 846-849.

Stoltzfus, J. R., and de Bruijin, F. J. 2000. Evaluating diazotrophy, diversity, and endophytic colonization ability of bacteria isolated from surface-sterilized rice. In: Ladha, J. K., and Reddy, P. M. (eds). *The Quest for Nitrogen Fixation in Rice*. IRRI, Los Baños. 63–91.

Strobel, G., and Daisy, B. 2003. Bioprospecting for microbial endophytes and their natural product. *Microbiol. Mol. Biol. Rev.* 67: 491-502.

Strobel, G., Daisy, B., Castillo, U., and Herper, J. 2004. Natural products from endophytic microorganism. *J. Nat. Prod*. 67: 257-268.

Strobel, G., Daisy, B., and Castillo, U. 2005. The biological promise of microbial endophytes and their natural products. *Plant Pathol. J.* 4 (2): 161-176.

Sturz, A. V., Christie, B. R., and Nowak, J. 2000. Bacterial endophytes: Potential role in developing sustainable systems of crop production. *Crit. Rev. Plant Sci*. 19: 1-30.

Sturz, A. V., Peters, R. D., Carter, M. R., Sanderson, J. B., Matheson, B. G., and Christie, B. R. 2005. Variation in antibiosis ability, against potato pathogens, of bacterial communities recovered from the endo- and exoroots of potato crops produced under conventional versus minimum tillage systems. *Can. J. Microbiol*. 51: 643-654.

Suhandono, S., and Utari, I. B. 2014. Isolation and molecular identification of endophytic bacteria from the arils of durian (*Durio zibethinus* Murr.) var. Matahari. *Microbiol. Indones.* 8(4): 161-169.

Sukadana, I. M., Rita, W. S., dan Koreh, F. R. 2007. Isolasi dan identifikasi senyawa antimakan dari batang tumbuhan Brotowali (*Tinospora tuberculata* Beumee). *J. Kimia*. 1(1): 55-61.

Sulaksana, G., Rani, A. S., and Saidulu, B. 2013. Evaluation of antibacterial activity in three species of *Costus*. *Int. J. Curr. Microbiol. Appl. Sci.* 2(10): 26-30.

Sun, H., He, Y., Xiao, Q., Ye, R., and Tian, Y. 2013. Isolation, characterization, and antimicrobial activity of endophytic bacteria from *Polygonum cuspidatum*. *Afr. J. Microbiol. Res.* 7: 1496-1504.

Sunarni, T., Iskamto, B., dan Suhartinah. 2003. Uji toksisitas dan antiinfeksi ekstrak etanol buah *Brucea sumatrana* Roxb. terhadap larva *Artemia salina* Leach dan *Staphylococcus aureus* ATCC 25923. *BioSMART*. 5(1): 65-67.

Sunder, J., Singh, D. R., Jeyakumar, S., Kundu, A., and De, A. K. 2011. Antibacterial activity in solvent extract of different parts of *Morinda citrifolia* plant. *J. Pharm. Sci. Res.* 3(8): 1404-1407.

Suresh, K., Prabagaran, S. R., Sengupta, S., and Shivaji, S. 2004. *Bacillus indicus* sp. nov. an arsenic-resistant bacterium isolated from an aquifer in West Bengal, India. *Int. J. System. Evolution. Microbiol*. 54: 1369-1375.

Syamsuhidayat, S. S., dan Hutapea, J. R. 1991. *Inventaris Tanaman Obat Indonesia*, Edisi Kedua. Departemen Kesehatan RI, Jakarta.

Taiwo, S. S., Oyekanmi, B. A., Adesiji, Y. O., Opaleye, O. O., and Adeyeba, O. O. A. 2007. *In vitro* antimicrobial activity of crude extracts of *Citrus aurantifolia* Linn. and *Tithonia diversifolia* (Poaceae) on clinical bacterial isolates. *Int. J. Trop. Med.* 2(4): 113-11.

Taurian, T., Anzuay, M. S., Angelini, J. G., Tonelli, M. L., Ludueña, L., Pena, D., Ibáñez, F., and Fabra, A. 2010. Phosphate-solubilizing peanut associated bacteria: Screening for plant growth-promoting activities. *Plant Soil*. 329: 421-431.

Thasanaa, N., Prapagdee, B., Ramgkadilok, N., Sallabhan, R., Aye, S. L., Ruchirawat, S., and Loprasert, S. (2010). *Bacillus subtilis* SSE4 produces subtulene A, a new lipopeptide antibiotic possessing an unusual C15 unsaturated β-amino acid. *FEBS Lett.* 584: 3209-3214.

Thomas, P., and Soly, T. A. 2009. Endophytic bacteria associated with growing shoot tips of banana (*Musa* sp.) cv. Grand Naine and the affinity of endophytes to the host. *Microb. Ecol*. 58: 952-964.

Tian, F., Dang, Y. Q., Zhu, H., Yao, L. T., and Du, B. H. 2009. Genetic diversity of sidorophore-producing bacteria of tobacco rhizosphere. *Brazilian J. Microbiol*. 40: 276-284.

Tirado-Montel, M. I., Tyagi, R. D., and Valero, J. R. 2001. Wastewater treatment sludge as a raw material for the production of *Bacillus thuringiensis* based biopesticides. *Water Res*. 35: 3807-3816.

Triana, E. 2005. Analisis filogenetik rhizobia yang diisolasi dari *Aeschynomene* spp. *Biodiversitas*. 6(4): 233-237.

Trivedi, P., Spann, T., and Wang, N. 2011. Isolation and characterization of beneficial bacteria associated with *Citrus* roots in Florida. *Microb. Ecol*. 62: 324-336.

Tuite, N. L., Fraser, K. R., and O'Byrne, C. P. 2005. Homocysteine toxicity in *Escherichia coli* is caused by a perturbation of branched-chain amino acid biosynthesis. *J. Bacteriol*. 187(13): 4362-4371.

Vadlapudi, V., and Kaladhar, D. S. V. G. K.2012. Antimicrobial study of plant extracts of *Datura metel* L. against some important disease causing pathogens. *Asian Pac. J. Trop. Dis*.S94-S97.

Vijayamena, C., Subhashini,G., Loganayagi, M., and Ramesh, B. 2013. Phytochemical screening and assessment of antibacterial activity for the bioactive compounds in *Annona muricata*. *Int. J. Curr. Microbiol. Appl. Sci.* 2(1): 1-8.

Valicente, F. H., Tuelher, E. S., Leite, M. I. S., Freire, F. L., and Vieira, C. M. 2010. Production of *Bacillus thuringiensis* biopesticide using commercial lab medium and agricultural by-products as nutrient sources. *Revista Brasileira de Milho e Sorgo*. 9(1): 1-11.

Wang, Y-H., and Zhang, X. 2007. Influence of agitation and aeration on growth and antibiotic production by *Xenorhabdus nematophia*. *World J. Microbiol. Biotechnol*. 23: 221-227.

Wang, Y., Fang, X., Cheng, Y., and Zang, X. 2011. Manipulation of pH shift to enhance the growth and antibiotic activity of *Xenorhabdus nematophila*. *J. Biomed. Biotechnol*. 2011: 1-9.

Wang, H. K., Yan, Y. H., Wang, J. M., Zhang, H. P., and Qi, W. 2012. Production and characterization of antifungal compounds produced by *Lactobacillus plantarum* IMAU 10014. *Plos One*. 7(1): e29452.

Wang, S., Wang, W., Jin, Z., Du, B., Ding, Y., Ni, T., and Jiao, F. 2013. Screening and diversity of plant growth promoting endophytic bacteria from peanut. *Afr. J. Microbiol. Res*. 7(10): 875-884.

Wang, N. N., Yan, X., Gao, X. N., Niu, H. J., Kang, Z. S., and Huang, L. L. 2016. Purification and characterization of a potential antifungal protein from *Bacillus subtilis* EIR-J against *Valsa mali*. *World J. Microbiol. Biotechnol.* 32: 63.

Weber, O., Baldani, V., and Teixeira, K. 1999. Isolation and characterization of diastrophic bacteria from banana and pineapple plants. *Plant and Soil*. 210: 103-113.

West, B. J., Palmer, S. K. Deng, S., and Palu, A. K. 2011. Antimicrobial activity of an iridoid rich extract from *Morinda citrifolia* fruit. *Curr. Res. J. Biol. Sci.* 4(1): 52-54.

WHO. 1999. *WHO Monographs on Selected Medicinal Plants*. Geneva.

Widayati, W. E., Widada, J., and Soedarsono, J. 2007. Deteksi molekular bakteri endofit pada jaringan plantlet tebu. *Hayati J. Biosci*. 14(4): 145-149.

Willey, J. M., Sherwood, L. M., and Woolverton, C. J. 2008. *Prescott, Harley, and Klein's Microbiology*. The McGraw-Hill Companies, Inc., New York.

Wilson, D. 1995. Endophyte-the evolution of a term, and clarification of its use and definition. *Oikos*. 73(2): 274-276.

Wu, W-J., Park, S-M., and Ahn, B-Y. 2013. Isolation and characterization of an antimicrobial substance from *Bacillus subtilis* BY08 antagonistic to *Bacillus cereus* and *Listeria monocytogenes*. *Food Sci. Biotechnol*. 22(2): 433-440.

Xia, Y., Greissworth, E., Mucci, C., Williams, M. A., and Debolt, S. 2013. Characterization of culturable bacterial endophytes of switchgrass (*Panicum virgatum* L.) and their capacity to influence plant growth. *GCB Bioenergy*. 5: 674-682.

Xia, Y., DeBoh, S., Dreyer, J., Scott, D., and Williams, M. A. 2015. Characterization of culturable bacterial endophytes and their capacity to promote plant growth from plants grown using organic or conventional practices. *Frontier Plant Sci*. 6: 490.

Xiao-Mei, B., Feng-Lia, L., Zhao-Xin, L., Xian-Qing, H., and Juan, S. 2006. Isolation and identification of lipopeptides produced by *Bacillus subtilis* fmbJ. *Chinese J. Biotechnol*. 22(4): 644-649.

Yang, C., Zhang, X., and Shi, G. 2011. Isolation and identification of endophytic bacterium W4 against tomato *Botrytis cinereal* and antagonistic activity stability. *Afr. J. Microbiol. Res*. 5(2): 131-136.

Yonebayashi, K., Okazaki, M., Kaneko, N., and Funakawa, S. 1997. Tropical peatland soil ecosystems in Southeast Asia: Their characterization and sustainable utilization. In: Rieley, J. O., and Page, S. E. (Eds). *Biodiversity and Sustainability of Tropical Peatlands*. Samara Publ. Ltd., Cardigan. 103-111.

Yoon, J. -H., Lee, C. -H., and Oh, T. -K. 2005. *Bacillus cibi* sp. nov. isolated from Jeotgal, a tradition Korean fermented seafood. *Int. J. System. Evolution. Microbiol*. 55: 733-736.

Yuliar, Suciatmih, Supriyati, D., and Rahmansyah, M. 2013. Biodiversity of endophytic bacteria and their antagonistic activity to *Rhizoctonia solani* and *Fusarium oxysporum*. *Glob. J. Biol. Agric. Health Sci*. 2(4): 111-118.

Zhao, L., Xu, Y., Sun, R., Deng, Z., Yang, W., and Wei, G. 2011. Identification and characterization of endophytic plant growth prompter *Bacillus cereus* strain MQ23 isolated from *Saphora alopecuroides* root nodules. *Brazilian J. Microbiol*. 42: 567-575.

Zhao, Q., Mei, X., and Xu, Y. 2016. Isolation and identification of antifungal compounds produced by *Bacillus* Y-IVI for suppressing *Fusarium* wilt of muskmelon. *Plant Protect.Sci.* 52(3): 167-175.

Zinniel, D. K., Lambrecth, P., Harris, N. B., Feng, Z., Kuczmarski, D., Higley, P. Ishimaru, C. A., Arunakumari, A., Barletta, R. G., and Vidaver, A. K. 2002. Isolation and characterization of endophytic colonizing bacteria from agronomic crops and prairie plants. *Appl. Environ. Microbiol.* 68(5): 2198-2208.

Zuber, P., Nakano, M. M., and Marahiel, M. A. 1993. Peptide antibiotic. In: Sonenshein, A. L., Hoch, J., and Losick, R. (Eds). *Bacillus subtilis and Other Gram-Positive Bacteria*. American Society for Microbiology, Washington. 897-916.