DAFTAR PUSTAKA

Abdelkefi-Mesrati, L., Boukedi, H., Dammak-Karray, M., Sellami-Boudawara, T., Jaoua, S., and Tounsi. 2011. Study of the *Bacillus thuringiensis* Vip3Aa16 histopathological effects and determination of its putative binding proteins in the midgut of Spodoptera littoralis. *Journal Invertebrata Pathology ,* **106** (2), 250-254.

Ahmed, H.K., Mitchell, W.J., Priest, F.G. 1995. Regulation of mosquitocidal toxin synthesis in *Bacillus sphaericus*. *Appl. Microbiol. Biotechnol ,* **43**, 310-314.

Ahmed, A. H., Ali, G. S., dan Abdul-Rouf, M. U. 2015. Isolation, Characterization and Molecular Identification of *Bacillus thuringiensis* Alex-13 Isolated from Egypt Against Spodoptera littoralis. *International Journal of Microbiology and Allied Science*. **Vol 2**(20: 34-44. Egypt: Faculty of Science Al-Azhar University.

Alexander, B dan Priest, F.G. 1990. Numerical classification and identification of Bcillus thuringiensis including some strain pathogenic for mosquito larvae. *Journal of General Microbiology*. 136, 367-376

Andrews, R.E., Faust, R.M., Wabiko, H., Raymond, K.C., dan Bulla, L.A. 1987. The biotechnology of *Bacillus thuringiensis*. *CRC Critical Rev*. *Biotechnol*. **6**, 163-232.

Astuti, R. 2008. Rhizobakteria *Bacillus sp.* asal tanah rizosfer kedelai yang berpotensi memicu pertumbuhan tanaman. *Thesis* .

Bahagiawati. 2002. Penggunaan *Bacillus thuringiensis* sebagai bioinsektisida. *Jurnal Agrobio ,* **5** (1), 21-28.

Baker, K. F., dan Cook, R. J. 1974. *Biological Control of Plant Pathogens.* San Fransisco: Freeman and Company.

Baumann, P., Clark, M.A., Bauman, L., Broadwell, A.H. 1991. *Bacillus sphaericus* as a mosquito pathogen: Properties of the organism and its toxins. *Microbiol Rev ,* **55**, 425-436.

Behle, R., Tamez-Guerra, P., Shasha, B., dan McGuire, M. 1999. Formulating Bioinsecticides to Improve Recidual Activity, Makalah Formulations Forum 99.

Belbert-Molina, MA., Prata, AMR., Pessanha, LG., Silviera, MM. 2008. Kinetics of *Bacillus thuringiensis* var. *israelensis* growth on high glucose concentrations. *J Ind Microbiol Biotechnol ,* **35** (11), 1397-1404.

Berry, C., O'Neil, S., Ben-Dov, E., Jones, A. F., Murphy, L., Quail, M., Holden, T.G., Harris, D., Zaritsky, A., & Parkhill, J. 2002. Complete sequence and organization of pBtoxis, the toxin-coding plasmid of *Bacillus thuringiensis* subsp. *isralensis*. *Appl. Environ. Microbiol ,* **68**, 5082-5095.

Berry, C., Hindley, J., dan Oci, C. 1991. The *Bacillus sphaericus* toxins and their potential for biotechnological development. *In: Marmorosch K, ed. Biotechnology for Biological Control of Pests and Vectors* , 35-51.

Borror, Triplehorn, & Johnson. 1992. *Pengenalan Serangga Edisi Keenam.* Yogyakarta: Gadjah Mada University Press.

Brar, S. V. 2009. Entomotoxicity, protease and chitinase activity of *Bacillus thuringiensis* fermented wastewater sludge with a high solids content. *Bioresour Technol ,* **100** (19), 4317-4325.

Bravo, A., Sarabia, S., Lopez, L., Ontiveros, H., Abarca, C., 1998. Characterization of *cry* genes in a Mexican *Bacillus thuringiensis* strain collection. *Appl. Environ. Microbiol*. 164, 4965-4972

Broderick, N.A., Raffa, K.F., Handelsman, J. 2006. Midgut bacteria required for *Bacillus thuringiensis* insecticidal activity. *PNAS ,* **103**, 15196-15199.

Brown, A.E. 2005. *Microbiological Applications 9th.* New York: McGraw Hill.

Cahyati,W.H., & Suharyo. 2006. *Dinamika Aedes aegypti Sebagai Vektor Penyakit.* Semarang: KEMAS.

Cappuccino, J.G., & Sherman. 2002. *Microbiology a Laboratory Manual 6th ed.* Menlo Park: The Benjamin/Cummings Publishing Company, Inc.

Cetinkaya, F. 2002. *Isolation of Bacillus thuringiensis and Investigation of Its Crystal Protein Genes.* Turkey: Izmir Institute of Technology.

Charles, J-F., Nielsen-LeRoux, C., dan Dele' cluse, A. 1986. Variation du pH del'intestin moyen d' Aedes aegypti en relation avec i'intoxication par les cristaux de *Bacillus thuringiensis* var *isralensis* (serotype H 14). *Bul. Soc. Path. Exot ,* **74**, 91-95.

Charles, J-F., Darboux, I., Pauron, D., dan Nielsen-Leroux,C. 2005. Mosquitocidal *Bacillus Sphaericus*: Toxins, Genetics, Mode of Action, Use, and Resistance Mechanisms. *Inst. Pasteur/Microbiol* .

Charles, J-F., Nielsen-LeRoux, C., dan Dele' cluse, A. 1996. *Bacillus sphaericus* toxins: molecular biology and mode of action. *Ann Rev Entomol ,* **41**, 451-472.

Charles, J.-F. 1987. Ultrastructural midgut events in Culicidae larvae fed with *Bacillus sphaericus* 2297 spore/crystal complex. *Ann. Inst. pasteur/Microbiol ,* **138**, 471-484.

Chrispeels, M. J., dan Sadava, D. E. 1994. *Plants, Genes, and Agriculture, Jones dan Barlett.* Boston, MA.

Claus, D., dan Berkeley, C.W. 1986. The Genus Bacillus. In: Bergey's Manual of Systematic Bacteriology. *Vol* **2** (34), 1105-1139.

Compant, S., Duffy, B., Nowak, J., Clement, C., & dan Barka, E. A. 2005. Mini review: use of plant growth - promoting Rhizobacteria for Biocontrol of plant diseases: principles, mechanism of action, and future prospect. *Application of Environmental Microbiology ,* **71**, 4951-4959.

De la Cruz. 2001. *The Community and the control of Aedes aegypti: perception and behavior regarding temephos larvacide dalam Halstend, S.B (Ed). Dengue editor.* Singapore: World Scientific Publishing Co. Pte. Ltd.

Dini, Y. W. 2005. Profil Protein Kristal dan DNA Genom Total Galur-Galur Bakteri *Bacillus thuringiensis*. *Skripsi*. Bogor: Jurusan Biologi Fakultas Matematika dan Ilmu Pengethuan Alam Universitas Pakuan.

Djakaria, S. 2004. *Pendahuluan Entomologi Parasitologi Kedokteran Edisi Ke-3.* Jakarta: Fakultas Kedokteran Universitas Indonesia.

Doggett, S. L. 2002. *The New South Wales Arbovirus Surveillance and Mosquito Monitoring Program.*

Dulmage, H. 1981. Insecticidal Activity of Isolated of *Bacillus thuringiensis* and Their Potential for Pest Control. (H. Burges, Ed.) *Microbial Control of Pest and Plant Disease* , 1970-1980.

Dwidjoseputro, D. 1998. *Dasar-Dasar Mikrobiologi* . Malang: Djambatan.

Fardiaz, S. 1992. *Mikrobiologi Pangan I.* Jakarta: PT. Gramedia Pustaka Utama.

Faust, R.M., dan Bulla, L.A 1982. Bacteria and Their Toxin as Insecticides. New York: Marcel Dekker Inc.

Fiuza, L. M., Schünemann, R., Pinto, LMN., Zanettini, MHB. 2012. Two new Brazilian isolates of *Bacillus thuringiensis* toxic to Anticarsia gemmatalis (Lepidoptera: Noctuidae). Brazilian Journal of Biology. Porto Alegre, RS, Brazil.

Gill, S., Knowles, E., & Pietrantonio, P. 1992. The Mode of Action of Bacillus thuringiensis Endotoxins. *Annu. Rev. Entomol* , 615-636.

Gillot, C. 2005. *Entomology 3rd edition.* Netherland: Springer.

Ginanjar, G. 2003. *Demam Berdarah A Survivel Guide.* Yogyakarta: PT. Mizan Publika.

Gominet, M. S. 2001. Oligopeptide permease is required for expression of the *Bacillus thuringiensis* plCr regulon and for virulence. *Mol Microbiol , **66*** (3), 963-975.

Graciela, B.B., Joel E. Lopez-Meza., Jorge, G.C., Carlos, F.P., dan Jorge E.I. 2000. Characterization of INTA 51-3, a New Atypical Strain of *Bacillus thuringiensis* from Argentina. *Current Microbiology an International Journal*. **Vol 41**:396-401. Springer-Verlag New York Inc.

Gubler, J. D., & Meltzer, M. 2014. *Dengue and Dengue Hemorrhagic Fever Second Edition.* USA: CPI Group Ltd, Croydon.

Guidelli-Thuler, A. M. 2009. Expresssion of the sigma35 nd cry2ab genes involved in *Bacillus thuringiensis* virulence. *Sci Agric (Piracicaba, Braz) , **66*** (3), 403-409.

Hadi, U., dan Susi, S. 2000. *Pengenalan, Diagnosis, dan Pengendaliannya.* Bogor: Laboratorium Entomologi Bagian Parasitologi dan Patologi, Departemen Ilmu Penyakit Hewan dan Kesehatan Masyarakat Veteriner FKH IPB.

Hastuti, O. 2008. *Demam Berdarah Dengue, Penyakit dan Cara Pencegahannya.* Yogyakarta: Kanisius.

Hatmanti, A. 2000. Pengenalan Bacillus spp. *Balitbang Lingkungan Laut , 25* (1), 31-41.

Hermanto, S., Jusuf, E., Shiddiq, M. H. 2013. Eksplorasi Protein Toksin *Bacillus thuringiensis* dari Tanah di Kabupaten Tangerang. Valensi. **Vol 3**(1): 48-56. Bogor: Pusat Penelitian Bioteknologi LIPI Cibinong.

Herms, W. 2006. *Medical Entomology.* United States of America: The Macmillan Company.

Herrnstand, C., Soares, C.G., Wilcox, E.R., Edwards, D.I. (1986). A new strain of *Bacillus thuringiensis* with activity agains coleopteran insects. *Biotechnology*, **Vol 4**: 305-308

Ho 'fte, H., dan Whiteley, H.R. 1989. Insecticidal crystal proteins of Bacillus thuringiensis. *Microbiol Rev ,* **53**, 242-255.

Inkson, B.J. 2016. *Scanning electron microscopy (SEM) and transmission electron microscopy (TEM) for materials characterization*. The University of Sheffield. United Kingdom.

Irianto, K. 2006. *Menguak Dunia Mikroorganisme.* Bandung: CV. Yrama Widya Margahayu Permai.

Jati, N., Murwani, I.Z., dan Felicia. 2013. Isolasi, Purifikasi, dan Uji Patogenitas Isolat *Bacillus Thuringiensis* berliner Wilayah Daerah Istimewa Yogyakarta terhadap Larva Nyamuk Aedes aegypti linn. *Laporan Akhir Hasil Penilitian Hibah Fundamental* .

Johnson, C., Bishop, A., dan Turner, C. 1998. Isolation and activity of strain of *Bacillus thuringiensis* toxic to larvae of the housefly (Diptera: Muscidae) and tropical blowflies (Diptera: Calliphoridae). *Journal of Invertebrata Pathology* (71), 138-144.

Kemenkes RI. 2016. Situasi DBD di Indonesia. Tersedia dari http://www.depkes.go.id/resource/download/pusdatin/infodatin/infodatin-indbd2016.pdf - Diakses Agustus 2020.

Kemenkes RI. 2017. Profil Kesehatan Indonesia 2016. Tersedia dari http://www.depkes.go.id/resources/download/pusdatin/lain-lain/Data dan Informasi Kesehatan Profil Kesehatan Indonesia 2016-smallersize-web.pdf. - Diakses September 2019

Khetan, S. K. 2001. *Microbial Pest Control.* USA: Marcell Dekker, Inc.

Kristina, I., & Wulandari, L. 2005. Kajian Masalah Kesehatan: Demam Berdarah Dengue.

Krych, V., Johnson, J. L., dan Youstern, A. A. 1980. Deoxyribonucleic acid homologies among strain of Bacillus sphaericus. International journal of Systematic Bacteriology. 30, 476-484.

Lacey, L.A., Frutos, R., Kaya, H.K., Vail, P. 2001. Insect pathogens as biological control agents: do they have future?. *Biological Control*. 21: 230-248

Lay, B. 1994. *Analisis Mikroba di Laboratorium* . Jakarta: Rajawali Press.

Limpanawat, S., Promdonkoy, B., dan Boonserm, P. 2009. The C-terminal domain of BinA is responsible for *Bacillus sphaericus* binary toxin BinA-BinB interaction. *Curr. Microbiol ,* **59**, 509-513.

Liu, J.W., Porter, A. G., Wee, B. Y., dan Thanabalu,T. 1996. New gene from nine *Bacillus sphaericus* strains encoding highly conserved 35.8-kDa mosquitocidal toxins. *Appl. Environ. Microbiol,* **62**, 2174-2176.

Lopez-Meza, J.E., Ibara, J.E. (1996). Characterization of a novel strain of *Bacillus thuringiensis*. *Appl. Environ. Microbiol ,* **62**, 1306-1310.

Madigan, M. 2005. *Brock Biology of Microorganisme.* London: Prentice Hall.

Madigan, M., Martinko, J., & Parker, J. 1997. *Brock Biology of Microorganisms, 8th edition.* USA: Prentice Hall.

Maeda, M. E., Mizuki, Y., Nakamur, T., Hatano., dan M. Ohba. (2000). Recovery of Bacillus thuringiensis from marine sediments of Japan. *Current Microbiology ,* **40**, 418-442.

Mardihusudo, Sugeng, J. 1992. Aktivitas Larvasidal *Bacillus thuringiensis* H-14 dan *Bacillus sphaericus* 1592 terhadap tiga spesies Nyamuk Vektor Penyakit di Jawa. *Jurnal Berkala Ilmu Kedokteran, Jilid XXIV*.

Martin, P. A. W., Gundersen-Rindal, D. E., and Blackburn, M. B. 2010. Distribution of phenotypes among *Bacillus thuringiensis* strains. *Syst Appl Microbiology ,* **33** (4), 204-208.

Milam. 2000. Evaluating mosquito control pesticides for effect on target and non target organism dalam Sahayaraj, K (Ed). New Delhi: Departemen of Zoology.

Milne, R., Ge A.Z, R., dan Dean D, H. 1990. Specificity of Insecticidal Crystal Protein: Implications for Industrial Standarization. (L. d. Hickle, Ed.) *Analytical Chemistry of Bt.*

Mulla, M.S., Darwazch, E., Davidson, W., dan Dulmage, H. T. 1984. Efficacy and persistence of the microbial agent *Bacillus sphaericus* against mosquito larvae in organically enriched habitats. *Mosquito News ,* **44**, 166-173.

Mulla, M. 1985. Field evaluation and efficacy of bacterial agents and their formulation against mosquito larva. *In Integrated mosquito control methodologies*.

Nasution, A. F. 2018. Isolasi dan Uji Toksisitas Isolat *Bacillus thuringiensis* Lokal Terhadap Larva Nyamuk *Aedes aegypti*. *Tesis*. Medan: Fakultas Matematika dan Ilmu Pengetahuan Alam Universitas Sumatera Utara.

Naufalin, R. 1999. Isolasi, Identifikasi dan Ketahanan Panas Bakteri Pembentuk Spora Aerob pada Bumbu Masakan Tradisional*, [Tesis].* Bogor: Program Pasca Sarjana, Institut Pertanian Bogor.

Nicolas, L., Nielsen-LeRoux, C., Charles, J.-F., dan Delecluse, A. 1993. Respective role of the 42- and 51- kDa component of the *Bacillus sphaericus* toxin overexpressed in *Bacillus thuringiensis*. *FEMS Lett ,* **106**, 275-280.

Nisnevitch, M. S. 2010. Isolation, characterization and biological role of camelysin from *Bacillus thuringiensis* subsp. *israelensis*. *Curr Microbiol ,* **61** (3), 176-183.

Oei, C., Hindley, J., Berry, C. 1990. An analysis of the genes encoding the 51.4- and 41.9- kDa toxins of *Bacillus sphaericus* 2297 by deletion mutagenesis: the construction of fusion proteins. *EMS Microbiol. Lett ,* **72**, 265-274.

Palvannan, T., and Boopathy, R. 2005. Phosphatidylinositol specific phospholipse C production from *Bacillus thuringiensis* serova. kurstaki using potato- based media. *World J Microbiol Biotechnol ,* **21** (6-7), 1153-1155.

Park, H.-W., Federici, B.A. 2009. Genetic engineering of bacteria to improve efficacy using the insecticidal proteins of Bacillus spesies. (S. V. In: Stock, Ed.) *Insect Pathogens: Molecular Approaches and Techniques , pp*, 275-305.

Park, H.-W., Bideshi, D. K., Federici, B.A. 2010. Properties and applied use of the mosquitocidal bacterium, *Bacillus sphaericus*. *Journal of Asia-Pacific Entomology*. **13**: 159-168

Pelczar, M., dan Chan. 2008. *Dasar-Dasar Mikrobiologi.* Jakarta: UI Press.

Pelczar, M., dan Chan. 2007. *Dasar-Dasar Mikrobiologi Jilid ke-1.* Jakarta: UI Press.

Pelczar, M. J., & dan Chan, E. C. 2005. *Dasar-dasar Mikrobiologi.* Jakarta: UI Press.

Pé rez-García, G. B.-R. 2010. Potential effect of a putative σH-driven promoter on the over expression of the Cry1Ac toxin of Bacillus thuringiensis. *Journal Invertebrata Pathology ,* **104** (2), 140-146.

Poopathi, S., & Abidha, S. (2013). Mosquitocidal bacterial toxins (Baacillus sphaericus and Bacillus thuringiensis serovar israelensis): Mode of action, cytopathological effects and mechanism of resistance. *Global Journal of Anatomy and Physiology* , 54-69.

Pratiwi, S. T. 2008. *Mikrobiologi Farmasi.* Jakarta: Airlangga.

Prescott, L., & dan Harley, J. 2002. *Microbiology 5th ed.* USA: The McGraw Hill Companies.

Ramarao, N., dan Lereclus, D. 2006. Adhesion and cytotoxicity of *Bacillus cereus* and *Bacillus thuringiensis* to epithelial cells are FlhA and PlCr dependent, respectively. *Microbes Infect ,* **8** (6), 1483-1491.

Salaki, C. L., dan Sembiring, L. 2009. Eksplorasi bakteri *Bacillus thuringiensis* dari berbagai habitat alami yang berpotensi sebagai agensia pengendali hayati nyamuk Aedes aegypti Linnaeus. *Seminar Nasional Biologi XX dan Kongres PBI XIV UIN Maliki* .

Salaki, C., dan Sembiring, L. 2009. Prospek Pemanfaatan Bakteri Entomopatogenik Sebagai Agensia Pengendali Hayati Serangga Hama. *Prosiding Seminar Nasional Penelitian, Pendidikan dan Penerapan MIPA* .

Salamun., Ni'matuzahroh., Fatimah., Findawati, V., Susetyo, R.D., Nurhariyati, T., dan Supriyanto, A. 2020. Prospect of Native Entomopathogenic Bacilli from Baluran National Park as Biological Control of Dengue Fever Vector. *Annals of Biology ,* **36** (2), 232-237.

Sedlak, M. W. 2000. Regulation by overlapping promoters of the rate of synthesis and deposition into crystalline inclusions of *Bacillus thuringiensis* δ-endotoxins. *Journal of Bacteriology ,* **182** (3), 734-741.

Sezen, K., Muratoglu, H., Nalcacioglu, R., Mert, D., Demirbag, Z., Kati, H. 2008. Higly pathogenic *Bacillus thuringiensis* subsp. *tenebrionis* from European shot-hole borer, Xyleborus dispar (Coleoptera: Scolytidae). *New Zealand Journal of Crop and Holticultural Science*, 36(1): 77-84.

Shieh, T. R. 1994. Identification and Clasification of Bacillus thuringiensis. *Makalah Seminar Bacillus thuringiensis* .

Sihotang, H., & Umniyati, S. R. 2018. Toxisitas temephos, minyak atsiri jahe (Zingiber officinale Roxb) dan *Bacillus thuringiensis* ssp. israelensis (Bti) terhadap larva nyamuk Ae. aegypti dari Sumatra Utara. *Berita Kedoktern Masyarakat (BKM) Journal of Community Medicine and Public Health ,* **34** (3), 127-136.

Soedarto. 2012. *Demam Berdarah Dengue Haemorrhagic Fever.* Jakarta: Sagung Seto.

Soegijanto, S. 2006. *Demam Berdarah Dengue Edisi Kedua.* Surabaya: Airlangga University Press.

Suryadi, B.F., Yanuwiadi, B., Ardyati, T., dan Suharjono, S. 2016. Evaluation of Entomopathogenic *Bacillus sphaericus* Isolated From Lombok Beach Area Against Mosquito Larvae. *Asian Pacific Journal of Tropical Biomedicine ,* **6** (2), 148-154.

Swadener, C. 1994. Bacillus thuringiensis. *Journal of Pesticides Reform ,* **14** (3), 13-20.

Swiecicka, Izabela., Bideshi, D.K., dan Federici, B.A (2008). Novel isolate of Bacillus thuringiensis subsp. thuringiensis That Produces a Quasicuboidal Crystal of Cry1Ab21 Toxic to Larvae of Trichoplusia ni. *Applied and Environmental Microbiology ,* **74** (4), 923-930.

Sylvia, P. 2008. *Mikrobiologi Farmasi.* Jakarta: Erlangga.

Tarumingkeng, R.C. 2001. *Makalah Falsafah Sains (PPS 702)*. Program Pascasarjana/SC. Institut Pertanian Bogor. Bogor

Thanabalu, T., dan Porter, A.G. 1996. A *Bacillus sphaericus* gene encoding a novel type of mosquitocidal toxin of 31.8 kDa. *Gene* **170** , 85-89.

Thanabalu, T., dan Porter, A.G. 1995. *Bacillus sphaericus* gene encoding a novel class of mosquitocidal toxin with homology to *Clostridium* and *Pseudomonas* toxins. *Gene* **61** , 4031-4036.

Trizelia. 2001. Pemanfaatan *Bacillus thuringiensis* untuk Pengendalian Hama Crocidolomia binotalis, Zell (Lepidoptera: Pyrlidae). *Jurnal Agrikultura ,* **19** (3), 184-190.

Usta, C. 2013. Microorganism in Biological Pest Control - A Review (Bacterial Toxin Application and Effect of Environmental Factors). *Current Progress in Biological Research ,* **13,** 287-317.

Waluyo, L. 2007. *Mikrobiologi Umum Edisi Revisi.* Malang: UMM Press.

Widiyanti, P., & Muyadihardja, S. 2004. Uji Toksisitas Jamur Metarhizium anisopliae terhadap larva nyamuk Aedes aegypti. *MediaLitbang Kesehatan ,* **14** (3), 25-30.

Yousten, Allan. A., Davidson, dan Elizabeth, W. 1982. Ultrastructural Analysis of Spores and Parasporal Crystals Formed by *Bacillus*

sphaericus 2297. *Applied and Environmental Microbiology ,* **44** (6), 1449-1455.

Yuan, Z., Hansen, B.M., Andrup, L., dan Eylenberg, J. 2002. Detection of Enterotoxin Genes in Mosquito-Larvicidal Bacillus sp. *Current Microbiology ,* **45**, 221-225.

Zeigler, D.R. 1999. *Bacillus genetic stock center catalog of strains, 7th edn, Part 2: Bacillus thuringiensis and Bacillus cereus.* Department of Microbiology. The Ohio State University, Columbus.

Zettel, C., dan Kaufman, P. 2009. *Yellow Fever Mosquito: Aedes aegypti (Linnaeus) Insecta: Diptera: Culcidae.* University of Florida: IFAS Extention Publication EENY.