

DAFTAR PUSTAKA

- Ahmad, I., Astari, S., Rahayu, R., dan Hariani, N. 2009. Status Kerentanan *Ae. aegypti* (Diptera: Culicidae) pada Tahun 2006-2007 terhadap Malation di Bandung, Jakarta, Surabaya, Palembang dan Palu. *Biosf*, 26: 85-89.
- Ahmad, I. 2011. *Adaptasi Serangga Dan Dampaknya Terhadap Kehidupan Manusia*. Pidato ilmiah Guru Besar Institut Teknologi Bandung (ITB).
- Al-Nazawi, A. M., Aqili, J., Alzahrani, M., McCall, P. J., and Weetman, D. 2017. Combined Target Site (kdr) Mutations Play A Primary Role in Highly Pyrethroid Resistant Phenotypes of *Ae. aegypti* from Saudi Arabia. *Parasites & Vectors*, 10:161
- Alvarez, L.C., Ponce, G., Oviedo, M., Lopez, B., Flores, A.E. 2013. Resistance to Malation and Deltamethrin in *Aedes aegypti* (Diptera: Culicidae) From Western Venezuela. *Entomol Soc Am*, 50(5):1031-9.
- Badan Pusat Statistik Kota Palu. 2017. *Kecamatan Palu Barat Dalam Angka*. BPS, Palu: Katalog 1102001. 7271010.
- Bregues, C., Hawkes, N.J., Chandre, F., McCorrol, L., Duchon, S., Guillet, P., Manguin, S., Morgan, J.C., Hemingway, J. 2003. Pyrethroid and DDT Cross-resistance in *Ae. aegypti* is Correlated with Novel Mutation in The Voltage-Gated Sodium Channel Gene. *Medical and veterinaray entomology*, 17: 87-94.
- Boewono, D. T., Widiarti. 2006. *Resistensi Vektor terhadap Insektisida Organofosfat di Daerah Yogyakarta-Solo-Semarang*.
- Borrer, D.J., C.A., Triplehorn, N.F. Johnson. 1996. *Pengenalan Pelajaran Serangga*. 6th. Ed. Gadjah Mada University Press, Yogyakarta.
- Bova, J. E. 2014. *Morphological Differentiation of Eggs and Comparative Efficacy of Oviposition And Gravid Traps for Aedes Vectors at Different Habitats* [Tesis]. Faculty of the Virginia Polytechnic Institute and State University.
- Brogdon, W.G., and McAllister, J. C. 1998. Insecticide Resistance and Vector Control. *Emerging Infectious Disease*, 4(4): 605-13.
- Cahyati, W. H., Suharyo. 2006. *Dinamika Ae. aegypti sebagai Vektor Penyakit*. Kemas, 2: 38-48.
- Center for Disease Control and Prevention. 2010. *Guideline for evaluating insecticide resistance in vector using the CDC bottle bioassay*. CDC, USA: 1-83.
- Center for Disease Control and Prevention. 2012. *Mosquito life-Cycle*. CDC, USA: 1-2

- Chareonviriyaphap, T., Akwatanakul, P., Nettanomsak, S and Huntamai, S. 2003. Larval Habitats and Distribution Patterns of *Aedes aegypti* (linnaeus) and *Aedes albopictus*. *Southeast asian j trop med public health*. September 3;34(3).
- Cheng Chang., Wen-Kai, S., Tzu-Ting, W., Ying-Hsi, L., Err-Lieh, H., Shu-Mei, D. 2009. A Novel Amino Acid Substitution in A Voltage-Gated Sodium Channel is Associated with Knockdown Resistance to Permethrin in *Ae. aegypti*. *Insect Biochemistry and Molecular Biology*, 39: 272–8.
- Christophers, S.R. 1960. *Aedes aegypti (L) The Yellow Fever Mosquitoes is Life History, Bionomic and Structure*. Cambridge University Press.
- Clements, A.N. 2000. *The Biology of Mosquitoes Development, Nutrition and Reproduction*. Vol 1. USA: CABI Publishing.
- Corbel, V., N’Guessan, R. 2013. Distribution, Mechanism, Impact and Magement of Insecticide Resistance in Malaria Vectors. A pragmatic review 579 in *Anopheles mosquitoes – new insight into malaria vectors* edited by sylvie Manguin. *inTech*. 813p.
- Coto, M. M., Lazcano, J. A, de Fernandez, D. M., Soca, A. 2000. Malathion Resistance in *Ae. aegypti* and *Culex quinquefasciatus* After Its use in *Ae. aegypti* Control Program. *J Am Mosq Assoc*, 16: 324-330.
- David, A., 2002. ” *Essential Malariology*” *International Student Edition (Fourth Edi.*, pp. 159–166.). London, New York, New Delhi
- Davies, T. G. E., Field, L. M., Usherwood, P. N. R., and Williamsons, M. S. 2007. DDT, Pyrethrins, Pyrethroids and insect Sodium Channel. *IUBMB life*, 59(3): 151-62.
- Dinas Kesehatan Kota Palu. 2012. *Profil Kesehatan Kota Palu Tahun 2011*.
- Dinas Kesehatan Kota Palu. 2017. *Profil Kesehatan Kota Palu Tahun 2016*. Palu: 9-23.
- Dinas Kesehatan Provinsi Sulawesi Tengah. 2017. *Profil kesehatan Provinsi Sulawesi Tengah Tahun 2016*. Palu: 14-35.
- Djakaria, 2000. *Vektor penyakit virus, riketsia, spiroketa dan bakteri*. Dalam: Srisasi, G., Herry, D.I., Wita, P., penyunting. *Parasitologi Kedokteran*. 3rd. Balai Penerbit FKUI, Jakarta: 235-237.
- Djojosumarto, P. 2008. *Teknik Aplikasi Pestisida Pertanian*. Kanisius, Yogyakarta.
- _____. 2008. *Pestisida Dan Aplikasinya*. PT. Agromedia Pustaka Jagakarsa, Jakarta Selatan 12630.

- Dong, K., Du, Y., Rinkevich, F., Nomura, Y., Xu, P., Wang, L., Silver, K., Zhorov, B.S. 2014. Molecular Biology of Insect Sodium Channels and Pyrethroid Resistance. *Insect Biochem Mol Biol*, 50, 1–17.
- Du, Y., Nomura, Y., Satar, G., Hu, Z., Nauen, R., He, S.Y., Zhorov, B.S., Dong, K. 2013. Molecular Evidence for Dual Pyrethroid-Receptor Sites on A Mosquito Sodium Channel. *Proc. Natl. Acad. Sci. USA*, 110(29): 11785–90.
- Du, Y., Nomura, Y., Zhorov, B. S and Dong, K. 2016. Sodium channel mutations and pyrethroid resistance in *Ae. aegypti*. *Insect*, 7, 60.
- Eldridge, B. F. 2003. *Mosquitoes*. Di dalam: Vincen, H. R., and Carde, R. T, editors. Encyclopedia of Insecta. California: Academic Press, 743-9.
- Ffrench, C. R. H., Philip J., Daborn and Gaele, L. G. 2004. The Genetics and Genomics of Insecticide Resistance. *Trends in Genetics*, 20 (3): 163-70.
- Field, W.N., Hitchen, J. M and Rees, A. T. 1984. Esterase Activity in Strains of *Ae. aegypti* (Diptera: Culicidae) Tolerant and Susceptible to The Organofosfate Insecticide Malation. *J. Med. Entomo*, 21: 412-418.
- Fontanesi, L., Francesca, B., Valentina, R., Stefania, D., Elena, G. G., Raffaella F., Roberta, D., Vincenzo, R., and Baldassare, P. 2009. Missense and nonsense mutations in melanocortin 1 receptor (MC1R) gene of different goat breeds: association with red and black coat colour phenotypes but with unexpected evidences. *BMC Genetics*, 10:47.
- Genomic DNA Mini Kit (Blood/Cultured Cell). Geneaid www.geneaid.com
- Georghio, G. P and Melon, R. B. 1983. *Pesticide Resistance in Time and Space*. In: Pest Resistance to Pesticide. Plenum Press, New York: 10-25.
- Ghiffari. A., Fatimi, H., & Anwar C. 2013. Deteksi Resistensi Insektisida Sintetik Piretroid pada *Ae. aegypti* (L.) Strain Palembang Menggunakan Teknik *polymerase chain reaction*. *Aspirator*, 5 (2): 37-44.
- Ginanjari, H. R. 2011. Densitas dan Perilaku Nyamuk (Diptera: Culicidae) di Desa Bojong Rangkas Kabupaten Bogor. Bogor: *Fakultas Kedokteran Hewan, Institut Pertanian Bogo*, 2(4): 11-24.
- Gunandini, D. J. 2002. Kemampuan Hidup Populasi Alami Nyamuk *Ae. aegypti* yang Diseleksi Malation pada Stadium Larva [disertasi]. Bandung: Institut Teknologi Bandung.

- Hadi, U. K., Koesharto, F. X. 2006. *Nyamuk Dalam: Hama Pemukiman Indonesia, Pengenalan, Biologi, dan Pengendalian*. Editor: Hadi, U.K., dan Sigid, S.H. *Unit Kajian Pengendalian Hama Pemukiman (UKPHP) FKH-IPB*. Bogor, 23-51.
- Hadi, U. K., Soviana, S., Gunandini, D. D. 2012. Aktivitas Nokturnal Vektor Demam Berdarah Dengue di Beberapa Daerah di Indonesia. *Indonesian Journal of Entomology*, 9(1): 1-6
- Hadi, U. K., dan Susi, S. 2000. *Ektoparasit: Pengenalan, Diagnosis, dan Pengendaliannya*. Bogor: Institut Pertanian Bogor.
- Hamdan, H., Sofian-Azirun, M., Nazni, W. A., & Lee, H. L. 2005. Insecticide Resistance Development In *Culex quinquefasciatus* (Say), *Ae. aegypti* (L.) and *Aedes Albopictus* (Skuse) Larvae Against Malation, Permethrin And Temephos. *Tropical Biomedicine*, 22(1): 45–52.
- Harris, A.F., Rajatileka, S., dan Ranson, H. 2010. Pyrethroid Resistance In *Ae. aegypti* From Grand Cayman. *Am J Trop Med Hyg*, 83 (2): 277-84
- Harris, E., Roberts, T. G., Smith, L., Selle, J., Kramer, L., Valle, S., *et al.* 1998. Typing of Dengue Viruses in Clinical Specimens and Mosquitoes by Single-tube Multiplex Reverse Transcriptase PCR. *J Clin Microbiol*, 36: 2634-39.
- Hasibuan, R. 2013. *Insektisida Pertanian*. Lembaga Penelitian Universitas Lampung, Bandar Lampung. Vol 151.
- Hastjarjo, D. 2008. Ringkasan buku Cook & Campbell.(1979). *Quasi-Experimentation: Design & Analysis Issues for field Settings*. Houghton Mifflin Co.
- Hemingway, J. 2000. The Molecular Basis of Two Contrasting Metabolic Mechanisms of Insecticide Resistance. *Insect Biochem. Mol. Biol*, 30: 1009–1015.
- Hemingway, J., Hawkes, N.J., McCarroll, L., Ranson, H. 2004. The Molecular Basis of Insecticide Resistance in Mosquitoes. *Insect Biochem. Mol. Biol*, 34: 653–665.
- Hidayati, H., Nazni, W. A., Lee, H.L., Sofian-zirun, M. 2011. Insectide Resistance Development In *Ae. aegypti* Upon Selection Pressure With Malation. *Trop Biomed*, 28(2):425-37.

- Hirata, K., Komagata, O., Itokawa, K., Yamamoto, A., Tomita, T., Shinji Kasai, S. 2014. A Single Crossing-Over Event in Voltage-Sensitive Na⁺ Channel Genes May Cause Critical Failure of Dengue Mosquito Control by Insecticides. *PLOS Neglected Tropical Diseases*, 8 (8): e3085.
- Hu, Z., Du, Y., Nomura, Y., Dong, K. 2011. A Sodium Channel Mutation Identified in *Aedes aegypti* Selectively Reduces Cockroach Sodium Channel Sensitivity to Type I, But Not Type II Pyrethroids. *Insect Biochem Mol. Biol*, 41: 9–13.
- Ikawati, B., Sunaryo, Widiastuti, D. 2015. Peta status kerentanan *Ae. aegypti* (Linn.) terhadap insektisida cypermethrin dan malation di Jawa Tengah. *Aspirator*, 7(1): 23-8.
- Ingles, P.J., Adams, P.M., Knipple, D.C., & Soderlund, D.M. 1996. Characterization of Voltage-Sensitive Sodium Channel Gene Coding Sequences from Insecticide-Susceptible and Knockdown-Resistant House Fly Strains. *Insect Biochem Mol Biol*, 26 (4): 319-326, ISSN 0965-1748.
- Hoedojo, R., and Sungkar, S. 2013. Morfologi, Daur Hidup dan Perilaku Nyamuk. In: Sutanto, I., Ismid, I. S., Sjarifuddin, P. K., Sungkar, S (Ed). *Parasitologi Kedokteran*. Edisi 4. Fakultas Kedokteran Universitas Indonesia Press, Jakarta: 250-65.
- Ishaaya, I. 2001. *Biochemical Site Of Insecticide Action and Resistance*. Springer, German.
- Ishak, I. H., Jaal, Z., Ranson, H., and Wondji, C. S. 2015. Contrasting Patterns of Insecticide Resistance and Knockdown Resistance (kdr) in The Dengue Vectors *Ae. aegypti* and *Aedes albopictus* from Malaysia. *Parasites & Vectors*, 8:181.
- Jastal. 2015. Pemetaan status resistensi insektisida di Indonesia tahun 2015. Laporan penelitian. Balai Litbangkes Donggala.
- Karunaratne and J. Hemingway. 2001. Malation Resistance And Prevalence Of The Malation Carboxylesterase Mechanism In Population Of Mosquito Vectors Of Disease In Sri Lanka. *Bulletin of the World Health Organization*, 79 (11): 1060-4.
- Kasai, S., Ching, L., Lam-Phua, S. G., Tang, C. S., Itokawa, K., Komagata, O., Kobayashi, M., and Tomita, T. 2011. First Detection of A Putative Knockdown Resistance Gene in Major Mosquito Vector, *Aedes albopictus*. *Jpn. J. Infect. Dis*, 64:217-21.

Kawada, H., Higa, Y., Komagata, O., Kasai, S., Tomita, T., Yen, N.T., Loan, L.L., Sánchez, R.A.P., Takagi, M. 2009. Widespread Distribution Of A Newly Found Point Mutation In The Voltage-Gated Sodium Channel In Pyrethroid-Resistant *Ae. aegypti* Populations In Vietnam. *PLoS Negl Trop Dis*, 3:10.

Kawada, H., Oo, S. Z. M., Thaung, S., Kawashima, E., Maung Maung, Y. N., Thu, H. M., Thant, K. Z., and Minakawa, N. 2014. Co-Occurrence of Point Mutations in The Voltage-Gated Sodium Channel of Pyrethroid Resistant *Ae. aegypti* Populations in Myanmar. *PLOS Neglected tropical Diseases*, Vol.8.

Kawada, H., Higa, Y., Futami, K., Muranami, Y., Kawashima, E., Osei, J.H., Sakyi, K.Y., Dadzie, S., De Souza, D.K., Appawu, M., 2016. Discovery of point mutations in the voltage-gated sodium channel from african *Ae. aegypti* populations: Potential phylogenetic reasons for gene introgression. *PLoS Negl. Trop*, 10 (e0004780).

Kementrian Kesehatan Republik Indonesia. 2012. *Pedoman Penggunaan Insektisida (pestisida) dalam pengendalian vektor*. Direktorat Jendral Pengendalian dan Penyehatan Lingkungan, Jakarta.

. 2015. *Pedoman Pengendalian demam berdarah dengue di Indonesia*. Direktorat Jendral Pengendalian Penyakit dan Penyehatan Lingkungan.

.2016.*Profil Kesehatan Indonesia* 2015. Kemenkes RI, Jakarta.

.2017.*Profil Kesehatan Indonesia* 2016. Kemenkes RI, Jakarta.

Kementrian Pertanian Republik Indonesia. 2014. *Pestisida Pertanian dan Kehutanan Terdaftar 2014*. Direktorat Jendral Sarana dan Prasarana Pertanian, Jakarta.

Knowlton, K., Solomon, G., Ellman, M. R. 2009. Mosquito-Borne Dengue Fever Threat Spreading In The Americas. *Issue Paper*, New York: NRDC.

Krischik, V. A., and J. Davidson., 2004. *IPM (Integrated Pest Management) of Midwest Landscapes*. University of Minnesota, Minnesota Agricultural Experiment Station, St. Paul, MN.

- Kushwah, R. B. S., Dykes, C. L. D., Kapoor, N., Adak, T., Singh, O. P. 2015. Pyrethroid-Resistance and Presence of Two Knockdown Resistance (Kdr) Mutations, F1534C and A Novel Mutation T1520I, in Indian *Ae. aegypti*. *PLOS Neglected Tropical Diseases*, Vol. 9.
- Laksono, A. 2007. Perubahan Tingkat Toleransi Larva *Ae. aegypti* (L) (Diptera: Culicidae) terhadap Malation dengan Seleksi Delapan Generasi. *JBPTI, Cent Libr.* <http://digilib.itb.ac.id>. diakses tanggal 22 Juli 2018.
- Lee, H. L. 1990. A Rapid And Simple Biochemical Method For The Detection Of Insecticide Resistance Due to Elevate Esterase Activity in *Culex quinquefasciatus*. *Tropical Biomedicine*, 7: 21-26.
- Li, C., Kaufman, P., Xue, R., Zhao, M., Wang, G., Yan, T., Guo, X., Zhang, Y., Dong, Y., Xing, D. 2015. Relationship Between Insecticide Resistance And Kdr Mutations In The Dengue Vector *Ae. aegypti* In Southern China. *Parasites & Vectors*, 8: 325.
- Lidia, K., & Levina, E. 2008. Deteksi Dini Resistensi Nyamuk *Aedes Albopictus* terhadap Insektisida Organofosfat di Daerah Endemis Demam Berdarah Dengue di Palu (Sulawesi Tengah). *MKM*, 03: 2.
- Lima, J. B. P., Da-Cunha, M. P., Da Silva Junior, R. C., Galardo, A. K. R., Da Silva, S. S., Braga, I. A., Ramos, R. P., & Valle, D. 2003. Resistance of *Ae. aegypti* to Organophosphates In Several Municipalities In The State Of Rio De Janeiro And Espirito Santo, Brazil. *The American Society of Trop. Med. Hyg.* 68 (3): 329-33.
- Lima, E.P., Paiva M.H.S., de Araújo A.P., da Silva É.V.G., da Silva U.M., de Oliveira, A.E.G. Santana, C.N. Barbosa, C.C.P. Neto, M.O.F. Goulart, C.S. Wilding, Ayres L.N., and Santos M.A.V.M. 2011. Insecticide Resistance in *Aedes aegypti* Populations from Ceará, Brazil. *Parasites & Vectors*, 4(5):1-12.
- Mantolu, Y., Kustiati., Ambarningrum, T. B., Yusmalinar, S., Ahmad, I. 2018. Status Dan Perkembangan Resistensi *Ae. aegypti* (Linnaeus) (Diptera: Culicidae) Starin Bandung, Bogor, Akassar, Palu Dan VCRU Terhadap Insektisida Permetrin Dengan Seleksi Lima Generasi. *J Entomol Indonesi*, 13(1):1-8.
- Mardihusodo, S.J. 1995. Microplate Assay Analysis of Potesial for Organofosphate Insecticide Resistance in *Ae. aegypti* in the Yogyakarta Municipality Indonesia. *Berkala Ilmu Kedokteran*, 27 (2): 71-79.
- Martins, A.J., Lima, J.B., Peixoto, A.A., & Valle, D. 2009. Frequency of Val1016Ile Mutation in the Voltage-Gated Sodium Channel Gene of *Ae. aegypti* Brazilian Populations. *Trop Med Int Health*, 14(11): 1351-5, ISSN

1365-3156.

- Martins, A.J., De Andrade, R. M. M., Linss, J. G. B., Peixoto, A. A., and Valle, D. 2009. Voltage-Gated Sodium Channel Polymorphism And Metabolic Resistance in Pyrethroid-Resistant *Ae. aegypti* from Brazil. *The American Society of Trop. Med. Hyg*, 81(1): 108– 115.
- Martins, A.J., and D. Valle. 2011. *The Pyrethroid Knockdown Resistance*. Laboratório de Fisiologia e Controle de Artrópodes Vetores, Instituto Oswaldo Cruz
- Melo-Santos, M.A.V., Varjal-Melo, J.J.M., Araújo, A.P., Gomes, T.C.S., Paiva, M.H.S., Regis, L.N., Furtado, A.F., Magalhaes, T., Macoris, M.L.G., Andrighetti, M.T.M., Ayres, C.F.J. 2010. Resistance to the Organofosphate Temephos: Mechanisms, Evolution and Reversion in An *Ae. aegypti* Laboratory Strain from Brazil. *Acta Tropica*, 113: 180–189.
- Mullen, D., Durden, L. 2002. *Medical and Veterinary Entomology*. California: Academic Press.
- Muthusamy, R., Ramkumar, G., Karthi, S., Shiva- Kumar, M.S. 2014. Biochemical Mechanisms of Insecticide Resistance in Field Population of Dengue Vector *Aedes aegypti* (Diptera: Culicidae). *Int J Mosq Res*, 1: 1-4.
- Mulyaningsih, B. 2001. Deteksi Dini Status Resistensi Nyamuk Vektor Penyakit Demam Berdarah Dengue terhadap Insektisida Organofosfat di Daerah Endemis di Yogyakarta dengan Uji Biokemis. <https://repository.ugm.ac.id/id/eprint: 92714>. 27 September 2017 (15:23).
- _____, Umniyati S.R., Hadianito T. 2017. Detection of Non specific Esterase Activity in Organofosphate Resistance Strain of *Aedes Albopictus* Skuse (Diptera : Culicidae) Larvae in Yogyakarta, Indonesia. *Southeast Asian J Trop Me Public Health*, 48 (3).
- Nollet, L. M., dan Rathore, H. 2010. *Handbook Of Pesticides: Methode Of Pesticide Residues Analysis*. CRC Press, Boca Raton. 9-30.
- Palgunadi, B. U. & Asih. R. 2011. *Aedes aegypti sebagian Vektor Penyakit Demam Berdarah Dengue*. Fakultas Kedokteran Universitas Wijaya Kusuma Surabaya.
- Peiris, N. T. R. Dan Hemingway, J. 1990. Mechanism of Insecticide Resistance in Temephos *Culex Quinquefasciatus* (Diptera: Culicidae) Strain from Sri Lanka. *Bulletin of Entomological Research*, 80 (1) 99: 453-457.

- Pinsamarn, S., Sompeng, W., Akksilp, S., Paeporn, P., Limpawittayakul, M. 2009. Detection of Insecticide Resistance in *Ae. aegypti* to Organofosphate and Synthetic Pyrethroid Compounds in The North-East of Thailand. *Dengue Buletin*, 33: 194-202.
- Plernsub, S., Saingamsook, J., Yanola, J., Lumjuan, N., Tippawangko, P., Sukontason, K., Walton, C and Somboon, P. 2016. Additive Effect of Knockdown Resistance Mutations, S989P, V1016G And F1534C, in A Heterozygous Genotype Conferring Pyrethroid Resistance in *Ae. aegypti* in Thailand. *Parasites & Vectors*, 9:417.
- Ponlawat, A., Scott, J. G., Harington, L. C. 2005. Insecticide Susceptibility of *Ae. aegypti* An *Aedes albopictus* Across Thailand. *J Med Entomol*, 42: 821-825.
- Prasetyowati, H., & Astuti, E.P. 2010. Serotipe Virus Dengue Di Tiga Kabupaten /Kota Dengan Tingkat Endemisitas DBD Berbeda di Propinsi Jawa Barat. *Aspirator*, 2 (2): 120-4.
- Prasetyowati, H., Hendri, J., & Wahono, T. 2016. Status resistensi *Ae. aegypti* (Linn.) terhadap organofosfat di tiga Kotamadya DKI Jakarta. *Balaba*, 12(1) Juni: 23-30.
- Pusarawati, S., Ideham, B, Kusmartisnawati., Tantular, I. S., dan Basuki, S. 2016. *Atlas Parasitologi Kedokteran*. EGC, Jakarta: 119-20.
- Rahmawati, Dian. 2004. *Perkembangan Nyamuk Ae. aegypti*. IPB: Bogor
- Rajatileka, S., William, C. B., Saavedra, K. R., Yuwadee, T., Chamnarn, A., McCalla, P. J., and Hilary, R. 2008. Development and Application of A Simple Colorimetric Assay Reveals Widespread Distribution Of Sodium Shannel Mutations in Thai Populations of *Ae. aegypti*. *Acta Tropica*, 108: 54-7.
- Rattanarithikul, R., Harbach, R. E., Harrison, B. A., Panthusiri, P., Coleman, R. E., and Richardson, J. H. 2010. Illustrated Keys to The Mosquitoes Of Thailand Vi. Tribe Aedini. *Southeast Asian J Trop Med Public Healt*, 41.
- Raymond, M., Berticat, C., Weil, M., Pasteur, N., and Checillon, C. 2001. Insecticide Resistance in the Mosquito *Culex Pipiens*: What We Learned About Adaption. *Genetica*, 112-113: 287-96.
- Rinkevich, F.D., Du, Y., Dong, K. 2013. Diversity and Convergence of Sodium Channel Mutations Involved in Resistance to Pyrethroids. *Pestic. Biochem. Physiol*, 106: 93-100.
- Rodríguez, M. M., Bisset, J. A., Fernandez, D. 2007. Levels of Insecticide Resistance And Resistance Mechanism in *Ae. aegypti* from Some Latin American Countries. *J. Am mosq control Assoc*, 23: 420-429.

- Rueda, L. M. 2004. *Pictorial Keys For The Identification Of Mosquitoes (Diptera: Culicidae) Associated With Dengue Virus Transmission*. Magnolia Press, New Zealand, Zootaxa 589.
- Saavedra-Rodriguez, K., Urdaneta-Marquez, L., Rajatileka, S., Moulton, M., Flores, A.E., Fernandez-Salas, I., Bisset, J., Rodriguez, M., McCall, P.J., Donnelly, M.J., Ranson, H., Hemingway, J., Black 4th, W.C. 2007. A Mutation in the Voltage-Gated Sodium Channel Gene Associated with Pyrethroid Resistance in Latin American *Ae. aegypti*. *Insect Mol. Biol*, 16: 785–798.
- Safar, R. 2010. *Insektisida dan Resistensi, Buku Parasitologi Kedokteran*. Yrama Widya, Bandung.
- Sastroasmoro, S., Ismail, S. 2014. *Dasar-Dasar Metodologi Penelitian Klinis*. 5th.Ed. CV. Sagung Seto, Jakarta: 104-110.
- Selian, Y., Satoto, T.B.T., Umniyati, S. R. 2015. Status Kerentanan Nyamuk *Ae. aegypti* (Diptera: Culicidae) terhadap Insektisida Organofosfat dan Piretroid di Wilayah Kerja Kantor Kesehatan Pelabuhan Tanjung Priok. [Tesis]. Universitas Gadjah Mada, Yogyakarta.
- Selvi,S., Nazni, W. A., Lee, H.L., Azahari, A. H. 2007. Characterization on Malation and Permethrin Resistance by Bioassays and the Variation of Esterase Activity with the Life Stages of the Mosquito *Culex quinquefasciatus*. *Tropical Biomedicine*, 24(1): 63–75.
- Service, M. W. 1986. *Epidemiologi dan Pemberantasan Demam Berdarah Dengue (DBD) di Indonesia*. Fakultas Kesehatan Masyarakat Universitas Sumatera Utara, Sumatera Utara.
- Shuyi ,L.T. 2004. *Concepts of ion channels and action potential* London: Department of Chemistry Imperial College.
- Sigid, S. H. 2006. Masalah Hama Pemukiman dan Falsafah Dasar Pengendalian Dalam: Sigid, S. H., dan Hadi, U. K. Hama Pemukiman Indonesia: Pengenalan, Biologi dan Pengendalia. *Unit Kajian Pengendalian Hama Pemukiman-Bogor*. Hal: 1-13.
- Small G. 1998. Biochemical Assay for Insecticide Resistance Mechanism. Paper Moleculer Entomology Workshop. *Practical center for tropical medicine Gadjah Mada university*, Pebruary 9-20, Yogyakarta.24p.
- Soedarmo, S. 1988. *Demam Berdarah (Dengue) pada Anak*. U (UI-Press). Universitas Indonesia, Jakarta.

- Soedarto., 2016. *Buku Ajar Parasitologi Kedokteran (Hand Book Of Medical Parasitologi)*. . Edisi kedua, Cetakan pertama. CV. Sagung Seto Press. Jakarta: 275-280.
- Soderlund, D.M., and D.C. Knipple. 2003. The Molecular Biology of Knockdown Resistance to Pyrethroid Insecticides. *Insect Biochemistry and Molecular Biology*, 33:563-77.
- Soderlund, D.M. Pyrethroid, Knockdown Resistance and Sodium Channels. 2008. *Pest Management Science*, 64: 610-16.
- Soegijanto, S. 2006. *Demam Berdarah Dengue*. 2nd. Ed. Airlangga University Press, Surabaya: 1-35.
- Srisawat, R., Komalamisra, N., Eshita, Y., Zheng, M., Ono, K., Itoh, T.Q., Matsumoto, A., Petmitr, S., and Rongsriyam, Y. 2010. Point mutations in domain II of the voltage-gated sodium channel gene in deltamethrin-resistant *Ae. aegypti* (diptera: Culicidae). *Appl. Entomol. Zool*, 45. 275–282.
- _____.,_____., Apiwathnasorn, C., Paeporn, P., Roytrakul, S., Rongsriyam, Y and Eshita, Y. 2012. Field-Collected Permethrin-Resistant *Ae. aegypti* from Central Thailand Contain Point Mutations in the IIS6 of the Sodium Channel Gene (kdr). *Southeast Asian J. Trop. Med. Public Health*, 43: 1380–1386.
- Stenhouse, S.A., Plernsub, S., Yanola, J., Lumjuan, N., Dantrakool, A., Choochote, W., Somboon, P. 2013. Detection of the V1016G Mutation In the Voltage-Gated Sodium Channel Gene of *Ae. aegypti* (Diptera: Culicidae) by Allele-Specific PCR Assay, and Its Distribution and Effect On Deltamethrin Resistance in Thailand. *Parasites & Vectors*, 6: 253.
- Stojanovich, C. J., & Scott, H. G. 1966. Illustrated Key to Mosquitoes of Vietnam. Departemen of Health, Education and Walfare. *Public health service*, Atlanta Georgia.40.
- Strode., Wondji, C.S., David, J.P., Hawkes, N.J., Lumjuan, N., Nelson, D.R., Drane, D.R., Karunaratne, S.H., Hemingway, J.,Black, . W.C., Ranson, H. 2008. Genomic analysis of detoxification genes in the mosquito *Ae. aegypti*. *Insect Biochem. Mol. Biol*, 38: 113–123.
- Suharmiati., Hidayani, L. 2007. *Tanaman Obat Dan Rumah Tradisional Untuk Mengatasi Demam Berdarah Dengue*. 1st Ed. PT. Argo Media Pustaka.
- Sunaryo, Ikawati, B., Rahmawati., Widiastuti, D. 2014. Status Resistensi Vektor Demam Berdarah Dengue (*Ae. aegypti*) terhadap Malation 0,8% dan

- Permethrin 0,25% di Provinsi Jawa Tengah. *Ekologi Kesehatan*, Vol. 13 No. 2.
- Suroso, T. 2003. *Pencegahan dan Penanggulangan Penyakit Demam Dengue dan Demam Berdarah Dengue*. Jakarta : Departemen Kesehatan RI.
- Umniyati, S. R., Sutaryo, Wahyono, D., Artama, W, Mardihusodo, S. J., Soeyoko, et al. 2008. Aplication of monoclonal atibody DSSC7 for detecting dengue infection in *Ae. aegypti* based on immunocytochemical streptavidin biotin peroxidase complex assay (ISBPC). *Dengue Bulletin*, 32: 83-98.
- Untung, K. 2005. *Pengendalian Hama Terpadu*. Gadjah Mada University Press, Yogyakarta: 1-10.
- Utomo, M., Amaliah, S., Suryati, F.A. 2010. Daya Bunuh Bahan Nabati Serbuk Biji Papaya terhadap Kematian Larva *Ae. aegypti* Isolat Laboratorium B2P2VRP Salatiga. Salatiga:152-8.
- Vera-Maloof, F.Z., Saavedra-Rodriguez, K., Elizondo-Quiroga, A.E., Lozano-Fuentes, S., Black Iv, W.C. 2015. Coevolution of the Ile1,016 and Cys1,534 Mutations in the Voltage Gated Sodium Channel Gene of *Ae. aegypti* in Mexico. *PLoS Negl. Trop. Dis*, 9. e0004263.
- Vontas,J., Kioulos, E., Pavlidi, N., Morou, E., Torre, A. D., Ranson, H. 2012. Insecticide resistance in the major dengue vectors *Aedes albopictus* and *Ae. aegypti*. *Pesticide Biochemistry and Physiology*, 104: 126–131.
- Widiarti., Boewono,D.T., Garjito, T. A., Tunjungsari, R., Asih, P. B. S., & Syafruddin, D. 2012. Identification of A Point Mutation In “The Voltage-Gated Sodium Channel Gene” of *Ae. aegypti* from Semarang Municipality Central Java Associated with Resistance to Pyrethroid Insecticides. *Bul. Penelit. Kesehatan*, 40(1) Maret: 31-8.
- Widiarti., Heriyanto, B., dan Boewono, D.T. 2011. Peta resistensi vektor demam berdarah dengue *Aedes aegypti* terhadap insektisida kelompok organophosfat, karbamat dan piretroid di Provinsi Jawa Tengah dan Yogyakarta. *Bul Penelit Kesehatan*, (4): 39.
- Widyastuti, D., Sunaryo., Pramestuti N., Sari, T. F., Wijayanti, N. 2015. Deteksi Mutasi V1016G pada Gen Voltage-Gated Sodium Channel pada Populasi *Ae. aegypti* (Diptera: Culicidae) di Kabupaten Klaten, Jawa Tengah dengan Metode *Allele-Specific* PCR. *Vektora*, 7 (2): 65-70.

- Widyastuti, D., & Ikawati, B. 2016. Resistensi Malation dan Aktivitas Enzim Esterase pada Populasi Nyamuk *Ae. aegypti* di Kabupaten Pekalongan. *BaLaBa*, Desember 6.12 (2).
- Williamson, M.S., Martinez-Torres, D., Hick, C.A., Devonshire, A.L. 1996. Identification of Mutations in the Housefly Para-Type Sodium Channel Gene Associated with Knockdown Resistance (Kdr) to Pyrethroid Insecticides. *Mol. Gen. Gene.*, 252: 51–60.
- Wirasuta., Niruri. 2007. *Toksikologi Umum: Buku Ajar. Jurusan Farmasi Fakultas Matematika Dan Ilmu Pengetahuan Alam Universitas Udayana*, Denpasar.
- Wirawan, I. A. 2006. *Insektisida Pemukiman. Hama Pemukiman Indonesia, Pengenalan, Biologi dan Pengendalian*. Editor: Singgih H.S., Upik K. H. Unit Kajian Pengendalian Hama Pemukiman (UKPHP) Fakultas Kedokteran hewan Institut Pertanian Bogor, Bogor: 26-32.
- World Health Organization. 1992. *Expert committee on vector biology control. Vector resistance to pesticide*. WHO technical series No. 818. WHO, Geneva: 62 p.
- _____. 1999. *Dengue Guidelines for Diagnosis, Treatment, Prevention and Control*. new edition. WHO, Geneva Switzerland.
- _____. 2009. *Dengue guidelines for diagnosis, treatment, prevention and control*. new edition. WHO, Geneva Switzerland.
- _____. 2011. *Comprehensive Guidelines for Prevention and Control of Dengue and dengue Haemorrhagic Fever*. WHO South-East Asia Region: 1-15.
- _____. 2012. *Dengue Haemorrhagic Fever. Diagnosis, Treatment, Prevention And Control: 1-18*.
- _____. 2014. *Management of insecticide resistance in vectors of public health importance*. WHO. Geneva, Switzerland.
- _____. 2015. *National Guidelines for Clinical Management of Dengue Fever*. WHO, India: 1-8.
- _____. 2016. *Test Procedures For Insecticide Resistance- Technical Update 2016*. Entomologi of control unit: 1-16.
- Womack, M. 1993. The yellow fever mosquito, *Ae. aegypti*. *Wing Beats*, Vol. 5(4).

- Wuliandari, J. R., Lee, S. F., White, V. L., Tantowijoyo, W., Hoffmann, A. A., and Nancy Endersby-Harshman, N. M. 2015. Association Between Three Mutations, F1565C, V1023G And S996P, in The Voltage-Sensitive Sodium Channel Gene And Knockdown Resistance In *Ae. aegypti* From Yogyakarta, Indonesia. *Insects*, 6: 658-685.
- Yap, H. H., Chong, N. L., Lee, C. Y. 1997. Biology Control of Urban Pest. CVRU Science Series No. 6, Malaysia.
- Yiau-Ming Hung. 1979. *The Subgenus Stegomyia Of Aedes In The Oriental Region With Keys To The Species (Diptera: Culicidae)*. Medical Entomology Studies-XI. 15 (6).
- Yuliani, T.S., Triwidodo, H., Mudikdjo, K., Panjaitan, N.K., Sjafrida Manuwoto, S. 2011. Pestisida Rumah Tangga Untuk Pengendalian Hama Permukiman Pada Rumah Tangga. *JPSL*, (1) 2: 73-83.
- Zaim M, Jambulingam P. 2007. *Global Insecticide Use For Vector-Borne Disease Control*, 3rd ed. World Health Organization: 1-22.
- Zettel, C.M. 2016. *Aedes aegypti (Linnaeus) (Insecta: Diptera: Culicidae)*. University California. http://entnemdept.ufl.edu/creatures/aquatic/aedes_aegypti.htm. Diakses pada tanggal 24 Juli 2018.