

DAFTAR PUSTAKA

- Abena, A.A., Gbenou, J.D., Yayi, E., Moudarchirou, M., Ongoka, R.P., Ouamba, J.M., & Silou, T. 2007. Comparative chemical and analgesic properties of essential *Cymbopogon nardus* (L) Rendle of Benin and Congo. J. Trad CAM. 4(2): 267-272.
- Aidawati, N. 2005. Keanekaragaman Begomovirus pada tomat dan serangga vektornya, *Bemisia tabaci* Gennadius (Hemiptera: Aleyrodidae), serta pengujian ketahanan genotip tomat terhadap strain Begomovirus. Disertasi. Institut Pertanian Bogor. Bogor.
- Agrios, GN. 1996. Ilmu penyakit tumbuhan edisi ketiga. Gajah Mada University Press. 669 p.
- Altieri, M.A. 1991. Ecology of tropical herbivores in polycultural agroecosystem. In: Price PC, Lewinsohn TM, Fernandes GW, Benson W, editor. Plant-Animals Interaction: Evolutionary ecology in tropical and temperate regions. New York (US): John Wiley & Sons, Inc. 607-617.
- Amalia, H. 2015. Keefektifan beberapa komponen pengendalian hama lalat buah pada tanaman cabai. Tesis. Institut Pertanian Bogor. Bogor.
- Ardeh, MJ., Peter W. de Jong, & Joop C. van Lenteren. 2005. Bemisia nymphal stages for oviposition or feeding, and host-handling times of arrhenotokous and thelytokous *Eretmocerus mundus* and arrhenotokous *E. eremicus*. BioControl. 50: 449-463.
- Ariyanti, N.A. 2007. Mekanisme infeksi virus kuning cabai (*Pepper Yellow Leaf Curl Virus*) dari pengaruhnya terhadap proses fisiologi tanaman cabai. Seminar Nasional VIII. Pendidikan Biologi. 467-471.
- Brown J.K., Coats S., & Bedford I.D. 1995. Characterization and distribution of esterase electromorphs in the whitefly *Bemisia tabaci* (Genn.) (Homoptera: Aleyrodidae). Biochemical Genetics. 33: 205-214.
- Byrne, D. N. & Bellows Jr., T.S. 1991. Whitefly biology. Annals of the Entomological Society of America. 36: 431-457.
- Byrne, D.N. & M.A. Houck. 1990. Morphometric identification of wing polymorphism in *Bemisia tabaci* (Homoptera: Aleyrodidae). Annals of the Entomological Society of America. 83: 487-493.
- Carabali A., Bellotti A.C., Montoya-Lerma J., & Cuellar M.E. 2005. Adaptation of *Bemisia tabaci* biotype B (Gennadius) to cassava, *Manihot esculenta* (Crantz). Crop Protect. 24: 643-649.
- Cardona, C., A. López-Avila, & Valarezco. 2005. Whiteflies as pests of annual crops in the tropical highlands of Latin America, Colombia and Ecuador. pp 274-284.
- Chowda-Reddy, R. V., M Kirankumar, Susan E Seal, V Muniyappa, Girish B Valand, M R Govindappa & John Colvin. 2012. *Bemisia tabaci* phylogenetic groups in India and the relative transmission efficacy of tomato leaf curl Bangalore virus by an indigenous and an exotic population. J. of Integrative Agriculture. 11(2): 235-248.



- Dadang. 1999. The development of botanical insecticides as alternative insect pest control in Indonesia. Tokyo University of Agriculture. Tokyo. 16-22.
- De Barro, P.J.D., S.H. Hidayat, D. Frohlich, S. Subandiyah, & S. Ueda. 2008. A virus and its vector, pepper yellow leafcurl virus and *Bemisia tabaci*, two new invaders of Indonesia. *Biology Invasions* 10: 411-433.
- Delatte H., Renaud B., Granier M., Thornary L., Lett JM., Goldbach R., & Peterschmitt M. 2005. A new silver leaf-inducing biotype M of *Bemisia tabaci* (Hemiptera: Aleyrodidae) Indigenous to the island of the South-West Indian Ocean. *Bull. Entomol. Res.* 95: 23-35.
- Deletre, E., Chandre, F., Barkman, B., Menut, C., Martin, T. 2015b. Naturally occurring bioactive compounds from four repellent essential oil against *Bemisia tabaci* whiteflies. *Pest Manag. Sci.* 72: 179-189.
- Dewi, D.P., Gunardi. 2008. Pemisahan minyak atsiri daun kemangi (*Ocimum basilicum*) secara kromatografi lapis tipis dan aktivitasnya terhadap *Malassezia furfur* In vitro. (internet). <http://eprints.undip.ac.id/24400/1/Dian.pdf> (diakses 23 April 2018).
- Eastop, V. F. 1977. World wide importance of Aphids as viruses vectors. In *Aphids as viruses vectors*. Kerry, F. H., Karl, M. Academic Press. New York. 4-44.
- EPPO. 2014. Data Sheets on Quarantine Pest: *Bemisia tabaci*. http://www.eppo.int/QUARANTINE/data_sheets/insects/BEMITA_ds.pdf Diakses pada 10 Maret 2018.
- Friarini, Y. P., Witjaksono, & Suputa. 2016. Study of the use of maize as barrier crop in chili to control *Bemisia Tabaci* (Gennadius) population. *J. Perlindungan Tanaman Indonesia*. 20 (2): 79-83.
- Friarini, Y.P. 2017. Tanaman jagung sebagai tanaman pembatas pada pertanaman cabai untuk mengendalikan *Bemisia tabaci*. Thesis. Universitas Gadjah Mada.
- Ganjewala D .2009. Cymbopogon essential oils: Compositions and bioactivities. *Int J Essent Oil Ther.* 3:1-10.
- Guenther, E. 1990. Minyak atsiri jilid 3. Diterjemahkan oleh Ketaren R.S. Universitas Indonesia. Jakarta. 495 p.
- Gomez, K.A., & Gomez, A.A. 1985. Statistical procedures for agricultural research. Diterjemahkan oleh: Sjamsuddin, E., & Baharsjah, J. S. 1995. Prosedur statistik untuk penelitian pertanian. Penerbit Universitas Indonesia Press. Jakarta. 698 p.
- Guo, J., Liu, T., Han, L., & Liu Y. 2009. The effect of corn silk on glycaemic metabolism. *J. Nutrition & Metabolism Biomed Central.* 6:47.
- Hasyim, A., Wiwin Setiawati, & Liferdi L. 2016. Kutu kebul *Bemisia tabaci* Gennadius (Hemiptera: Aleyrodidae) penyebar penyakit virus mosaik kuning pada tanaman terung. *J. IPTEK Hortikultura.* 12: 50-54.
- Heath B., & Manukian A. 1994. An automated system for use in collecting volatile chemicals released from plants. *J. Chem Ecol* 20: 593-608.
- Hendrival, Hidayat, P., & Nurmansyah, A. 2011. Kisaran inang dan dinamika populasi *Bemisia tabaci* (Gennadius) (Hemiptera: Aleyrodidae) di pertanaman cabai merah. *J. HPT Tropika.* 11 (1): 47-56.



- Hennebry T J & Castle TJ. 2001. *Bemisia*: pest status economy, biology and population dynamics. *in*: Harris KF, Smith OP, Duffus E, editor. Virus insect plant interaction. New York (US): Academic Press.
- Herminanto, Nurtiati, & D.M. Kristianti. 2010. Potensi daun sereh untuk mengendalikan hama *Collosobruchus analis* F. pada kedelai dalam penyimpanan. J. Agrivigor 3(1): 19-27.
- Hidayat, S.H., Rusli, E.S., & Aidawati, N. 1999. Penggunaan primer universal dalam Polymerase Chain Reaction untuk mendeteksi virus gemini pada cabe. *In*: Prosiding Kongres Nasional XV dan Seminar Ilmiah Perhimpunan Fitopatologi Indonesia. Purwokerto, 16-18 September 1999. Pp 355-359.
- Hooks, C.R.R., & A. Cereres. 2006. Protecting crops from non-persistently aphid-transmitted viruses: A review on the use of barrier plants as a management tool. Virus Res. 120: 1–16.
- Huang Z., Ren S., & Musa PD. 2008. Effects of temperature on development, survival, longevity, and fecundity of the *Bemisia tabaci* Gennadius (Homoptera: Aleyrodidae) predator, *Axinoscymnus cardilobus* (Coleoptera: Coccinellidae). Biological Control 46(2008): 209–215.
- Jamsari., I Ferita, L. Syukriani, H. Lalan, F. Herberg & W. Nellen. 2014. Existence of two distinct whiteflies in chilli-pepper cultivation in West Sumatra-Indonesia based on mitochondria cytochrome oxidase I gene sequences. Asian Journal of Plant Pathology. 8: 34-44.
- Jones D. 2003. Plant viruses transmitted by whiteflies. Eur. J. Plan. Pathol 10(9):197– 221.
- Kardinan, A. 2003. Tanaman pengusir dan pembasmi nyamuk. Depok. Agromedia Pustaka.
- Kardinan, A. 2007. Daya Tolak Ekstrak Tanaman Rosemary (*Rosmarinus officinalis*) Terhadap Lalat (*Musca domestica*). Bul. Littro. 18 (2): 170-176.
- Ketaren, S. 1985. Pengantar teknologi minyak atsiri. Penerbit Balai Pustaka, Jakarta.
- Khodijah. 2000. Uji preferensi Coccinellidae dalam memilih tanaman familia Graminae dan Papilionaceae. Skripsi. Universitas Brawijaya. Malang.
- Kurniawan HA. 2007. Neraca kehidupan kutu kebul *Bemisia tabaci* Gennadius (Hemiptera: Aleyrodidae) biotipe-B dan non-B pada tanaman mentimun (*Curcumis sativus* L.) dan cabai (*Capsicum annum* L.). Tesis. Institut Pertanian Bogor. Bogor.
- Lanya, H. 2003. Bioekologi kutu kebul. Topik bahasan pada pelatihan pengamatan, peramalan, dan pengendalian OPT. Jatisari 2-18 Oktober 2003. Balai Peramalan Organisme Pengganggu Tanaman, Jatisari.
- Liu, S.S., De Barro, P.J., Xu, J., Luan, J.B., Zang, L.S., Ruan, Y.M., & Wan, F.H. 2007. Assymetric mating interactions drive widespread invasion and displacement in a whitefly. Science. 318: 1769-1772.
- Luan, J.B., X. Jing, L. Ke-Ke, M. P Zalucki, & S.S. Liu. 2012. Species exclusion between an invasive and an indigenous whitefly on host plants with differential levels of suitability. J. of Integrative Agriculture. 11(2): 215-224.
- Lumempouw, L.I., Suryanto, E., & Paendonga, J.J.E. 2012. Aktivitas anti UV-B ekstrak fenolik dari tongkol jagung (*Zea mays* L.). J. MIPA Universitas Sam Ratulangi Online. 1(1): 1-4.



- Maia, M.F. dan Moore, S.J. 2011. Plant-based insect repellents: A review of their efficacy, development and testing. *J. Malaria*.10(1): 1-11.
- Mardiningsih, T.L., S.L. Triantoro, Tobing, & S. Rusli. 1995. Patchouli oil product as insect repellent. *J. Indust. Crops Res.* 1(3): 152– 158.
- Mau, R.L.F., & J.L.M. Kessing. 2007. *Bemisia tabaci* (Gennadius). Department of Entomology Honolulu, Hawaii. (internet). <http://www.extento.hawaii.edu/kbase/crop/Type/b.tabaci.htm> (diakses 20 Desember 2017).
- Mansour, S.A.A., Mohamad Roff, M.N., Khalid A. Saad, Ismail Abuzid, & Idris, A.B. 2012. Responses of whitefly, *Bemisia tabaci* (Genn.) (Homoptera: Aleyrodidae) population on tomato *Lycopersicon esculentum* Mixed with other crops under glasshouse condition. *APCBEE Procedia. Sciencedirect.* 4: 48-52.
- Marwoto & A. Inayati. 2012. Pengendalian kutu kebul *Bemisia tabaci* Genn. menggunakan kombinasi tanaman penghalang dan insektisida kimia. *Pros. Seminar Nasional Hasil Penelitian Kacang-kacangan dan Umbi-umbian. Puslitbangtan:* 279–288.
- Marwoto & A. Inayati. 2014. Pengendalian hama kutu kebul (*Bemisia tabaci* Gennadius) dengan penggunaan tanaman jagung sebagai tanaman penghalang. Malang, Jawa Timur.
- Meilin, A. 2012. Dampak insektisida pada parasitoid telur wereng batang coklat dan deltametrin konsentrasi sublethal terhadap *Anagrus nilaparvatae* (Hymenoptera: Mymaridae). *Disertasi Pascasarjana UGM. Yogyakarta.* 149p
- Meilin, A. 2014. Hama dan penyakit pada tanaman cabai serta pengendaliannya. Balai Pengkajian Teknologi Pertanian, Kementerian Pertanian Jambi.
- Metcalf, R. L & Metcalf, E. R. 1992. *Plant kaeromones in insect ecology and control.* Chapman and Hall. New York.
- Michael, P. 1994. *Metode ekologi untuk penyelidikan ladang dan laboratorium.* Jakarta: UI Press.
- Moreau, T. 2010. Manipulating whitefly behavior using plant resistance, reduced risk spray, trap crops and yellow sticky trap for improved control for sweet paper greenhouse crops. *Thesis for Ph.D. in The Univ. of British Columbia. Vancouver.* 114p.
- Mustanir dan Rosnani. 2008. Isolasi senyawa bioaktif penolak (repellent) nyamuk dari ekstrak aseton batang tumbuhan Legundi (*Vitex trifolia*). *Bul. Litro. Vol. XIX(2):*174–180.
- Muthomi, J.W., Kinyungu, T.N., Nderitu, J.H., Olubayo, F.M., & Kabira, J.N. 2010. Effect of maize border crop placement distance on aphid population and aphid-transmitted virus diseases in potato. *J. Entomology.* 7: 335 – 343.
- Naranjo SE, & Ellsworth PC. 2005. Mortality dynamics and population regulation in *Bemisia tabaci*. *Entomologia Exsperimentalis et Applicata* 116:93–108.
- Nerio, L. S., Olivero-Verbel, J., & Stashenko, E. 2010. Repellent activity of essential oils: A review. *Bioresource Technol.* 101(1): 372–378.
- Noverita, Jayuska, A., Alimuddin, A.H. 2014. Uji aktivitas antirayap minyak atsiri kulit jeruk purut (*Cyrtus hystric* D.C) terhadap rayap tanah (*Coptotermes* sp). *JKK.* 3(2): 75-78.



- Nurtjahyani, S.D., & I. Murtini. 2015. Karakterisasi tanaman cabai yang terserang hama kutu kebul (*Bemisia tabaci*). University Research Colloquium. 195-200.
- Pedigo L.P. 1991. Entomologi and pest management. MacMillan Publishing company New York. Collier MacMillan Publishers. London. 646 p.
- Pohan, S.D. 2014. Pemanfaatan ekstrak tanaman sebagai pestisida alami (biopestisida) dalam pengendalian hama serangga. J. Pengabdian Kepada Masyarakat. 20(75): 94-99.
- Purbosari S. 2008. Neraca Kehidupan Kutu kebul, *Bemisia tabaci* Genn. (Hemiptera: Aleyrodidae) pada Suhu 23 °C, Ruang, dan 29 °C. Skripsi. Institut Pertanian Bogor. Bogor.
- Regniere J., Powell J., Bentz B., & Nealis V. 2012. Effects of temperature on development, survival and reproduction of insects: Experimental design, data analysis and modeling. J. of Insect Physiology. 58 (2012):634–647.
- Rialita, T., Rahayu, W.P., Nuraida, L., & Nurtama B. (2015). Aktivitas Antimikroba Minyak Esensial Jahe Merah (*Zingiber officinale* var. Rubrum) Dan Lengkuas Merah (*Alpinia purpurata* K.Schum) Terhadap Bakteri Patogen Dan Perusak Pangan. Agritech, Vol. 35(1): 43-52.
- Rinaldi, F.B. J. Rachmawati, & B.K. Udiarto. 2016. Pengaruh ekstrak bunga krisan (*Chrysanthemum cinerariaefolium* rev.), bunga saliera (*Lantana camara* Linn.), dan bunga lavender (*Lavandula angustifolia* Mill.) terhadap repellency kutu kebul (*Bemisia tabaci* Genn.). J. Pendidikan Biologi (Bioed). 4 (1).
- Robinson T. 1995. Kandungan organik tumbuhan tingkat tinggi. Institut Teknologi Bandung. 367 p.
- Saad, K. A., Mohammad Roff M. N., Mohd. Shukri M.A., Razali Mirad, Mansour S. A. A., Ismail Abuzid, Mohd Anifah Y., and Idris A. B. 2013. Behavioral responses of whitefly, *Bemisia tabaci* (Hemiptera: Aleyrodidae), in relation to sex and infestation status of their host plants. J. Entomology. 6 (3): 95-99.
- Sanchez–Pena P, Oyama K, Nunez–Farfan J, Fornoni J, Hernandez–Verdugo S, Marquez–Guzman J, Garzon-Tiznado JA. 2006. Sources of resistance to whitefly (*Bemisia* spp.) in wild populations of *Solanum lycopersicum* var. cerasiforme (Dunal) Spooner G. J. Anderson et R. K. Jansen, in northwestern Mexico. Genetic Resources and Crop Evolution. 53 (4) : 711– 719.
- Sari, RRP., Mulyani, S. & Umniyati, S.R. 2014. Uji aktivitas repelan minyak atsiri jahe emprit (*Zingiber officinale* Roxb. “Cochin Ginger”) dan jahe merah (*Zingiber officinale* Roxb. var rubrum) dengan basis minyak wijen dan minyak kelapa terhadap nyamuk *Aedes aegypti*. J. Traditional Medicine. Vol. 19(2): 80-88.
- Sastrohamidjojo, H. 1996. Sintesis bahan alam. Gadjah Mada University Press. Yogyakarta. 243p.
- Schuster, David J.. 2003. Preference of *Bemisia argentifolii* (Homoptera:Aleyrodidae) for selected vegetable hosts relative to tomato. J. Agric. Urban Entomol 20 (2) : 5067.
- Siedel, V. 2008. Initial and bulk extraction. In: Sarker SD, Latif Z, and Gray AI. Natural products isolation: 2nd Ed. P.33-34. Humana Press: New Jersey.
- Setiawati & Muharam, 2003. Buku panduan teknis pengelolaan tanaman terpadu cabai merah (pengenalan dan pengendalian hama-hama penting pada tanaman cabai



- merah). Balai Penelitian Tanaman Sayuran, Pusat Penelitian dan Pengembangan Hortikultura, Badan Penelitian dan Pengembangan Pertanian, Lembang-Bandung.
- Shah, M., M. Rahman, & T. Liu. 2013. Feeding xperience of *Bemisia tabaci* (Hemiptera: Aleyrodidae) affects their performance on different host plants. PLOS One 8(10). <http://plosone.org> . Diakses pada 12 Desember 2017.
- Shivanathan, P. 1983. The epidemiology of three disease caused by whitefly-borne pathogens. In: Plumb RT, Thresh JM, editor. Plant virus epidemiology. Oxford: Nlackwell Scientific Publ.
- Sjam, S., Melina, & Sulaeha Thamrin. 2010. Pengujian ekstrak tumbuhan *Vitex trifolia* L., *Acorus colomus* L., dan *Andropogon nardus* L. terhadap hama pasca panen *Araecerus fasciculatus* De Geer (Coleoptera: Anthribidae) pada biji kakao . J. Entomol Indonesia 7(1): 1-8.
- Srinivasan, R., Y. Hsu, P. Kadirvel & M.Y Lin. 2013. Analysis of *Bemisia tabaci* (Hemiptera: Aleyrodidae) species complex in Java, Indonesia based on mitochondrial cytochrome oxidase I sequences. The Philippine Agricultural Scientist 96 (3): 290-295.
- Subianto, S. 1992. Kunci determinasi serangga. Kanisius. Yogyakarta. 223 p.
- Sukorini, 2004. Pengaruh pola tanam tanaman aromatik kubis terhadap hama *Plutella xylostella* pada budidaya kubis organik. Universitas Muhamadiyah Malang.
- Sulandari, S. 2004. Karakterisasi biologi, serologi dan analisis sidik jari DNA virus penyebab penyakit daun keriting kuning cabai. Disertasi. Institut Pertanian Bogor. Bogor.
- Sulandari, S. 2006. Penyakit daun keriting kuning cabai di Indonesia. J. Perlindungan Tanaman Indonesia. 12: 1–12.
- Sulandari S., Suseno R., Hidayat S.H., Harjosudarno J., & Sosromarsono S. 2006. Deteksi dan kajian kisaran inang virus penyebab penyakit daun keriting kuning cabai. J. Hayati 13 (4): 1 – 6.
- Tawatsin, A., Asavadachanukorn, P., Thavara, U., Wongsingkongman, P., Bansidhi, J. Boonruad, T., Chavalittumrong, P., Soonthornchareonnon, N., Komalamisra, N., Mulla, M.S. 2006. Repellency of essential oils extracted from plants in Thailand against four mosquito vectors (Diptera: Culicidae) and oviposition deterrent effects against *Aedes aegypti* (Diptera: Culicidae). Southeast Asian J. Trop Med Public Health.Vol 37(5):915-31.
- Thamrin, S., Rosmana, A., Untung, S., & Sjam, S. 2011. Pest control technology in organik vegetable cultivation sistem. J. Fitomedika. 7 (3): 142-144.
- Tsai, J.H., & Wang, K. 1996. Development and reproduction of *Bemisia argentifor* (Homoptera: Aleyrodidae) on five host plant. J. Environ Entomol. 25: 810-816.
- Untung K. 2006. Pengantar pengelolaan hama terpadu (Edisi kedua). Gadjah Mada University Press. Yogyakarta. 348 p.
- Uzcategui, R.C.,& Lastra DR. 1978. Transmission and physical properties of the causal agent of *mosaic amarillo del tomate (tomato yellow mosaic)*. J. Phytophatology. 68: 985-988.
- Wiratno, E. A., Wikardi dan M. Iskandar. 1991. Prospek pemanfaatan limbah tanaman atsiri sebagai repelen hama. Seminar Ilmiah dan Kongres Nasional Biologi X. 24-26 September 1991. Bogor.



Studi Senyawa Tanaman Jagung Sebagai Penolak Bemisia tabaci

RETNO WIKAN T, Dr. Ir. Witjaksono, M.Sc.; Dr. Ir. Siwi Indarti, M.P.

Universitas Gadjah Mada, 2018 | Diunduh dari <http://etd.repository.ugm.ac.id/>

UNIVERSITAS
GADJAH MADA

Widiani, N.P., & Kartini. 2011. Formulasi dan uji aktivitas minyak Legundi (*Vitex trifolia* L) sebagai sediaan anti nyamuk. Skripsi. Akademi Farmasi Putra Indonesia. Malang.

Yuliani, Purnama Hidayat, & Dewi Sartiami. 2006. Identifikasi Kutu kebul (Hemiptera: Aleyrodidae) dari beberapa tanaman inang dan perkembangan populasinya. J. Entomol. Ind. 3 (1): 41-49.