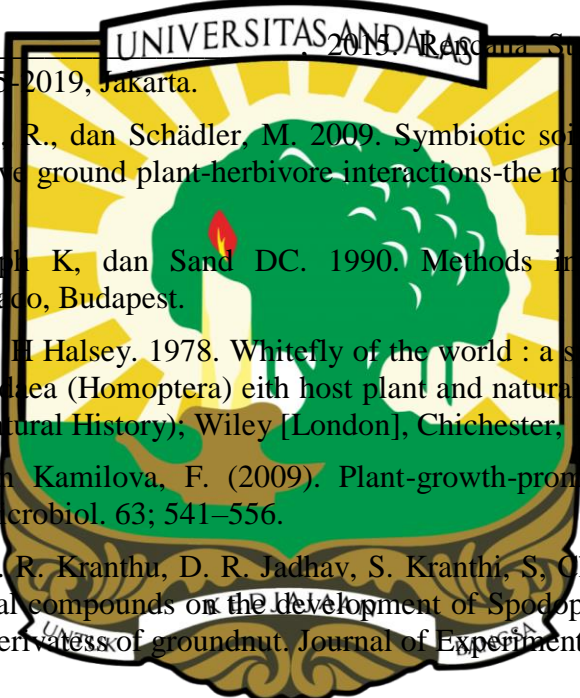


DAFTAR PUSTAKA

- Adnan AM & Handayani. 2010. Kemampuan Memangsa Cecopet (*Euborellia annulata* Fabricus) terhadap Penggerek Tongkol Jagung (*Helicoverpa armigera* Hubner). *Dalam* Prosiding Pekan Serealia Nasional.
- Ali, M. B., dan McNear, D. H. 2014. Induced transcriptional profiling of phenylpropanoid pathway genes increased flavonoid and lignin content in *Arabidopsis* leaves in response to microbial products. *BMC Plant Biol.* 14:84
- Baliadi Y., dan Tengkanow W. 2008. Ulat Pemakan Polong *Helicoverpa armigera* Hubner: Biologi, Perubahan Status dan Pengendaliannya Pada Tanaman Kedelai. *Buletin Palawija* No. 16 : 37-50 (2008)
- Bhonwong, A., Stout, M. J., Attajarusit, J., dan Tantasawat, P. 2009. Defensive role of tomato polyphenol oxidase against cotton bollworm (*Helicoverpa armigera*) and beet armyworm (*Spodoptera exigua*). *J. Chem. Ecol.* 35, 28–38.
- Bong CFJ, dan Sidorowski PP, 1991. Efek sitoplasma polyhedrosis virus and bacterial contamination on growth and development of the corn earworm, *Heliothis zea* (Boddie). *J. Invertebr. Pathol.* 57: 406–412
- [BPS] Badan Pusat Statistik. 2018. Statistik Indonesia, Statistical Yearbook of Indonesia 2018. Badan Pusat Statistik, Jakarta, Indonesia.
- Bradford, M. M. 1976. A rapid and sensitive method for the quantitation of microgram quantities of protein utilizing the principle of protein-dye binding. *Anal Biochem* 72, 248-254.
- Cahyani, A., Putrayani., M.I., Hasrullah, Ersyan M., Aulia T., dan Jaya A.M. 2017. Teknologi Formulasi Rizhobakteria Berbassis Bahan Lokal dalam Menunjang Bioindustri Pertanian Berkelanjutan. *Hasanuddin Student Jurnal.* Vol. 1(1): 16-21, Juni 2017
- Chen, C.Y., R.S. Steimberger, B. Klaue, J.D. Blum, C. Bickhardt, dan C.L. Folt, 2000. Accumulation of heavy metals in food web components across a gradient of lakes. *Limnol. Oceanogr.* 45(7):1525-1536.
- Czepak, C., Cordeiro Albernaz, K., Vivan, L. M., Gui-marães, H. O., and Carvalhais, T. 2013. *First occurrence record of Helicoverpa armigera* (Hübner) (Lepidoptera: Noctuidae) no Brasil. *Pesq. Agropec. Trop., Goiânia* 43(1): 110-113.
- Daha, L., A. Rauf, S. Sosromarsono, U. Kartosuwondo dan S. Manuwoto. 1998. Ekologi *Helicoverpa armigera* (Hubner) (Lepidoptera: Noctuidae) di pertanaman kedelai. *Bul. HPT.* 10(2):10-16.

- [DPI&F] Department of Primary Industries and Fisheries. 2005. Insect, Understanding *Helicoverpa* ecology and biology in southern Queensland: Know the enemy to manage it better. ISSN 0727-6273 QI07078 Agdex No. 612 2005.
- Duffey SS, dan Stout MJ. 1996. Antinutritive and toxic components of plant defense against insects. *Arch Insect Biochem Physiol* 32:3-37
- Fakhrunnisa, E., Kartika, J. G., and Sudarsono. 2018. Production of Cherry Tomato and Beef Tomato Hydroponics System at Amazing Farm, Bandung. *Bul. Agrohorti* 6 (3) : 316-325 (2018).
- Fegueiredo, M. V. B., Seldin, L., Araujo, F. F.,Mariano R. L.R., 2010. PLant Growth Promoting Rhizobacteria: Fundamentals and Applications. In Maheswari DK (ed) *Plant Growth and Health Promoting Bacteria*. Microbiology monographs 18. Spinger, Berlin, pp 113-133.
- Felton G.W., dan Summers C.B. 1993. Potential role of ascorbate oxidase as a plant defense protein against insect herbivory. *J.Chem. Ecol.*, 19: 1553-1568
- Fitri, T. dan Suhartari, 2016. Analisis Daya Saing Ekspor Tomat Indonesia dalam Menghadapi Masyarakat Ekonomi Asean (MEA). *Prosiding Seminar Nasional Pembangunan Pertanian 2016*.
- Forcat S, Bennett MH, Mansfield JW dan Grant MR. 2008. A rapid and robust method for simultaneously measuring changes in the phytohormones ABA, JA and SA in plants following biotic and abiotic stress. *Plant Methods* 4 (16);1-8
- Gill RS, Gupta K, Taggar GK, dan Taggar MS. 2010. Role of oxidative enzymes in plant defenses against herbivory. *Acta Phytopathol Entomol Hung* 45:277-90
- Gray, E. J., dan Smith D. L. 2005. Intracellular and Extracellular PGPR: Commonalities and Distinction in The Plant- Bacterium Signaling Processes. *Soil Biology and Biochemistry*, 37(3):395-412
- Gulsen O., T. Eickhoff, T. Heng-Moss, R. Shearman, E. Baxendale, G. Sarath, and D. Lee. 2010. Characterization of peroxidase changes in resistant and susceptible warm-season turfgrasses challenged by *Blissus occiduus*. *Arthropod Plant Interact.* 4:45–5.
- Gusti, R.H, Meiriani dan Haryanti. 2013. Peningkatan Kadar Vitamin C buah Tomat (*Lycopersicum escolentum Mill*) Dataran Rendah dengan Pemberian Hormon GA3. *Jurnal Online Agroekoteknologi* 2(1); 333-339
- Habazar T, Nasrun, Jamsari dan Rusli I. 2007. Pola Penyebaran Penyakit Hawar Daun Bakteri (*Xanthomonas axonopodis* pv. *allii*) pada Bawang Merah dan Upaya Pengendaliannya melalui Imunisasi Menggunakan Rizobakteria. Laporan Hasil penelitian Universitas Andalas Padang dengan Litbang Pertanian Proyek KKP3T.

- Habazar, T. dan Yaherwandi. 2006. Pengendalian Hayati Hama dan Penyakit Tumbuhan. Padang. Universitas Andalas Press. ISBN 979-3364-49-1. 390 hlm.
- Hallmann J, Quadt-Hallmann, A. Mahaffee, W.F. dan Kloepper, J.W. 1997. Bacterial Endophytes in Agricultural Crops. *Can J Microbiol* 43(10):895- 914.
- Hamid, H., Yanti Y., dan FR Joni. 2020. Tomato (*Lycopersicum esculentum* Mill.) resilience enhancement with indigenous endophytic bacteria against *Bemisia tabaci* (Hemiptera: Aleyrodidae). *APS: Journal of Animal & Plant Sciences* 30 (1).
- Hanafi A, Traore M, Schnitzler WH dan Woitke M. 2007. Induced Resistance of Tomato to Whitefly and *Phytium* with PGPR *Bacillus subtilis* in a Soilless Crop Grown Under Greenhouse Conditions. *Acta horticulturae. Acta Hort* 38:747
- Handini, Z., Vinda, T., Ningsih, dan Ningsih. 2014. Keefektifan Bakteri Endofit dan Bakteri Perakaran Pemacu Pertumbuhan Tanaman dalam Menekan Penyakit Layu Bakteri pada Cabai. *Jurna Fitopatologi Indonesia* 10 (2): 61-67.
- Handiyani, S., Soebandrijo dan A. A. Gothama. 1993. Resistensi penggerek buah kapas terhadap insektisida. *Warta Penelitian dan Pengembangan Pertanian* 15(1):15-16.
- Heriani, N., W. A. Zakaria, dan A. Soelaiman. 2013. Analisis keuntungan dan risiko usahatani tomat di Kecamatan Sumberejo Kabupaten Tanggamus. *JIA* 1 (2) : 169- 173.
- Herlinda, S. 2015. Biologi *Helicoverpa armigera* Hubner (Lepidoptera: Noctuidae) pada Tanaman Tomat. *Agria* 2(1): 32-36.
- Herman MAB, Nault BA, Smart CD. 2008. *Effects of Plant Growth Promoting Rhizobacteria on Bell Pepper Production and Green Peach Aphid Infestations in New York*. *Crop Protection*. 27: 996-102.
- He X.Y, He Zh, Morris CF dan Xia XC. 2009. Cloning and Phylogenetic Analysis of polipenol oxidase gene in common wheat. *Theor Appl Genet* 115;14-58
- Hidayah, HN., Irawan, A., dan Anggraini I. Serangan Ulat Jengkal (*Hyposidra talaca* Wlk.) Pada Bibit Pakoba (*Syzygium luzonense* Merr. Di Persemaian. *Agrologia* Vol. 6, N0.1, April 2017, Hal 37-43.
- Husen, E. 2003. Screening of Soil Bacteria Plant Growth Promotion Activities in Vitro. *Indonesian Journal of Agriculture Science* 21(3):99-102.
- Inayati A. and Marwoto. 2015. Kultur Teknis Sebagai Dasar Pengendalian Hama Kutu Kebul *Bemisia tabaci* Genn. Pada Tanaman. *Buletin Palawija* No. 29: 14-25 (2015).
- Indrayani, IGAA. 2011. Potensi jamur entomopatogen *Nomurea rileyi* (Farlow) Samson untuk pengendalian *Helicoverpa armigera* Hubner pada kapas. *Perspektif*. 10 (1): 11 – 21.

- Kahar, SRS., Hasan, AM., CJ Lamangantjo. 2019. Aktivitas Entomopatogen *Serratia mercenscens* Bizio Terhadap Mortalitas Larva Kumbang Kelapa (*Brontisपालongissima*) Gestro. JamburaEdu Biosfer Jurnal (2019) 1 (2): 64-71.
- Kalshoven, L. G. E. 1981. The Pests of Crops in Indonesia. Rev. & trans by Van Der Laan & G. H. L. Rothschild. PT Ichtar Baru – Van Hoeve. Jakarta. 701 hlm.
- Karthikeyan M, Radhika K, Mathiyazhagan S, Bhaskaran R, Samiyappan R., Velazhahan R. 2006. Induction of phenolics and defense-related enzymes in coconut (*Cocos nucifera* L.) roots treated with biocontrol agents. *Brazilian Journal of Plant Physiology*, 18(3): 367-377.
- Kementrian Pertanian Republik Indonesia. 2017. Statistik Pertanian 2017. Jakarta: Pusat Data dan Sistem Informasi Pertanian Kementerian Pertanian Republik Indonesia.
- 2015-2019, Jakarta.  Rencana Strategis Kementerian Pertanian 2015-2019, Jakarta.
- Kempel, A., Brandl R., dan Schädler, M. 2009. Symbiotic soil microorganisms as players in above ground plant-herbivore interactions-the role of rhizobia. *Oikos* 118, 634–640
- Klement Z, Rudolph K, dan Sand DC. 1990. *Methods in Phytobacteriology*. Akademiai Kiado, Budapest.
- L. A. Mound and S. H Halsey. 1978. *Whitefly of the world : a systemic catalogue of the Aleyrodidae (Homoptera) eith host plant and natural enemy data*. British Museum (Natural History); Wiley [London], Chichester, 1978.
- Lugtenberg, B., dan Kamilova, F. (2009). Plant-growth-promoting rhizobacteria. *Annu. Rev. Microbiol.* 63; 541–556.
- Mallikarjuna, N., K. R. Kranthu, D. R. Jadhav, S. Kranthi, S. Chandra. Influence of Foliar chemical compounds on the development of Spodoptera Litura (Fab.) in interspecific derivatives of groundnut. *Journal of Experimental Nanoscience*. 128 (5): 321 - 328.
- Nasib, S.B., Suketi K., and Widodo W. D. 2016. Effect of Plant Growth Promoting Rhizobacteria to Papaya Sedling and Early Growth at Field. *Bul. Agrohorti* 4(1):63-69 (2016)
- Niu, D. D., Liu, H. X., Jiang, C. H., Wang, Y. P., Wang, Q. Y., dan Jin, H. L. 2011. The plant growth-promoting rhizobacterium *Bacillus cereus* AR156 induces systemic resistance in *Arabidopsis thaliana* by simultaneously activating salicylate-and jasmonate/ethylene-dependent signaling pathways. *Mol. Plant Microbe Interact.* 24, 533–542
- Pangesti N, Pineda A, Dicke M, dan Van Loon JJA. 2015. Variation in plantmediated interactions between rhizobacteria and caterpillars: Potential role of soil composition. *Plant Biol* 17:474–483.

- Pearce, G., Ryan, C. A. 2003. Systemic Signaling I Tomato Plants for Defense againts Herbivores. *Journal of Biological Chemistry*. 278 (32).
- Pieterse, C.M.J., A. Leon-Reyes, S. Van der Ent dan S. C M Van Wees. 2009. Networking by small molecule hormones in plant immunity. *Nature Chemical Biology* 5, 308 - 316
- Pineda A, Zheng SJ, Van Loon JJA, Pieterse CMJ, Dicke M. 2010. Helping plants to deal with insects: the role of beneficial soilborne microbes. *Trends Plant Sci* 15:507–514.
- Pozo, M.J., Van Loon, L.C. dan Pieterse, C.M.J. 2004. Jasmonates – signals in plant–microbe interactions. *J. Plant Growth Regul.* 23, 211–222
- Qingwen Z., Ping L, Gang W, Qingqinian C. 1998. On the biochemical mechanism of induced resistance of cotton to cotton bollworm by cutting of young seedling at plumular axis. *Acta Phytoloea sinica* 25:209-215
- Radjacommar R, Nandakumar R, Kandan A, Suresh S, Bharathi M, Raguchander T, Samiyappan R. 2002. *Pseudomonas fluorescens* based bioformulation for the management of sheath blight and leafhopper in rice. *Potong Prot* 21; 671–677
- Rajendran L, Samiyappan R, Raguchander T, dan Saravanakumar D. 2007. Endophytic bacteria mediate plant resistance against cotton bollworm. *J. Plant Interact.* 2; 1–10
- Ramlan, A., Noer, I S. 2002. Eksplorasi Formasi Keanekaragaman Jenis, Potensi dan Pemanfaatan Tumbuhan Bahan Pestisida Alami di Propinsi Jawa Barat dan Banten. *Biologi*. 6(3): 1–8
- Reddy, G.V.P., Kikuchi, R., Remolona, J.E., (2011). New mite species associated with certain plant species from Guam. *Journal of Entomology Acarology Research*. 2 (43): 41-46.
- Reddy, G.V.P., Tangirakulwanich, K. (2013). Action threshold treatment regimens for red spider mite and fruit borer on tomato. *Fla. Entomology* 96:1084-1096.
- Ryan CA, 2000. The systemin signaling pathway: differ-ential activation of plant defensive genes. *Biokim. Biophys. Acta* 1477; 112–121
- Saravanakumar, D., Muthumeena, K., Lavanya, N., Suresh, S., Rajendran, L., dan Raguchander, T. 2007. *Pseudomonas*-induced defence molecules in rice plants against leafhopper (*Cnaphalocrocis medinalis*) pest. *Pest Manag. Sci.* 63, 714–721.
- Sembel, D.T., J. Krisen, J. Watung, M. Hammig, G. Carner dan M. Shepard. 2009. Parasitiasi Hama Penggorok Daun (Diptera : Agromyzidae) pada Tanaman Tomat di Tomohon dan Minahasa. *Eugenia*. 15(2): 69-79.
- Setiawati, W. 1991. Daur hidup ulat buah tomat, *Heliothis armigera* Hübner (Lepidoptera: Noctuidae). *Bul. Penel. Hort.* 21(3):112-119.

- Setiawati W, Udiarto, BK., dan Gunaeni, N. 2007. Preferensi Beberapa Varietas Tomat dan Pola Infestasi Hama *Bemisia tabaci* Serta Pengaruhnya terhadap Intensitas serangan Virus Kuning. *J.Hort*, 14(4); 374-386
- Shavit R, Ofek-Lalzar M, Burdman S, dan Morin S. 2013. Inoculation of tomato plants with rhizobacteria enhances the performance of the phloem-feeding insect *Bemisia tabaci*. *Front Plant Sci* 4:306.
- Singh, H. and Singh,G. 1977. Biological studies on *Heliothis armigera* Hubner in Punjab. *Indian Journal of Entomology*. 37(2):154-164.
- Sita, B.R. dan Hadi, S. 2016. Produktivitas dan Faktor-faktor yang Berpengaruh Terhadap Produksi Usaha Tani Tomat (*Solanum Lycopersicum* Mill) di Kabupaten Jember.
- Stout, M.J., Thaler, J.S. and Thominia, B.P.H.J. (2006). Plant-mediated interactions between pathogenic microorganisms and hemipterous arthropods. *Annu. Rev. Entomol.* 51, 663–689.
- Supriadi dan S.M.D Rosita. 2011. Induksi Ketahanan Tanaman Jahe secara Hayati dan Kimia terhadap Gangguan Hama dan Penyakit. Bogor. Balai Penelitian Tanaman Obat dan Aromatik.
- Supriatna, H., Mulyaningsih, Y., Rochman., N. 2015. Efektivitas Penggunaan Pestisida Bionasional Daun Kipahit (*Tithonia Diversifolia*) Dan Atau Daun Mindi (*Melia Azadirach*) Dalam Pengendalian Hama Dan Penyakit Penting Tomat (*Lycopersicon Esculentum* Mill). *Jurnal Agronca* ISSN 2407-9111 Volume 1 Nomor 2, Oktober 2015.
- Syukur, M., Saputra, H.E. dan Hermanto R. 2015. Bertanam Tomat di Musim Hujan. Jakarta: Penebar Swadaya.
- Tarumingkeng, R.O. 1992. Insektisida, Sifat Mekanisme, Kerja dan Dampak Penggunannya. Ukrida: Jakarta.
- Temple JL, Dewey AM, Briatico LN. Effects of acute caffeine administration on adolescents. *Experimental and Clinical Psychopharmacology*. 2010;18:510–520.
- Tengkano, W., dan Suharsono. 2005. Ulat Grayak *Spodoptera litura* Fabricus (Lepidoptera: Noctuidae) Pada Tanaman Kedelei dan Pengendaliannya. *Buletin Palawija*. 10: 43-52
- Uhan, T. S. dan R. E. Suriaatmadja. 1993. Pengendalian ulat buah tomat (*Helicoverpa armigera* Hubn.) dengan insektisida organophosphat dan pirethroid buatan. *Bul. Penel. Hort.* 25(4):29-34.
- Utami, U., Lilik H., Retno S, 2012. Pengujian Potensi Bakteri Endofit Terhadap Pertumbuhan Populasi Nematoda Sista Kuning (*Globodera rostochiensis*) Pada Tanaman Kentang (*Solanum tuberosum* L.). *Jurnal Saintis*. 1(2): 104- 114.

- Valenzuela-Soto J. H., Estrada-Hernandez M. G., Ibarra-Laclette E., dan Delano-Frier J. P. 2010. Inoculation of tomato plants (*Solanum lycopersicum*) with growth-promoting *Bacillus subtilis* retards whitefly *Bemisia tabaci* development. *Planta* 231; 397–410
- Van Oosten VR, Bodenhausen N, Reymond P, Van Pelt JA, Van Loon VC, Dicke M, Pieterse MJ. 2008. Differential Effectiveness of Microbially Induced Resistance Against Herbivorous Insects in Arabidopsis. *American Phytopathological Society*. 21(7): 919-930.
- Xu T, Zhou Q, Chen W, Zhang G, HE G, Gu D, dan Zhang W. 2003. Involvement of jasmonate-signaling pathway in the herbivore-induced rice plant defense. *Dagu. Sci. Banteng*. 48, 1982–1987
- Wahidah, F.F., Mudjiono, G., Karindah S. 2015. Pengaruh Zea Mays l. Dan Tagetes Erecta l. Sebagai Tanaman Perangkap Terhadap Populasi Helicoverpa Armigera Hubn. (Lepidoptera: Noctuidae) Pada Tomat Organik. *Jurnal HPT* Volume 3 Nomor 3, Agustus 2015, ISSN: 2338-4336.
- Walida, H., Siregar A.A., dan Prawanda A. 2018. Isolasi Bakteri dari Rendaman Akar Bambu dan Respon Pemberiannya terhadap Pertumbuhan dan Produksi Tanaman Terung Ungu (*Solanum melongena* L.) *Jurnal Agroplasma (STIPER)* Labuhanbatu, Vol 5 No 1 Mei 2018.
- Walters, J.W., Munoz, C., Paaby, A.B., DiNardo, S. 2005. Secreted-Notch signaling defines the scope of the initial denticle field by modulating EGFR activation. *Dev.Biol.* 286(2): 415-426
- Yanti Y, Habazar T, Resti Z, dan Suhailita D. 2013. Penapisan isolat rizobakteri dari perakaran tanaman kedelai yang sehat untuk pengendalian penyakit pustul bakteri (*Xanthomonas axonopodis* p v. *glycines*). *J. HPT, Tropika* 13(1): 24-34.
- Yanti, Y. 2015. Peroxidase enzyme activity of rhizobacteria-introduced shallots bulbs to induce resistance of shallot towards bacterial leaf blight (*Xanthomonas axonopodis* pv *allii*). *Prosedia Chemistry* 14 (2015) 501 – 507
- Yanti, Y, Warnita, Reflin, dan Bushiah M. 2017. Identification and Characterization of Potential Indegenous Endophytic Bacteria which had Ability to Promote Growth Rate Of Tomatoes And Biocontrol Agent of *Ralstonia solanacearum* and *Fusarium oxysporum* fsp. *solani*. *Jurnal Microbiolgy Indonesia* 11(4)
- Yanti, Y., Warnita., Reflin. 2018. Pengembangan Produk Biopestisida Bakteri Endofit Indigenus dengan Formulasi untuk Mengendalikan Penyakit Layu Utama dan Peningkatan Produksi pada Tanaman Solanaceae. Laporan PTUPT.
- Zadoks, J. C. & R. D. Schein. 1979. *Epidemiology and Plant Disease Management*. Oxford Univ. Press, New York etc. 427 pp.

- Zhang SZ, Hau BZ, dan Zhang F. 2008. Induction of the activities of antioxidative enzymes and the levels of malondialdehyde in cucumber seedlings as a consequence of *Bemisia tabaci* (Hemiptera: Aleyrodidae) infestation. *Arthropod-Plant Interact* 2:209–13
- Zebelo, S., Song, Y., Kloepper, J. W., dan Fadamiro, H. 2016. Rhizobacteria activates (C)-d-cadinene synthase genes and induces systemic resistance in cotton against beet armyworm (*Spodoptera exigua*). *Plant Cell Environ.* 39,935–943
- Zebua, MJ., Suharsi, TK., Syukur, M. 2019. Studi Karakter Fisik dan Fisiologi Buah dan Benih Tomat (*Solanum lycopersicum* L.) Tora IPB. *Bul. Agrohorti* 7(1) : 69-75 (2019)
- Zehnder, G.W., Kloepper J., Yao C. dan Wei G. 1997. Induction of Systemic Resistance in Cucumber Against Cucumber Beetles (Coleoptera: Chrysomelidae) by Plant Growth Promoting Rhizobacteria. *Journal of Economic Entomology* 90(2):391-396.

