DAFTAR PUSTAKA

Agrios, G. N. (2005). *Plant Pathology*. *Fifth edition*. USA: University of Florida.

Akello, J., Dubois, T., Gold, C. S., Coyne, D., Nakavuma, J., & Paparu, P. (2007). *Beauveria bassiana* (Balsamo) Vuillemin as an endophyte in tissue culture banana (*Musa* spp.). *Journal of Invertebrate Pathology*, 96(1), 34–42.

Akhsan, N. M., Sila, S., Syaifudin, E. A., & Kurniati, I. (2022). Identifikasi Jamur Rhizosfer di Lahan Tanaman Bawang Merah (*Allium ascalonicum* L.) Bergulma di Desa Bendang Raya Kecamatan Tenggarong. *Jurnal Agroekoteknologi Tropika Lembab*, *4*(2), 99–106.

Al Khoury, C., Guillot, J., & Nemer, N. (2019). Lethal Activity of Beauvericin, a *Beauveria bassiana* Mycotoxin, Against the Two-Spotted Spider Mites, *Tetranychus urticae* Koch. *Journal of Applied Entomology*, 143(9), 974-983.

Bayu, M. S. Y. I., Prayogo, Y., & Indiati, S. W. (2021). *Beauveria bassiana*: Biopestisida Ramah Lingkungan dan Efektif untuk Mengendalikan Hama dan Penyakit Tanaman. *Buletin Palawija*, *19*(1), 41–63.

Behie, S. W., Jones, S. J., & Bidochka, M. J. (2015). Plant tissue localization of the endophytic insect pathogenic fungi Metarhizium and Beauveria. *Fungal Ecology*, *13*, 112-119.

Bird, A. F. (1972). *The Structure of Nematodes*. Academic Press. New York. US. 318 p.

BPS. (2025). Produksi Tanaman Sayuran 2024. Jakarta. Badan Pusat Statistik.

Chamzurni, T., Mutiara, N., Jauharlina, J., Sriwati, R., & Oktarina, H. (2021). Uji Tepung Daun Jarak Pagar (*Jatropha curcas* L.) Untuk Mengendalikan Nematoda Puru Akar (*Meloidogyne* spp.) Pada Tanaman Tomat. *Jurnal Agrista*, *25*(3), 129-135.

Cito, A., Barzanti, G. P., Strangi, A., Francardi, V., Zanfini, A., & Dreassi, E. (2016). Cuticle-Degrading Proteases And Toxins As Virulence Markers of *Beauveria bassiana* (Balsamo) Vuillemin. *Journal of Basic Microbiology*, 56(9), 941-948.

Daniel, J. F., Silva, A. A., Nakagawa, D. H., Medeiros, L. S. D., Carvalho, M. G., Tavares, L. J., & Rodrigues-Filho, E. (2017). Larvicidal Activity of *Beauveria bassiana* Extracts Against *Aedes aegypti* and Identification of Beauvericins. *Journal of the brazilian chemical society*, *28*(6), 1003-1013.

Diantari, P. A., Sritamin, M. A. D. E., & Bagus, I. G. N. (2015). Aplikasi Ekstrak Bahan Nabati Berbagai Tanaman terhadap Perkembangan Populasi dan Reproduksi Nematoda Puru Akar *Meloidogyne* spp. pada Tanaman Tomat (*Lycopersicum esculentum* Mill.). *E-Jurnal Agroekoteknologi Tropika*, 4(2), 145-149.

Eryani, R. N. (2021). Identifikasi Spesies Nematoda Puru Akar (*Meloidogyne* spp.) pada Tanaman Tomat di Sentra Sayuran Lembang Kabupaten Bandung Barat. [Skripsi]. Universitas Padjadjaran.

Fabiyi, O. A., Baker, M. T., & Olatunji, G. A. (2022). Application of Fatty Acid Esters on *Meloidogyne incognita* Infected Jew's Mallow Plants. *Pakistan Journal of Nematology*, *40*(2), 127–137.

Fan, Y., Pei, X., Guo, S., Zhang, Y., Luo, Z., Liao, X., & Pei, Y. (2010). Increased Virulence Using Engineered Protease-Chitin Binding Domain Hybrid Expressed in The Entomopathogenic Fungus *Beauveria bassiana*. *Microbial pathogenesis*, *49*(6), 376-380.

Fernandez, C. C. (2005). *Chiral diphosphine ligands derived from 1, 4: 3, 6-dianhydro-d-mannitol: synthesis, co-ordination to transition metals and catalytic applications*. Cardiff University (United Kingdom).

Gao, Y., Reitz, S. R., Wang, J., Tamez-Guerra, P., Wang, E., Xu, X., & Lei, Z. (2012). Potential use of the fungus B*eauveria bassiana* against the western flower thrips *Frankliniella occidentalis* without reducing the effectiveness of its natural predator *Orius sauteri* (Hemiptera: Anthocoridae). *Biocontrol Science and Technology*, *22*(7), 803–812.

Ginanjar, R., Candra, R., & Kembaren, S. B. (2020). Kendali Dan Pemantauan Kelembaban Tanah, Suhu Ruangan, Cahaya Untuk Tanaman Tomat. *Jurnal Ilmiah Informatika Komputer*, *23*(3), 166-174.

Gothandapani, S., Boopalakrishnan, G., Prabhakaran, N., Chethana, B. S., Aravindhan, M., Saravanakumar, M., & Ganeshan, G. (2015). Evaluation of Entomopathogenic Fungus Against *Alternaria porri* (Ellis) Causing Purple Blotch Disease of Onion. *Archives of Phytopathology and Plant Protection*, *48*(2), 135-144.

Gouli, V., Gouli, S., & Kim, J. S. (2014). Production of *Beauveria bassiana* air conidia by means of optimization of biphasic system technology. *Brazilian Archives of Biology and Technology*, *57*(4), 571–577.

Hafizah, N., Istiqomah, N., & Asmiatun, A. (2021). Pengaruh Berbagai Komposisi Media Tanam Pada Pertumbuhan Dan Hasil Tanaman Tomat (*Lycopersicum esculentum* Mill). *Rawa Sains: Jurnal Sains STIPER Amuntai*, *11*(1), 39–47.

Harni, R. (2016). Prosfek Pengembangan Bakteri Endofit Sebagai Agens Hayati Pengendalian Nematoda Parasit Tanaman Perkebunan. *Perspektif*, *15*(1), 31–49.

Indarti, S., & Rahayu, B. (2014). Potensi Jamur Parasit Telur Sebagai Agens Hayati Pengendali Nematoda Puru Akar *Meloidogyne incognita* Pada Tanaman Tomat. *Indonesian Journal of Plant Protection*, *18*(2), 65–70.

Irmawatie, L., Robana, R. R., & Nuraidah, N. (2019). Ketahanan Tujuh Varietas Tomat terhadap Nematoda Puru Akar (*Meloidogyne* spp.). *Agrotechnology Research Journal*, *3*(2), 61–68.

Istiqomah, D., & Pandu, A. P. (2015). Teknik Pengendalian Nematoda Puru Akar (*Meloidogyne* spp.) Ramah Lingkungan. *Prosiding Seminar Nasional Pencapaian Swasembada Pangan Melalui Pertanian Berkelanjutan*, *10*(2), 1–10.

Jaber, L. R., & Salem, N. M. (2014). Endophytic colonisation of squash by the fungal entomopathogen *Beauveria bassiana* (Ascomycota: Hypocreales) for managing Zucchini yellow mosaic virus in cucurbits. *Biocontrol science and technology*, 24(10), 1096-1109.

Jaber, L. R., & Ownley, B. H. (2018). Can We Use Entomopathogenic Fungi as Endophytes For Dual Biological Control of Insect Pests and Plant Pathogens. *Biological control*, *116*, 36-45.

Karabörklü, S., Aydınlı, V., & Dura, O. (2022). The potential of *Beauveria bassiana* and *Metarhizium anisopliae* in controlling the root-knot nematode *Meloidogyne incognita* in tomato and cucumber. *Journal of Asia-Pacific Entomology*, *25*(1), 1–6.

Kepenekci, I., Saglam, H. D., Oksal, E., Yanar, D., & Yanar, Y. (2017). Nematicidal Activity of *Beauveria bassiana* (Bals.-Criv.) Vuill. Against Root-Knot Nematodes on Tomato Grown Under Natural Conditions. *Egyptian Journal of Biological Pest Control*, *27*(1).

Keswani, C., Singh, S. P., & Singh, H. B. (2013). Beauveria bassiana: Status, Mode of action, Applications and Safety issues. *Biotech Today*, *3*(1), 16–20.

Klieber, J., & Reineke, A. (2016). The Entomopathogen *Beauveria bassiana* Has Epiphytic and Endophytic Activity Against The Tomato Leaf Miner Tuta Absoluta. *Journal of Applied Entomology*, *140*(8), 580-589.

Kumar, C. S., Jacob, T. K., Devasahayam, S., D'Silva, S., & Nandeesh, P. G. (2016). Characterization and virulence of *Beauveria bassiana* associated with auger beetle (*Sinoxylon anale*) infesting allspice (*Pimenta dioica*). *Journal of Invertebrate Pathology*, *139*, 67-73.

Latifian, M., Rad, B., & Amani, M. (2013). Mass production of entomopathogenic fungi *Beauveria bassiana* by using agricultural products based on liquid-solid diphasic method for date palm pest control. *International Journal of Farming and Allied Sciences*, *3*(4), 2337–2341.

Liu, H., Zhao, X., Guo, M., Liu, H., & Zheng, Z. (2015). Growth and metabolism of *Beauveria bassiana* spores and mycelia. *BMC Microbiology*, *15*(1), 1–12.

Lu, Q., Liu, T., Wang, N., Dou, Z., Wang, K., & Zuo, Y. (2020). Nematicidal Effect of Methyl Palmitate and Methyl Stearate Against *Meloidogyne incognita* in Bananas. *Journal of agricultural and food chemistry*, *68*(24), 6502-6510.

Maistrou, S., Paris, V., Jensen, A. B., Rolff, J., Meyling, N. V., & Zanchi, C. (2018). A Constitutively Expressed Antifungal Peptide Protects *Tenebrio molitor* During a Natural Infection by The Entomopathogenic Fungus *Beauveria bassiana*. *Developmental & Comparative Immunology*, *86*, 26-33.

Maradaus, Sari, I., & Yusuf, E. Y. (2019). Produksi Tanaman Tomat (*Solanum lycopersicum* L.) Dengan Pemberian SP-36 dan Dolomit di Tanah Gambut. *Jurnal Agro Indragiri*, *4*(2), 25–35.

Mc Namara, L., Dolan, S. K., Walsh, J. M. D., Stephens, J. C., Glare, T. R., Kavanagh, K., & Griffin, C. T. (2019). Oosporein, an Abundant Metabolite in *Beauveria caledonica*, With a Feedback Induction Mechanism And a Role In Insect Virulence. *Fungal Biol*, *123: 601–610*.

Mi, Z., Liu, Z., Wang, C., Wang, T., Zhang, Z., Wang, D., & Chen, C. (2019). Novel Copolyimides Containing 1, 4: 3, 6-dianhydro-d-mannitol Unit Preparation, Characterization, Thermal, Mechanical, Soluble, and Optical Properties. *High Performance Polymers*, *31*(2), 220-229.

Mustika, I. (2005). Konsepsi dan Strategi Pengendalian Nematoda Parasit Tanaman Perkebunan di Indonesia. *Perspektif*, *4*(3), 20–32.

Natasya, R, L. (2025). Efektivitas Beberapa Isolat *Beauveria bassiana* (Balsamo) Vuill Sebagai Penginduksi Ketahanan Tanaman Terhadap *Bemisia tabaci* Dan Penyakit Virus Pada Tanaman Tomat. [Skripsi]. Universitas Andalas. Padang.

Oclarit, E., & Cumagun, C. (2009). Evaluation of efficacy of paecilomyces lilacinus as biological control agent of *Meloidogyne incognita* attacking tomato. *Journal of Plant Protection Research*, *49*(4), 337–340.

Özdemir, F. G. G., Uzun, A., & Demirözer, O. (2022). Assessment of Nematicidal Activity of *Beauveria bassiana* (Bals.-Criv.) Vuill on *Pratylenchus thornei* (Sher et Allen) (Tylenchida: Pratylenchidae). *International Journal of Agriculture Environment and Food Sciences*, *6*(1), 65-71.

Parsa, S., Ortiz, V., & Vega, F. E. (2013). Establishing fungal entomopathogens as endophytes: towards endophytic biological control. *Journal of Visualized Experiments : JoVE*.

Petlamul, W., & Prasertsan, P. (2012). Evaluation of strains of *Metarhizium anisopliae* and *Beauveria bassiana* against *Spodoptera litura* on the basis of their virulence, germination rate, conidia production, radial growth and enzyme activity. *Mycobiology*, *40*(2), 111–116.

Poss, J. A., Pond, E., Menge, J. A., & Jarrell, W. M. (1985). Effect of Salinity on Mycorrhizal Onion and Tomato in Soil With and Without Additional Phosphate. *Plant and Soil*, *88*(3), 307-319.

Prasasti, W. D. (2012). Makalah Seminar Umum Strategi Pengendalian Nematoda Puru Akar (*Meloidogyne* spp.) Pada Tanaman Tomat (*Solanum lycopersicum*). *Universitas Gadjah Mada. Yogyakarta*.

Purwanti, Y., Nunilahwati, H., & Khodijah, K. (2018). Efek Bionematisida Terhadap Serangan Nematoda Puru Akar *Meloidogyne incognita* (Koffoid & White) Chitwood pada Beberapa Takaran. *Prosiding Seminar Nasional Lahan Suboptimal 2018*, 198–205.

Puskara. (2000). Daftar Organisme Pengganggu Tumbuhan Potensial yang Dilaporkan telah terdapat Di dalam Wilayah Republik Indonesia. Jakarta: Puskara. 328 hal.

Rahayuningtias, S., & Widayati, W. (2016). Kompilasi Penyakit Yang Disebabkan Oleh *Meloidogyne* spp. Dengan Jamur *Fusarium oxysporum* f. *lyccopersici* Pada Tanaman Tomat. *Agritrop Jurnal Ilmu Ilmu Pertanian*, *3*(2), 161–164.

Sanchez, P. A. (1992). Sifat dan Pengelolaan Tanah Tropika. Terjemahan Hamzah. Institut Teknologi Bandung. Bandung. 397 hal.

Santo, E., Djamilah., & E Inoriah. (2019). Efektivitas Nematisida Daun Jarak Pagar (*Jatropha curcas* I.) Dalam Menghambat Serangan Nematoda Puru Akar (*Meloidogyne* spp.) Pada Tanaman Tomat. *Jurnal Ilmu-Ilmu Pertanian Indonesia*, 21(1):1-8.

Saragih, M. (2024). Aplikasi Cendawan *Beauveria bassiana* (Balsamo) Vuillemin Untuk Menginduksi Ketahanan Tanaman Cabai (*Capsicum annum* L.) Terhadap Kutu Kebul (*Bemisia tabaci* Genn.) dan Kutu Daun (*Myzus persicae* Sultz. dan *Aphis gossypi* Glov.). [Disertasi]. Universitas Andalas.

Siddiqui, I. A., Haas, D., & Heeb, S. (2005). Extracellular protease of *Pseudomonas fluorescens* CHA0, a biocontrol factor with activity against the root-knot nematode *Meloidogyne incognita*. *Applied and Environmental Microbiology*, *71*(9), 5646–5649.

Silva-Riveros, D., Parra-González, D., & Mogollón-Ortiz, A. (2024). Fungal enemies isolated from the root and rhizosphere of guava against the root-knot nematode. *Plant Protection*, *83*.

Singh, N., & Siddiqui, Z. A. (2012). Inoculation of Tomato With *Ralstonia solanacearum*, *Xanthomonas campestris*, and *Meloidogyne javanica*. *International journal of vegetable science*, 18(1), 78-86.

Stuessy, T. F. (2010). Plant systematics world. *Taxon*, *59*(1), 1942–1948.

Subedi, S., Thapa, B., & Shrestha, J. (2020). Root-knot nematode (*Meloidogyne incognita*) and its management: a review. *Journal of Agriculture and Natural Resources*, *3*(2), 21–31.

Suhardjadinata, S., Kurniati, F., & Lulu, D. H. N. (2020). Pengaruh Inokulasi Cendawan Mikoriza Arbuskular dan Pupuk NPK Terhadap Pertumbuhan dan Hasil Tomat (*Lycopersicum esculentum* Mill.). *Media Pertanian*, *5*(1).

Suhriani. (2018). Virulensi Beberaoa Isolat *Beauveria bassiana* (Bals.) Terhadap Kepik Kubis *Eurydema pulchrum* (Westw.) (Hemiptera:Pentatomidae). [Skripsi]. Universitas Andalas.

Sun, M. H., Gao, L., Shi, Y. X., Li, B. J., & Liu, X. Z. (2006). Fungi and Actinomycetes Associated With *Meloidogyne* spp. Eggs and Females in China and Their Biocontrol Potential. *Journal of invertebrate pathology*, *93*(1), 22-28.

Sunarto, T., Bari, I. N., & Rachman, A. P. (2022). Pengaruh Serbuk Tagetes patula L. terhadap Serangan Nematoda Bengkak Akar (*Meloidogyne* spp.) pada Tanaman Tomat. *Agrikultura*, *33*(1), 48–55.

Supriatna, H., Mulyaningsih, Y., & Rochman, N. (2015). Efektivitas Penggunaan Pestisida Biorasional Daun Kipahit (*Tithonia diversifolia*) dan atau Daun Mindi (*Melia azadirach*) Dalam Pengendalian Hama dan Penyakit Penting Tomat (*Licopersicon esculentum* Mill). *Jurnal Agronida*, *1*(2), 57–62.

Ugine, T. A. (2011). The Effect Of Temperature And Exposure to *Beauveria bassiana* on Tarnished Plant Bug *Lygus lineolaris* (Heteroptera: Miridae) Population Dynamics, and The Broader Implications Of Treating Insects With Entomopathogenic Fungi Over a Range Of Temperatures. *Biological Control*, *59*(3):373-383.

Vikhe, A. G., Dale, N. S., Umbarkar, R. B., Labade, G. B., Savant, A. R., & Walunj, A. A. (2016). In Vitro and In Vivo Induction, and Characterization Of Toxins Isolated From *Beauveria bassiana*. *International Journal of Pure & Applied Bioscience*, *4*(3), 97-103.

Wabdaron, V. S. C., Ruimassa, R. M. R., & Martanto, E. A. (2024). Efektivitas *Tagetes* spp. sebagai tanaman antagonis untuk mengendalikan nematoda puru akar pada tanaman Seledri (*Apium graviolens* L.). *Cassowary*, *7*(1), 56–64.

Wasonowati, C. (2011). Meningkatkan Pertumbuhan Tanaman Tomat (*Lycopersicon esculentum*) Dengan Sistem Budidaya Hidroponik. *Agrovigor*, *4*(1), 21–28.

Wijayanti, E., & Susila, A. D. (2013). Pertumbuhan dan Produksi Dua Varietas Tomat (*Lycopersicon esculentum* Mill.) secara Hidroponik dengan beberapa Komposisi Media Tanam. *Bul. Agrohorti*, *1*(1), 104–112.

Winarto, Trizelia, & Liswarni, L. (2018). Aktivitas Antagonistik Jamur yang Berasosiasi dengan Nematoda Bengkak Akar (*Meloidogyne* spp.) pada Rizosfer Tanaman Tomat. *JPT: Jurnal Proteksi Tanaman*, *2*(2), 76–84.

Winarto, Trizelia, Rusdi, R., Tama, D. P., Barokah, H., & Andini, F.(2023). Control of Root-knot Nematodes (*Meloidogyne* spp.) on Tomato (*Lycopersicum esculentum* Mill.) using Endophytic Fungi *Trichoderma asperellum* and *Beauveria bassiana*. *JERAMI : Indonesian Journal of Crop Science*, *6*(1), 7–13.

Youssef, M. M. A., El-Nagdi, W. M. A., & Lotfy, D. E. M. (2020). Evaluation of the fungal activity of *Beauveria bassiana*, *Metarhizium anisopliae* and *Paecilomyces lilacinus* as biocontrol agents against root-knot nematode, *Meloidogyne incognita* on cowpea. *Bulletin of the National Research Centre*, *44*(1), 2–11.

Yulida, A., Liestiany, E., & Fitriyanti, D. (2023). Pengaruh Eco-enzym dan *Trichoderma* sp. Terhadap Intensitas Serangan Nematoda Puru Akar (*Meloidogyne* spp.) Pada Tanaman Seledri (*Apium graveolens* L.). *Jurnal Proteksi Tanaman Tropika*, *6*(2), 645–653.

Zhao, D., Liu, B., Wang, Y., Zhu, X., Duan, Y., & Chen, L. (2013). Screening for nematicidal activities of *Beauveria bassiana* and associated fungus using fermentation filtrate. *African Journal of Microbiology Research*, *7*(11), 974–978.