

DAFTAR PUSTAKA

- Abad, P., J.G.M. Aury., P. Castanone-Sereno., E.G.J. Danchin., E. Deleury., L. Perfus-Barbeoch., V. Anthouard., F. Artiguenave and V.C. Blok. 2008. Genome sequence of the metazoan plant-parasitic nematode *Meloidogyne incognita*. *Nat Biohechnol.* 26(8) : 909-915.
- Abizar, M dan D. Priyono. 2010. Aktivitas insektisida ekstrak daun dan biji *Tephrosia vogelii* J. D. Hooker (Leguminosae) dan ekstrak buah *Piper cubeba* L. (Piperaceae) terhadap larva *Crocidolomia pavonana*. *JHPT Trop* 10:1-12.
- Agbenin, N., A. Emechebe., P. Marley and A. Akpa. 2005. Evaluation of nematicidal action of some botanicals on *Meloidogyne incognita* in vivo and in vitro. *Journal of Agriculture and Rural Development in the Tropics and Subtropics* (JARTS);106:29-39.
- Al-kader, A. M. 2008. In vitro studies on nematode interactions with their antagonistic fungi in the rhizosphere of various plant. Faculty of Forest and Environmental Sciences, Albert-Ludwigs-Universitat. Freiburg im Breisgau, Germany.
- Almeida, R.R.P., R.N.P. Souto., C.N. Bastos., M.H.L. Silva and J.G.S Ell. 2009. Chemical variation in *Piper aduncum* and biological properties of its dillapiole-rich essential oil. *Chem. Biol.* 6, 1427–1434.
- Arneti. 2012. Bioaktifitas ekstrak buah *Piper aduncum* L. (Piperaceae) terhadap *Crocidolomia pavonana* F. (Lepidoptera: Crambidae) dan formulasinya sebagai insektisida botani. Disertasi Program Pascasarjana. Padang. (Tidak dipublikasikan).
- Badan Pusat Statistik. 2020. *Produktivitas sayuran di Indonesia tahun 2017-2019*.
- Baliadi, Y. 1997. Pengendalian Penyakit Akar Puru yang Disebabkan oleh *Meloidogne javanica* pada Tanaman Kedelai secara Non Kimiawi. Balai Penelitian Tanaman Kacang-kacangan dan Umbi-umbian. Hal. 90-102.
- Braga, FG., M.L.M. Bouzada., R.L. Fabri., M.O. Matos., F.O. Moreira., E. Scio and E.S. Coimbra. 2007. Antileismanial and antifugal activity of plants used in traditional medicine in Brazil. *J Ethnopharmacol.* 111(2):396-402.
- Cannayane, I. and C. V. Shivakumar. 2001. Nematode egg-parasitic fungus 1: *Paecilomyces lilacinus* A review. *Agric. Rev.* 22 : 79-86.
- Coulter, D., C. Tamayo and S. Sotheeswaran. 2007. Assesment of the risk oh hepatotoxicity with kava product. World Health Organization.
- Dadang dan D. Priyono. 2011. Pengembangan teknologi formulasi insektisida nabati untuk pengendalian hama sayuran dalam upaya menghasilkan produk sayuran sehat. *Jurnal Ilmu Pertanian Indonesia* 16 (2) : 100-111.

- Delfel, N.E., W.H. Tallent., D.G. Carlson and A.I. Wolff. 1970. Distribution of rotenone and deguelin in *Tephrosia vogelii* and separation of rotenoid-rich fraction. *J Agric Food Chem* 18:385-390.
- Diantari, P., S. Made dan N.B. Gusti. 2015. Aplikasi berbagai ekstrak bahan nabati berbagai tanaman terhadap perkembangan populasi dan reproduksi nematoda puru akar *Meloidogyne* spp. pada tanaman tomat (*Lycopersicum esculentum* Mill.). *Jurnal Agroekoteknologi Tropika*.4(2).
- Dijan-cporalino, C., G. Bourdy and J. C. Cayrol. 2005. Nematicidal and Nematode resistant Plant. In: *Biopesticide of plant origin*. C. R-. Roger b. JR. Philogene and C. Vincent (Eds), Intercept publisher, 173-219.
- Dropkin. 1991. Pengantar nematologi tumbuhan. Penerjemah; Ir. Suprptooyo. Yogyakarta: UGM Press. 366 hal.
- Dropkin. 1992. Pengantar nematologi tumbuhan edisi kedua. Yogyakarta: UGM Press.
- Dubey, N. K. R., Shukla., A. Kumar., P . Singh and B. Prakash. 2010. Prospect of botanical pesticides in sustainable agriculture. *Current Science* 4 (25):479480.
- Duggal, P., S. Ram., A.K. Bathia and J. Patil. 2017. Life Cycle and Pathogenicity of *Meloidogyne incognita* on *Capsicum frutescens* under Poly-House as Compared to Screen-House Conditions. *International Journal of Pure and Applied Bioscience*. 5(2) : 1017-1024.
- Dwipayana, M., I.N. Wijaya dan M. Sritamin. 2017. Uji Efektifitas Ekstrak Daun Sirih (*Piper Betle* L.), Kirinyuh (*Chromoloena Odorata*) dan Tembelekan (*Lantana Camara* L.) Terhadap Populasi Nematoda Puru Akar (*Meloidogyne* spp.) dan Pertumbuhan Tanaman Cabai (*Capsicum Annuum* L.). *Jurnal AgroTropika*. 6(2) : 62-71.
- Echeverrigaray, S., J. Zacaria and R. Beltrao. 2009. Nematicidal Activity of Monoterpenoids Against the Root-Knot Nematode *Meloidogyne incognita*. *Phytopathology* 100:109-203.
- Endah, J dan Novizan. 2003. *Mengendalikan Hama da Penyakit Tanaman* . PT *AgroMedia Pustaka*. Jakarta.
- Erlina, L. H. 2019. Aktivitas insektisida sediaan nanoemulsi *Piper aduncum* dan efek fisiologisnya terhadap *Crocidolomia pavonana* F. (Lepidoptera: Crambidae). [Tesis]. Padang Program Pascasarjana Universitas Andalas. 82 hal.
- Ferdiansyah, A. 2019. Ekstrak Daun Tanaman Jarak Pagar (*Jatropha curcas* L.) untuk Menekan Perkembangan Nematoda Bengkak Akar (*Meloidogyne* spp.) pada Tanaman Tomat (*Lycopersicum esculentum* Mill.). [Skripsi]. Universitas Andalas.

- Gaskins, M. H., G. A. White., F. W. Martin., N. E. Delfel., E. G. Ruppel., D. K. Barnes. 1972. *Tephrosia vogelii*. A Source of Rotenoid For Insecticidal and Piscicidal Use. Technical Bulletin 1445. United State Departement of Agriculture. Washington DC.
- Gharabadiyan, F., S. Jamali and A.A. Yazdi. 2012. Weed Hosts Of Root-Knot Nematodes In Tomato Fields. *Journal of Plant Protection Research*. 52(2).
- Harni, R dan Samsudin. 2015. Pengaruh Formula Bionematisida Bakteri Endofit *Bacillus* sp. terhadap Infeksi Nematoda *Meloidogyne* sp. pada Tanaman Kopi. Sukabumi: Balai Penelitian Tanaman Industri dan Penyegar (3) :143-150.
- Heyne, K. 1987. Tumbuhan berguna Indonesia. Jilid 2. Badan Litbang Kehutanan, penerjemah. Jakarta: Yayasan Sarana Wana Jaya. Terjemahan dari: De Nuttige Planten van Indonesia.
- Hollingworth, R. M. 2001. Inhibitor and uncouplers of mitochondrial oxidative phosphorylation. Di dalam: Krieger R et al., editor. *Handbook of Pesticide Toxicology*. Vol 2. San Diego: Academic Pr. hlm 1169-1227.
- Huzni, M., B.T. Rahardjo dan H. Tarno. 2015. Uji Laboratorium Ekstrak Kirinyuh (*Chromolaena odorata*: King & Robinson) Sebagai Nematisida Nabati Terhadap *Meloidogyne* spp. (Chitwood). *Jurnal HPT*. 3(1) : 93-101.
- Istiqomah, D dan A.P. Pradana, 2015. Teknik Pengendalian Nematoda Puru Akar (*Meloidogyne* spp.) Ramah Lingkungan. Prosiding Seminar Nasional Swasembada Pangan. Yogyakarta: Universitas Gadjah Mada.
- Jones, J. T., A. Haegeman., E.G.J. Danchin., H.S. Gaur., J. Helder., M.G.K. Jones., T. Kikuchi., R. Manzanilla-López., J.E. Palomares-Rius., W.M.L. Wesemael, *et al.* 2013. Top 10 plant parasitic nematodes in molecular plant pathology. *Mol Plant Pathol*. 14(9):946-961.
- Khan, S.A., N. Javed., M.A. Khan., M. Kamran and H.M. Atif. 2008. Management of root knot nematode *Meloidogyne incognita* through the use of plant extracts. *Pak. J. Phytopathol*. 20, 916 214-217.
- Koona, P. and S. Dorn. 2005. Extracts from *Tephrosia vogelii* for the protection of stored legume seeds against damage by three bruchid species. *Ann Appl Biol* 147:43-48.
- Lambert N., M.F. Trouslot., C. Nef-Campa and H. Crestin. 1993. Production of rotenoids by heterotrophic and photomixotrophic cell cultures of *Tephrosia vogelii*. *Phytochemistry* 34:1515-1520.
- Li, X.Q., A. Tan., M. Voegtline., S. Bekele., C.S. Chen and R.V. Aroian. 2008. Expression of Cry5B protein from *Bacillus thuringiensis* in plant roots confers resistance to root-knot nematode. *Biological Control* 47 : 97-102.

- Lina, E. C., Dadang, S. Manuwoto, G. Syahbirin and D. Priyono. 2013. Synergistic Action of Mixed Extracts of *Brucea javanica*, *Piper aduncum* and *Tephrosia vogelii* Against Cabbage Head Caterpillar *Crocidolomia pavonana*. *Journal of Biopesticides*. 6(1): 77-83.
- Lina, E.C. 2014. Pengembangan formulasi insektisida nabati berbahan ekstrak *Brucea javanica*, *Piper aduncum*, dan *Tephrosia vogelii* untuk pengendalian hama kubis *Crocidolomia pavona* [Disertasi]. IPB: Bogor.
- Lopez. 2005. *In vitro* effect of condensed tannins from tropical fodder crops against eggs and larvae of the nematoda *Haemunchus contortus* *Journal of food, Agriculture and Environment* (2): 191-194 www.world-food.net.
- Luc, M., R. A. Sikora and J. Bridge. 1990. Plant parasitic nematodes in subtropical and tropical agriculture. CAB International, Oxford, United Kingdom.
- Marwoto, B. 1993. Upaya pengendalian nematoda bengkak akar (*Meloidogyne* spp.) pada tanaman tomat. *Bul. Penel. Hort.* XXV(3):84–90.
- Miyakado, M., I. Nayakama., H. Yoshioka and N. Nakatani. 1989. The pipereace Amides I : Structure of the pipecide, A New Incektidal Amide From *Piper nigrum* L. *jurnal agric.bio.chem* 43(7): 1609-1611.
- Moreira, F. J. C., B.A. Araujo., F.G.N. Lopes., A.A.L. Sousa., A.E.C. Sousa., L.B.S. Andrade., A.F. Uchoa. 2018. Assessment of the *Tephrosia toxicaria* essential oil on hatching and mortality of eggs and second-stage juvenile (J2) root-knot nematode (*Meloidogyne enterolobii* and *M. javanica*). 12(12):1829-1836.
- Morris, J. B, and J. T. Walker. 2002. Non-Traditional Legumes as Potential Soil Amendments for Nematode Control. *Journal of Nematology* 34 (4) :358-361.
- Mulyadi dan B. Triman. 1995. Kajian tanaman inang nematoda puru akar padi *Meloidogyne graminicola*. *J. Perlindungan Tanaman. Indo.* 1(1) : 8- 11.
- Mustika, I. 1994. Pestisida Nabati Untuk Mengendalikan Nematoda Parasit Tanaman. *Buletin Penelitian Rempah dan Obat.* IX (2). Bogor.
- Mwaura, L., P. C. Stevensin., D. A. Ofari., P. Anjarwalla., R. Jamnadass., P. Smith. 2013. Pesticidal Plant Leaflet *Tephrosia vogelii* Hook. F. World Agroforestry Centre and The University of Greenwich.
- Naserinasab, F., N. Sahebani and H.R. Etebarian. 2011. Biological control of *Meloidogyne javanica* by *Trichoderma harzianum* BI and salicylic acid on tomato. *African Journal of Food Science.* 5: 276–280.

- Navickiene, H. M. D. 2006. Composition and anti fungal activity of essential oils from *Piper aduncum*, *Piper arboretum* and *Piper tuberculatum*. *Quimica Nova*. 29(3):467-470.
- Nezriyetti dan T. Novita. 2012. Efektivitas Ekstrak Daun Jarak Pagar (*Jatropha curcas* L.) dalam Menghambat Perkembangan Nematoda Puru Akar *Meloidogyne* spp. pada Tanaman Tomat. *Biospesies*.5(2) : 35-39.
- Nickle, W. R. 1991. *Manual of Agricultural Nematology*. Marcel Dekker, Inc., Madison Avenue. New York. 1035 hal. Agrios, G.N. 2005. *Plant Pathology*. Edisi ke-5. New York : Academic Press.
- Njenga, J. K., G. K. Gathungu and J. N. Mbaka. 2019. Efficacy of *Neem*, *Tithonia* and *Tephrosia* Leaf Extracts in Management of Root-Knot Nematodes in French Beans (*Phaseolus vulgaris* L.). *Journal of Agricultural Studies*, 7(3), 240. <https://doi.org/10.5296/jas.v7i3.15313>
- Onyeke, C. C. and C. O. Akueshi. 2012. Infectivity dan Reproduction of *Meloidogyne incognita* (Kofoid dan White) Chitwood on African yam bean, *Sphenostylis stenocarpa* (hochst Ex. A Rich) Harms Accessions as influence ed by Nabatical Soil Amendments. *African Journal of Biotechnology*. 11(67).
- Osunlola, O. S. and B. Fawole. 2014. The Development and Life Cycle of *Meloidogyne incognita* in sweetpotato (*Ipomoea batatas*). *IOSR Journal of Agriculture and Veterinary Science*. 7:49-53.
- Parmar, V.S., S.C. Jain., K.S. Bisht., R.Jain., P.Taneeja., A.K. Prasad., J. Wengel., C.E. Olsen and P.M. Boll. 1997. Phytochemistry of the genus piper. *Phytochemistry* 46 (4): 597 – 673.
- Perry, A. S., I. Yamamoto., I. Ishaaya and R.Y. Perry. 1998. *Insecticides in Agriculture and Environment: Retrospects and Prospects*. Berlin: SpringerVerla <http://dx.doi.org/10.1007/978-3-66203656-3>.
- Pradana, A. P., D. Putri dan A. Munif. 2014. Analisis Populasi Nematoda Parasit Pada Lahan Tanaman Tomat Dengan Sistem Tanam Monokultur dan Polikultur. *Prosiding Seminar Nasional PFI*. IPB : Bogor.
- Prasad, A. K., J. Wangel and C. E. Olsen. 1997. Phytochemistry of the genus *Piper*. *Phytochemistry*. 46(4):597-673.
- Prasasti, W. D. 2012. Strategi pengendalian penyakit nematoda puru akar (*Meloidogyne* spp.) pada tanaman tomat (*Solanum lycopersicum* L.). *Makalah Seminar Umum*. Universitas Gadjah Mada. Yogyakarta.

- Prijono, D. dan Pudjianto. 2008. Pengembangan formulasi insektisida nabati yang dibakukan berbasis daun kacang babi (*Tephrosia vogelii* Hook. F., Leguminosae) dan buah kemukus (*Piper cubeba* L.f., Piperaceae) (Laporan Research Grant Program B). Bogor: Departemen Proteksi Tanaman IPB.
- Robinson, T. 1995. Kandungan Organik Tumbuhan Tinggi. Bandung: ITB press
- Sasmita, A. 2016. Potensi Seduhan Daun Ceremai (*Phyllanthus acidus* [L.] Skeels) Dan Kemiri Sunan (*Reutealis trisperma* (Blanco) Airy Shaw) Untuk Pengendalian *Meloidogyne* spp. Pada Tanaman Tomat. [Skripsi]. Institut Pertanian Bogor. Bogor.
- Setyawati, D. 2002. Studi pengaruh ekstrak daun sirih dalam pelarut aquades, etanol dan methanol terhadap perkembangan larva nyamuk *Culex quinquefasciatus*. Skripsi. Fakultas Kedokteran Hewan Institut Pertanian Bogor.
- Siddiqui, M. A. and M. M. Alam. Control of plant-parasitic nematodes by intercropping with *Tagetes minuta*. *Nematologia Mediterranea* 1987(15):205-211.
- Singh, S., Abbasi and Hisamuddin. 2013. Histopathological response of *Lens culinaris* root towards root-knot nematode, *Meloidogyne incognita*. *J Biol Sci.* 16(7):317-324.
- Singh, S. K and U. R. Khurma. 2008. Assessing the Potential of Kava (*Piper methysticum* Forst) and Wild Kava (*Piper aduncum* L.) as organic amendments for managing root-knot nematodes.
- Swibawa, I. G. 1991. Efek tiga macam pupuk kandang dan jamur *Paecilomyces lilacinus* pada tanaman kedelai terhadap populasi *Meloidogyne incognita*. Thesis tidak diterbitkan. Universitas Gadjah Mada. Yogyakarta.
- Syamsuhidayat, S. S dan J.R Hutapea. 1991. Inventaris tanaman obat Indonesia (I). Departemen Kesehatan RI. Jakarta. Hal 452-453.
- Tomlin, C. D. S, editor. 2005. The e-Pesticide Manual: a World Compendium [CDROM]. Ed ke-13. Version 3.1. Farnham: BCPC.
- Triantaphyllou, A. C. 1993. Hermaphroditism in *Meloidogyne hapla*. *Journal of Nematology* 25 : 15-26.
- Wesemael, W. M. L., L. M. Taning., N. Viaene and M. Moens. 2014. Life cycle and damage of the root-knot nematode *Meloidogyne minor* on potato (*Solanum tuberosum*). *Journal of Nematology*. Hal 185-192.
- Winarto. 2015. Nematologi Tumbuhan. Padang : Minangkabau Press.
- Wiryanta, W. 2002. Bertanam tomat. Agromedia Pustaka. Jakarta: 102 halaman.

Wiwin, S., R. Murtiningsih., N. Gunaeni dan T. Rubiati, 2008. Tumbuhan Bahan Pesticida Nabati dan Cara Pembuatannya untuk Pengendalian Organisme PenggangguTumbuhan.Bogor



