UNIVERSITAS
GADJAH MADA
Bioaktivitas Ekstrak Daun Puding Polyscias guilfoylei (W. Bull) L.H. Bailey Terhadap Lalat Buah Melon Zeugodacus cucurbitae Coquillett
JETI RACHMAWATI, Prof. Dr. Ir. Edhi Martono, M.Sc.
Universitas Gadjah Mada, 2022 | Diunduh dari http://etd.repository.ugm.ac.id/

DAFTAR PUSTAKA

Abbas, R. K. (2019). Chemical constituents of the goat margarine and antibacterial activity against bacterial pathogens in Sudan. *Journal of Pure and Applied Microbiology*, *13*(1), 225–232. https://doi.org/10.22207/JPAM.13.1.23

Abd El-Latif, H. H., Hassan, S. W. M., & Beltagy, E. A. (2021). Optimization and Characterization of Antimicrobial Agents Produced by Marine Aspergillus terreus she05 against Aeromonas hydrophila and other Applications. *Journal of Pure and Applied Microbiology*, *15*(4), 2367–2381. https://doi.org/10.22207/JPAM.15.4.62

Abdullah, B. M., Mehdi, M. A. H., Khan, A. R., & Pathan, J. M. (2020). Gas chromatography-mass spectrometry (Gc-ms) analysis of ajwain (trachyspermum ammi) seed extract. *International Journal of Pharmaceutical Quality Assurance*, *11*(2), 231–234. https://doi.org/10.25258/ijpqa.11.2.6

Aboshi, T., Ishiguri, S., Shiono, Y., & Murayama, T. (2018). Flavonoid glycosides in Malabar spinach Basella alba inhibit the growth of Spodoptera litura larvae. *Bioscience, Biotechnology and Biochemistry*, *82*(1), 9–14. https://doi.org/10.1080/09168451.2017.1406301

Adamski, Z., Blythe, L. L., Milella, L., & Bufo, S. A. (2020). Biological activities of alkaloids: From toxicology to pharmacology. *Toxins*, *12*(4), 10–13. https://doi.org/10.3390/toxins12040210

Addisu, S., & Assefa, A. (2016). Role of Plant Containing Saponin on Livestock Production ; A Review. *Advan. Biol. Res.*, *10*(5), 309–314. https://doi.org/10.5829/idosi.abr.2016.309.314

Adeniyi, S. A., Orjiekwe, C. L., Ehiagbonare, J. E., & Arimah, B. D. (2010). Preliminary phytochemical analysis and insecticidal activity of ethanolic extracts of four tropical plants (Vernonia amygdalina, Sida acuta, Ocimum gratissimum and Telfaria occidentalis) against beans weevil (Acanthscelides obtectus). *International Journal of Physical Sciences*, *5*(6), 753–792.

Adjavon, F. J. M. A., Li, X., Hu, B., Dong, L., Zeng, H., Li, C., & Hu, W. (2021). Adult House Fly (Diptera: Muscidae) Response to Black Soldier Fly (Diptera: Stratiomyidae) Associated Substrates and Potential Volatile Organic Compounds Identification. *Environmental Entomology*, *50*(5), 1037–1044. https://doi.org/10.1093/ee/nvab073

Agerbirk, N., Olsen, C. E., Bibby, B. O. M., Frandsen, H. O., Brown, L. E. A. D., Nielsen, J. K., & Renwick, J. A. A. (2003). A Saponin Correlated With Variable Resistance of Barbarea vulgaris to The Diamondback Moth Plutella xylostella. *Journal of Chemical Ecology*, *29*(6), 1417–1433. https://doi.org/10.1023/A:1024217504445

Agustini, N. W. S., Sunari, A. A. A. A., & Yuliadhi, K. A. (2019). Kelimpahan Populasi dan Persentase Serangan Lalat Buah (Bactrocera spp.) (Diptera: tephritidae) pada Tanaman Mentimun (Cucumis sativus L.) di Beberapa Kabupaten Provinsi Bali. *Journal of Agricultural Sciences and Biotechnology*, *8*(1), 22–30. https://ojs.unud.ac.id/index.php/JASB

Ahlquist, L., Bergström, G., & Liljenberg, C. (1978). Acyclic diterpene alcohols:

UNIVERSITAS
GADJAH MADA
Bioaktivitas Ekstrak Daun Puding Polyscias guilfoylei (W. Bull) L.H. Bailey Terhadap Lalat Buah Melon Zeugodacus cucurbitae Coquillett
JETI RACHMAWATI, Prof. Dr. Ir. Edhi Martono, M.Sc.
Universitas Gadjah Mada, 2022 | Diunduh dari http://etd.repository.ugm.ac.id/

Occurrence and synthesis of geranylcitronellol, phytol and geranylgeraniol. *Progress in the Chemistry of Fats and Other Lipids*, *16*(C), 231–255. https://doi.org/10.1016/0079-6832(78)90046-0

Ahmad, S., Hussain, A., Ullah, F., Jamil, M., Ali, A., Ali, S., & Luo, Y. (2021). 60Co-γ Radiation Alters Developmental Stages of Zeugodacus cucurbitae (Diptera: Tephritidae) Through Apoptosis Pathways Gene Expression. *Journal of Insect Science*, *21*(5), 1–6. https://doi.org/10.1093/jisesa/ieab080

Ainane, A., Khammour, Charaf, S., Elabboubi, M., Elkouali, M., Talbi, M., Benhima, R., Cherroud, S., & Ainane, T. (2019). Chemical composition and insecticidal activity of five essential oils: Cedrus atlantica, Citrus limonum, Rosmarinus officinalis, Syzygium aromaticum and Eucalyptus globules. *Materials Today: Proceedings*, *13*, 474–485. https://doi.org/10.1016/j.matpr.2019.04.004

Akhtar, Y., Yu, Y., Isman, M. B., & Plettner, E. (2010). Dialkoxybenzene and dialkoxyallylbenzene feeding and oviposition deterrents against the cabbage looper, trichoplusia ni: Potential insect behavior control agents. *Journal of Agricultural and Food Chemistry*, *58*(8), 4983–4991. https://doi.org/10.1021/jf9045123

Akter, T., & Sohel, M. M. H. (2020). Biology of the cucurbit fruit fly, Bactrocera cucurbitae (Coq) on host bottle gourd, Lagenaria siceraria. *Journal of Bioscience and Agriculture Research*, *25*(2), 2098–2106. https://doi.org/10.18801/jbar.250220.256

Aluja, M., & Prokopy, R. J. (1992). Host Search behaviour by Rhagoletis pomonella files: inter-tree movement patterns in response to wind-borne fruit volatiles under filed conditions. *Physiological Entomology*, *17*(1), 1–8. https://doi.org/10.1111/j.1365-3032.1992.tb00983.x

Anh, L. T. T., Son, N. T., Van Tuyen, N., Thuy, P. T., Quan, P. M., Ha, N. T. T., & Tra, N. T. (2021). Antioxidative and α-glucosidase inhibitory constituents of Polyscias guilfoylei: experimental and computational assessments. *Molecular Diversity*, 1–15. https://doi.org/10.1007/s11030-021-10206-6

Ansante, T. F., Ribeiro, L. P., & Vendramim, J. D. (2017). Acute and Chronic Toxicities of an Annonin-Based Commercial Bioinsecticide and a Joint Mixture with a Limonoid-Based Formulation to the Fall Armyworm. *Neotropical Entomology*, *46*(2), 216–222. https://doi.org/10.1007/s13744-016-0448-0

Arif, A. Bin, Susanto, S., Matra, D. D., & Widayanti, S. M. (2021). Identifikasi Senyawa Bioaktif dan Manfaatnya dari Beberapa Bagian Tanaman Abiu (Pouteria caimito). *J. Hort. Indonesia*, *12*(1), 10–20.

Arunmathi, C., & Malarvili, T. (2017). Analysis of bioactive compounds in methanol extract of Aplotaxis auriculata rhizome using GC-MS. *Journal of Pharmacognosy and Phytochemistry*, *6*(3), 243–247.

Asghar, S. F., Habib-ur-Rehman, Choudahry, M. I., & Atta-ur-Rahman. (2011). Gas chromatography-mass spectrometry (GC-MS) analysis of petroleum ether extract (oil) and bio-assays of crude extract of Iris germanica. *International Journal of Genetics and Molecular Biology*, *3*(7), 95–100.

Ashmawy, N. S., Gad, H. A., Al-musayeib, N., & El-ahmady, S. H. (2019). Phytoconstituents from Polyscias guilfoylei leaves with histamine-release inhibition activity. *De Gruyter*, 1–7. https://doi.org/10.1515/znc-2018-0167

UNIVERSITAS
GADJAH MADA
Bioaktivitas Ekstrak Daun Puding Polyscias guilfoylei (W. Bull) L.H. Bailey Terhadap Lalat Buah Melon Zeugodacus cucurbitae Coquillett
JETI RACHMAWATI, Prof. Dr. Ir. Edhi Martono, M.Sc.
Universitas Gadjah Mada, 2022 | Diunduh dari http://etd.repository.ugm.ac.id/

Ashmawy, N. S., Gad, H. A., Ashour, M. L., El-Ahmady, S. H., & Singab, A. N. B. (2020). The genus Polyscias (Araliaceae): A phytochemical and biological review. *Journal of Herbal Medicine*, *23*(June 2019), 100377. https://doi.org/10.1016/j.hermed.2020.100377

Astriyani, N. K. N. K., Supartha, I. W., & Sudiarta, I. P. (2016). Kelimpahan Populasi Dan Persentase Serangan Lalat Buah Yang Menyerang Tanaman Buah-Buahan Di Bali. *J. Agric. Sci. and Biotechnol.*, *5*(1), 19–27. http://ojs.unud.ac.id/index.php/JASB

Athikomkulchai, S., Tadtong, S., Ruangrungsi, N., & Hongratanaworakit, T. (2015). Chemical composition of the essential oil from croton oblongifolius and its antibacterial activity against propionibacterium acnes. *Natural Product Communications*, *10*(8), 1459–1460. https://doi.org/10.1177/1934578x1501000836

Attaullah, Zahoor, M. K., Zahoor, M. A., Mubarik, M. S., Rizvi, H., Majeed, H. N., Zulhussnain, M., Ranian, K., Sultana, K., Imran, M., & Qamer, S. (2020). Insecticidal, biological and biochemical response of Musca domestica (Diptera: Muscidae) to some indigenous weed plant extracts. *Saudi Journal of Biological Sciences*, *27*(1), 106–116. https://doi.org/10.1016/j.sjbs.2019.05.009

Azhagumurugan, C., Rajan, M. K., & Ester, M. (2014). *G C - MS Analysis of Phytochemical Constituents and Nematicidal Activities of Leaf Extract of Magilam , Mimusops elengi*. *9*(4), 239–243. https://doi.org/10.5829/idosi.wjz.2014.9.4.85132

Azzahra, C., Raihanah, M., Fauziah, Z., Rahmah, R., Irsan, C., Pertanian, F., Sriwijaya, U., Ilir, O., & Selatan, S. (2021). Strategi yang tepat dalam Pengendalian Hama Lalat Buah (Bactrocera sp .) pada Tanaman Jambu Air Hijau Deli (Syzygium aqueum). *Prosiding Seminar Nasional Lahan Suboptimal*, 242–248.

Bartkiene, E., Bartkevics, V., Mozuriene, E., Lele, V., Zadeike, D., & Juodeikiene, G. (2019). The safety, technological, nutritional, and sensory challenges associated with lacto-fermentation of meat and meat products by using pure lactic acid bacteria strains and plant-lactic acid bacteria bioproducts. *Frontiers in Microbiology*, *10*(MAY), 8–11. https://doi.org/10.3389/fmicb.2019.01036

Bernard, B. M., Pakianathan, N., & Divakar, M. C. (1998). On The Antipyretic, Anti-inflammatory, Analgesic and Molluscicidal Properties of Polyscias fruticosa (L.) Harms. *Ancient Science of Life*, *17*(4), 313–319. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3331125/

Beschi, D. A., Appavoo, M. R., & Wilsy, J. I. (2021). GC-MS analysis, collected from Kavalkinaru area, Tirunelveli District, Tamil Nadu, India. *European Journal of Molecular & Clinical Medicine*, *7*(11), 4287–4292. https://ejmcm.com/article_6597.html

Bodoira, R., & Maestri, D. (2020). Phenolic Compounds from Nuts: Extraction, Chemical Profiles, and Bioactivity. *Journal of Agricultural and Food Chemistry*, *68*(4), 927–942. https://doi.org/10.1021/acs.jafc.9b07160

Boncan, D. A. T., Tsang, S. S. K., Li, C., Lee, I. H. T., Lam, H. M., Chan, T. F., & Hui, J. H. L. (2020). Terpenes and terpenoids in plants: Interactions with environment and insects. *International Journal of Molecular Sciences*, *21*(19),

UNIVERSITAS
GADJAH MADA
Bioaktivitas Ekstrak Daun Puding Polyscias guilfoylei (W. Bull) L.H. Bailey Terhadap Lalat Buah Melon Zeugodacus cucurbitae Coquillett
JETI RACHMAWATI, Prof. Dr. Ir. Edhi Martono, M.Sc.
Universitas Gadjah Mada, 2022 | Diunduh dari http://etd.repository.ugm.ac.id/

1–19. https://doi.org/10.3390/ijms21197382

Cai, F., Watson, B. S., Meek, D., Huhman, D. V, Wherritt, D. J., Ben, C., Gentzbittel, L., Driscoll, B. T., Sumner, L. W., Bede, J. C., Meek, D., & Sumner, L. W. (2017). *Medicago truncatula Oleanolic-Derived Saponins Are Correlated with Caterpillar Deterrence*. 712–724. https://doi.org/10.1007/s10886-017-0863-7

Campia, I., Lussiana, C., Pescarmona, G., Ghigo, D., Bosia, A., & Riganti, C. (2009). Geranylgeraniol prevents the cytotoxic effects of mevastatin in THP-1 cells, without decreasing the beneficial effects on cholesterol synthesis. *British Journal of Pharmacology*, *158*(7), 1777–1786. https://doi.org/10.1111/j.1476-5381.2009.00465.x

Castilhos, R. V., Grützmacher, A. D., & Coats, J. R. (2018). Acute Toxicity and Sublethal Effects of Terpenoids and Essential Oils on the Predator Chrysoperla externa (Neuroptera: Chrysopidae). *Neotropical Entomology*, *47*(2), 311–317. https://doi.org/10.1007/s13744-017-0547-6

Chakraborty, S., Sarkar, S., & Bhattacharya, M. (n.d.). GC-MS PROFILING OF PETROLEUM BENZENE EXTRACTS OF HERPETOSPERMUM DARJEELINGENSE DISPLAYS DISTINCT METABOLIC PROFILE FROM ‘ TEA ’ AND ‘ NON - TEA ’ GROWING. In *Multi-Disciplinary Approaches for Development of Agriculture and Allied Sectors in Global Scenario* (pp. 187–199). https://www.researchgate.net/profile/Sourav-Chakraborty-22/publication/356412686_GC-MS_PROFILING_OF_PETROLEUM_BENZENE_EXTRACTS_OF_HERPETOSPERMUM_DARJEELINGENSE_DISPLAYS_DISTINCT_METABOLIC_PROFILE_FROM_’TEA’_AND_’NON-TEA’_GROWING_HABITAT_OF_DARJEELING_HILL

Chang, C. L., Caceres, C., & Jang, E. B. (2004). A novel liquid larval diet and its rearing system for melon fly, Bactrocera cucurbitae (Diptera: Tephritidae). *Annals of the Entomological Society of America*, *97*(3), 524–528. https://doi.org/10.1603/0013-8746(2004)097[0524:ANLLDA]2.0.CO;2

Chang, C. L., Cho, I. L. K., & Li, Q. X. (2009). Insecticidal activity of basil oil, trans-anethole, estragole, and linalool to adult fruit flies of Ceratitis capitata, Bactrocera dorsalis, and Bactrocera cucurbitae. *Journal of Economic Entomology*, *102*(1), 203–209. https://doi.org/10.1603/029.102.0129

Chaudhary, S., Kanwar, R. K., Sehgal, A., & Cahill, D. M. (2017). *Progress on Azadirachta indica Based Biopesticides in Replacing Synthetic Progress on Azadirachta indica Based Biopesticides in Replacing Synthetic Toxic Pesticides*. *May*. https://doi.org/10.3389/fpls.2017.00610

Chaudhary, S., Kanwar, R. K., Sehgal, A., Cahill, D. M., Barrow, C. J., Sehgal, R., & Kanwar, J. R. (2017). Progress on Azadirachta indica based biopesticides in replacing synthetic toxic pesticides. *Frontiers in Plant Science*, *8*(May), 1–13. https://doi.org/10.3389/fpls.2017.00610

Chinnasamy, P. S., Parimala, S., & Kandhasamy, M. (2018). Phytochemical Evaluation of Seed and Fruit Pulp. *World Journal of Pharmaceutical Research*, *7*(7), 1924–1932. https://doi.org/10.20959/wjpr20187-11770

Cioffi, G., Lepore, L., Venturella, F., Piaza, F. D., & De Tommasi, N. (2008). Antiproliferative Oleanane Saponins from Polyscias guilfoylei. *Natural Product*

UNIVERSITAS
GADJAH MADA
Bioaktivitas Ekstrak Daun Puding Polyscias guilfoylei (W. Bull) L.H. Bailey Terhadap Lalat Buah Melon Zeugodacus cucurbitae Coquillett
JETI RACHMAWATI, Prof. Dr. Ir. Edhi Martono, M.Sc.
Universitas Gadjah Mada, 2022 | Diunduh dari http://etd.repository.ugm.ac.id/

Communications, *3*(10), 1667–1670. https://doi.org/10.1177/1934578X0800301017

Copeland, R. S., Wharton, R. A., Luke, Q., De Meyer, M., Lux, S., Zenz, N., Machera, P., & Okumu, M. (2006). Geographic distribution, host fruit, and parasitoids of African fruit fly pests Ceratitis anonae, Ceratitis cosyra, Ceratitis fasciventris, and Ceratitis rosa (Diptera: Tephritidae) in Kenya. *Annals of the Entomological Society of America*, *99*(2), 261–278. https://doi.org/10.1603/0013-8746(2006)099[0261:GDHFAP]2.0.CO;2

Coquerel, Q. R. R., Démares, F., Geldenhuys, W. J., Le Ray, A. M., Bréard, D., Richomme, P., Legros, C., Norris, E., & Bloomquist, J. R. (2021). Toxicity and mode of action of the aporphine plant alkaloid liriodenine on the insect GABA receptor. *Toxicon*, *201*(August), 141–147. https://doi.org/10.1016/j.toxicon.2021.08.019

Cornelius, M. L., Duan, J. J., & Messing, R. H. (2000). Volatile host fruit odors as attractants for the oriental fruit fly (diptera: tephritiClae). *Journal of Economic Entomology*, *93*(1), 93–100. https://doi.org/10.1603/0022-0493-93.1.93

Corrêa, J. L., Veiga, F. F., Jarros, I. C., Costa, M. I., Castilho, P. F., de Oliveira, K. M. P., Rosseto, H. C., Bruschi, M. L., Svidzinski, T. I. E., & Negri, M. (2020). Propolis extract has bioactivity on the wall and cell membrane of Candida albicans. *Journal of Ethnopharmacology*, *256*(December 2019), 112791. https://doi.org/10.1016/j.jep.2020.112791

Costa, M. S., Cossolin, J. F. S., Pereira, M. J. B., Sant'Ana, A. E. G., Lima, M. D., Zanuncio, J. C., & Serrão, J. E. (2014). Larvicidal and cytotoxic potential of squamocin on the midgut of Aedes aegypti (Diptera: Culicidae). *Toxins*, *6*(4), 1169–1176. https://doi.org/10.3390/toxins6041169

Cronin, M. T. D., Dearden, J. C., & Dobbs, A. J. (1991). QSAR studies of comparative toxicity in aquatic organisms. *The Science of the Total Environment*, *109–110*(C), 431–439. https://doi.org/10.1016/0048-9697(91)90198-N

Cruz-Estrada, A., Ruiz-Sánchez, E., Cristóbal-Alejo, J., González-Coloma, A., Andrés, M. F., & Gamboa-Angulo, M. (2019). Medium-chain fatty acids from Eugenia winzerlingii leaves causing insect settling deterrent, nematicidal, and phytotoxic effects. *Molecules*, *24*(9), 1–13. https://doi.org/10.3390/molecules24091724

Cui, C., Yang, Y., Zhao, T., Zou, K., Peng, C., Cai, H., Wan, X., & Hou, R. (2019). Insecticidal Activity and Insecticidal Mechanism of Total Saponins from Camellia oleifera. *Molecules*, *24*(24), 1–12. https://doi.org/10.3390/molecules24244518

Czepa, A., & Hofmann, T. (2004). Quantitative studies and sensory analyses on the influence of cultivar, spatial tissue distribution, and industrial processing on the bitter off-taste of carrots (Daucus carota L.) and carrot products. *Journal of Agricultural and Food Chemistry*, *52*(14), 4508–4514. https://doi.org/10.1021/jf0496393

Czyzewska, M. M., Chrobok, L., Kania, A., Jatczak, M., Pollastro, F., Appendino, G., & Mozrzymas, J. W. (2014). Dietary acetylenic oxylipin falcarinol differentially modulates GABAA receptors. *Journal of Natural Products*, *77*(12), 2671–2677.

UNIVERSITAS
GADJAH MADA
Bioaktivitas Ekstrak Daun Puding Polyscias guilfoylei (W. Bull) L.H. Bailey Terhadap Lalat Buah Melon Zeugodacus cucurbitae Coquillett
JETI RACHMAWATI, Prof. Dr. Ir. Edhi Martono, M.Sc.
Universitas Gadjah Mada, 2022 | Diunduh dari http://etd.repository.ugm.ac.id/

https://doi.org/10.1021/np500615j

da Camara, C. A. G., Akhtar, Y., Isman, M. B., Seffrin, R. C., & Born, F. S. (2015). Repellent activity of essential oils from two species of Citrus against Tetranychus urticae in the laboratory and greenhouse. *Crop Protection*, *74*, 110–115. https://doi.org/10.1016/j.cropro.2015.04.014

Daisy, B. H., Strobel, G. A., Castillo, U., Ezra, D., Sears, J., Weaver, D. K., & Runyon, J. B. (2002). Naphthalene , an insect repellent , is produced by Muscodor vitigenus , a novel endophytic fungus. *Microbiology*, *148*, 3737–3741.

Dalimunthe, C. I., & Rachmawan, A. (2017). Prospek Pemanfaatan Metabolit Sekunder Tumbuhan Sebagai Pestisida Nabati Untuk Pengendalian Patogen Pada Tanaman Karet. *Warta Perkaretan*, *36*(1), 15–28. https://doi.org/10.22302/ppk.wp.v36i1.324

Damhougy, E., Bashar, M. E., El-Naggar, H. A., Ibrahim, H. A. H., & Fekry M. Abou SennaSenna, A. (2017). Gc-Ms Analysis of Bioactive Components of Callyspongia Crassa (Porifera) From Gulf of Aqaba Red Sea (Egypt). *Al Azhar Bulletin Of Science*, *9*(March), 111–118.

Datta, R., Kaur, A., Saraf, I., Singh, I. P., & Kaur, S. (2019). Effect of crude extracts and purified compounds of Alpinia galanga on nutritional physiology of a polyphagous lepidopteran pest, Spodoptera litura (Fabricius). *Ecotoxicology and Environmental Safety*, *168*(October 2018), 324–329. https://doi.org/10.1016/j.ecoenv.2018.10.065

De Leonardis, A., Aretini, A., Alfano, G., MacCiola, V., & Ranalli, G. (2008). Isolation of a hydroxytyrosol-rich extract from olive leaves (Olea Europaea L.) and evaluation of its antioxidant properties and bioactivity. *European Food Research and Technology*, *226*(4), 653–659. https://doi.org/10.1007/s00217-007-0574-3

Dhillon, M. K., Singh, R., Naresh, J. S., & Sharma, H. C. (2005). The melon fruit fly , Bactrocera cucurbitae : A review of its biology and management. *Journal of Insect Science*, *5*, 1–16. https://academic.oup.com/jinsectscience/article-abstract/5/1/40/893795

Dib, R., Makhoul, K., & Maalouf, R. (2016). Preliminary bioactivity investigation of Styrax officinalis fruit extract as potential biopesticide. *Journal of Pharmacognosy and Phytotherapy*, *8*(12), 209–213. https://doi.org/10.5897/JPP2016.0422

Dilek tepe, H. (2019). Qualitative Analysis of Alfalfa Seed Methanol Extract by GC-MS and Determination of Antioxidant Properties. *Celal Bayar Üniversitesi Fen Bilimleri Dergisi*, *15*(2), 175–180. https://doi.org/10.18466/cbayarfbe.493017

Dowd, P. F., Berhow, M. A., & Johnson, E. T. (2011). Differential Activity of Multiple Saponins Against Omnivorous Insects with Varying Feeding Preferences. *Journal of Chemical Ecology*, *37*, 443–449. https://doi.org/10.1007/s10886-011-9950-3

Drew, R. A. I., & Romig, M. C. (1997). Overview-Tephritidae in The Pasific and Southeast Asia. In A. J. Allwood & R. A. I. Drew (Eds.), *Management of Fruit Flies in The Pasific. A regional sumposium, Nadi, Fiji 28-31 Oktober 1996* (pp. 46–53). ACIAR Proceedings No 76.

UNIVERSITAS
GADJAH MADA
Bioaktivitas Ekstrak Daun Puding Polyscias guilfoylei (W. Bull) L.H. Bailey Terhadap Lalat Buah Melon Zeugodacus cucurbitae Coquillett
JETI RACHMAWATI, Prof. Dr. Ir. Edhi Martono, M.Sc.
Universitas Gadjah Mada, 2022 | Diunduh dari http://etd.repository.ugm.ac.id/

Duraipandiyan, V., Ignacimuthu, S., & Gabriel Paulraj, M. (2011). Antifeedant and larvicidal activities of Rhein isolated from the flowers of Cassia fistula L. *Saudi Journal of Biological Sciences*, *18*(2), 129–133. https://doi.org/10.1016/j.sjbs.2010.12.009

Duvauchelle, D. (2010). *Plant fact sheet: Panax. Polyscias guilfoylei (Bull ex Cogn. & E. March.) Bailey*. United States Department of Agriculture Natural Resources Conservation Service. USDA NRCS Hawaii Plant Materials Center, Hoʻolehua, Hawaiʻi. http://plnt-materials.nrcs.usda.gov

Eaton, A. L., Brodie, P. J., Callmander, M. W., Rakotondrajaona, R., Rakotobe, E., Rasamison, V. E., & Kingston, D. G. I. (2015). Bioactive oleanane glycosides from polyscias duplicata from the Madagascar dry forest [1]. *Natural Product Communications*, *10*(4), 567–570. https://doi.org/10.1177/1934578x1501000407

El-Said, K. S., Hussein, S., Alrashdi, B. M., Mahmoud, H. A., Ibrahim, M. A., Elbakry, M., El-Tantawy, H., Kabil, D. I., & El-Naggar, S. A. (2022). Musa sp. Leaves Extract Ameliorates the Hepato-Renal Toxicities Induced by Cadmium in Mice. *Molecules*, *27*(2), 1–13. https://doi.org/10.3390/molecules27020559

El-Sayed, A. S. A., Moustafa, A. H., Hussein, H. A., El-Sheikh, A. A., El-Shafey, S. N., Fathy, N. A. M., & Enan, G. A. (2020). Potential insecticidal activity of Sarocladium strictum, an endophyte of Cynanchum acutum, against Spodoptera littoralis, a polyphagous insect pest. *Biocatalysis and Agricultural Biotechnology*, *24*(January). https://doi.org/10.1016/j.bcab.2020.101524

Elgindi, M., Abd Alkhalik, S., Melek, F., Hassan, M., & Abdelaziz, H. (2015). Saponins isolated from Polyscias guilfoylei F . Araliaceae . *Research Journal of Pharmaceutical, Biological and Chemical Sciences*, *6*(3), 545–549.

Eltayeib, A. A., & Um Ismaeel, H. (2014). Extraction of Cyperus rotundus rhizomes oil, identification of chemical constituents and evaluation of antimicrobial activity of the oil in North Kordofan state. *International Journal of Advanced Research in Chemical Science (IJARCS)*, *1*(9), 18–29. www.arcjournals.org

Elya, B., & Kusmana, D. (2002). Effect of Pudding Leaf Infusion (Polyscias guilfoylei L.H. Bailey) Against the Quality of Male Rat Spermatozoa (Rattus norvegicus) Galur DDY. *Makara, Sains*, *6*(2), 99–105. http://repository.ui.ac.id/contents/koleksi/2/1a278ed4706bfbecf665e681ade7b4418c45f3fe.pdf

Elya, B., Kusmana, D., & Krinalawaty, N. (2010). Spermatozoa Qualities of the Polyscias guilfoylei Plant. *Makara, Sains*, *14*(1), 51–56. https://doi.org/10.7454/mss.v14i1.470

Erharuyi, O., Imieje, V. O., Oseghale, I. O., Ubhenin, A. E., Falodun, A. B., & Choudhary, M. I. (2017). Identification of Compounds and Insecticidal Activity of the Root of Pride of Barbados (*Caesalpinia Pulcherrima* L). *Journal of Applied Sciences and Environmental Management*, *21*(2), 281. https://doi.org/10.4314/jasem.v21i2.8

Fontellas-Brandalha, T. M. L., & Zucoloto, F. S. (2004). Selection of oviposition sites by wild Anastrepha obliqua (Macquart) (Diptera: Tephritidae) based on the nutritional composition. *Neotropical Entomology*, *33*(5), 557–562. https://doi.org/10.1590/s1519-566x2004000500003

UNIVERSITAS
GADJAH MADA
Bioaktivitas Ekstrak Daun Puding Polyscias guilfoylei (W. Bull) L.H. Bailey Terhadap Lalat Buah Melon Zeugodacus cucurbitae Coquillett
JETI RACHMAWATI, Prof. Dr. Ir. Edhi Martono, M.Sc.
Universitas Gadjah Mada, 2022 | Diunduh dari http://etd.repository.ugm.ac.id/

Fragoso, D. F. M., Túler, A. C., Pratissoli, D., Carvalho, J. R., Valbon, W. R., Queiroz, V. T. d., Pinheiro, P. F., Costa, A. V., & Bueno, R. C. O. F. (2021). Biological activity of plant extracts on the small tomato borer Neoleucinodes elegantalis, an important pest in the Neotropical region. *Crop Protection*, *145*(November 2020). https://doi.org/10.1016/j.cropro.2021.105606

Gao, Z., Zhong, W., Chen, K., Tang, P., & Guo, J. (2020). Chemical composition and anti-biofilm activity of essential oil from Citrus medica L. var. sarcodactylis Swingle against Listeria monocytogenes. *Industrial Crops and Products*, *144*(August 2019), 112036. https://doi.org/10.1016/j.indcrop.2019.112036

Ginasti, U. D., Dono, D., & Sunarto, T. (2020). The Effect of Neem Seed Oil (Azadirachta indica) and Clove Leaf Oil (Syzygium aromaticum) Mixture on Cabbage Head Caterpillars (Crocidolomia pavonana). *Cropsaver*, *3*(2), 49–58. https://doi.org/10.24198/cropsaver.v3i2.29855

Girard, M., & Bee, G. (2020). Invited review: Tannins as a potential alternative to antibiotics to prevent coliform diarrhea in weaned pigs. *Animal*, *14*(1), 95–107. https://doi.org/10.1017/S1751731119002143

Golawska, S. (2007). Deterrence and toxicity of plant saponins for the pea aphid Acyrthosiphon pisum harris. *Journal of Chemical Ecology*, *33*(8), 1598–1606. https://doi.org/10.1007/s10886-007-9333-y

Gupta, G., Agarwal, U., Kaur, H., Kumar, N. R., & Gupta, P. (2017). Aphicidal effects of terpenoids present in Citrus limon on Macrosiphum roseiformis and two generalist insect predators. *Journal of Asia-Pacific Entomology*, *20*(4), 1087–1095. https://doi.org/10.1016/j.aspen.2017.08.007

Hamza, Y. G., Danyaya, A. I., & Lawal, M. (2020). An In silico Analysis of Some Bioactive Compounds of Psidium guajava against Target Proteins of Vibrio cholerae. *Asian Journal of Biochemistry, Genetics and Molecular Biology*, *6*(4), 14–24. https://doi.org/10.9734/ajbgmb/2020/v6i430158

Hanh, T. T. H., Dang, N. H., & Dat, N. T. (2016). -Amylase and -Glucosidase Inhibitory Saponins from Polyscias fruticosa Leaves. *Journal of Chemistry*, *2016*, 3–8. https://doi.org/dx.doi.org/10.1155/2016/2082946

Haq, R., Khan, M. F., & Haq, E. (2012). Heavy Weight Protein Affected by Lead Acetate in Bactrocera dorsalis. *Journal of Basic and Applied Sciences*, *8*, 411–415. https://doi.org/10.6000/1927-5129.2012.08.02.26

Harborne, J.B. 1987. Metode Fitokimia. Penuntun cara modern menganalisis tumbuhan. Penerbit ITB. Bandung. 354 p

Hasyim, A., Lukman, L., & Setiawati, W. (2020). *Teknologi Pengendalian Hama Lalat Buah*. IAARD PRESS, Badan Penelitian dan Pengembangan Pertanian.

Hasyim, A., Setiawati, W., & Lukman, L. (2014). Teknologi Pengendalian Hama Lalat Buah Pada Tanaman Cabai. *Iptek Holtikultura*, *10*(10), 20–25.

Hauser, T. P., Christensen, S., Kuzina, V., Thines, M., Ploch, S., & Bark, S. (2021). Effects of a saponin-based insect resistance and a systemic pathogen.pdf. *Arthropod-Plant Interaction*, 1–16. https://doi.org/0.1007/s11829-021-09858-w

Hebber, T., Fatimawali, & Antasionasti, I. (2021). EVALUATION OF BIOACTIVE COMPOUNDS EXTRACT OF BLACKBOARD TREE BARK (Alstonia scholaris

UNIVERSITAS
GADJAH MADA
Bioaktivitas Ekstrak Daun Puding Polyscias guilfoylei (W. Bull) L.H. Bailey Terhadap Lalat Buah Melon Zeugodacus cucurbitae Coquillett
JETI RACHMAWATI, Prof. Dr. Ir. Edhi Martono, M.Sc.
Universitas Gadjah Mada, 2022 | Diunduh dari http://etd.repository.ugm.ac.id/

(L .) R . Br) AS ANTIMALARIA CANDIDATE USING MOLECULAR DOCKING EVALUASI SENYAWA BIOAKTIF EKSTRAK KULIT BATANG KAYU TELOR (Alstonia scholaris (L .) R . Br) SEBAGAI. *PHARMACON-PROGRAM STUDI FARMASI, FMIPA, UNIVERSITAS SAM RATULANGI*, *10*(3), 919–926. https://ejournal.unsrat.ac.id/index.php/pharmacon/article/view/35590/33313

Hossain, M. A., Kabir, M. J., Salehuddin, S. M., Rahman, S. M. M., Das, A. K., Singha, S. K., Alam, M. K., & Rahman, A. (2010). Antibacterial properties of essential oils and methanol extracts of sweet basil Ocimum basilicum occurring in Bangladesh. *Pharmaceutical Biology*, *48*(5), 504–511. https://doi.org/10.3109/13880200903190977

Hossain, S., & Khalequzzaman, M. (2018). Toxicity of three plant leaf extracts against larvae and pupae of melon fruit fly , Bactrocera cucurbitae (Coquillett) (Diptera : Tephritidae). *Journal of Pharmacognosy and Phytochemistry*, *7*(2), 3182–3186. https://www.phytojournal.com/archives/2018/vol7issue2/PartAS/7-1-504-324.pdf

Hussain, M., Debnath, B., Qasim, M., Steve Bamisile, B., Islam, W., Hameed, M. S., Wang, L., & Qiu, D. (2019). Role of saponins in plant defense against specialist herbivores. *Molecules*, *24*(11), 1–21. https://doi.org/10.3390/molecules24112067

Hussain, M., Qasim, M., & Bamisile, B. S. (2017). *Role of Saponins in Plant Defense against the Diamondback Moth , Plutella xylostella (L .)*. *June*, 1–28. https://doi.org/10.20944/preprints201706.0035.v1

Hussein, H. M., Ubaid, J. M., & Hameed, I. H. (2016). Insecticidal activity of methanolic seeds extract of ricinus communis on adults of callosobruchus maculatus (Coleoptera: Brauchidae) and analysis of its phytochemical composition. *International Journal of Pharmacognosy and Phytochemical Research*, *8*(8), 1385–1397.

Igwe, O. U., & Abii, T. (2014). Characterization of Bioactive Sesquiterpenes, Organic Acids and Their Derivatives from the Leaves of Psidium guajava Linn. *International Research Journal of Pure and Applied Chemistry*, *4*(4), 456–467. https://doi.org/10.9734/irjpac/2014/8592

Illescas-riquelme, C. P., Llanderal-cázares, C., Ruiz-montiel, C., Gonzales-Hernandez, H., Alatorre-Rosas, R., Cruz-Lopez, L., & Rojas, J. C. (2016). Evidence for male-produced aggregation pheromone in Sphenophorus incurrens (Coleoptera : Curculionidae). *Florida Entomologist*, *99*(3), 522–527.

Indriyanti, D. R., Martono, E., Trisyono, A., & Witjaksono. (2013). Ketertarikan Bactrocera carambolae (Diptera: Tephritidae) pada Senyawa Volatil Olahan Limbah Kakao. *Biosaintifika*, *5*(1), 25–29. https://journal.unnes.ac.id/nju/index.php/biosaintifika/article/view/2570/2623

Jadhav, D. R., Mallikarjuna, N., Rathore, A., & Pokle, D. (2012). Effect of Some Flavonoids on Survival and Development of Helicoverpa armigera (Hübner) and Spodoptera litura (Fab) (Lepidoptera : Noctuidae). *Asian Journal of Agricultural Sciences*, *4*(4), 298–307. https://oar.icrisat.org/id/eprint/6082

Jæger, D., O'Leary, M. C., Weinstein, P., Møller, B. L., & Semple, S. J. (2019). Phytochemistry and bioactivity of Acacia sensu stricto (Fabaceae: Mimosoideae). *Phytochemistry Reviews*, *18*(1), 129–172.

UNIVERSITAS
GADJAH MADA
Bioaktivitas Ekstrak Daun Puding Polyscias guilfoylei (W. Bull) L.H. Bailey Terhadap Lalat Buah Melon Zeugodacus cucurbitae Coquillett
JETI RACHMAWATI, Prof. Dr. Ir. Edhi Martono, M.Sc.
Universitas Gadjah Mada, 2022 | Diunduh dari http://etd.repository.ugm.ac.id/

https://doi.org/10.1007/s11101-018-9583-z

Jang, E. B., Carvalho, L. A., & Stark, J. D. (1997a). Attraction of Female Oriental Fruit Fly, Bactrocera dorsalis , to Volatile Semiochemicals from Leaves and Extracts of A Nonhost Plant, Panax (Polyscias guilfoylei) in Laboratory and Olfactometer Assays. *Journal of Chemical Ecology*, *23*(5), 1389–1401. https://doi.org/10.1023/B:JOEC.0000006471.46161.8d

Jang, E. B., Carvalho, L. A., & Stark, J. D. (1997b). ATTRACTION OF FEMALE ORIENTAL FRUIT FLY , Bactrocera dorsalis , TO VOLATILE SEMIOCHEMICALS FROM LEAVES AND EXTRACTS OF A NONHOST PLANT , PANAX (Polyscias guilfoylei) IN LABORATORY AND OLFACTOMETER ASSAYS. *Journal of Chemical Ecology*, *23*(5), 1389–1401. https://doi.org/10.1023/B:JOEC.0000006471.46161.8d

Jangir, M., Pathak, R., Sharma, S., & Sharma, S. (2018). Biocontrol mechanisms of Bacillus sp., isolated from tomato rhizosphere, against Fusarium oxysporum f. sp. lycopersici. *Biological Control*, *123*, 60–70. https://doi.org/10.1016/j.biocontrol.2018.04.018

Jared, J. J., Murungi, L. K., Wesonga, J., & Torto, B. (2016). Steroidal glycoalkaloids: Chemical defence of edible African nightshades against the tomato red spider mite, Tetranychus evansi (Acari: Tetranychidae). *Pest Management Science*, *72*(4), 828–836. https://doi.org/10.1002/ps.4100

Jenkins, B., West, J. A., & Koulman, A. (2015). A review of odd-chain fatty acid metabolism and the role of pentadecanoic acid (C15:0) and heptadecanoic acid (C17:0) in health and disease. *Molecules*, *20*(2), 2425–2444. https://doi.org/10.3390/molecules20022425

Jiang, Z., Akhtar, Y., Bradbury, R., Zhang, X., & Isman, M. B. (2009). Comparative toxicity of essential oils of litsea pungens and litsea cubeba and blends of their major constituents against the cabbage looper, trichoplusia ni. *Journal of Agricultural and Food Chemistry*, *57*(11), 4833–4837. https://doi.org/10.1021/jf900274r

Joshi, P. R., Paudel, M. R., Chand, M. B., Pradhan, S., Pant, K. K., Joshi, G. P., Bohara, M., Wagner, S. H., Pant, B., & Pant, B. (2020). Cytotoxic effect of selected wild orchids on two different human cancer cell lines. *Heliyon*, *6*(5), e03991. https://doi.org/10.1016/j.heliyon.2020.e03991

Joy, R. J. (2010). *PLANT MATERIALS SPECIALIST REPORT : A SUMMARY OF PROMISING SPECIES IN FIELD PLANTINGS September 2010*. *September*, 1–5.

Kalshoven LGE. 1981. *Pest of crops in Indonesia*. Revised and Translated by PA Van Der Laan. PT. Ichtiar Baru. Jakarta.

Kamatou, G. P. P., & Viljoen, A. M. (2017). Comparison of fatty acid methyl esters of palm and palmist oils determined by GCxGC–ToF–MS and GC–MS/FID. *South African Journal of Botany*, *112*, 483–488. https://doi.org/10.1016/j.sajb.2017.06.032

Karau, G. M., Njagi, E. N. M., Machocho, A. K., Wangai, L. N., & Nthinga, M. J. (2015). Chemical Composition and in vitro Antioxidant Activities of Ocimum americanum. *Advances in Analytical Chemistry*, *5*(2), 42–49. https://doi.org/10.5923/j.aac.20150502.03

UNIVERSITAS
GADJAH MADA
Bioaktivitas Ekstrak Daun Puding Polyscias guilfoylei (W. Bull) L.H. Bailey Terhadap Lalat Buah Melon Zeugodacus cucurbitae Coquillett
JETI RACHMAWATI, Prof. Dr. Ir. Edhi Martono, M.Sc.
Universitas Gadjah Mada, 2022 | Diunduh dari http://etd.repository.ugm.ac.id/

Kardinan, A. (2011). Kearifan Lokal Dalam Pengendalian Hama. *Pengembangan Inovasi Pertanian*, *4*(4), 262–278.

Kaur, D., Kaur, G., Thind, J., Singh, R., & Division, P. P. (2021). Efficacy Ofcertain Botanicals Against Melon Fruit Fly (Bactrocera cucurbitae) (Diptera : Tephritidae). *Agriways*, *9*(June), 39–44. http://www.agriwaysjournal.com/wp-content/uploads/journals/volume9.1/efficacyofcertainbotanicals.pdf

Kaushik, S., Kaushik, S., Kumar, R., Dar, L., & Yadav, J. P. (2020). In-vitro and in silico activity of Cyamopsis tetragonoloba (Gaur) L. supercritical extract against the dengue-2 virus. *VirusDisease*, *31*(4), 470–478. https://doi.org/10.1007/s13337-020-00624-9

Kayesth, S., Kumar, S., Shazad, M., & Gupta, K. K. (2019). Effects of hexane extract of Lantana camara leaves on reproductive bioactivities of Dysdercus koenigii Fabricius (Heteroptera: Pyrrhocoreidae). *Acta Ecologica Sinica*, *xxx*(3), 1–7. https://doi.org/10.1016/J.CHNAES.2019.05.007

Kerdchoechuen, O., Laohakunjit, N., Singkornard, S., & Matta, F. B. (2010). Essential oils from six herbal plants for biocontrol of the maize weevil. *HortScience*, *45*(4), 592–598. https://doi.org/10.21273/hortsci.45.4.592

Khan, I. H., & Javaid, A. (2020). Anticancer, antimicrobial and antioxidant compounds of quinoa inflorescence. *Advancements in Life Sciences*, *8*(1), 68–72.

Khan, S., & Hugar, P. S. (2019). Biology of melon fruit fly, Bactrocera cucurbitae (Coq.) (Diptera: Tephritidae). *J. Exp. Zool. India*, *22*(1), 189–191.

Kobaek-Larsen, M., Nielsen, D. S., Kot, W., Krych, Ł., Christensen, L. P., & Baatrup, G. (2018). Effect of the dietary polyacetylenes falcarinol and falcarindiol on the gut microbiota composition in a rat model of colorectal cancer. *BMC Research Notes*, *11*(1), 1–6. https://doi.org/10.1186/s13104-018-3527-y

Koomson, D. A., Kwakye, B. D., Darkwah, W. K., Odum, B., Asante, M., & Aidoo, G. (2018). Phytochemical constituents, total saponins, alkaloids, flavonoids and vitamin c contents of ethanol extracts of five solanum torvum fruits. *Pharmacognosy Journal*, *10*(5), 946–950. https://doi.org/10.5530/pj.2018.5.160

Koyama, J., Kakinohana, H., & Miyatake, T. (2004). Eradication of the Melon Fly, Bactrocera cucurbitae, in Japan: Importance of Behavior, Ecology, Genetics, and Evolution. *Annual Review of Entomology*, *49*(1), 331–349. https://doi.org/10.1146/annurev.ento.49.061802.123224

Kubar, M. I., Khoso, F. N., Khatri, I., Khuhro, N. H., & Gilal, A. A. (2021). Effect of Different Management Strategies on Melon Fruit Fly, Bactrocera cucurbitae (Coquillett), Infestation in Cucurbit Vegetables. *Sarhad Journal of Agriculture*, *37*(3), 915–920. https://doi.org/10.17582/JOURNAL.SJA/2021/37.3.915.920

Kumar, D., Bhat, Z. A., Kumar, V., Shah, M. Y., Khan, N. A., & Chashoo, I. A. (2012). ANTI-INFLAMMATORY ACTIVITY OF Stachys tibetica OIL BY GC-MS. *Chemistry of Natural Compound*, *48*(5), 792–793.

Kurniati, R., Saidi, N., & Nasution, R. (2018). ANTIFEEDANT ACTIVITY FROM NEEM LEAF EXTRACT (Azadirachta indica A Juss). *Jurnal Natural*, *18*(1), 7–10. https://doi.org/10.24815/jn.v18i1.8781

UNIVERSITAS
GADJAH MADA
Bioaktivitas Ekstrak Daun Puding Polyscias guilfoylei (W. Bull) L.H. Bailey Terhadap Lalat Buah Melon Zeugodacus cucurbitae Coquillett
JETI RACHMAWATI, Prof. Dr. Ir. Edhi Martono, M.Sc.
Universitas Gadjah Mada, 2022 | Diunduh dari http://etd.repository.ugm.ac.id/

Kurniawidjaja, L. M., Lestari, F., Tejamaya, M., & Ramdhan, D. H. (2021). Konsep Dasar Toksikologi Industri. In *Fkm Ui*. Fakultas Kesehatan Masyarakat Universitas Indonesia.

Lakshmi, K. V., Sudhikumar, A. V., & Aneesh, E. M. (2021). Synergistic effect of Croton bonplandianum Baill. with Cypermethrin and Lambda-cyhalothrin against Aedes aegypti Linn, a Dengue fever vector. *South African Journal of Botany*, *140*, 103–109. https://doi.org/10.1016/j.sajb.2021.03.034

Lani, Y. S., Darmayasa, I. B. G., & Parwanayoni, N. M. S. (2021). Elusidasi Dan Daya Hambat Ekstrak Etanol Daun Sembung Delan (Sphaeranthus indicus L.) Terhadap Candida albicans ATCC 1023. *Metamorfosa: Journal of Biological Sciences*, *8*(2), 336. https://doi.org/10.24843/metamorfosa.2021.v08.i02.p18

Lengkong, M., Rante, C. S., & Meray, M. (2011). APLIKASI MAT DALAM PENGENDALIAN LALAT BUAH Bactrocera sp . *Eugenia*, *17*(2), 121–128.

Li, H. (2020). Evaluation of bioactivity of butternut squash (Cucurbita moschata D.) seeds and skin. *Food Science and Nutrition*, *8*(7), 3252–3261. https://doi.org/10.1002/fsn3.1602

Li, Y., Tan, W. L., Guo, K., Gao, X. W., Wei, J., Yi, D., Zhang, C., & Wang, Q. (2021). Synthesis and Biological Evaluation of Falcarinol-Type Analogues as Potential Calcium Channel Blockers. *Journal of Natural Products*, *84*(8), 2138–2148. https://doi.org/10.1021/acs.jnatprod.1c00136

Liang, Y., & Lin, S. (2020). Intercalation of zwitterionic surfactants dramatically enhances the performance of low-pressure nanofiltration membrane. *Journal of Membrane Science*, *596*, 1–28. https://doi.org/10.1016/j.memsci.2019.117726

López, S. B., López, M. L., Aragón, L. M., Tereschuk, M. L., Slanis, A. C., Feresin, G. E., Zygadlo, J. A., & Tapia, A. A. (2011). Composition and anti-insect activity of essential oils from Tagetes L species (Asteraceae, Helenieae) on Ceratitis capitata Wiedemann and Triatoma infestans Klug. *Journal of Agricultural and Food Chemistry*, *59*(10), 5286–5292. https://doi.org/10.1021/jf104966b

Lou-Bonafonte, J. M., Martínez-Beamonte, R., Sanclemente, T., Surra, J. C., Herrera-Marcos, L. V., Sanchez-Marco, J., Arnal, C., & Osada, J. (2018). Current Insights into the Biological Action of Squalene. *Molecular Nutrition and Food Research*, *62*(15), 1–59. https://doi.org/10.1002/mnfr.201800136

Lozano-Grande, M. A., Gorinstein, S., Espitia-Rangel, E., Dávila-Ortiz, G., & Martínez-Ayala, A. L. (2018). Plant Sources, Extraction Methods, and Uses of Squalene. *International Journal of Agronomy*, *2018*, 1–13. https://doi.org/10.1155/2018/1829160

Ma, K., Tang, Q., Liang, P., Xia, J., Zhang, B., & Id, X. G. (2019). Toxicity and sublethal effects of two plant allelochemicals on the demographical traits of cotton aphid , Aphis gossypii Glover (Hemiptera : Aphididae). *PLoS ONE*, *14*(11), 1–13. https://doi.org/10.1371/journal.pone.0221646

Maha, D. A. S., Widaningsih, D., & Darmiati, N. N. (2019). Kelimpahan Populasi Lalat Buah (Bactrocera spp .) dan Persentase Serangannya pada Buah Labu (Cucurbita maxima Duch) di Provinsi Bali. *Jurnal Agroekoteknologi Tropika*, *8*(3), 354–361. https://ojs.unud.ac.id/index.php/JAT

Mahmud, N. (2017). *Advanced phytochemical screening of solanum torvum (fruits,*

UNIVERSITAS
GADJAH MADA
Bioaktivitas Ekstrak Daun Puding Polyscias guilfoylei (W. Bull) L.H. Bailey Terhadap Lalat Buah Melon Zeugodacus cucurbitae Coquillett
JETI RACHMAWATI, Prof. Dr. Ir. Edhi Martono, M.Sc.
Universitas Gadjah Mada, 2022 | Diunduh dari http://etd.repository.ugm.ac.id/

leaves and stems) / Nurfarahin Mahmud. *25495*, 6–8.

Martínez, L. C., Plata-Rueda, A., Zanuncio, J. C., & Serrão, J. E. (2015). Bioactivity of six plant extracts on adults of demotispa neivai (Coleoptera: Chrysomelidae). *Journal of Insect Science*, *15*(34), 1–5. https://doi.org/10.1093/jisesa/iev021

Maysaroh, S., Yolanda, R., & Lubis, R. R. (2015). Identifikasi lalat buah (Diptera: Taphritidae) pada perkebunan cabai merah (Capsicum annum L) di Jalur 03 Desa Kepenuhan Sejati Kecamatan Kepenuhan Kabupaten Rohan Hulu. *Jurnal Ilmiah Mahasiswa FKIP Prodi Biologi*, 1–4.

McLaughlin, N. P., Butler, E., Evans, P., Brunton, N. P., Koidis, A., & Rai, D. K. (2010). A short synthesis of (+) and (-)-falcarinol. *Tetrahedron*, *66*(51), 9681–9687. https://doi.org/10.1016/j.tet.2010.10.049

McQuate, G. T., & Vargas, R. I. (2007). Assessment of attractiveness of plants as roosting sites for the melon fly , Bactrocera cucurbitae , and oriental fruit fly , Bactrocera dorsalis. *Insect Science*, *7*(57), 1–13. https://doi.org/10.1673/031.007.5701

Mesquita, F. L. T., Mendonca, A. L., da Silva, C. E., Correia, A. M. de O., Sales, D. F. M., Cabral-Junior, C. R., & do Nascimento, R. R. (2011). INFLUENCE OF SACCHARUM OFFICINARUM (POALES : POACEAE) VARIETY ON THE REPRODUCTIVE BEHAVIOR OF DIATRAEA FLAVIPENNELLA (LEPIDOPTERA : CRAMBIDAE) AND ON THE ATTRACTION OF THE PARASITOID COTESIA FLAVIPES (HYMENOPTERA : BRACONIDAE). *Floroda Entomologist*, *94*(3), 420–427.

Michihata, T., Yano, T., & Enomoto, T. (2002). Volatile compounds of headspace gas in the japanese fish sauce. *Bioscience, Biotechnology and Biochemistry*, *66*(10), 2251–2255. https://doi.org/10.1271/bbb.66.2251

Mir, A. S. H., Dar, S. A., Mir, G. M., & Ahmad, S. B. (2014). Biology of Bactrocera cucurbitae (Diptera : Tephritidae) on Cucumber. *Florida Etomologist*, *97*(2), 753–758.

Miresmailli, S., & Isman, M. B. (2014). Botanical insecticides inspired by plant – herbivore chemical interactions. *Trends in Plant Science*, *19*(1), 29–35. https://doi.org/10.1016/j.tplants.2013.10.002

Mirhaghparast, S. K., Zibaee, A., Hajizadeh, J., & Ramzi, S. (2020). Toxicity and physiological effects of the tea seed saponin on Helicoverpa armigera. *Biocatalysis and Agricultural Biotechnology*, *25*(February), 101597. https://doi.org/10.1016/j.bcab.2020.101597

Mohanadas, K., & Mukund, K. N. (2013). A biochemical method for the management of vegetable and mango fruit pests , Bactrocera cucurbitae and B . dorsalis (Diptera : Tephritidae). *Short Communication, Acta Biologica Indica*, *2*(1), 378–380.

Mölken, T. Van, Kuzina, V., Munk, K. R., Olsen, C. E., Sundelin, T., Dam, N. M. Van, Hauser, T. P., Molken, T. Van, Kuzina, V., Rysbjerg, K., Carl, M., & Olsen, E. (2018). *International Association for Ecology Consequences of combined herbivore feeding and pathogen infection for fitness of Barbarea vulgaris plants Published by : Springer in cooperation with International Association for Ecology Stable URL : http://www.jstor*. *May*. https://doi.org/10.1007/s00442-014-2928-4

UNIVERSITAS
GADJAH MADA
Bioaktivitas Ekstrak Daun Puding Polyscias guilfoylei (W. Bull) L.H. Bailey Terhadap Lalat Buah Melon Zeugodacus cucurbitae Coquillett
JETI RACHMAWATI, Prof. Dr. Ir. Edhi Martono, M.Sc.
Universitas Gadjah Mada, 2022 | Diunduh dari http://etd.repository.ugm.ac.id/

Muñoz, I. J., Schilman, P. E., & Barrozo, R. B. (2020). Impact of alkaloids in food consumption, metabolism and survival in a blood-sucking insect. *Scientific Reports*, *10*(1), 1–10. https://doi.org/10.1038/s41598-020-65932-y

Muryati, -, Hasyim, A., & de Kogel, W. (2007). Distribusi Spesies Lalat Buah Di Sumatera Barat Dan Riau. *Jurnal Hortikultura*, *17*(1), 61–68.

Nandika, D., Karlinasari, L., Arinana, A., Batubara, I., Sitanggang, P. S., Santoso, D., Witasari, L. D., Rachmayanti, Y., Firmansyah, D., Sudiana, I. K., & Hertanto, D. M. (2021). Chemical components of fungus comb from Indo-Malayan termite macrotermes gilvus hagen mound and its bioactivity against wood-staining fungi. *Forests*, *12*(11), 1–17. https://doi.org/10.3390/f12111591

Napal, G. N. D., & Palacios, S. M. (2015). Bioinsecticidal effect of the flavonoids pinocembrin and quercetin against Spodoptera frugiperda. *Journal of Pest Science*, *88*, 629–635. https://doi.org/10.1007/s10340-014-0641-z

Nawrath, T., Mgode, G. F., Weetjens, B., Kaufmann, S. H. E., & Schulz, S. (2012). The volatiles of pathogenic and nonpathogenic mycobacteria and related bacteria. *Beilstein Journal of Organic Chemistry*, *8*, 290–299. https://doi.org/10.3762/bjoc.8.31

Nazarudin, M. F., Paramisparam, A., Khalid, N. A., Albaz, M. N., Shahidan, M. S., Yasin, I. S. M., Isha, A., Zarin, M. A., & Aliyu-Paiko, M. (2020). Metabolic variations in seaweed, Sargassum polycystum samples subjected to different drying methods via 1H NMR-based metabolomics and their bioactivity in diverse solvent extracts. *Arabian Journal of Chemistry*, *13*(11), 7652–7664. https://doi.org/10.1016/j.arabjc.2020.09.002

Nenaah, G. (2011). Toxicity and growth inhibitory activities of methanol extract and the β-carboline alkaloids of Peganum harmala L. against two coleopteran stored-grain pests. *Journal of Stored Products Research*, *47*(3), 255–261. https://doi.org/10.1016/j.jspr.2011.04.004

Newmark, L. (1997). and Cancer Risk : Hypothesis group. *Carcinogenesis*, *6*(December), 1101–1103. https://aacrjournals.org/cebp/article/6/12/1101/154330/Squalene-olive-oil-and-cancer-risk-a-review-and

Nguyen, N. H., Nguyen, T. T., Ma, P. C., Ta, Q. T. H., Duong, T. H., & Vo, V. G. (2020). Potential antimicrobial and anticancer activities of an ethanol extract from bouea macrophylla. *Molecules*, *25*(8), 1–15. https://doi.org/10.3390/molecules25081996

Njateng, G. S. S., Du, Z., Gatsing, D., Donfack, A. R. N., Talla, M. F., Wabo, H. K., Tane, P., Mouokeu, R. S., Luo, X., & Kuiate, J.-R. (2015). Antifungal properties of a new terpernoid saponin and other compounds from the stem bark of Polyscias fulva Hiern (Araliaceae). *BMC Complementary and Alternative Medicine*, *15*(25), 1–12. https://doi.org/10.1186/s12906-015-0541-7

Njateng, G. S. S., Du, Z., Gatsing, D., Mouokeu, R. S., Liu, Y., Zang, H.-X., Gu, J., Luo, X., & Kuiate, J.-R. (2017). Antibacterial and antioxidant properties of crude extract , fractions and compounds from the stem bark of Polyscias fulva Hiern (Araliaceae). *BMC Complementary and Alternative Medicine*, *17*(99), 1–8. https://doi.org/10.1186/s12906-017-1572-z

Nomura, M., & Itioka, T. (2002). Effects of synthesized tannin on the growth and

UNIVERSITAS
GADJAH MADA
Bioaktivitas Ekstrak Daun Puding Polyscias guilfoylei (W. Bull) L.H. Bailey Terhadap Lalat Buah Melon Zeugodacus cucurbitae Coquillett
JETI RACHMAWATI, Prof. Dr. Ir. Edhi Martono, M.Sc.
Universitas Gadjah Mada, 2022 | Diunduh dari http://etd.repository.ugm.ac.id/

survival of a generalist herbivorous insect , the common cutworm , Spodoptera litura Fabricius (Lepidoptera : Noctuidae). *Applied Entomology and Zoology*, *37*(2), 285–289. https://doi.org/10.1303/aez.2002.285

Nuringtyas, T. R., Verpoorte, R., Klinkhamer, P. G. L., van Oers, M. M., & Leiss, K. A. (2014). Toxicity of Pyrrolizidine Alkaloids to Spodoptera exigua Using Insect Cell Lines and Injection Bioassays. *Journal of Chemical Ecology*, *40*(6), 609–616. https://doi.org/10.1007/s10886-014-0459-4

Oka, I. N. 2005. *Pengendalian Hama Terpadu dan Implementasinya di Indonesia*. Gadjah Mada University Press. Yogyakarta.

Osuntokun, O. T., Yusuf-Babatunde, M. A., & Fasila, O. O. (2020). Components and Bioactivity of Ipomoea batatas (L.) (Sweet Potato) Ethanolic Leaf Extract. *Asian Journal of Advanced Research and Reports*, 10–26. https://doi.org/10.9734/ajarr/2020/v10i130232

Owen, R. W., Mier, W., Giacosa, A., Hull, W. E., Spiegelhalder, B., & Bartsch, H. (2000). Phenolic compounds and squalene in olive oils: The concentration and antioxidant potential of total phenols, simple phenols, secoiridoids, lignansand squalene. *Food and Chemical Toxicology*, *38*(8), 647–659. https://doi.org/10.1016/S0278-6915(00)00061-2

Padmashree, Ashwathanarayana, Naika, R., & B., R. (2018). Antioxidant, cytotoxic and nutritive properties of Ipomoea staphylina Roem & Schult. plant extracts with preliminary phytochemical and GCMS analysis. *Asian Journal of Pharmacy and Pharmacology*, *4*(4), 473–492. https://doi.org/10.31024/ajpp.2018.4.4.16

Pajaro-Castro, N., Caballero-Gallardo, K., & Olivero-Verbel, J. (2017). Toxicity of naphthalene and benzene on Tribollium castaneum herbst. *International Journal of Environmental Research and Public Health*, *14*(6), 1–10. https://doi.org/10.3390/ijerph14060667

Pan, C., Chen, Y. G., Ma, X. Y., Jiang, J. H., He, F., & Zhang, Y. (2011). Phytochemical constituents and pharmacological activities of plants from the genus Adiantum: A review. *Tropical Journal of Pharmaceutical Research*, *10*(5), 681–692. https://doi.org/10.4314/tjpr.v10i5.18

Pan, L., Wang, R., Zhang, Y. R., Feng, Y. Q., & Luo, Y. Q. (2015). Antifeedant activity of gutta-percha against larvae of the Hyphantria cunea and Anoplophora glabripennis. *Journal of Plant Interactions*, *10*(1), 315–319. https://doi.org/10.1080/17429145.2015.1107919

Pandey, A. K., Singh, P., & Tripathi, N. N. (2014). Chemistry and bioactivities of essential oils of some Ocimum species: An overview. *Asian Pacific Journal of Tropical Biomedicine*, *4*(9), 682–694. https://doi.org/10.12980/APJTB.4.2014C77

Papantoniou, D., Vergara, F., Weinhold, A., Quijano, T., Khakimov, B., Pattison, D. I., Bak, S., van Dam, N. M., & Martínez-Medina, A. (2021). Cascading effects of root microbial symbiosis on the development and metabolome of the insect herbivore manduca sexta L. *Metabolites*, *11*(11), 1–23. https://doi.org/10.3390/metabo11110731

Perich, M. J., Wells, C., Bertsch, W., & Tredways, K. E. (1995). ISOLATION OF THE INSECTICIDAL COMPONENTS OF TAGETES MINUTA (COMPOSITAE

UNIVERSITAS
GADJAH MADA
Bioaktivitas Ekstrak Daun Puding Polyscias guilfoylei (W. Bull) L.H. Bailey Terhadap Lalat Buah Melon Zeugodacus cucurbitae Coquillett
JETI RACHMAWATI, Prof. Dr. Ir. Edhi Martono, M.Sc.
Universitas Gadjah Mada, 2022 | Diunduh dari http://etd.repository.ugm.ac.id/

) AGAINST MOSQUITO LARVAE AND ADULTS '. *Journal of the American Mosquito Control Association*, *11*(3), 307–310. https://core.ac.uk/download/pdf/21597568.pdf

Prabhu, K., Rao, M. R. K., Balakrishna, P., Bharath, A. K., Vishal, S. K., Ravi, A., Kalaivannan, J., & Dinakar, S. (2020). The gas chromatography-mass spectrometry study of one Ayurvedic Rasayana, Sonitha Amritha Rasayanam. *Drug Invention Today*, *14*(5), 707–711.

Prasannakumari, J. J., Padmam, P., & Arokia Doss, V. (2017). Therapeutic effect of hydro-ethanolic extract of pothos scandens L on key carbohydrate metabolizing enzymes and xenobiotic marker enzymes in DMBA induced experimental mammary carcinoma. *Indian Journal of Pharmaceutical Education and Research*, *51*(3), 418–426. https://doi.org/10.5530/ijper.51.3.70

Preece, K., Glávits, R., Foster, J. R., Murbach, T., Endres, J. R., Hirka, G., Vértesi, A., Béres, E., & Szakonyiné, I. P. (2021). A toxicological evaluation of geranylgeraniol. *Regulatory Toxicology and Pharmacology*, *124*(May), 1–15. https://doi.org/10.1016/j.yrtph.2021.104975

Prejeena, V., Suresh, S. N., & Varsha, V. (2016). PRELIMINARY PHYTOCHEMICAL SCREENING, ANTIMICROBIAL AND GAS CHROMATOGRAPHY- MASS SPECTROMETRY (GC-MS) ANALYSIS OF COSTUS PICTUS D DON. *International Journal of Recent Advances in Multidisciplinary Research*, *03*(12), 2092–2099.

Priyanka, R., & Nakkeeran, S. (2019). Ochrobactrum ciceri mediated induction of defence genes and antifungal metabolites enhance the biocontrol efficacy for the management of Botrytis leaf blight of Lilium under protected conditions. *Journal of Plant Pathology*, *101*(2), 323–337. https://doi.org/10.1007/s42161-018-00212-3

Purup, S., Larsen, E., & Christensen, L. P. (2009). Differential effects of falcarinol and related aliphatic c-17-polyacetylenes on intestinal cell proliferation. *Journal of Agricultural and Food Chemistry*, *57*(18), 8290–8296. https://doi.org/10.1021/jf901503a

Putra, N.S, & Suputa. (2013). *Lalat buah hama. Bioekologi & strategi tepat mengelola populasinya*. Penerbit SMARTANIA Publishing. Yogyakarta. 101 p.

Qasim, M., Islam, W., Ashraf, H. J., Ali, I., & Wang, L. (2020). Saponins in Insect Pest Control. In K. G. R. J.-M. Mérillon (Ed.), *Co-Evolution ofSecondary Metabolites, Reference Series in Phytochemistry* (pp. 897–924). Springer Nature Switzerland AG 2020. https://doi.org/10.1007/978-3-319-76887-8_39-1

Qiu, B., Wang, W., & Yang, X. (2019). Computational Prediction of Ammonia-Borane Dehydrocoupling and Transfer Hydrogenation of Ketones and Imines Catalyzed by SCS Nickel Pincer Complexes. *Frontiers in Chemistry*, *7*, 1–28. https://doi.org/10.3389/fchem.2019.00627

Rachmawaty, Mu'Nisa, A., Hasri, Pagarra, H., Hartati, & Maulana, Z. (2018). Active Compounds Extraction of Cocoa Pod Husk (Thebroma Cacao l.) and Potential as Fungicides. *Journal of Physics: Conference Series*, *1028*(1). https://doi.org/10.1088/1742-6596/1028/1/012013

Ramli, N. H., Yusup, S., Quitain, A. T., Johari, K., & Kueh, B. W. Bin. (2019). Optimization of saponin extracts using microwave-assisted extraction as a

UNIVERSITAS
GADJAH MADA
Bioaktivitas Ekstrak Daun Puding Polyscias guilfoylei (W. Bull) L.H. Bailey Terhadap Lalat Buah Melon Zeugodacus cucurbitae Coquillett
JETI RACHMAWATI, Prof. Dr. Ir. Edhi Martono, M.Sc.
Universitas Gadjah Mada, 2022 | Diunduh dari http://etd.repository.ugm.ac.id/

sustainable biopesticide to reduce Pomacea canaliculata population in paddy cultivation. *Sustainable Chemistry and Pharmacy*, *11*(August 2018), 23–35. https://doi.org/10.1016/j.scp.2018.12.002

Rao, C. V., Newmark, H. L., & Reddy, B. S. (1998). Chemopreventive effect of squalene on colon cancer. *Carcinogenesis*, *19*(2), 287–290. https://doi.org/10.1093/carcin/19.2.287

Rashwan, R. S., & Hammad, D. M. (2020). Toxic effect of Spirulina platensis and Sargassum vulgar as natural pesticides on survival and biological characteristics of cotton leaf worm Spodoptera littoralis. *Scientific African*, *8*, e00323. https://doi.org/10.1016/j.sciaf.2020.e00323

Rawani, A., Ray, A. S., Ghosh, A., Sakar, M., & Chandra, G. (2017). Larvicidal activity of phytosteroid compounds from leaf extract of Solanum nigrum against Culex vishnui group and Anopheles subpictus. *BMC Research Notes*, *10*(1), 1–8. https://doi.org/10.1186/s13104-017-2460-9

Reddy, L. H., & Couvreur, P. (2009). Squalene: A natural triterpene for use in disease management and therapy. *Advanced Drug Delivery Reviews*, *61*(15), 1412–1426. https://doi.org/10.1016/j.addr.2009.09.005

Rharrabe, K., Jbilou, R., Bouayad, N., Ajaha, A., & Aarab, A. (2020). Journal of Asia-Paci fi c Entomology Harmaline ingestion e ff ect on development , metabolites and midgut of the red fl our beetle , Tribolium castaneum. *Journal of Asia-Pacific Entomology*, *23*, 29–35. https://doi.org/10.1016/j.aspen.2019.10.013

Riffell, J. A., Abrell, L., & Hildebrand, J. G. (2008). Physical processes and real-time chemical measurement of the insect olfactory environment. *Journal of Chemical Ecology*, *34*(7), 837–853. https://doi.org/10.1007/s10886-008-9490-7

Robinson, T. 1995. Kandungan organik tumbuhan tinggi. Edisi ke enam. Penerbit ITB. Bandung. 367 p.

Rousse, P., Duyck, P. F., Quilici, S., & Ryckewaert, P. (2005). Adjustment of field cage methodology for testing food attractants for fruit flies (Diptera: Tephritidae). *Annals of the Entomological Society of America*, *98*(3), 402–408. https://doi.org/10.1603/0013-8746(2005)098[0402:AOFCMF]2.0.CO;2

Roussis, V., Tsoukatou, M., Chinou, I. B., & Harvala, C. (2002). Composition and antibacterial activity of the essential oils of two helichrysum stoechas varieties growing in the island of crete. *Journal of Essential Oil Research*, *14*(6), 459–461. https://doi.org/10.1080/10412905.2002.9699920

Saemram, N., Suwannakud, K., Boonthai, P., Noikotr, K., Chaveerach, A., Tanee, T., Sudmoon, R., & Siripiyasing, A. P. (2021). Efficiency evaluation and usages of Thunbergia alata, Thunbergia erecta and their combination. *Indian Journal of Pharmaceutical Sciences*, *83*(3), 494–503. https://doi.org/10.36468/pharmaceutical-sciences.798

Safna, M. I., Visakh, U. V., & Gangadharan, A. (2019). Biological activity of hexane extract of Hemigraphis colorata, an indigenous wound healing plant. *Materials Today: Proceedings*, *25*(xxxx), 294–297. https://doi.org/10.1016/j.matpr.2020.01.461

Saha, S., Walia, S., Kumar, J., Dhingra, S., & Parmar, B. S. (2010). Screening for

UNIVERSITAS
GADJAH MADA
Bioaktivitas Ekstrak Daun Puding Polyscias guilfoylei (W. Bull) L.H. Bailey Terhadap Lalat Buah Melon Zeugodacus cucurbitae Coquillett
JETI RACHMAWATI, Prof. Dr. Ir. Edhi Martono, M.Sc.
Universitas Gadjah Mada, 2022 | Diunduh dari http://etd.repository.ugm.ac.id/

Feeding Deterrent and Insect Growth Regulatory Activity of Triterpenic Saponins from Diploknema butyracea and Sapindus mukorossi. *Journal of Agricultural and Food Chemistry*, *58*(1), 434–440. https://doi.org/10.1021/jf902439m

Saifudin, A. 2014. Senyawa Alam Metabolit Sekunder. Teori, Konsep dan Pemurnian. Penerbit Deepublish. Yogyakarta. 117 p.

Saikarthik, J., Ilango, S., Vijayakumar, J., & Vijayaraghavan, R. (2017). Phytochemical analysis of methanolic extract of seeds of Mucuna pruriens by gas chromatography mass spectrometry. *International Journal of Pharmaceutical Sciences and Research*, *8*(7), 2916–2921. https://doi.org/10.13040/IJPSR.0975-8232.8(7).2916-21

Salem, M. A., Farid, M. M., El-Shabrawy, M., Mohammed, R., Hussein, S. R., & Marzouk, M. M. (2020). Spectrometric analysis, chemical constituents and cytotoxic evaluation of Astragalus sieberi DC. (Fabaceae). *Scientific African*, *7*. https://doi.org/10.1016/j.sciaf.2019.e00221

Sánchez-Fernández, R. E., Diaz, D., Duarte, G., Lappe-Oliveras, P., Sánchez, S., & Macías-Rubalcava, M. L. (2016). Antifungal Volatile Organic Compounds from the Endophyte Nodulisporium sp. Strain GS4d2II1a: a Qualitative Change in the Intraspecific and Interspecific Interactions with Pythium aphanidermatum. *Microbial Ecology*, *71*(2), 347–364. https://doi.org/10.1007/s00248-015-0679-3

Sanderson, H., Tibazarwa, C., Greggs, W., Versteeg, D. J., Kasai, Y., Stanton, K., & Sedlak, R. I. (2009). High Production volume chemical amine oxides [C8-C20] category environmental risk assessment. *Risk Analysis*, *29*(6), 857–867. https://doi.org/10.1111/j.1539-6924.2009.01208.x

Santana, O., Reina, M., Fraga, B. M., Sanz, J., & González-Coloma, A. (2012). Antifeedant activity of fatty acid esters and phytosterols from echium wildpretii. *Chemistry and Biodiversity*, *9*(3), 567–576. https://doi.org/10.1002/cbdv.201100083

Sapkota, R., Dahal, K. C., & Thapa, R. B. (2010). Damage assessment and management of cucurbit fruit flies in spring-summer squash. *Journal of Entomology and Nematology*, *2*(1), 7–12. http://www.academicjournals.org/JEN

Sarianto, M., Rado, Kusuma, G. F., Asriza, R. O., Fabiani, V. A., & Kafillah, M. (2019). Characterization of methyl ester compound of Carica papaya seed oil through Transesterification using CaO Catalyst from Strombus canarium shells. *IOP Conference Series: Earth and Environmental Science*, *353*(1). https://doi.org/10.1088/1755-1315/353/1/012008

Sarma, R., Adhikari, K., Mahanta, S., & Khanikor, B. (2019). Combinations of Plant Essential Oil Based Terpene Compounds as Larvicidal and Adulticidal Agent against Aedes aegypti (Diptera: Culicidae). *Scientific Reports*, *9*(1), 1–12. https://doi.org/10.1038/s41598-019-45908-3

Sarwar, M., Hamed, M., Rasool, B., Yousaf, M., & Hussain, M. (2013). Full Length Research Paper Host Preference and Performance of Fruit Flies Bactrocera zonata (Saunders) and Bactrocera cucurbitae (Coquillett) (Diptera : Tephritidae) For Various Fruits and Vegetables. *International Journal of Scientific Research in Environmental Sciences*, *1*(8), 188–194. https://doi.org/10.12983/ijsres-2013-p188-194

UNIVERSITAS
GADJAH MADA
Bioaktivitas Ekstrak Daun Puding Polyscias guilfoylei (W. Bull) L.H. Bailey Terhadap Lalat Buah Melon Zeugodacus cucurbitae Coquillett
JETI RACHMAWATI, Prof. Dr. Ir. Edhi Martono, M.Sc.
Universitas Gadjah Mada, 2022 | Diunduh dari http://etd.repository.ugm.ac.id/

Sayed, S. M., Alotaibi, S. S., Gaber, N., & Elarrnaouty, S.-A. (2020). Evaluation of Five Medicinal Plant Extracts on Aphis. *Insect*, *11*, 1–10. https://www.mdpi.com/2075-4450/11/6/398

Shrivastava, G., Ownley, B. H., Augé, R. M., Toler, H., Dee, M., Vu, A., Köllner, T. G., & Chen, F. (2015). Colonization by arbuscular mycorrhizal and endophytic fungi enhanced terpene production in tomato plants and their defense against a herbivorous insect. *Symbiosis*, *65*(2), 65–74. https://doi.org/10.1007/s13199-015-0319-1

Shymanovich, T., Saari, S., Lovin, M. E., Jarmusch, A. K., Jarmusch, S. A., Musso, A. M., Charlton, N. D., Young, C. A., Cech, N. B., & Faeth, S. H. (2015). Alkaloid Variation Among Epichloid Endophytes of Sleepygrass (Achnatherum robustum) and Consequences for Resistance to Insect Herbivores. *Journal of Chemical Ecology*, *41*(1), 93–104. https://doi.org/10.1007/s10886-014-0534-x

Siderhurst, M. S., & Jang, E. B. (2006). *Attraction of Female Oriental Fruit Fly , Bactrocera dorsalis , to Terminalia catappa Fruit Extracts in Wind Tunnel and Olfactometer Tests*. *55*, 45–55.

Silva, A. A., Hall, D. G., Gottwald, T. R., Andrade, M. S., Maldonado, W., Alessandro, R. T., Lapointe, S. L., Andrade, E. C., & Machado, M. A. (2016). *Repellency of selected Psidium guajava cultivars to the Asian citrus psyllid , Diaphorina citri*. *84*, 14–20. https://doi.org/10.1016/j.cropro.2016.02.006

Silva, T. R. F. B., Almeida, A. C. de S., Moura, T. de L., da Silva, A. R., Freitas, S. de S., & Jesus, F. G. (2016). Effect of the flavonoid rutin on the biology of Spodoptera frugiperda (Lepidoptera : Noctuidae). *Acta Scientiarum, Agronomy Moringa*, *38*(2), 165–170. https://doi.org/10.4025/actasciagron.v38i2.27956

Singh, B., Singh, J. P., Kaur, A., & Singh, N. (2018). Phenolic compounds as beneficial phytochemicals in pomegranate (Punica granatum L.) peel: A review. *Food Chemistry*, *261*(December 2017), 75–86. https://doi.org/10.1016/j.foodchem.2018.04.039

Singh, R., Koul, O., Rup, P. J., & Jindal, J. (2010). Evaluation of Dietary Toxicity of Some Essential Oil Allelochemicals for The Management of Chilo partellus (Swinhoe). *Journal of Plant Protection Research*, *50*(3), 293–301. https://doi.org/10.2478/v10045-010-0051-z

Sitompul, A. F., Oemry, S., & Pangestiningsih, Y. (2014). UJI EFEKTIFITAS INSEKTISIDA NABATI TERHADAP MORTALITAS Leptocorisa acuta Thunberg. (Hemiptera : Alydidae) PADA TANAMAN PADI (Oryza sativa L.) DI RUMAH KACA. *Jurnal Online Agroekoteknologi*, *2*(3), 1075–1080. https://media.neliti.com/media/publications/99756-ID-uji-efektifitas-insektisida-nabati-terha.pdf

Siwi, S.S, Hidayat, P., & Suputa. (2006). Taksonomi dan Bioekologi Lalat buah penting Bactrocera spp. (Diptera: Tephritidae) di Indonesia. In M. Soehardjan (Ed.), *BB-Biogen dan AusAid Australia*. Kerjasama BB-Biogen dan AusAid Australia.

Siwi, Sri Suharsimi, Hidayat, P., & Suputa. (2006). *Taksonomi dan Bioekologi Lalat buah penting di Indonesia. Diptera: Tephritidae*. BB-Biogen dan AusAid Australia.

UNIVERSITAS
GADJAH MADA
Bioaktivitas Ekstrak Daun Puding Polyscias guilfoylei (W. Bull) L.H. Bailey Terhadap Lalat Buah Melon Zeugodacus cucurbitae Coquillett
JETI RACHMAWATI, Prof. Dr. Ir. Edhi Martono, M.Sc.
Universitas Gadjah Mada, 2022 | Diunduh dari http://etd.repository.ugm.ac.id/

Smith-Pardo, A. (2013). The melon fruit fly , Bactrocera cucurbitae (Coquillett) (Diptera , Tephritidae), a serious threat to fruit pro .... *Boletin Del Museo Entomológico*, *5*(4), 16–25.

Sodiq, M., Sudarmadji, & Sutoyo. (2015). Efektifitas Atraktan terhadap Lalat Buah Belimbing di Jawa Timur. *AGROTROP*, *5*(1), 71–79. https://scholar.google.co.id/scholar?hl=id&as_sdt=0%2C5&q=Sodiq%2C+Sudarmadji%2C+efektivitas+atraktan&btnG=

Sohrab, Prasad, C., & Hasan, W. (2018). Study on the biology and life cycle of cucurbit fruit fly. *Journal of Pharmacognosy and Phytochemistry*, *1*, 223–226. https://www.researchgate.net/publication/323869706

Sreedhra, K., Krishna, A., & Harish, S. (2012). EFFECT OF INSECT ATTRACTANTS, MICRONUTRIENTS AND GROWTH REGULATORS ON CROP GROWTH, FLOWERING BEHAVIOUR AND SEED YIELD IN ALFALFA (MEDICAGO SATIVA L.). *Forage Res.*, *38*(3), 144–150. http://forageresearch.in/wp-content/uploads/2014/01/383-144-150.pdf

Stefanson, A. L., & Bakovic, M. (2018). Falcarinol is a potent inducer of heme oxygenase-1 and was more effective than sulforaphane in attenuating intestinal inflammation at diet-achievable doses. *Oxidative Medicine and Cellular Longevity*, *2018*, 1–15. https://doi.org/10.1155/2018/3153527

Steiner, L. F. (1952). Methyl Eugenol as an Attractant for Oriental Fruit Fly. *Journal of Economic Entomology*, *45*(2), 241–248. https://doi.org/10.1093/jee/45.2.241

Stohs, S. J., Ohia, S., & Bagchi, D. (2002). Naphthalene toxicity and antioxidant nutrients. *Toxicology*, *180*(1), 97–105. https://doi.org/10.1016/S0300-483X(02)00384-0

Su, Q., Zhou, Z., Zhang, J., Shi, C., Zhang, G., Jin, Z., & Wang, W. (2017). Effect of plant secondary metabolites on common cutworm , Spodoptera litura (Lepidoptera : Noctuidae). *Entomological Research*, 1–9. https://doi.org/10.1111/1748-5967

Sundu, R., Mingvanish, W., Arung, E. T., Kuspradini, H., & Khownium, K. (2015). ANTIOXIDANT AND ANTIMICROBIAL ACTIVITIES OF CRUDE METHANOLIC EXTRACT OF Polyscias guilfoylei LEAVES. *PACCON 2015 Proceedings " Innovative Chemistry for Sustainability of the AEC and Beyond," 2015*, 161–165.

Susanti, A. D., Ardiana, D. ., P. Gumilar, G., & G. Bening, Y. (2012). POLARITAS PELARUT SEBAGAI PERTIMBANGAN DALAM PEMILIHAN PELARUT UNTUK EKSTRAKSI MINYAK BEKATUL DARI BEKATULVARIETAS KETAN (ORIZA SATIVA GLATINOSA). *Simposium Nasional RAPI XI FT UMS*, 8–14. https://publikasiilmiah.ums.ac.id/xmlui/bitstream/handle/11617/3847/Paper_TK.02.pdf?sequence=1&isAllowed=y

Susanto, A., Supriyadi, Y., Tohidin, T., Susniahti, N., & Hafizh, V. (2017). Fluktuasi Populasi Lalat Buah Bactrocera spp. (Diptera : Tephritidae) pada Pertanaman Cabai Merah (Capsicum Annuum) di Kabupaten Bandung, Jawa Barat. *Agrikultura*, *28*(3), 141–150. https://doi.org/10.24198/agrikultura.v28i3.15747

Taha-Salaime, L., Lebedev, G., Abo-Nassar, J., Marzouk, S., Inbar, M., Ghanim, M., & Aly, R. (2020). Activity of Ajuga iva extracts against the African cotton leafworm Spodoptera littoralis. *Insects*, *11*(11), 1–13.

UNIVERSITAS
GADJAH MADA
Bioaktivitas Ekstrak Daun Puding Polyscias guilfoylei (W. Bull) L.H. Bailey Terhadap Lalat Buah Melon Zeugodacus cucurbitae Coquillett
JETI RACHMAWATI, Prof. Dr. Ir. Edhi Martono, M.Sc.
Universitas Gadjah Mada, 2022 | Diunduh dari http://etd.repository.ugm.ac.id/

https://doi.org/10.3390/insects11110726

Tammar, S., Salem, N., Wannes, W. A., Limam, H., Bourgou, S., Fares, N., Dakhlaoui, S., Hammami, M., Khammassi, S., Re, G. Del, Hessini, K., & Msaada, K. (2021). Chemometric profiling and bioactivity of verbena (Aloysia citrodora) methanolic extract from four localities in Tunisia. *Foods*, *10*(12), 1–16. https://doi.org/10.3390/foods10122912

Tan, K., & Serit, M. (1994). Adult Population Dynamics of Bactrocera dorsalis (Diptera : Tephritidae) in Relation to Host Phenology and Weather in Two Villages of Penang Island , Malaysia. *Community and Ecosystem Ecology*, *23*(2), 267–275. https://doi.org/10.1093/ee/23.2.267

Tan, P. Van. (2018). The Determination of Total Alkaloid, Polyphenol, Flavonoid and Saponin Contents of Pogang gan (Curcuma sp.). *International Journal of Biology*, *10*(4), 42. https://doi.org/10.5539/ijb.v10n4p42

Teves, G. I. (2014). Taking a Wind Break. *Molokai Native Hawaiian Beginning Farmer Program-July 2014 Newsletter. University of Hawaii at Manoa*, *July*, 1–13.

Tian, X., Li, Y., Hao, N., Su, X., Du, J., Hu, J., & Tian, X. (2021). The antifeedant, insecticidal and insect growth inhibitory activities of triterpenoid saponins from Clematis aethusifolia Turcz against Plutella xylostella (L.). *Pest Management Science*, *77*(1), 455–463. https://doi.org/10.1002/ps.6038

Tuyet, N. T. A., Thu, N. T. A., Hang, N. T. T., Suong, N. N., & Phung, N. K. P. (2009). Oleanane Saponins from Polyscias guilfoylei Bail. (Araliaceae). *Science & Technology Development*, *12*(10), 21–28. https://doi.org/10.32508/stdj.v12i10.2295

Tuyet, N. thi A., & Phung, N. K. P. (2007). CHEMICAL EXAMINATION OF POLYSCIAS SERRATA BALF. FAMILY ARALIACEAE. *Journal of Chemistry*, *45*(1), 102–105.

Udayan, D., Nair, S. N., Juliet, S., Ravindran, R., Athalathil, S., Adarshkrishna, T. P., Ajithkumar, K. G., Sreelekha, K. P., Chandrashekar, L., & Ghosh, S. (2020). Acaricidal Activity of Artemisia nilagirica Leaves against Rhipicephalus (Boophilus) annulatus Ticks. *Planta Medica*, *86*(18), 1335–1344. https://doi.org/10.1055/a-1161-0220

Ullah, M., Inayatullah, M., Ahmed, N., Sohail, K., Ahmed, S., & Kamran, M. (2015). Evaluation of vegetable extracts as natural lures for female Bactrocera cucurbitae (Diptera : Tephritidae). *Journal of Entomology and Zoology Studies*, *3*(4), 458–461. https://www.researchgate.net/profile/Nazeer-Ahmed-10/publication/282291836_Evaluation_of_vegetable_extracts_as_natural_lures_for_female_Bactrocera_cucurbitae_Diptera_Tephritidae/links/560aab3608ae1396914cc814/Evaluation-of-vegetable-extracts-as-natural-lu

Untung, K. 2007. *Kebijakan Perlindungan Tanaman*. Universitas Gajah Mada Press. Yogyakarta.

Varnika, Sharma, R., Singh, A., Shalini, & Sharma, N. (2020). Micropropagation and screening of phytocompounds present among in vitro raised and wild plants of rauvolfia serpentine. *Walailak Journal of Science and Technology*, *17*(11), 1177–1193. https://doi.org/10.48048/wjst.2020.6492

UNIVERSITAS
GADJAH MADA
Bioaktivitas Ekstrak Daun Puding Polyscias guilfoylei (W. Bull) L.H. Bailey Terhadap Lalat Buah Melon Zeugodacus cucurbitae Coquillett
JETI RACHMAWATI, Prof. Dr. Ir. Edhi Martono, M.Sc.
Universitas Gadjah Mada, 2022 | Diunduh dari http://etd.repository.ugm.ac.id/

Varsha, V., Suresh, S. N., & Prejeena, V. (2016). Pytochemical Screening, GS-MS Analysis and Antibacterial. *International Journal of Recent Advances in Multidisciplinary Research*, *03*(12), 2079–2085. https://www.ijramr.com/sites/default/files/issues-pdf/1083.pdf

Wang, J., Liu, X., Jin, T., He, H., & Liu, L. (2019). Preparation of nanocellulose and its potential in reinforced composites: A review. *Journal of Biomaterials Science, Polymer Edition*, *30*(11), 919–946. https://doi.org/10.1080/09205063.2019.1612726

Wang, S., Qi, Y., Desneux, N., Shi, X., Biondi, A., & Gao, X. (2016). Sublethal and transgenerational effects of short-term and chronic exposures to the neonicotinoid nitenpyram on the cotton aphid Aphis gossypii. *Journal of Pest Science*, 1–8. https://doi.org/10.1007/s10340-016-0770-7

Weems, Jr., H. V., Heppner, J. B., & Fasulo, T. R. (2012). Melon Fly, Bactrocera cucurbitae Coquillett (Insecta: Diptera: Tephritidae). *IFAS Extension, Universitas of Florida, EENY-199*, 1–5. https://doi.org/10.32473/edis-in356-2004

Widiyaningrum, P., Indriyanti, D. R., Priyono, B., Asiyah, N., & Putri, P. L. F. (2020). Antifeedant effect of some medicinal plant extracts against rice weevil. *Pakistan Journal of Biological Sciences*, *23*(7), 953–958. https://doi.org/10.3923/pjbs.2020.953.958

Yadav, R., & Agarwala, M. (2011). Phytochemical Analysis of Some Medicinal Plants. *Journal of Phytology*, *3*(12), 10–14. https://doi.org/10.38106/lmrj.2021.36

Yadav, S. K., & Patel, S. (2017). Insecticidal and repellent activity of some plant extracts against Myzus persicae (Sulzer) and Brevicoryne brassicae (Linnaeus). *Journal of Entomology and Zoology Studies*, *5*(2), 1434–1439. https://www.researchgate.net/profile/Sunil-Yadav-14/publication/320311294_Insecticidal_and_repellent_activity_of_some_plant_extracts_against_Myzus_persicae_Sulzer_and_Brevicoryne_brassicae_Linnaeus/links/59dd5f54a6fdcc276fa2f119/Insecticidal-and-repellent

Yang, H., Piao, X., Zhang, L., Song, S., & Xu, Y. (2018). Ginsenosides from the stems and leaves of Panax ginseng show antifeedant activity against Plutella xylostella (Linnaeus). *Industrial Crops and Products*, *124*, 412–417. https://doi.org/10.1016/j.indcrop.2018.07.054

Yatsynin, V. G., Rubanova, E. V., & Okhrimenko, N. V. (1996). Identification of female-produced sex pheromones and their geographical differences in pheromone gland extract composition from click beetles (Col., Elateridae). *Journal of Applied Entomology*, *120*(8), 463–466. https://doi.org/10.1111/j.1439-0418.1996.tb01636.x

Ye, H., & Liu, J. (2007). Population dynamics of oriental fruit fly Bactrocera dorsalis (Diptera: Tephritidae) in Xishuangbanna, Yunnan Province, China. *Frontiers of Agriculture in China*, *1*(1), 76–80. https://doi.org/10.1007/s11703-007-0014-y

Young, J. F., Duthie, S. J., Milne, L., Christensen, L. P., Duthie, G. G., & Bestwick, C. S. (2007). Biphasic effect of falcarinol on CaCo-2 cell proliferation, DNA damage, and apoptosis. *Journal of Agricultural and Food Chemistry*, *55*(3), 618–623. https://doi.org/10.1021/jf0616154

UNIVERSITAS
GADJAH MADA
Bioaktivitas Ekstrak Daun Puding Polyscias guilfoylei (W. Bull) L.H. Bailey Terhadap Lalat Buah Melon Zeugodacus cucurbitae Coquillett
JETI RACHMAWATI, Prof. Dr. Ir. Edhi Martono, M.Sc.
Universitas Gadjah Mada, 2022 | Diunduh dari http://etd.repository.ugm.ac.id/

Youssef, F. S., Hamoud, R., Ashour, M. L., Singab, A. N., & Wink, M. (2014). Volatile oils from the aerial parts of Eremophila maculata and their antimicrobial activity. *Chemistry and Biodiversity*, *11*(5), 831–841. https://doi.org/10.1002/cbdv.201300366

Youssef, N. H., Qari, S. H., Behiry, S. I., Dessoky, E. S., El-Hallous, E. I., Elshaer, M. M., Kordy, A., Maresca, V., Abdelkhalek, A., & Heflish, A. A. (2021). Antimycotoxigenic activity of beetroot extracts against altenaria alternata mycotoxins on potato crop. *Applied Sciences (Switzerland)*, *11*(9), 1–17. https://doi.org/10.3390/app11094239

Yu, H., & Fugetsu, B. (2010). A novel adsorbent obtained by inserting carbon nanotubes into cavities of diatomite and applications for organic dye elimination from contaminated water. *Journal of Hazardous Materials*, *177*(1–3), 138–145. https://doi.org/10.1016/j.jhazmat.2009.12.007

Zaka, S. M., Iqbal, N., Saeed, Q., Akrem, A., Batool, M., Khan, A. A., Anwar, A., Bibi, M., Azeem, S., Rizvi, D. e. N., Bibi, R., Khan, K. A., Ghramh, H. A., Ansari, M. J., & Latif, S. (2019). Toxic effects of some insecticides, herbicides, and plant essential oils against Tribolium confusum Jacquelin du val (Insecta: Coleoptera: Tenebrionidae). *Saudi Journal of Biological Sciences*, *26*(7), 1767–1771. https://doi.org/10.1016/j.sjbs.2018.05.012

Zaniol, F., Calisto, J. F. F., Cozzer, G., Ferro, D. M., Dias, J. L., Rodrigues, L. G. G., Mazzutti, S., Rezende, R. S., Simões, D. A., Ferreira, S. R. S., Dal Magro, J., & Oliveira, J. V. (2020). Comparative larvicidal effect of Pterodon spp. extracts obtained by different extraction methods. *Journal of Supercritical Fluids*, *166*, 1–7. https://doi.org/10.1016/j.supflu.2020.104993

Zayed, M. Z., & Samling, B. (2016). Phytochemical constituents of the leaves of Leucaena leucocephala from Malaysia. *International Journal of Pharmacy and Pharmaceutical Sciences*, *8*(12), 174–179. https://doi.org/10.22159/ijpps.2016v8i12.11582

Zaynab, M., Sharif, Y., Abbas, S., Afzal, M. Z., Qasim, M., Khalofah, A., Ansari, M. J., Khan, K. A., Tao, L., & Li, S. (2021). Saponin toxicity as key player in plant defense against pathogens. *Toxicon*, *193*(November 2020), 21–27. https://doi.org/10.1016/j.toxicon.2021.01.009

Zhang, A., Liu, Z., Lei, F., Fu, J., Zhang, X., Ma, W., & Zhang, L. (2017). Antifeedant and oviposition-deterring activity of total ginsenosides against Pieris rapae. *Saudi Journal of Biological Sciences*, *24*(8), 1751–1753. https://doi.org/10.1016/j.sjbs.2017.11.005

Zhang, J. W., Li, S. K., & Wu, W. J. (2009). The main chemical composition and in vitro antifungal activity of the essential oils of Ocimum basilicum Linn. var. pilosum (Willd.) Benth. *Molecules*, *14*(1), 273–278. https://doi.org/10.3390/molecules14010273

Zhang, M., K, S., Chaudhuri, & Kubo, I. (1993). *Quantification of Insect Growth a N D Its Use in Screening of Naturally Occurring*. *19*(6).

Zhang, X. C., Zhu, L., Li, X. Y., Liu, L. C., & Lai, P. X. (2021). Chemical composition, and evaluation of antibacterial, antibiofilm and synergistic effects with conventional antibiotics of essential oil from mallotus repandus. *Records of Natural Products*, *15*(4), 324–329. https://doi.org/10.25135/rnp.217.20.10.1854