DAFTAR PUSTAKA

Aibinu, I., Adenipekun, T., Adelowotan, T., Ogunsanya, T., and Odugbemi, T. (2007). Evaluation of the antimicrobial properties of different parts of Citrus aurantifolia (lime fruit) as used locally. Afr. *J. Tradit. Complement. Altern. Med.* 4, 185–190.

Akbar, N.; Saxena, B.K. (2009). Isolation of Geraniol Content from Various Essential Oils. *Asian J. Exp. Chem*. (4): 14–17.

Amin, A. (2016). Determinasi dan Analisis Finger Print Daun Miana (Coleus scutellarioides Linn.) Sebagai Bahan Baku Obat Tradisional. *Jf Fik Uinam*. 4(2), 58–64.

Andila, P. S., Hendra, I. P. A., Wardani, P. K., Tirta, I. G., Sutomo, S., and Fardenan, D. (2018). The phytochemistry of *Cymbopogon winterianus* essential oil from Lombok Island, Indonesia and its antifungal activity against phytopathogenic fungi. *Nusant. Biosci.* 10, 232–239. doi:10.13057/NUSBIOSCI/N100406.

Aprotosoaie, A. C., Luca, V. S., Trifan, A., & Miron, A. (2018). *Antigenotoxic Potential of Some Dietary Non-phenolic Phytochemicals*. In Studies in natural products chemistry (pp. 223–297). https://doi.org/10.1016/b978-0-444-64181-6.00007-3.

Arbawa, Y. K. dan Dewi, C. (2019). Soil Nutrient Content Classification for Essential Oil Plants using kNN. *In the 2nd International Conference of*

Essential Oils (ICEO 2019), 96-100. Scitepress. DOI: 10.5220/0009957400960100.

Arpiwi, N.L., Muksin, I.K., Kartini, N.L. (2020). Essential oil from Cymbopogon nardus and repellant activity against Aedes aegypti. *Biodiversitas*. 21 (8), 3873–3878. https://doi.org/10.13057/biodiv/d210857.

Avoseh, O., Oyedeji, O., Rungqu, P., Nkeh-Chungag, B., Oyedeji, A. (2015). *Cymbopogon* species; ethnopharmacology, phytochemistry and the pharmacological importance. *Molecules.* 20, 7438–7453. https://doi.org/10.3390/molecules20057438.

Beiki, A.H., Saboor, S., dan Ebrahimi, M. (2012). *A New Avenue for Classification and Prediction of Olive Cultivars Using Supervised and Unsupervised Algorithms*. PLoS One 7:e44164.

Beneti, S.C., Rosset, E., Corazza, M.L., Frizzo, C.D., Di Luccio, M., dan Oliveira, J.V. (2011). Fractionation of Citronella (Cymbopogon winterianus) Essential Oil and Concentrated Orange Oil Phase by Batch Vacuum Distillation. *J. Food Eng.* (102): 348–354.

Bramer, M. (2007). Principles of Data Mining. In *Springer eBooks*. https://doi.org/10.1007/978-1-84628-766-4.

Brereton, R. G. Introduction to Multivariate Calibration in Analytical Chemistry. *Analyst.* 2000;125(11):2125-2154. https://doi.org/10.1039/b003805i.

Capetti, F.; Marengo, A.; Cagliero, C.; Liberto, E.; Bicchi, C.; Rubiolo, P.; Sgorbini, B. (2021). Adulteration of Essential Oils: A Multitask Issue for Quality Control. Three Case Studies: Lavandula angustifolia Mill., Citrus

limon (L.) Osbeck and Melaleuca alternifolia (Maiden & Betche) Cheel. *Molecules*. 26, 5610. https://doi.org/10.3390/molecules26185610.

Capoci, I.R.G., da Cunha, M.M., Bonfim-Mendonca, P.S., GhiraldiLopes, L.D., Baeza, L.C., Kioshima, E.C., Svidzinski, T.I.E. (2015). Antifungal activity of *Cymbopogon nardus* (l.) Rendle (citronella) against *Microsporum canis* from animals and home environment. *Rev Inst Med Trop Sao Paulo.* 57 (6), 509–511. https://doi.org/10.1590/S0036-46652015000600008.

Chen, S. L. *et al*. (2006). *Cymbopogon citratus (Candolle) Stapf.* Diakses pada 11 Desember 2024 dari http://www.efloras.org/florataxon.aspx?flora_id=2&taxon_id=200025088.

Chen, S. L. *et al*. (2006). *Cymbopogon winterianus Jowitt ex Bor.* Diakses pada 09 Desember 2024 dari http://www.efloras.org/florataxon.aspx?flora_id=2&taxon_id=200025105.

Coates, J. Interpretation of Infrared Spectra. (2006). *A Prac Approach Encycl Anal Chem.*1:1-23. https://doi.org/10.1002/9780470027318.a5606

Daba, A., Tadesse, M., Habte, G., & Teressa, A. (2022). Phytochemical Composition of Essential Oils from Aromatic Plants Inherited with Bioherbicidal Activity in Arabica Coffee Production System of Ethiopia. *Journal of Agriculture and Food Research.* 10(June), 100368. https://doi.org/10.1016/j.jafr.2022.100368

Dangol, S.,Poudel, D.K., Ojha, P.K., Maharjan, S., Poudel, A., Satyal, R., Rokaya, A., Timsina, S., Dosoky, N.S., Satyal, P., *et al.* (2023). Essential Oil Composition Analysis of Cymbopogon Species from Eastern Nepal by

GC-MS and Chiral GC-MS, and Antimicrobial Activity of Some Major Compounds. *Molecules.* 28, 543. https://doi.org/10.3390/molecules28020543.

Do, T. K. T., Hadji-Minaglou, F., Antoniotti, S., & Fernandez, X. (2015). Authenticity of Essential Oils. *TrAC Trends in Analytical Chemistry*. 66, 146–157. doi:10.1016/j.trac.2014.10.007.

Feng, X., Kong, W., Wei, J., Ou-Yang, Z., dan Yang, M. (2014). HPLC Fingerprint Analysis Combined with Chemometrics for Pattern Recognition of Ginger. *Pharm Biol.* 52:362–367

Feudjio, W. M., Ghalila, H., Nsangou, M., Majdi, Y., Kongbonga, Y. M., & Jaïdane, N. (2017). Fluorescence Spectroscopy Combined with Chemometrics for the Investigation of the Adulteration of Essential Oils. *Food Analytical Methods*. 10(7), 2539–2548. https://doi.org/10.1007/s12161-017-0823-4.

Guerrini, A., Tacchini, M., Chiocchio, I., Grandini, A., Radice, M., Maresca, I., Paganetto, G., & Sacchetti, G. (2023). A Comparative Study on Chemical Compositions and Biological Activities of Four Amazonian Ecuador Essential Oils: Curcuma longa L. (Zingiberaceae), Cymbopogon citratus (DC.) Stapf, (Poaceae), Ocimum campechianum Mill. (Lamiaceae), and Zingiber officinale Roscoe (Zingiberaceae). *Antibiotics*, 12(1), 177. https://doi.org/10.3390/antibiotics12010177.

Guo, J., Chen, Q., Wang, C., Qiu, H., Liu, B., Jiang, Z., & Zhang, W. (2014). Comparison of Two Exploratory Data Analysis Methods for Classification

of Phyllanthus Chemical Fingerprint: Unsupervised vs. Supervised Pattern Recognition Technologies. *Analytical and Bioanalytical Chemistry*. 407(5), 1389–1401. https://doi.org/10.1007/s00216-014-8371-x.

Hachlafi, N. E., Aanniz, T., Menyiy, N. E., Baaboua, A. E., Omari, N. E., Balahbib, A., Shariati, M. A., Zengin, G., Fikri-Benbrahim, K., & Bouyahya, A. (2021). In vitro and In vivo Biological Investigations of Camphene and its Mechanism Insights: A review. *Food Reviews International*, 39(4), 1799–1826. https://doi.org/10.1080/87559129.2021.1936007.

Hamid, H. A. (2023). *Cymbopogon citratus* and *Cymbopogon nardus* Essential Oil Components – FTIR, Chemometrics Assessment and Identification Using GC-MS. *Malay. J. An. Sci.* 27 (3): 641-652.

Hu, H., Zhou, D., Wang, J., Wu, C., Li, H., Zhong, J., Xiang, Z., & Sun, C. (2022). Chemical Composition of Citronella (*Cymbopogon winterianus*) Leaves Essential Oil and Gastric Toxicity of Its Major Components to Drosophila melanogaster Larvae. *Journal of Essential Oil Bearing Plants*, *25*(2), 315–325. https://doi.org/10.1080/0972060x.2022.2077142.

Kandimalla, R., Kalita, S., Choudhury, B., Dash, S., Kalita, K., dan Kotoky, J. (2016). Chemical Composition and Anti-Candidiasis Mediated Wound Healing Property of *Cymbopogon nardus* Essential Oil on Chronic Diabetic Wounds. *Front. Pharmacol.* 7, 198.

Kaur, H., Bhardwaj, U., & Kaur, R. (2021). *Cymbopogon Nardus* Essential Oil: a Comprehensive Review on Its Chemistry and Bioactivity. *Journal of*

Essential Oil Research. 33(3), 205–220. https://doi.org/10.1080/10412905.2021.1871976.

Khan, M. H., Dar, N. A., Alie, B. A., Dar, S. A., Lone, A. A., Mir, G. H., Fayaz, U., Ali, S., Tyagi, A., El-Sheikh, M. A., & Alansi, S. (2023). Unraveling the Variability of Essential Oil Composition in Different Accessions of Bunium persicum Collected from Different Temperate Micro-Climates. *Molecules*, 28(5), 2404. https://doi.org/10.3390/molecules28052404.

Khanuja, S. P., Shasany, A. K., Pawar, A., Lal, R. K., Darokar, M. P., Naqvi, A. A., *et al.* (2005). Essential oil constituents and RAPD markers to establish species relationship in *Cymbopogon* Spreng. (Poaceae). *Biochem. Syst. Ecol.* 33, 171–186. doi:10.1016/j.bse.2004.06.011.

Kharbach, M., Marmouzi, I., El, M., Bouklouze, A., & Vander, Y. (2020). Journal of Pharmaceutical and Biomedical Analysis Recent advances in untargeted and targeted approaches applied in herbal-extracts and essential-oils fingerprinting - A review, *Journal of Pharmaceutical and Biomedical Analysis*. 177, 112849. https://doi.org/10.1016/j.jpba.2019.112849.

Lenardão, E. J., Botteselle, G. V., De Azambuja, F., Perin, G., & Jacob, R. G. (2007). Citronellal as Key Compound in Organic Synthesis. *Tetrahedron*. 63(29), 6671–6712. https://doi.org/10.1016/j.tet.2007.03.159

Lin, H., Li, Z., Sun, Y., Zhang, Y., Wang, S., Zhang, Q., Cai, T., Xiang, W., Zeng, C., & Tang, J. (2024). D-Limonene: promising and sustainable natural bioactive compound. *Applied Sciences*, 14(11), 4605. https://doi.org/10.3390/app14114605.

Lins, L., Dal Maso, S., Foncoux, B., Kamili, A., Laurin, Y., Genva, M., Jijakli, M.H., De Clerck, C., Fauconnier, M.L., dan Deleu, M. (2019). Insights into the Relationships between Herbicide Activities, Molecular Structure and Membrane Interaction of Cinnamon and Citronella Essential Oils Components. *Int. J. Mol. Sci.* (20), 4007.

Maczka, W., Winska, K., dan Grabarczyk, M. (2020). One Hundred Faces of Geraniol. *Molecules.* 25 (14): 1–16. https://doi.org/ 10.3390/molecules25143303.

Marriott, P.J., Shellie, R., Cornwell, C. (2001). Gas chromatographic technologies for the analysis of essential oils, J. Chromatogr. A 936, 1–22.

Moreira, F. V., Bastos, J. F., Blank, A. F., Alves, P. B., and Santos, M. R. (2010). Chemical composition and cardiovascular effects induced by the essential oil of *Cymbopogon citratus* DC. Stapf, Poaceae, in rats. *Rev. bras. Farmacogn.* 20, 904–909. doi:10.1590/S0102-695X2010005000012.

Morrison. (1986). *Chiral Compounds*. Fluka Chemie AG, Switzerland.

Muslihah, F. (1999). *Tanaman Obat Keluarga*. Jakarta: Penebar Swadaya.

Noor, S., Latip, H., Lakim, M. Z., Syahirah, A., and Bakar, A. (2012). “The potential of citronella grass, *Cymbopogon nardus* as biopesticide against plutella xylostella faculty of plantation and agrotechnology, universiti teknologi MARA, 40450 shah alam,” in Proceedings of the UMT 11th International Annual Symposium on Sustainability Science and Management, Kuala Terengganu, Malaysia, 9-11 July, 7438–7453.20.

Nugraha, A., Bayu, A., & Nandiyanto, D. (2021). How to read and Interpret GC/MS Spectra Indonesian Journal of Multidisciplinary Research. *Indonesian Journal of Multidisciplinary Research*, 1(2), 171–206.

Osman, M. Z., Maarof, M. A., Rohani, M. F., Moorthy, K., & Awang, S. (2018b). Multi-Scale skin sample approach for dynamic skin color Detection: An analysis. *Advanced Science Letters*, *24*(10), 7662–7667. https://doi.org/10.1166/asl.2018.12996.

Pavia, D., Lampman, G. and Kriz, G. (2001) *Introduction to Spectroscopy, a Guide for Students of Organic Chemistry*. 3rd Edition, Thomson Learning, Boston, 22-368.

PerkinElmer. (2011). Attenuated Total Reflectance (ATR) Technical Note. USA.

Pesimo, A.R. (2017). Harnessing the Solar Energy in Extracting Essential Oil for Community Based Perfumery and Aromatherapy. *Open Access Libr. J.* 04, 1–11.

Piaru, S.P.,Perumal, S., Cai, L.W., Mahmud, R., Majid, A.M.S.A., Ismail, S., dan Man, C.N. (2012). Chemical Composition, Anti-Angiogenic and Cytotoxicity Activities of the Essential Oils of Cymbopogan citratus (Lemon Grass) against Colorectal and Breast Carcinoma Cell Lines. *J. Essent. Oil Res*. 24, 453–459.

Polaris. (2023). *Market Research Report: Citronella Oil Market Share, Size, Trends, Industry Analysis Report, By Type (Java Citronella Oil, and Ceylon Citronella Oil); By Grade; By End Use; By Region; Segment Forecast, 2023-2032*. US: Polaris Market Research & Consulting, Inc.

Prasanti, K. (2024). Pengembangan Metode Analisis Berbasis *Headspace-Gas Chromatography-Mass Spectrometry* Untuk Autentikasi Minyak Serai Wangi (*Cymbopogon winterianus*). *Skripsi.* Fakultas Farmasi, UGM.

Rafi, M., Kautsar, A., Septaningsih, D. A., Melati, P., Heryanto, R., Batubara, I., Syafitri, U. D., Arif, Z., Yuliana, N. D., Mitsunaga, T., & Susanti, E. (2022). Feasibility of near-infrared spectroscopy and chemometrics analysis for discrimination of *Cymbopogon nardus* from *Cymbopogon citratus*. *Arabian Journal of Chemistry*, 15(12), 104277. https://doi.org/10.1016/j.arabjc.2022.104277.

Riswanto, F. D. O., Windarsih, A., Putri, D. C. A., & Gani, M. R. (2023). An Integrated Authentication Analysis of Citrus aurantium L. Essential Oil Based on FTIR Spectroscopy and Chemometrics with Tuning Parameters. *Indonesian Journal of Pharmacy*. https://doi.org/10.22146/ijp.5225.

Rodrigues, K.A.D.F., Dias, C.N., do Amaral, F.M.M., Moraes, D.F.C., Mouchrek Filho, V.E., Andrade, E.H.A., dan Maia, J.G.S. (2013). Molluscicidal and Larvicidal Activities and Essential Oil Composition of *Cymbopogon winterianus*. *Pharm. Biol.* 51, 1293–1297.

Rohman, A., Windarsih, A., Hossain, M. A. M., Johan, M. R., Ali, E., & Aq, N. A. F. (2019). Application of near- and mid-infrared spectroscopy combined with chemometrics for discrimination and authentication of herbal products : A review. *J. Ap. Pharm. Sci.* July. https://dx.doi.org/10.7324/JAPS.2019.90319.

Sagradas, J., Costa, G., Figueirinha, A., Castel-Branco, M.M., Silvério Cabrita, A.M., Figueiredo, I.V., dan Batista, M.T. (2015). Gastroprotective Effect of *Cymbopogon citratus* Infusion on Acute Ethanol-Induced Gastric Lesions in Rats. *J. Ethnopharmacol.* 173, 134–138.

Sajo, M.E.J., Song, S.-B., Bajgai, J., Kim, Y.-J., Kim, P.-S., Ahn, D.-W., Khanal, N., dan Lee, K.-J. (2015). Applicability of Citronella Oil (*Cymbopogon winteratus*) for the Prevention of Mosquito-Borne Diseases in the Rural Area of Tikapur, Far-Western Nepal. *Rural Remote Health.* 15, 3532.

Salamah, N., Cantika, C. D., Nurani, L. H., & Guntarti, A. (2024). Authentication of citrus peel oils from different species and commercial products using FTIR Spectroscopy combined with chemometrics. *Pharmacia*, *71*, 1–7. https://doi.org/10.3897/pharmacia.71.e118789.

Samad, M. E. M., Ismail, N., Rahiman, M. H. F., Taib, M. N., Ali, N. A. M., dan Tajuddin, S. N. (2017). Analysis of distance metric variations in kNN for agarwood oil compounds differentiation. *2017 IEEE Conference on Systems, Process and Control (ICSPC)*. pp. 151-156, doi: 10.1109/SPC.2017.8313038.

Samuels, P. (2017). *Advice on Exploratory Factor Analysis*. Birmingham City University, Inggris.

Santos, G., Brum, R., Castro, H., Gonçalves., C. G., and Fidelis, R. R. (2013). Effect of essential oils of medicinal plants on leaf blotch in Tanzania grass. *Rev. Cienc. Agron.* 44, 587–593. doi:10.1590/S1806-66902013000300022.

Sarah, M., Ardiansyah, D., Misran, E., & Madinah, I. (2023). Extraction of citronella oil from lemongrass (Cymbopogon winterianus) by sequential ultrasonic and microwave-assisted *hydro-distillation*. *Alexandria Engineering Journal,* 70, 569–583. https://doi.org/10.1016/j.aej.2023.03.019.

Sari, D. N., Zulharmita, Yetti, R. D. (2021). Bioactivity of Alpha–Pinene Compound on Essential Oil: A Review. *International Journal of Pharmaceutical Research and Applications*, 6(1), 524. DOI:10.35629/7781-0601524529.

Stuart, B. H. (2004). Infrared Spectroscopy: Fundamentals and Applications. *In Analytical techniques in the sciences.* https://doi.org/10.1002/0470011149.

Truzzi, E., Marchetti, L., Bertelli, D., & Benvenuti, S. (2021). Attenuated total reflectance–Fourier transform infrared (ATR–FTIR) spectroscopy coupled with chemometric analysis for detection and quantification of adulteration in lavender and citronella essential oils. *Phytochemical Analysis,* 32(6), 907–920. https://doi.org/10.1002/pca.3034.

Wany, A., Jha, S., Nigam, V. K., & Pandey, D. M. (2013). Chemical Analysis And Therapeutic Uses Of Citronella Oil from C*ymbopogon winterianus*: A Short Review. *International Journal of Advanced Research.* 1(8), 1–6.

Wijayati, N., Pratiwi, D., Wirasti, H., & Mursiti, S. (2023). Minyak Serai Wangi dan Produk Derivatnya. *Bookchapter Alam Universitas Negeri Semarang*, 3, 49–83. https://doi.org/10.15294/ka.v1i3.149.

Wu, Y., OuYang, Q., & Tao, N. (2016). Plasma membrane damage contributes to antifungal activity of citronellal against Penicillium digitatum. *Journal of Food Science and Technology.* 53(10), 3853–3858. https://doi.org/10.1007/s13197-016-2358-x.

Yang, S. Y., Park, Y., Chung, H., Kim, H., Park, S. Y., Choi, I. G., Kwon, O., Cho, K. C., dan Yeo, H. (2017). Partial least squares analysis on Near-Infrared Absorbance Spectra by air-dried specific gravity of major domestic softwood species. *Journal of the Korean Wood Science and Technology*, 45(4), 399–408. https://doi.org/10.5658/WOOD.2017.45.4.399.

Zhai, H. L., Li, B. Q., Tian, Y. L., Li, P. Z., dan Zhang, X. Y. (2014). An application of wavelet moments to the similarity analysis of three-dimensional fingerprint spectra obtained by high-performance liquid chromatography coupled with diode array detector. *Food Chem.* 145: 625–631.

Zhao, M., Bao, S., Liu, J., Wang, F., Yao, G., Han, P., Wan, X., Chen, C., Jiang, H., Zhang, X., & Zhu, W. (2024). The Biosynthesis of the Monoterpene Tricyclene in E. coli through the Appropriate Truncation of Plant Transit Peptides. *Fermentation*, 10(3), 173. https://doi.org/10.3390/fermentation10030173.