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DAFTAR PUSTAKA

[ICO] International Coffee Organization. (2021a). Word Coffee Consumption. [diakses 2025 Mar 15]. https://www.ico.org/prices/new-consumption-table.pdf.

Advanced Food Diagnostics, (2024). *Violet Red Bile Glucose Agar EP USO ISO 1092*. [pdf] Available at: https://advancedfooddiagnostics.com/wp-content/uploads/2024/11/1092-Violet-Red-Bile-Glucose-Agar-EP-USO-ISO.pdf

Alfiyan, M.N. (2023). *Indonesia Jadi Penghasil Ketiga Kopi Dunia, 80 Persennya Robusta*. FTNews. Tersedia di: https://ftnews.co.id/public/indonesia-jadi-penghasil-ketiga-kopi-dunia-80-persennya-robusta.

Ambari, Y., Saputri, A.O. & Nurrosyidah, I.H (2021). Formulasi dan Uji Aktivitas Antioksidan Body Lotion Ekstrak Etanol Daun Kemangi (*Ocimun cannum* Sims.) dengan Metode DPPH *(1,1-diphenyl-2-picrylhydrazyl)*. *As-Syifaa Jurnal Farmasi.* 13(2). P. 86-96.

Api, A.M., Belsito, D., Botelho, D., Bruze, M., Burton, G.A., Buschmann, J., Cancellieri, M.A., Dagli, M.L., Date, M., Dekant, W., Deodhar, C., Fryer, A.D., Jones, L., Joshi, K., Kumar, M., Lapczynski, A., Lavelle, M., Lee, I.., Liebler, D.C., Moustakes, H., Na, M., Penning, T.M., Ritacco, G., Romine, J., Sadekar, N., Schultz, T.W., Selechnik, D., Siddiqi, F., Sipes, I.G., Thakkar, Y & Tokura, Y (2022). RIFM Fragrance Ingredient Safety Assessment, 2-methoxy-4-vinylphenol, CAS Registry Number 7786-61-0. *Food and Chemical Toxicology.* P. 1-11. https://doi.org/10.1016/j.fct.2022.113210

Arhana, A., Parthasarathy, S.P., Vignesh, S., Appunu, C., Alagumanian, S & Manickavasagam, M (2025). Zn0 Nanoparticles and Elicitors in 2M4VP Enrichment and Antioxidant Capacity in Cell Suspension Cultures of *Coccinia grandis* (L.) Voigt. *Vegetos Research Articles.* P. 1-13. https://doi.org/10.1007/s42535-024-00662-1

Aregbe, A.Y., Murtaza, S., Falade, E.O., Rahman, M.H & Ma, Y (2025). Synergistic Effect of Enzyme- Assisted Fermentation on Phytochemical

UNIVERSITAS
GADJAH MADA
**Kombucha Kopi Robusta Dengan Penambahan Buah Salak: Karakteristik Fisikokimiawi, Mikrobiologi, Dan
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Universitas Gadjah Mada, 2026 | Diunduh dari http://etd.repository.ugm.ac.id/

Content, Volatile Profile, and Antioxidant, Antidiabetic, and ACE Inhibitory Properties of Sea Buckthorn- Based Cereal Beverages. *Food Science & Nutrition.* P. 1-17. https://doi.org/10.1002/fsn3.4462

Barbosa, C.D., Uetanabaro, A.P,T., Santos, W.C.R., Caetano, R.G., Albano, H., Kato, R., Cosenza, G.P., Azeredo, A., Goes-Neto, A., Rosa, C.A., Teixeira, P., Alvarenga, V.O & Lacerda, I.C.A (2021). Microbial-physicochemical Integrated Analysis of kombucha Fermentation. *LWT- Food Science and Technology.* P. 1-9. https://doi.org/10.1016/j.lwt.2021.111794

Basarang, M., Rauf, D & Dantuma, Y (2017). Uji Bakteriologis Kelayakan Pangan Kue PIA Gorontalo Tidak Bermerek yang Diperjualbelikan di Pasar Sentral Kota Gorontalo. *Jurnal Medika: Media Ilmiah Analisis Kesehatan.* 2(1). P. 1-6.

Bishop, P., Pitts, E.R., Budner, D & Thompson-Witrick, K.A (2022). Chemical Composition of kombucha (Review). *Beverages.* 8(45). P. 1-17. https://doi.org/10.3390/beverages8040045

BPOM. 2016. Peraturan Kepala Badan Pengawas Obat dan Makanan REPUBLIK Indonesia Nomor 16 tahun 2016 Tentang Kriteria Mikrobiologi dalam Olahan. Jakarta: BPOM.

Bueno F, Chouljenko A, Sathivel S (2021). Development of coffee kombucha containing Lactobacillus rhamnosus and Lactobacillus casei: gastrointestinal simulations and DNA microbial analysis. LWT. 142 (2021):110980. https://doi.org/10.1016/j.lwt.2021.110980

Carmelita, R (2022). Perubahan Kadar Asam Klorogenat, Kafein, dan Jumlah Mikroba selama Fermentasi kombucha Kopi Arabika Hijau *(Coffea arabica). Skripsi.* P.1-37.

Chaves-Ulate, C., Rodriguez-Sanchez, C., Arias-Echandi, M.L & Esquivel, P (2023). Antimicrobial Activities of Phenolic Extracts of Coffee Mucilage. *NFS Journal*. P. 50-56. https://doi.org/10.1016/j.nfs.2023.04.006

Cheepchirasuk, N., Kaewkod, T., Suriyaprom, S., Intachaisri, V., Ngamsaard, P & Tragoolpua, Y (2025). Functional Metabolites and Inhibitory Efficacy of kombucha Beverage on Pathoghenic Bakteria, Free Radicals and

UNIVERSITAS
GADJAH MADA
**Kombucha Kopi Robusta Dengan Penambahan Buah Salak: Karakteristik Fisikokimiawi, Mikrobiologi, Dan
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Universitas Gadjah Mada, 2026 | Diunduh dari http://etd.repository.ugm.ac.id/

Inflammation. *Scientific Reports.* P. 1-19. https://doi.org/10.1038/s41598-025-xxxxxx

Cohen, G., Sela, D.A & Nolden, A.A (2023). Sucrose Concentration and Fermentation Temprature Impact the Sensory Characteristic and Liking of kombucha. *Foods.* 12(3116). P.1-13. https://doi.org/10.3390/foods12163116

Coutinho, S.L., Moiane, E., Domingos, D.A., Bunga, J.S & Jose, A.E (2024). Physico-chemical and Sensory Properties of Soft Drinks Made from The Tuberous root of Beetroot *(Beta vulgaris). International Journal of Food Science and Nutrition.* 9(3). P. 13-19.

Crispino, A.C.S., Silva, L.F.D., Lima, M.F.T & Oliveira, J.A.R.D (2024). Development of Flavored kombuchas with Amazonian Fruits: Bioactive Compounds Evaluation and Antioxidant Capacity. *Microbiology.* 96(1). P. 1-12.

De Filippis, F., Troise, A.D., Vitaglione, & P., Ercolini, D. (2018).Different temperatures select distinctive acetic acid bacteria species and promotes organic acids production during kombucha tea fermentation, Food Microbiology (2018), https://doi.org/10.1016/j.fm.2018.01.008

De Oliveira, J. R., Camargo, S. E. A., & de Oliveira, L. D. (2019). Rosmarinus officinalis L. (rosemary) as therapeutic and prophylactic agent. *Journal of Biomedical Science*, 26(1), 1–16. https://doi.org/10.1186/s12929-019-0499-8

Dusgun, C (2024). An Investigation of The Impact of Fermentation Conditions and Total Acid Contents on The kombucha Tea. *Biotechnology Journal International.* 28(5). P. 1-7.

Ensembl Plants (2024). *Coffea canephora.* Diakses dari Ensembl Plants Database.

Essiedu, J.A., Areerate, P & Withayagiat, U (2024). Evaluation of Physiochemical Composition, Phenolic Compounds, and Antioxidant Activity of kombucha Produced from *Thunbergia laurifolia* as a Potential Functional Food. *International Journal of Food Science and Tehcnology.* P. 6999-7010. https://doi.org/10.1111/ijfs.17179

UNIVERSITAS
GADJAH MADA
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Universitas Gadjah Mada, 2026 | Diunduh dari http://etd.repository.ugm.ac.id/

Firdaus, S., Indah, A., Isnaini, L & Aminah, S (2020). "Review" The kombucha sebagai Minuman Fungsional dengan berbagai Bahan Dasar Teh. Prosiding Seminar Nasional Unimus. P. 715-730.

FooDB. (2020). *6-Acetyl-2,2-dimethyl-2H-1benzepyran (Compound FDB002772) [Database entry]*. The FooDB: The Food Database. TMIC Metabolomics.

Galarza, G & Figueroa, J.G (2022). Volatile Compound Characterization of Coffee *(Coffea arabica)* Processed at Different Fermentation Times Using SPME-GC-MS. *Molecules.* 27(6). P. 1-16.

Gu, Y., Ma, J., Zhu, Y & Xu, P (2020). Refactoring *Ehrlich* Pathway for High-Yield 2-Phenylethanol Production in *Yarrowia lipolytica. ACS Synthetic Biology.* P. 623-633. http://doi.org/10.1021/acssynbio.9b00484

Izzati, H., Jalaluddin, Ginting, Z., Kuniawan, E. dan Sulhatun (2022). Pengaruh waktu fermentasi terhadap mutu kopi menggunakan bakteri asam laktat dari yakult. Chemical Engineering Journal Storage. 2(3). P. 61-74.

Jongenburger, I., Reji, M.W., Boer, E.P.J., Gorris, L.G.M & Zwietering, M.H (2010). Factors Influencing the Accuracy of The Plating Method Used to Enumerate Low Numbers of Viable Micro-organisms in Food. *International Journal of Food Microbiology.* P. 32-40. http://doi.org/10.1016/j.ijfoodmicro.2010.01.010

Jothilakshmi, G., Gayathry, G & Jayalakshmi, T (2024). GCMS Elucidation of Bioactive Metabolites from Fermented *kombucha* Tea. *International Journal of Advanced Biochemistry Research.* 8(8). P. 458-462.

Kim, Y.K., Lim, J., Kim, Y.J & Kim, W (2024). Alterations in pH of Coffee Bean Extract and Properties of Chlorogenic Acid Based on the Roasting Degree. *Foods.* 13 (1757). P. 1-9. http://doi.org/10.3390/foods13111757

Kim, H., Jeon, J., Lee, J., Song, C., Gu, B., Kim, N.M., Yang, T., Oh, S., Park, S., Pal, K., Kim, G.J & Doman Kim (2025). Utilizing kombucha Culture for Coffee Fermentation and Biochemical Characteristic Analysis.

Laureys D, Britton SJ, De Clippeleer J. (2020). kombucha tea fermentation: A review. J Am Soc Brew Chem. 78(3):165–174. http://doi.org/10.1080/03610470.2020.1734150

UNIVERSITAS
GADJAH MADA
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Universitas Gadjah Mada, 2026 | Diunduh dari http://etd.repository.ugm.ac.id/

Leal, J.M, Suárez, L.V., Jayabalan R., Oros J.H, Escalante-Aburto, A (2018). A review on health benefits of kombucha nutritional compounds and metabolites. CYTA - J Food. 16(1):390–399. http://doi.org/10.1080/19476337.2017.1410499.

Lim, T.K (2012). *Edible Medicinal and Non-Medicinal Plants.* Vol. 1: Springer. P. 1-851.

Linhares, M.D.F.D., Fonteles, T.V., Oliveira, F.A.D dan Rodrigues, S (2025). Influence Of Sugar Addition In kombucha Production Regarding The Beverage Effect On Human Fecal Microbiota Composition And Metabolite Profile. *Food Bioscience.* P. 1-11. http://doi.org/10.1016/j.fbio.2024.103200

Lopes, A.C.A., Andrade, R.P., Oliveira, L.C.C.D., Lima, L.M.Z., Santiago, W.D., Resende, M.L.V.D., Cardoso, M.D.G & Duarte, W.F (2020). Production and Characterization of a New Distillate Obtained from Fermentation of Wet Processing Coffee by-products. *J Food Sci Tehnol.* 57(12). P. 4481-4491. http://doi.org/10.1007/s13197-020-04651-2

Mason, A.B & Dufour, J (2000). Alcohol Acetyltransferases and The Significance of Ester Synthesis in Yeast. *Yeast.* P. 1287-1298. http://doi.org/10.1002/1097-0061(200011)16:14

Mfopa, A.N., Kemzeu, R., Fokom, R., Yamthe, L.R.T., Dize, D & Boyom, F.F (2024). Phenolic Compounds, Antioxidant and Antileishmanial Activities of kombucha as Affected by Fermentation Time. *Heliyon.* P. 1-10. https://doi.org/10.1016/j.heliyon.2024.e40463

Mozzon, M., Rinaldi, L., Ahmed, A.E.M., Kovacs, B & Foligni, R (2025). Investigating the Volatiles of kombucha During Storage Under Refrigerated Conditions. *Beverages.* 11(143). P. 1-23. https://doi.org/10.3390/beverages11050143

Nabilah, F.N., Listiyowati, S & Astuti, R.I (2022). Diversitas Pangan Fermentasi Berbasis Susu di Indonesia dan Kandungan Gizinya. Jurnal Ilmu Pertanian Indonesia (JIPI). 27(4). P. 552-561. https://doi.org/10.18343/jipi.27.4.552

National Center for Biotechnology Information (NCBI) (2024). *PubChem Compound Database.*

UNIVERSITAS
GADJAH MADA
**Kombucha Kopi Robusta Dengan Penambahan Buah Salak: Karakteristik Fisikokimiawi, Mikrobiologi, Dan
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Universitas Gadjah Mada, 2026 | Diunduh dari http://etd.repository.ugm.ac.id/

National Institute of Standards and Technology (NIST) (2023). *NIST Mass Spectral Library (NIST/NIOH).* Gaithersburg, MD: National Institute of Standards and Technology.

Padmiswari, A.A.I.M dan Wulansari, N.T (2023). Probiotic Antibacterial Activity Test Of Bali Salak Fruit (Salacca Zalacca Var Amboinensis) Against Staphylococcus Aureus. *Jurnal Biologi Tropis.* 23(4). P. 6-11. https://doi.org/10.29303/jbt.v23i4.5720

Pangestuti, H.A (2021). Penetapan Kadar Kafein Pada Kopi Robusta Aceh Gayo (Coffea Robusta) Dan Kopi Arabika Aceh Gayo (Coffea Arabica) Dengan Metode Spektrofotometri Uv-Vis. *Skripsi.* P. 1-96.

Phung, L.T., Kitwetcharoen, H., Chamnipa, N., Boonchot, N., Thanonkeo, S., Tippayawat, P., Klanrit, P., Yamada, M & Thanaonkeo, P (2023). Changes in The Chemical Compositions and Biological Properties of kombucha Beverages Made from Black Teas and Pineapple Peels and Cores. *Scientific Reports.* 13(7859). P. 1-20. https://doi.org/10.1038/s41598-023-34567-0

POWO (2026). *Plants of the World Online.* Facilitated by the Royal Botanic Gardens, Kew.

Priyanto, D.A.M., Hintono, A. dan Dwiloka, B (2022). Perbedaan sifat fisikokimiawi dan organoleptik produk kopi rempah dari kopi arabika (Coffea arabica) dan kopi robusta (Coffea robusta). *Jurnal Aplikasi teknologi Pangan*. 11 (4):179-184. https://doi.org/10.17728/jatp.9034

Pure Kopi Luwak. (2024). Coffee kombucha: What it is, how it's made and why it's so damn healthy. Available at: https://www.purekopiluwak.com/coffee-kombucha/ (Accessed: 24 February 2026).

Purwoko, T., Suranto., Setyaningsih R., Marliyana, S.D (2022). Chlorogenic acid and caffeine content of fermented robusta bean. *Biodiversitas*. 23(2):902–906. https://doi.org/10.13057/biodiv/d230231

Rahmadani, S., Darma, G.C.E & Darusman, F (2021). Karakterisasi Fisik SCOBY (Symbiotic Culture of Bacteria and Yeast) Teh Hitam dalam Menyerap Eksudat Luka. Prosiding Farmasi. 7(2). P. 292-298.

UNIVERSITAS
GADJAH MADA
**Kombucha Kopi Robusta Dengan Penambahan Buah Salak: Karakteristik Fisikokimiawi, Mikrobiologi, Dan
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Universitas Gadjah Mada, 2026 | Diunduh dari http://etd.repository.ugm.ac.id/

Rahmawati, L.K (2025). Changes in The Quality of kombucha during Fermentation: A Study of Microbial, Physicochemical and Sensory Attributes. *Jurnal Inovasi Pangan dan Gizi.* 2(2). P. 127-141.

Ramadan, K.M.A., El-Beltagi, H.S., Iqbal, Z & Bendary, E.S.A (2022). The Synthesis, Fungicidal Activity, and in Silico Study of Alkoxy Analogues of Natural Precocenes I, II, III. *Molecules.* P. 1-22. https://doi.org/10.3390/molecules27092858

Rangkuti, M (2024). *Manfaat Rosemary Untuk Kesehatan Tubuh. https://fahum.umsu.ac.id/blog/manfaat-rosemary-untuk-kesehatan-tubuh/* Diakses tanggal 11 April 2025, jam 22.58.

Ren, A., Zhang, Y., Bian, Y., Liu, Y., Zhang, Y., Ren, C., Zhou, Y., Zhang, T & Feng, X (2024). Pyrazines in Food Samples: Recent Update on Occurrence, Formation, Sampling, Pretreatment and Analysis Methods. *Food Chemistry.* P. 1-19. https://doi.org/10.1016/j.foodchem.2024.137563

Sangpimpa, W., Srichan, P., Jannu, T., Renaldi, G., Setthaya, P., Samakradhamrongthai, R.S (2025). Influence of Roasting Technique on Physicochemical Properties, Volatile Compounds, and Flavor Profile of Robusta *(Coffea canephora)* Coffee Beans. *European Food Research and Technology.* P. 3575-3589. https://doi.org/10.1007/s00217-025-04567-8

Sari, P.W., Sunarharum, W.B. & Maligan, J.M (2023). Kajian Literatur: Prodfiling Komponen Aroma Kopi Robusta. *Prosiding Seminar Nasional Teknologi Pangan.* P. 111-120.

Sato, V.H., Chewchinda, S., Goli, A.S., Sato, H., Nontakham, J. & Vongsak, B (2023). Oral Glucose Tolerance Test (OGTT) Evidence for the Postprandial Anti-Hyperglycemic Property of Salacca zalacca (Gaertn.) Voss Seed Extract. *Molecules.* P. 1-16.

Seninde, D.R & Chambers, E (2020). Coffee Flavor: A review. *Beverages.* P. 1-25.

Shekarchi, M., Hajimehdipoor, H., Saeidnia, S., Gohari, A.R dan Hamedani, M.P (2012). Comparative Study of Rosmarinic Acid Content in Some Plants of Labiatae Family. *Pharmacogn Mag.* 8(29). P. 37-41. https://doi.org/10.4103/0973-1296.93324

Sigma-Aldrich Co. (2001). *SPME Applications Guide* (3rd ed.).

UNIVERSITAS GADJAH MADA
Kombucha Kopi Robusta Dengan Penambahan Buah Salak: Karakteristik Fisikokimiawi, Mikrobiologi, Dan Aktivitas Antioksidan
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Universitas Gadjah Mada, 2026 | Diunduh dari http://etd.repository.ugm.ac.id/

Simpson-Lavy, K & Kupeic, M (2019). Carbon Catabolite Repression: Not only for Glucose. *Current Genetics.* P. 1-3. https://doi.org/10.1007/s00294-018-0891-0

StuartXChange (2023) *Salak Palm (Salacca zalacca)*. Available at: https://www.stuartxchange.org/SalakPalm (Accessed: 9 January 2026).

Sulistiawati, L. & Solihat, I. (2022). kombucha: fisikokimiawi dan studi kritis tingkat kehalalan. *WARTA AKAB*, 46(1): 21-27.

Syakfanaya, A.M., Saputri, F.C., Mun'im, A (2019). Simultaneously extraction of caffeine and chlorogenic acid from Coffea canephora bean using natural deep eutectic solvent-based ultrasonic assisted extraction. *Pharmacogn J.* 11(2):267–271. https://doi.org/10.5530/pj.2019.11.41

Syifa (2024). *Bikin Penasaran, 20 Manfaat Daun Rosemary yang Wajib Diketahui.* https://ejournal.iainbukittinggi.ac.id/bikin-penasaran-20-manfaat-daun-rosemary-yang-wajib-diketahui-e-jurnal/ Diakses tanggal 11 April 2025, jam 22.51.

Tang, N., Xing, X., Li, H., Suo, B., Wang, Y., Ai, Z & Yang, Y (2024). Co-culture Fermentation by *Saccharomycopsis fibuligera* and Lactic Acid Bacteria Improves Bioactivity and Aroma Profile of Wheat Bran and The Bran-containing Chinese Steamed Bread. *Food Research International.* P. 1-11. https://doi.org/10.1016/j.foodres.2024.113876

Thenuwara, G., Cui, X., Yao, Z., Javed, B., Naik, A.S & Tian, F (2024). Evaluating The Health Implications of kombucha Fermented with *Gardenia jasminoides* Teas: A Comprehensive Analysis of Antioxidant, Antimicrobial, and Cytotoxic Properties. *BioChem.* P. 350-370. https://doi.org/10.3390/biochem4020025

Utami, C.R (2018). Karakteristik Minuman Probiotik Fermentasi Lactobacillus Casei Dari Sari Buah Salak. *Jurnal Teknologi Pangan.* 9(1). P. 1-9.

Utami, F.W (2020). Karakteristik Kimiawi Dan Organoleptik kombucha Kurma Sukkari *(Phoenix dactylifera* L.) (Kajian Konsentrasi Sari Kurma Dan Konsentrasi Gula). *Skripsi.* Universitas Brawijaya Malang. P. 1-92.

Vanitha, V., Vijayakumar, S., Nilavukkarasi, M., Punitha, V.N., Vidhya, E & praseetha, P.K (2020). Heneicosane— A Novel Microbicidal Bioactive

UNIVERSITAS
GADJAH MADA
**Kombucha Kopi Robusta Dengan Penambahan Buah Salak: Karakteristik Fisikokimiawi, Mikrobiologi, Dan
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Universitas Gadjah Mada, 2026 | Diunduh dari http://etd.repository.ugm.ac.id/

Alkane Identified from *Plumbago zeylanica* L. *Industrial Crops & Products.* P. 1-10. https://doi.org/10.1016/j.indcrop.2020.112310

Vinci, G., D'Ascenzo, F., Maddaloni, L., Prencipe, S.A & Tiradritti, M (2022). The Influence of Green and Black Tea Infusion Parameters on Total Polyphenol Content and Antioxidant Activity by ABTS and DPPH Assays. *Beverages.* 8(18). P. 1-12. https://doi.org/10.3390/beverages8010018

Wang, D.C., Sun, S.H., Shi, L.N., Qiu, D.R., Li, X., Wei, D.S., Zhang, Y.M & Qin, J.C (2015). Chemical Composition, Antibacterial and Antioxidant Activity of The Essential Oils of *Metaplexis japonica* and Their Antibacterial Components. *International Journal of Food Science and Technology.* P. 449-457. https://doi.org/10.1111/ijfs.12645

Wang, Z., Ahmad, W., Zhu, A., Geng, W., Kang, W., Quyang, Q & Chen, Q (2023). Identification of VOlatile Compounds and Metabolikc Pathway During Ultrasound-assisted kombucha Fermentation by HS-SPME-GC/MS Combined with Metabolomic Analysis. *Ultrasonics Sonochemistry.* P. 1-16. https://doi.org/10.1016/j.ultsonch.2023.106563

Widnyani, I.A.P.A., Yoga, W.K., Sintyadewi, P.R., Ariani, N.K.S (2023). Potential Antioxidant kombucha Fortified with Balinese Salak Juice *(Salacca zalacca* Var Amboinensis) from Karangasem District. *Jurnal Biologi Tropis.* 23(1). P. 411-418. https://doi.org/10.29393/jbt.v23i1.6128

Widyasari, A., Warkoyo, W., dan Mujianto, M (2023). Pengaruh ukuran biji kopi robusta pada kualitas citarasa kopi. Jurnal Agro Industri Perkebunan. 11 (1):1–14.

Xu, Y., Yao, L., Song, S., Sun, M., Wang, H., Yu, C & Liu, Q (2024). Revealing the Microbial Diversity and Volatile Flavor Formation in Finger Citron kombucha by Metagenomic and GC-MS analysis.

Yikmis, S dan Tuggum, S (2019). Evaluation of Microbiological, Physicochemical and Sensorial Properties of Purple Basil kombucha Beverage. *Turkish Journal of Agriculture.* 7(9). P. 1321-1327.

Yoga, W.K dan Rabani, I.G.A.Y.R.S (2022). Analisis Total Fenol, Total Flavonoid, Dan Total Tanin Pada Produk Minuman Probiotik Sari Buah Salak

UNIVERSITAS
GADJAH MADA
Kombucha Kopi Robusta Dengan Penambahan Buah Salak: Karakteristik Fisikokimiawi, Mikrobiologi, Dan Aktivitas Antioksidan
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Universitas Gadjah Mada, 2026 | Diunduh dari http://etd.repository.ugm.ac.id/

(*Salacca Zalaca* Var. *Ambonensis*). *Pro Food (Jurnal Ilmu dan Teknologi Pangan).* 8(1). P. 69-76.

Yoo, S.J., Kim, D.E., Satyawan, L.I., Eyun, S., Jeon, C.O & Kang, H.A (2025). Genome-based Exploration of Volatile Flavor Diversity from Food Yeast Species. *Food & Beverages.* 25(1). P. 1-14.

Zhong, J., Chen, Y., Shi, H., Zhou, T., Wang, C., Guo, Z., Liang, Y., Zhang, Q & Sun, M (2024). Identification and Functional Analysis of Terpene Synthases revealing The Secrets of Aroma Formation in *Chrysanthemum aromaticum. International Journal of Biological Macromolecules.* P. 1-15. https://doi.org/10.1016/j.ijbiomac.2024.130245

Zofia, N., Aleksandra, Z., Tomasz, B., Martyna, Z.D., Magdalena, Z., Zofia, H.B., Tomasz, W (2020). Effect of fermentation time on antioxidant and anti-ageing properties of green coffee kombucha ferments. Molecules. 25(22):5394. https://doi.org/10.3390/molecules25225394

Zubaidah, E., Dewantari, F.J., Novitasari, F.R., Srianta, I & Blanc, P.J (2018). Potential of Snake Fruit (*Salacca zalacca* (Gaerth.) Voss) for The Development of a Beverage through Fermentation with The kombucha Consortium. *Biocatalysis and Agricultural Biotechnology.* P. 198-203. https://doi.org/10.1016/j.bcab.2018.09.016