



DAFTAR PUSTAKA

- Adawiyah, D.R., Azis, M.A., Ramadhani, A.S. dan Chueamchaitrakun, P., 2019. Perbandingan Profil Sensori Teh Hijau Menggunakan Metode Analisis Deskripsi Kuantitatif Dan Cata (Check-All-That-Apply). *Jurnal Teknologi dan Industri Pangan*, 30(2), hal.161–172.
- Adawiyah, D.R., Wisetsombat, S. dan Chueamchaitrakun, P., 2017. Korelasi Antara Sifat Sensori dan Fisikokimia Teh Hijau. *Jurnal Mutu Pangan*, 4(2), hal.65–69.
- Ahmad, M., Baba, W.N. dan Wani, T.A., 2015. Effect of green tea powder on thermal , rheological & functional properties of wheat flour and physical , nutraceutical & sensory analysis of cookies. , 52(September), hal.5799–5807.
- Anesini, C., Ferraro, G.E. dan Filip, R., 2008. Total polyphenol content and antioxidant capacity of commercially available tea (*Camellia sinensis*) in Argentina. *Journal of Agricultural and Food Chemistry*, 56(19), hal.9225–9229.
- Anjarsari, I.R.D., 2016. Katekin teh Indonesia : prospek dan manfaatnya. *Kultivasi*, 15(2), hal.99–106.
- Anon, 2020, *Menikmati Panorama Delapan Gunung di Kebun Teh Nglinggo* [Daring]. Available at: <http://kagama.co/2020/07/19/menikmati-panorama-delapan-gunung-di-kebun-teh-nglinggo/3/> [Diakses: 23 September 2021].
- Aranda-Gonzalez, I., Perera-Pacheco, M., Barbosa-Martín, E. dan Betancur-Ancona, D., 2016. Substituição do açúcar com extratos de S. Rebaudiana sobre as propriedades físico-químicas e sensoriais de sorvete de morango. *Ciencia Rural*, 46(4), hal.604–609.
- Bajerska, J., Mildner-Szkudlarz, S., Jeszka, J. dan Szwengiel, A., 2010. Catechin stability, antioxidant properties and sensory profiles of rye breads fortified with green tea extracts. *Journal of Food and Nutrition Research*, 49(2), hal.104–111.
- BPS, 2019. *Statistik Teh Indonesia*, Badan Pusat Statistik, Jakarta.
- Breslin, P.A.S., Gilmore, M.M., Beauchamp, G.K. dan Green, B.G., 1993. Psychological evidence that astringency is a tactile sensation. *Chemical Senses*, 18(4), hal.405–417.
- Cadot, Y., Caillé, S., Samson, A., Barbeau, G. dan Cheynier, V., 2010. Sensory dimension of wine typicality related to a terroir by Quantitative Descriptive Analysis, Just About Right analysis and typicality assessment. *Analytica Chimica Acta*, 660(1–2), hal.53–62.
- Chan, E.W.C., Lim, Y.Y. dan Chew, Y.L., 2007. Antioxidant activity of *Camellia sinensis* leaves and tea from a lowland plantation in Malaysia. *Food Chemistry*,



102(4), hal.1214–1222.

Dietz, C. dan Dekker, M., 2017. Effect of Green Tea Phytochemicals on Mood and Cognition. , hal.2876–2905.

Dou, Q.P., 2019. Tea in health and disease. *Nutrients*, 11(4), hal.929.

Effendi, D.S., Syakir, M., Yusron, M. dan Wiratno, 2010. *Budidaya dan pascapanen teh*, Pusat Penelitian dan Pengembangan Perkebunan, Bogor.

Eneighe, S.A., Dzelagha, F.B. dan Nde, D.B., 2020. Production of an herbal green tea from ambang (*Xymalos monospora*) leaves: Influence of drying method and temperature on the drying kinetics and tea quality. *Journal of Food Science and Technology*, 57(9), hal.3381–3389. Available at: <https://doi.org/10.1007/s13197-020-04371-z>.

Feng, L., Gao, M.J., Hou, R.Y., Hu, X.Y., Zhang, L., Wan, X.C. dan Wei, S., 2014. Determination of quality constituents in the young leaves of albino tea cultivars. *Food Chemistry*, 155, hal.98–104. Available at: <http://dx.doi.org/10.1016/j.foodchem.2014.01.044>.

Friedman, M., Levin, C.E., Choi, S.H., Lee, S.U. dan Kozukue, N., 2009. Changes in the composition of raw tea leaves from the korean Yabukida plant during high-temperature processing to pan-fried kamairi-cha green tea. *Journal of Food Science*, 74(5), hal.406–412.

Fujioka, K., Iwamoto, T., Shima, H., Tomaru, K., Saito, H., Ohtsuka, M., Yoshidome, A., Kawamura, Y. dan Manome, Y., 2016. The powdering process with a set of ceramic mills for green tea promoted catechin extraction and the ROS inhibition effect. *Molecules*, 21(4).

Gere, A., Bajusz, D., Biró, B. dan Rácz, A., 2021. Discrimination ability of assessors in check-all-that-apply tests: Method and product development. *Foods*, 10(5), hal.1–14.

Globe Newswire, 2021, *Global Matcha Tea Market Report 2020: Market is Expected to Reach \$2.69 Billion by 2026 Growing at a CAGR of 6.7% from 2019 to 2026* [Daring]. Available at: <https://www.globenewswire.com/fr/news-release/2021/01/18/2160097/28124/en/Global-Matcha-Tea-Market-Report-2020-Market-is-Expected-to-Reach-2-69-Billion-by-2026-Growing-at-a-CAGR-of-6-7-from-2019-to-2026.html> [Diakses: 30 September 2021].

Hamrouni-Sellami, I., Rahali, F.Z., Rebey, I.B., Bourgou, S., Limam, F. dan Marzouk, B., 2013. Total Phenolics, Flavonoids, and Antioxidant Activity of Sage (*Salvia officinalis* L.) Plants as Affected by Different Drying Methods. *Food and Bioprocess Technology*, 6(3), hal.806–817.

Hasanah, U., Adawiyah, R.D. dan Nurtama, B., 2014. Preferensi dan Ambang Deteksi Rasa Manis dan Pahit: Pendekatan Multikultural dan Gender. *Jurnal Mutu Pangan*, 1(1), hal.1–8.



Heiss, M. Lou, 2008. Matcha; The Gossamer Tea Powder of Japan. *The Leaf* 4, hal.20–24.

Herlambang, E.S., Hubeis, M. dan Palupi, N.S., 2011. Kajian Perilaku Konsumen terhadap Strategi Pemasaran Teh Herbal di Kota Bogor. *MANAJEMEN IKM: Jurnal Manajemen Pengembangan Industri Kecil Menengah*, 6(2), hal.85–93.

Jakubczyk, K., Kochman, J., Kwiatkowska, A., Kałdunska, J., Dec, K., Kawczuga, D. dan Janda, K., 2020. Antioxidant properties and nutritional composition of matcha green tea. *Foods*, 9(4), hal.1–10.

Juneja, L.R., Kapoor, M.P., Rao, T.P. dan Okubo, T., 2010. Green Tea: History, Processing Techniques, Principles, Traditions, Features, and AtTRACTIONS. In: *Green Tea Polyphenols - Nutraceuticals of modern life*. CRC Press, Boca Ration, Florida., hal. 1–8.

Kim, J.Y., Prescott, J. dan Kim, K.O., 2014. Patterns of sweet liking in sucrose solutions and beverages. *Food Quality and Preference*, 36, hal.96–103. Available at: <http://dx.doi.org/10.1016/j.foodqual.2014.03.009>.

Ku, K.M.O., Choi, J.N., Kim, J., Kee Kim, J., Yoo, L.G., Lee, S.J., Hong, Y.S. dan Lee, C.H., 2010. Metabolomics analysis reveals the compositional differences of shade grown tea (*Camellia sinensis* L.). *Journal of Agricultural and Food Chemistry*, 58(1), hal.418–426.

Lee, J., Chambers, E., Chambers, D.H., Chun, S.S., Oupadissakoon, C. dan Johnson, D.E., 2010. Consumer acceptance for green tea by consumers in the United States, Korea and Thailand. *Journal of Sensory Studies*, 25(SUPPL. 1), hal.109–132.

Lee, L.S., Choi, J.H., Son, N., Kim, S.H., Park, J.D., Jang, D.J., Jeong, Y. dan Kim, H.J., 2013. Metabolomic analysis of the effect of shade treatment on the nutritional and sensory qualities of green tea. *Journal of Agricultural and Food Chemistry*, 61(2), hal.332–338.

Li, Yao, Wang, Hua, Wang, Yang, Dong, Zhou, Jiang, Deng dan Yuan, 2019. Rutin, γ -Aminobutyric Acid, Gallic Acid, and Caffeine Negatively Affect the Sweet-Mellow Taste of Congou Black Tea Infusions. *Molecules*, 24(23), hal.4221. Available at: <https://www.mdpi.com/1420-3049/24/23/4221>.

Liou, B.K., Jaw, Y.M., Chuang, G.C.C., Yau, N.N.J., Zhuang, Z.Y. dan Wang, L.F., 2020. Important sensory, association, and postprandial perception attributes influencing young Taiwanese consumers' acceptance for Taiwanese specialty teas. *Foods*, 9(1), hal.1–15.

Martono, B. dan Setiyono, R.T., 2014. Skrining Fitokimia Enam Genotipe Teh. *Jurnal Tanaman Industri dan Penyegar*, 1(2), hal.63.

Meilgaard, M., Civille, G.V. dan Carr, B.T., 2007. *Sensory Evaluation Techniques* 4 ed., Boca Ration, Florida.



Nakamura, E., Tomita, I. dan Matsuura, T., 2018. Composition and functionality of “matcha” of different qualities. *Japanese Journal of Food Chemistry and Safety*, 25(1), hal.7–14.

Olawoye, B. dan Gbadamosi, S.O., 2020. Sensory profiling and mapping of gluten-free cookies made from blends Cardaba banana flour and starch. *Journal of Food Processing and Preservation*, 44(9), hal.1–12.

Ošťádalová, M., Tremlová, B., Pokorná, J. dan Král, M., 2014. Chlorophyll as an indicator of green tea quality. *Acta Veterinaria Brno*, 83, hal.S103–S109.

Ouyang, Q., Wang, L., Park, B., Kang, R., Wang, Z., Chen, Q. dan Guo, Z., 2020. Assessment of matcha sensory quality using hyperspectral microscope imaging technology. *Lwt*, 125(October 2019), hal.109254. Available at: <https://doi.org/10.1016/j.lwt.2020.109254>.

Park, D.J., Imm, J.Y. dan Ku, K.H., 2001. Improved dispersibility of green tea powder by microparticulation and formulation. *Journal of Food Science*, 66(6), hal.793–798.

Peters, C.M., Green, R.J., Janle, E.M. dan Ferruzzi, M.G., 2010. Formulation with ascorbic acid and sucrose modulates catechin bioavailability from green tea. *Food Research International*, 43(1), hal.95–102. Available at: <http://dx.doi.org/10.1016/j.foodres.2009.08.016>.

Phongnarisorn, B., Orfila, C., Holmes, M. dan Marshall, L.J., 2018. Enrichment of biscuits with matcha green tea powder: Its impact on consumer acceptability and acute metabolic response. *Foods*, 7(2).

Popa, D. dan Ustunol, Z., 2011. Sensory attributes of low-fat strawberry yoghurt as influenced by honey from different floral sources, sucrose and high-fructose corn sweetener. *International Journal of Dairy Technology*, 64(3), hal.451–454.

Prawira-atmaja, M.I., Harianto, S., Maulana, H. dan Rohdiana, D., 2018. Menggunakan Disc Mill dan Stone Mill [Physical Characteristics of Green Tea Powder Processed by Disc and Stone Mills]. *Jurnal Teknologi dan Industri Pangan*, 29(1), hal.77–84.

Purwanto, A., 2020, *Pasang Surut Teh Indonesia di Kancah Dunia – Jelajah Kompas* [Daring]. Available at: <https://jelajah.kompas.id/ekspedisi-teh-nusantara/baca/pasang-surut-teh-indonesia-di-kancah-dunia/> [Diakses: 25 Juni 2021].

Pusat Penelitian Teh dan Kina, 2015, *Klon GMB 1 - 11* [Daring]. Available at: <https://gamboeng.com/pages/detail/2015/59/146> [Diakses: 13 Oktober 2021].

Puspitasari, M., 2019, *Perbedaan Teh Varietas Assamica dan Sinensis* [Daring]. Available at: <http://balittri.litbang.pertanian.go.id/index.php/berita/infoteknologi/1024-perbedaan-teh-varietas-assamica-dan-sinensis> [Diakses: 25 Juni 2021].



- Rahimmalek, M. dan Goli, S.A.H., 2013. Evaluation of six drying treatments with respect to essential oil yield, composition and color characteristics of *Thymys daenensis* subsp. *daenensis*. Celak leaves. *Industrial Crops and Products*, 42(1), hal.613–619. Available at: <http://dx.doi.org/10.1016/j.indcrop.2012.06.012>.
- Richardson, A.M., Tyuftin, A.A., Kilcawley, K.N., Gallagher, E., O'sullivan, M.G. dan Kerry, J.P., 2021. The application of pureed butter beans and a combination of inulin and rebaudioside a for the replacement of fat and sucrose in sponge cake: Sensory and physicochemical analysis. *Foods*, 10(2).
- Rohdiana, D., 2015. Teh: Proses, Karakteristik & Komponen Fungsionalnya. *Foodreview Indonesia*, Vol. X(8/August), hal.34–37.
- Roshanak, S., Rahimmalek, M. dan Goli, S.A.H., 2016. Evaluation of seven different drying treatments in respect to total flavonoid, phenolic, vitamin C content, chlorophyll, antioxidant activity and color of green tea (*Camellia sinensis* or *C. assamica*) leaves. *Journal of Food Science and Technology*, 53(1), hal.721–729.
- Saito, S.T., Fröhlich, P.E., Gosmann, G. dan Bergold, A.M., 2007. Full validation of a simple method for determination of catechins and caffeine in Brazilian green tea (*Camellia sinensis* var. *assamica*) using HPLC. *Chromatographia*, 65(9–10), hal.607–610.
- Samudera, J., Daryanto, A. dan Saptono, I.T., 2017. Competitiveness of Indonesian Tea in International Market. *Indonesian Journal of Business and Entrepreneurship*, 3(1), hal.14–23.
- Sano, T., Horie, H. dan Hirono, Y., 2018. Effect of shading intensity on morphological and color traits and on chemical components of new tea (*Camellia sinensis* L.) shoots under. , (May).
- Schilling, M.W. dan Coggins, P.C., 2007. Utilization of agglomerative hierarchical clustering in the analysis of hedonic scaled consumer acceptability data. *Journal of Sensory Studies*, 22(4), hal.477–491.
- Schwarz, B. dan Hofmann, T., 2008. Is there a direct relationship between oral astringency and human salivary protein binding? *European Food Research and Technology*, 227(6), hal.1693–1698.
- Sedyowati, Y.T., 2011, *Pengolahan Teh Hijau* [Daring]. Available at: <http://cybex.pertanian.go.id/mobile/artikel/50687/Pengolahan-Teh-Hijau/> [Diakses: 29 September 2021].
- Segal, M., 2001, *Tea: A Story of Serendipity / Diabetic Gourmet Magazine* [Daring]. Available at: <https://diabeticcgourmet.com/articles/tea-a-story-of-serendipity/> [Diakses: 25 Juni 2021].
- Shalaby, E.A., Mahmoud, G.I. dan Shanab, S.M.M., 2016. Suggested mechanism for the effect of sweeteners on radical scavenging activity of phenolic



- compounds in black and green tea. *Frontiers in Life Science*, 9(4), hal.241–251. Available at: <http://dx.doi.org/21553769.2016.1233909>.
- Silva, A.N. da, Silva, R. de C. dos S.N. da, Ferreira, M.A.M., Minim, V.P.R., Costa, T. de M.T. da dan Perez, R., 2013. Performance of hedonic scales in sensory acceptability of strawberry yogurt. *Food Quality and Preference*, 30(1), hal.9–21. Available at: <http://dx.doi.org/10.1016/j.foodqual.2013.04.001>.
- Sinija, V.R. dan Mishra, H.N., 2011. Fuzzy Analysis of Sensory Data for Quality Evaluation and Ranking of Instant Green Tea Powder and Granules., hal.408–416.
- Somantri, R., 2014. *The Story in a Cup of Tea*, Transmedia: Jakarta.
- Song, R., Kelman, D., Johns, K.L. dan Wright, A.D., 2012. Correlation between leaf age, shade levels, and characteristic beneficial natural constituents of tea (*Camellia sinensis*) grown in Hawaii. *Food Chemistry*, 133(3), hal.707–714. Available at: <http://dx.doi.org/10.1016/j.foodchem.2012.01.078>.
- Statista, 2021a, *Global production and exports of tea from 2004 to 2019* [Daring]. Available at: <https://www.statista.com/statistics/264183/global-production-and-exports-of-tea-since-2004/> [Diakses: 30 September 2021].
- Statista, 2021b, *Leading tea exporting countries worldwide in 2020 (in million U.S. dollars)* [Daring]. Available at: <https://www.statista.com/statistics/264189/main-export-countries-for-tea-worldwide/> [Diakses: 30 September 2021].
- Statista, 2020, *Tea - Indonesia / Statista Market Forecast* [Daring]. Available at: <https://www.statista.com/outlook/cmo/hot-drinks/tea/indonesia> [Diakses: 25 Juni 2021].
- Suprihatini, R., 2005. Daya Saing Ekspor Teh Indonesia. *Jurnal Agro Ekonomi*, 23(1), hal.1–29.
- Swanepoel, M., du Toit, M. dan Nieuwoudt, H.H., 2007. Optimisation of the quantification of total soluble solids, pH and titratable acidity in South African grape must using fourier transform mid-infrared spectroscopy. *South African Journal of Enology and Viticulture*, 28(2), hal.140–149.
- Syafaruddin, 2018, *Teh Pagilaran, Plasma Nutfah Tersembunyi yang Menjanjikan* [Daring]. Available at: <http://balittri.litbang.pertanian.go.id/index.php/berita/berita-lain/630-teh-pagilaran-plasma-nutfah-tersembunyi-yang-menjanjikan> [Diakses: 25 Juni 2021].
- Tang, G.Y., Meng, X., Gan, R.Y., Zhao, C.N., Liu, Q., Feng, Y. Bin, Li, S., Wei, X.L., Atanasov, A.G., Corke, H. dan Li, H. Bin, 2019. Health functions and related molecular mechanisms of tea components: An update review. *International Journal of Molecular Sciences*, 20(24), hal.1–38.



- Teshome, K., Debela, A. dan Garedew, W., 2014. Effect of drying temperature and duration on biochemical composition and quality of black tea (*camellia sinensis* L.) O. Kuntze at Wush Wush, south western Ethiopia. *Asian Journal of Plant Sciences*, 12(6), hal.235–240.
- Theppakorn, T., 2016. Stability and chemical changes of phenolic compounds during Oolong tea processing. *International Food Research Journal*, 23(2), hal.564–574.
- Tong, T., Liu, Y.J., Kang, J., Zhang, C.M. dan Kang, S.G., 2019. Antioxidant activity and main chemical components of a novel fermented tea. *Molecules*, 24(16), hal.1–14.
- Tongsai, S., Jangchud, A., Jangchud, K. dan Haruthaithasan, V., 2020. Descriptive sensory analysis of Chinese and Assam drinking green teas from Thailand influenced by varying durations of rolling and pan-firing processes. *Agriculture and Natural Resources*, 54, hal.537–544.
- Tontul, I., Torun, M., Dincer, C., Sahin-Nadeem, H., Topuz, A., Turna, T. dan Ozdemir, F., 2013. Comparative study on volatile compounds in Turkish green tea powder: Impact of tea clone, shading level and shooting period. *Food Research International*, 53(2), hal.744–750. Available at: <http://dx.doi.org/10.1016/j.foodres.2012.12.026>.
- Topuz, A., Dincer, C., Torun, M. dan Tontul, I., 2014. Physicochemical properties of Turkish green tea powder : effects of shooting period , shading , and clone. , hal.233–241.
- Unno, K., Furushima, D., Hamamoto, S., Iguchi, K., Yamada, H., Morita, A., Horie, H. dan Nakamura, Y., 2018. Stress-reducing function of matcha green tea in animal experiments and clinical trials. *Nutrients*, 10(10), hal.1–14.
- Utama-ang, N., Phawatwiangnak, K., Naruenartwongsakul, S. dan Samakradhamrongthai, R., 2017. Antioxidative effect of Assam Tea (*Camellia sinesis* Var. *Assamica*) extract on rice bran oil and its application in breakfast cereal. *Food Chemistry*, 221, hal.1733–1740. Available at: <http://dx.doi.org/10.1016/j.foodchem.2016.10.112>.
- Wan, X., Li, D. dan Zhang, Z., 2009. Green Tea and Black Tea Manufacturing and Consumption. In: Ho, C.-T., Lin, J.-K. dan Shahidi, F., (ed.) *Tea and Tea Products: Chemistry and Health-Promoting Properties*. CRC Press, Boca Ration, Florida., hal. 1–8.
- Wang, L.F., Kim, D.M. dan Lee, C.Y., 2000. Effects of heat processing and storage on flavanols and sensory qualities of green tea beverage. *Journal of Agricultural and Food Chemistry*, 48(9), hal.4227–4232.
- Wang, Y.S., Gao, L.P., Shan, Y., Liu, Y.J., Tian, Y.W. dan Xia, T., 2012. Influence of shade on flavonoid biosynthesis in tea (*Camellia sinensis* (L.) O. Kuntze). *Scientia Horticulturae*, 141(June), hal.7–16. Available at:



UNIVERSITAS
GADJAH MADA

PENGARUH SHADING PADA TANAMAN *Camellia sinensis* var. *assamica* YANG DIBUDIDAYAKAN DI
YOGYAKARTA DAN
FORMULASI MATCHA TERHADAP KUALITAS DAN PENERIMAAN KONSUMEN
BENEDICTA KHRISNARESTRI BETARI, Dr. Ir. Supriyadi, M.Sc.; Dr. Manikharda, S.T.P., M.Agr.

Universitas Gadjah Mada, 2021 | Diunduh dari <http://etd.repository.ugm.ac.id/>

<http://dx.doi.org/10.1016/j.scienta.2012.04.013>.

Yang, J. dan Lee, J., 2019. Application of Sensory Descriptive Analysis and Consumer Studies to Investigate Traditional and Authentic Foods : A Review. , hal.1–17.

Yang, X.R., Ye, C.X., Xu, J.K. dan Jiang, Y.M., 2007. Simultaneous analysis of purine alkaloids and catechins in *Camellia sinensis*, *Camellia ptilophylla* and *Camellia assamica* var. *kucha* by HPLC. *Food Chemistry*, 100(3), hal.1132–1136.

Yang, Z., Kobayashi, E., Katsuno, T., Asanuma, T., Fujimori, T., Ishikawa, T., Tomomura, M., Mochizuki, K., Watase, T., Nakamura, Y. dan Watanabe, N., 2012. Characterisation of volatile and non-volatile metabolites in etiolated leaves of tea (*Camellia sinensis*) plants in the dark. *Food Chemistry*, 135(4), hal.2268–2276. Available at: <http://dx.doi.org/10.1016/j.foodchem.2012.07.066>.

Zhang, L., Ho, C.T., Zhou, J., Santos, J.S., Armstrong, L. dan Granato, D., 2019. Chemistry and Biological Activities of Processed *Camellia sinensis* Teas: A Comprehensive Review. *Comprehensive Reviews in Food Science and Food Safety*, 18(5), hal.1474–1495.

Zhang, M., Yang, Y., Yuan, H., Hua, J., Deng, Y., Jiang, Y. dan Wang, J., 2020. Contribution of addition theanine/sucrose on the formation of chestnut-like aroma of green tea. *Lwt*, 129(January), hal.109512. Available at: <https://doi.org/10.1016/j.lwt.2020.109512>.

Zhang, Q., Shi, Y., Ma, L., Yi, X. dan Ruan, J., 2014. Metabolomic Analysis Using Ultra-Performance Liquid Chromatography-Quadrupole-Time of Flight Mass Spectrometry (UPLC-Q-TOF MS) Uncovers the Effects of Light Intensity and Temperature under Shading Treatments on the Metabolites in Tea. , 9(11).

Zokti, J.A., Baharin, B.S., Mohammed, A.S. dan Abas, F., 2016. Green tea leaves extract: Microencapsulation, physicochemical and storage stability study. *Molecules*, 21(8), hal.1–24.