

## DAFTAR PUSTAKA

- Acosta-Estrada, B.A., Janet A. Gutierrez-Urbe †, Sergio O. Serna-Saldivar.  
Review-Bound phenolics in foods, *Food Chemistry*, 152: 46–55
- Adzkiya, M.A.Z. 2011. *Kajian Potensi Antioksidan Beras Merah Dan Pemanfaatannya Pada Minuman Beras Kencur*. Thesis. Sekolah Pascasarjana Institut Pertanian Bogor.
- Andrie, M., Wintari, T. dan Rizqa, A. 2014. Uji Aktivitas Jamu Gendong Kunyit Asam (*Curcuma domestica* Val.; *Tamarindus indica* L.) Sebagai Antidiabetes Pada Tikus Yang Diinduksi *Streptozotocin*. *Trad. Med. J.*, 19(2): 1410-5918.
- Anindita, A.Y. 2010. Pengaruh kebiasaan mengkonsumsi minuman kunyit asam terhadap keluhan dismenorea primer pada remaja putri di kotamadya Surakarta. Skripsi. Fakultas Kedokteran Universitas Negeri Surakarta.
- Bhattacharya, S., Subramanian, M., Bauri, A., Kamat, J.P., 2005. Radioprotecting property of the ethonolic extract of the *Piper betle* leaf. *Journal of Radiation Research*, 46: 165–171.
- Benzie FF, Strain JJ. 1996. The Ferric Reducing Ability of Plasma (FRAP) as a Measure of “Antioxidant Power”: The FRAP Assay. *Anal Biochem*, 239: 70-76.
- Chattopadhyay I, Biswas K, Bandyopadhyay U and Banerjee RK. 2004. Turmeric and curcumin: Biological actions and medicinal applications. *Current Science*, 87:44-53.
- Chan EWC, Lim YY, Wong LF, Lianto FS, Wong SK, Lim KK, Joe CE, Lim YT. 2008. Antioxidant and tyrosinase inhibition properties of leaves and rhizomes of ginger species. *J Food Chem*. 109:477-483.
- Chan, E. W.C. Voon Pei Ng, Vi Vian Tan, Yin Yin Low. 2011. Antioxidant and Antibacterial Properties of *Alpinia galanga*, *Curcuma longa*, and *Etilingera elatior* (Zingiberaceae). *Pharmacognosy Journal*, 3.
- Chen, X.-M., & Kitts, D. D. (2011). Antioxidant and anti-inflammatory activities of Maillard reaction products isolated from sugar–amino acid model systems. *Journal of Agricultural and Food Chemistry*, 59, 11294–11303.
- Dachlan, M. A. 1994. *Proses Pembuatan Gula Merah*. Balai Besar Penelitian dan Pengembangan Industri Hasil Penelitian, Bogor.

- Darwis ABD, Indo M, Hasiyah S. 1991. *Tumbuhan Obat Famili Zingiberaceae*. Bogor: Pusat Penelitian dan Pengembangan Tanaman Industri.
- Dedin, F. R., D. Fardiaz, A. Apriyantono, dan N. Andarwulan. 2006. Isolasi dan karakterisasi melanoidin kecap manis dan peranannya sebagai antioksidan. *Jurnal Teknologi Dan Industri Pangan*. 17(3):204-213.
- Feng, J. Y., & Liu, Z. Q. (2009). Phenolic and enolic hydroxyl groups in curcumin: Which plays the major role in scavenging radicals? *Journal of Agricultural and Food Chemistry*, 57, 11041–11046
- Ghosh, S., Sharmistha Banerjee 1, Parames C. Sil\* 2015. The beneficial role of curcumin on inflammation, diabetes and neurodegenerative disease: A recent update. *Food and Chemical Toxicology*, 83: 111e124. Invited review  
Shatadal Ghosh 1,  
Division of Molecular Medicin
- Goldberg I. 1994. *Functional Food, Designer Food, Pharma Food, Nutraceuticals*. New York: Champman&Hall.
- Gordon MH. 1990. The mechanism of antioxidant activity in vitro. *In: Hudson BJB (ed). Food Antioxidants*. London : Elsevier Appl. Sci. pp 1-8.
- Huang, S.L, Chang W.H. 1986. A study on the main antioxidative components of betel vines. *J. of the Chinese Agric. Chemical Society*, 24(2): 199-210.
- Havinga, R.M, Anna Hartl, Johanna Putscher, Sarah Prehsler, Christine Buchmann, Christian R. Vogl. 2010. Tamarindus indica L. (Fabaceae): Patterns of use in traditional African medicine. *Reviews. Journal of Ethnopharmacology*, 127 : 573–588
- Halliwell B, Gutteridge JMC. 1999. *Free Radicals in Biology and Medicine* 3rd Edition. Oxford : Oxford University Press.
- Harrison, K., & Were, L. M. (2007). Effect of gamma irradiation on total phenolic content yield and antioxidant capacity of Almond skin extracts. *Food Chemistry*, 102, 932–937.
- Harrison, K., & Were, L. M. (2007). Effect of gamma irradiation on total phenolic content yield and antioxidant capacity of Almond skin extracts. *Food Chemistry*, 102, 932–937
- Ichikawa T. 1994. *Functional food in japan*. *In: Ichikawa, T. (ed). Functional Food : Designer, Pharmafoods, Nutraceuticals*. New York : Chapman dan Hall Inc 42-61.

- Indriyani, Y., Amir, M. dan Mirza, I., 2009. Kebiasaan makan yang berhubungan dengan kesehatan reproduksi remaja putri di kabupaten bogor. *J gizi dan pangan*, 4(3): 132-137
- Jayaprakasha GK Jaganmohan L, dan Sakariah KK. 2006. Antioxidant activities of curcumin, demethoxycurcumin and bisdemethoxycurcumin. *Food Chemistry*, 98:720-724.
- Jayaprakasha GK, Jagan MR, dan Sakariah KK. 2005. Chemistry and biological activities of *C. longa*. *Trends in Food Science and Technology*, 16 :533-548.
- Jenie, B.S.L, Andarwulan N, Puspitasari N.L, Nuraida L. 2001. Antimicrobial activity of *Piper betle* Linn extract towards foodborne pathogens and food spoilage microorganism.
- Jeong SM, Kim SY, Kim DR, Jo SC, Nam KC, Ahn DU, Lee SC. Effect of heat treatment on the antioxidant activity of extracts from citrus peels. *J Agric Food Chem* 2004;52:3389e93
- Jovanovic SV, Boone, CW, Steenken S, Trinoga M, dan Kasley RB. 2001. How curcumin works preferentially with water soluble antioxidants. *J Am Chem*
- Jusuf E. 1980. *Analisis Kandungan Kurkumin pada Rimpang Beberapa Jenis Kurkuma dari Jawa* [skripsi]. Jakarta: Fakultas Biologi Universitas Nasional.
- Khalil, O.A.K., Olga M. M. F.O., José C. R. V., Andreza U de Q., Loriangela M.D., Thaysa K. K., Rubiana M. M., Najeh M.K. 2012. Curcumin antifungal and antioxidant activities are increased in the presence of ascorbic acid. *Food Chemistry*, 133: 1001–1005.
- Kim HY, Woo KS, Hwang IG, Lee YR, Jeong HS. 2008. Effects of heat treatments on the antioxidant activities of fruits and vegetables. *Korean J Food Sci Technol*, 40:166-70.
- Kim YC, Cho CW, Rhee YK, Yoo KM, Rho JH. Antioxidant activity of ginseng extracts prepared by enzyme and heat treatment. *J Korean Soc Food Sci Nutr* 2007;36:1482e5.
- Kochar SP, Rossell JB. 1995. Detection, estimation, and evaluation of antioxidant in food systems. In :Hudson BJB (ed). *Food Antioxidants*. London : Elseviere Appl. Sci. : 19-64
- Komutarin, T., Azadi, S., Butterworth, L., Keil, D., Chitsomboon, B., Suttajit, M., et al. (2004). Extract of the seed coat of *Tamarindus indica* inhibits nitric

oxide production by murine macrophages in vitro and in vivo. *Food and Chemical Toxicology*, 42, 649–658.

Kordial N. 2009. *Perpanjangan Umur Simpan Dan Perbaikan Citarasa Minuman Fungsional Berbasis Kumis Kucing (Orthosiphon Aristatus Bi. Miq) Menggunakan Ekstrak Berbagai Varietas Jeruk*. [skripsi]. Bogor: Institut Pertanian Bogo

Kusumopradono, 1990. Perubahan Warna Kurkumin pada Pelbagai pH, Laporan Penelitian Laboratorium Proses, Universitas Diponegoro.

Kwon OC, Woo KS, Kim TM, Kim DJ, Hong JT, Jeong HS. 2006. Physicochemical characteristics of garlic (*Allium sativum* L.) on the high temperature and pressure treatment. *Korean J Food Sci Technol*, 38: 3064-3068.

Lee YR, Hwang IG, Woo KS, Kim DJ, Hong JT, Jeong HS. 2007. Antioxidative activities of the ethyl acetate fraction from heated onion (*Allium cepa*). *Food Sci Biotechnol*, 16:104.

Limananti A.I. and Triratnawati A. 2003. Ramuan Jamu Cekok Sebagai Penyembuhan Kurang Nafsu Makan Pada Anak: Suatu Kejadian Etnomedisin. *Makara Kesehatan* 7: 11-20.

Lukita-Atmadja W., Ito Y., Baker G.L., and McCuskey R.S. 2002. Effect of curcuminoids as anti-inflammatory agents on the hepatic microvascular response to endotoxin. *SHOCK*, 17 (5) : 399–403.

Maiti, R., Das, U. K., & Ghosh, D. (2005). Attenuation of hyperglycemia and hyperlipidemia in streptozotocin-induced diabetic rats by aqueous extract of seed of *Tamarindus indica*. *Biological Pharmaceutical Bulletin*, 28(7), 1172–1176.

Martins, S. I. F. S., Jongen, W. M. F., & van Boekel, M. A. J. S. (2001). A review of Maillard reaction in food and implications to kinetic modeling. *Trends in Food Science and Technology*, 11, 364–373.

Martinello, F., Soares, S. M., Franco, J. J., Santos, A. C., Sugohara, A., Garcia, S. B., et al. (2006). Hypolipemic and antioxidant activities from *Tamarindus indica* L. Pulp fruit extract in hypercholesterolemic hamsters. *Food and Chemical Toxicology*, 44(6), 810–818

Maturin L, Peeler JT. 2001. *Aerobic Plate Count*. Di dalam: *Bacteriological Analytical Manual Online*. Center for Food Safety and Applied Nutrition. U.S. Food and Drug Administration.

- Meilgaard M, Civille GV, Carr BT. 1999. Sensory Evaluation Techniques. Ed ke-4 USA: CRC Press.
- Mulyani S, Bambang Admadi H dan GAK Diah Puspawati. 2013. Potensi Minuman Kunyit Asam (*Curcuma domestica* Val. - *Tamarindus indica* L.) Sebagai Penurun Gula Darah Pada Tikus Hiperglikemik. Jurusan Teknologi Industri Pertanian, FTP, Universitas Udayana
- Mulyani S, Bambang Admadi H dan GAK Diah Puspawati. 2014. Potensi Minuman Kunyit Asam (*Curcuma domestica* Val.-*Tamarindus indica* L.) Sebagai Minuman Kaya Antioksidan. *AGRITECH*, Vol. 34, No. 1, Februari 2014. Fakultas Teknologi Pertanian, Universitas Udayana Jl. Kampus Bukit Jimbaran, Badung, Bali 80364
- Nagy S, Shaw PE. 1980. Tropical and Sub-Tropical Fruits, Composition, Properties, and Uses. Westport: The AVI Publishing Co. Inc
- Navarro DF, de Souza MM, Neto RA, Golin V, Niero R, Yunes RA, Delle MF and Cechinel FV. 2002. Phytochemical analysis and analgesic properties of *Curcuma zedoaria* grown in Brazil. *Phytomedicine*.9 (5), pp 427-32.
- Nirkolova M, Dzhurmanski. 2009. Evaluation of Free Radical Scavenging Capacity of Extract from Cultivated Plants. *Biotechnol & Biotechnol.EQSpecial Edition Online*.
- Oetari, S., Sudibyoy, M., Commandeur, J. N. M., Samhoedi, R., & Vermeukn, N. P. E. (1995). Effects of curcumin on cytochrome P450 and glutathione S-transferase activities in rat liver. *Biochemical Pharmacology*, 51, 39–45.
- Purseglove JW, Brown EG, Green CL, Robbins SRJ. 1981. *Spices* Vol 2. New York: Longman Inc.
- Sejati NIP. 2002. *Formulasi, Karakterisasi Kimia, dan Uji Aktivitas Antioksidan Produk Minuman Fungsional Tradisional Berbasis Kunyit (Curcuma domestica Val.) dan Asam Jawa (Tamarindus indica Linn.)* [skripsi]. Bogor: Institut Pertanian Bogor.
- Prabu, M. S., M. Muthumani, K. Shagirtha. 2012. Protective effect of *Piper betle* leaf extract against cadmium-induced oxidative stress and hepatic dysfunction in rats. *Saudi Journal of Biological Sciences*. 19, 229-239.
- Pratt DE, Hudson BJB. 1992. Natural antioxidant not exploited commercially. In: Hudson BJB (ed). *Food Antioxidants*. London : Elsevier Appl. Sci.171-192.

- Ramji, N., Iyer, R., Chandrasekaran, S., 2002. Phenolic antibacterials from piper betel in the prevention of halitosis. *Journal of Ethnopharmacology*, 83: 149–152.
- Riset kesehatan dasar. Kementerian republic Indonesia, 2010.
- Said, A. 2007. *Pembuatan Gula Kelapa*. Ganeca Exact, Jakarta. 52 hal
- Sampoerno, Fardiaz D. 2001. *Kebijakan dan Pengembangan Pangan Fungsional dan Suplemen di Indonesia*. Didalam: Nuraida L dan Dewanti-Hariadi R, Editor. *Pangan Tradisional basis bagi industri pangan fungsional & suplemen*. Bogor: Pusat Kajian Makanan Tradisional, Institut Pertanian Bogor.
- Setyamidjaja, D. 2008. *Bertanam Kelapa: Budidaya dan Pengolahannya*. Kanisius, Yogyakarta. 120 hal.
- Sudjaroen, Y., Haubner, R., Wurtele, G., Hull, W. E., Erben, G., Spiegelhalder, B., et al.  
(2005). Isolation and structure elucidation of phenolic antioxidants from Tamarind (*Tamarindus indica* L.) seeds and pericarp. *Food and Chemical Toxicology*, 43(11), 1673–1682.
- Soemardji AA. 2007. *Tamarindus Indica* L or “Asam Jawa: The sour but sweet and usefull. [Disertasi]. The institute of natural medicine University of Toyama. Japan (on line)
- Soestina V, Hidayat E. 1977. Pohon Asam (*Tamarindus Indica* Linn.). *Buletin Kebun Raya* 3.
- Suharmiati. 2003. *Menguak Tabir dan Potensi Jamu Gendong*. Jakarta: Penerbit Agromedia Pustaka. Halaman 2-4, 33-35.
- Suharmiati. Handayani, L. 2005. *Cara Benar Meracik Obat Tradisional*. Jakarta: Penerbit Agromedia Pustaka. Halaman 1-2, 39-41.
- Sujatno, R.M. 2002. Prospek Pengembangan Obat Tradisional di Kalangan Medis. Seminar Peringatan 55 Tahun Pendidikan Farmasi. Institut Teknologi Bandung : Bandung.
- Suresh, D. Manjunatha, Krishnapura Srinivasan . 2006. Original Article Effect of heat processing of spices on the concentrations of their bioactive principles: Turmeric (*Curcuma longa*), red pepper (*Capsicum annum*) and black pepper (*Piper nigrum*). *Journal of Food Composition and Analysis*, 20:346–351.

- Susilo E. 2011. *Optimasi Formula Minuman Fungsional Berbasis Kunyit (Curcuma Domestica Val.), Asam Jawa (Tamarindus Indica Linn.), Dan Jahe (Zingiber Officinale Var. Amaram) Dengan Metode Desain Campuran (Mixture Design)* [skripsi]. Bogor: Institut Pertanian Bogor.
- Tan, Y.P., and Chan, E.W.C., 2014. Antioxidant, antityrosinase and antibacterial properties of fresh and processed leaves of *Anacardium occidentale* and Piper betle. *Food Bioscience*, 6 : 17–23
- Tilaar, M. Wong, L.W. Ranti, AS. 2010. Green Science of Jamu. Jakarta: Penerbit Dian Rakyat, 52: 1-2.
- Tonnesen, H. H., & Karlsen, J. (1985b). Studies of curcumin and curcuminoids. V. Alkaline degradation of curcumin. *Zeitschrift für Lebensmitteluntersuchung und –Forschung A*, 180, 132–134.
- Tonnesen, H.H., Karlsen, J., 1985a. Studies on curcumin and curcuminoids— VI: kinetics of curcumin degradation in aqueous solution. *Zeitschrift für Lebensmittel und Unters Forschung* 180, 402–404.
- Trujillo J, Yolanda Irasema Chirino, Eduardo Molina-Jijón, Ana Cristina Andérica-Romero, Edilia Tapia, José Pedraza-Chaverrí. 2013. Mini Review Renoprotective effect of the antioxidant curcumin: Recent Redox Biology 1 : 448–456
- Ulfa M. 2004. Pengaruh Penggunaan CMC dan Modified Starch pada Minuman Kunyit Asam dalam Kemasan Plastik serta Perubahan Mutunya Selama Penyimpanan [skripsi]. Fateta, IPB, Bogor
- Wang, Y.J., Pan, M.H., Cheng, A.L., Lin, L.I., Ho, Y.S., Hsieh, C.Y., Lin, J.K., 1997. Stability of curcumin in buffer solutions and characterization of its degradation products. *Journal of Pharmacology and Biomedical Analysis* 15: 1867–1876
- Winarno, F. G. 1997. *Kimia Pangan dan Gizi*. Gramedia, Jakarta. 253 hal.
- Winarti S. 2010. Makanan Fungsional. Yogyakarta : Graha Ilmu
- Wolf, C.E. and W.R. Gibbons. 1996. *Improved Method of Quantification of Bacteriosin I Nisin*. *J. App. Bacteriol.*, 80:453.
- Woo KS, Hwang IG, Kim HY, Hang KI, Lee JS, Kang TS, Jeong HS. Thermal degradation characteristics and antioxidant activity of fructose solution with heating temperature and time. *J Med Food* 2011;14:167e72.

- Woo KS, Hwang IK, Song DS, Lee YR, Lee JS, Jeong HS. Changes in antioxidant activity of *Rehmannia radix* Libosch with heat treatment. *Food Sci Biotechnol* 2008;17:1387e90
- Xue Tang, Qiuping Wu, Guowei Lr, Yongshui Shi. 2012. Effects of heat treatment on structural modification and in vivo antioxidant capacity of soy protein. *Nutrition* 28: 1180-1185
- Yang SJ, Woo KS, Yoo JS, Kang TS, Noh YH, Lee JS, Jeong HS. 2006. Change of Korean ginseng components with high temperature and pressure treatment. *Korean J Food Sci Technol* 38:521.
- Zain, Resi Sindhu Nur . 2012. *Formulasi, Karakterisasi, Dan Diversifikasi Rasa Minuman Fungsional Berbasis Kunyit Asam Serta Kajian Toksisitas Dan Stabilitasnya Selama Penyimpanan*. [skripsi]. Bogor: Institut Pertanian Bogor.
- Zhuang, Y dan L. Sun. 2011. Antioxidant activity of maillard reaction products from lysine-glucose model system as related to optical property and copper (II) binding ability. *African Journal of Biotechnology*. 35(10):6784-6793.
- Zulueta A, Mari'a J. Esteve, Isabel Frasquet, Ana Fri'gola. 2007. Vitamin C, vitamin A, phenolic compounds and total antioxidant capacity of new fruit juice and skim milk mixture beverages marketed in Spain. *Food Chemistry*, 103: 1365–1374