

DAFTAR PUSTAKA

- Ahmed, S., J.R. Stepp, C. Orians, T. Griffin, C. Matyas, A. Robbat, S. Cash, D. Xue, C. Long, U. Unachukwu, S. Buckley, D. Small, and E. Kennelly. 2014. Effects of Extreme Climate Events on Tea (*Camellia sinensis* L.) Functional Quality Validate Indigenous Farmer Knowledge and Sensory Preferences in Tropical China. *Journal Plos One* vol 7(10):e109126.
- Abrahams, S., G. Tanner, P.J. Larkin, & A.R. Ashton. 2002. Identification and biochemical characterization of mutants in the proanthocyanidin pathway in *Arabidopsis*. *Plant Physiol.* 130: 561–576.
- Ai, N.S., & Y. Banyo. 2011. Konsentrasi Klorofil Daun Sebagai Indikator Kekurangan Air Pada Tanaman. *Jurnal Ilmiah Sains* Vol. 11 No. 2 : 166-173, Oktober 2011.
- Aiyegoro, O. A., & Okoh, A. I. (2010). Preliminary phytochemical screening and in vitro antioxidant activities of the aqueous extract of *Helichrysum longifolium* DC. *BMC Complementary and Alternative Medicine*, 10(1), 21.
- Akhlash, M., T. Ahmad, H.F. Siyar & R. Khanum. 2003. Qualitative Assessment of Fresh Tea Produced in Pakistan Growing Under Different Agroecological Condition and Fertilizer Treatments. *Pakistan journal Botany*, 35(5):779-790, 2003.
- Anjarsari, I.R.D. 2016. Katekin Teh Indonesia : Prospek dan Manfaatnya. *Jurnal Kultivasi* Vol. 15(2) Agustus 2016.
- Armendaris, A, S.D Woejono, H. Hartiko. 1991. *Aktivitas enzim nitrat reduktase dan korelasinya terhadap sifat pertumbuhan tanaman kakao (Theobroma cacao L.)*. Ilmu Pertanian Fakultas Pertanian UGM 4 (6): 299-305.
- Arnon, D.I. 1951. Extracellular Photosynthetic Reactions. *Nature, International Journal of Science* 167, pages 1008–1010.
- Ayu, L., D. Indradewa, E. Ambarwati, 2011. Pertumbuhan, Hasil dan Kualitas Pucuk Teh (*Camellia Sinensis* (L.) O. Kuntze) di berbagai Tinggi Tempat. Skripsi Fakultas Pertanian, Universitas Gadjah Mada.
- Ashihara, H. & A. Crozier. 2001. Caffeine: A Well Known but Little Mentioned Compound in Plant Science. *Trends Plant Sci.* 6: 1360-1385.
- Badan Meteorologi Kimatologi dan Geofisika (BMKG). 2014. Analisis Musim Hujan 2013/2014 dan Prakiraan Musim kemarau 2014. Stasiun Klimatologi Pondok betung. Tangenrang.

- Barker, A.V. & D.J. Pilbeam. 2006. Handbook of Plant Nutrition, CRC Press is An Imprint of Taylor and Francis Group, Essential Elements-Macronutrients-Nitrogen, p.19-50.
- Bidwell, R.G.S., 1974. *Plant Physiologi*, 2nd edition. Macmillan Publishing Co., New York, pp: 193 – 201, 266 – 268.
- Biswas, A.K. & A.R. Sarkar. 1973. Biological and Chemical Factors Affecting The Valuation of North East India Plain Tea. III. Statistical Evaluation of The Biochemical Constituents and Their Effects on Color, Brightness and Strength of Black teas. J. Sci. Food Agric. 24: 1457-1477.
- Bondarovich, H.A., A.S. Giammarino, J.A. Renner, F.W. Shephard, A.J. Shingler & M.A. Gianturco. 1967. Some Aspects of The Chemistry of Tea. A Comparison to The Knowledge of The Volatile Constituents. J. Agric. Food Chem. 15: 36-47.
- Carr M.K.V. 1972. The Climatic Requirements of the Tea Plant: A review. Exp. Agric. 8: 1-14.
- Chapman, S. R., & L. P. Carter. 1976. Crop Production: Principles and Practices. W. H. Freeman, New York.
- Chen, Q., Y. Ruan, Y. Wang, W.Liu & H. Zh. 1985. Chemical Evaluation of Green Tea Taste. J. Tea Sci. 5: 7-17.
- Cheruiyot E.K., Mumera L.M., Ng'etich W.K., Hassanali A., Wachira F.N., 2008. Threshold soil water content for growth of tea [*Camellia sinensis* (L.) O. Kuntze]. Tea 29: 29-38.
- Cheruiyot E.K., Mumera L.M., Ng'etich W.K., Hassanali A., & Wachira F.N. 2009. High fertilizer rates increase susceptibility of tea to water stress. J. Plant Nutr. 33: 115-129.
- Cloughly, J.B. 1983. Effect of Harvesting policy and Nitrogen Application Rates on The Production of Tea in Central Africa. II. Quality and total value of the crop. Exp. Agric., 19:47-54.
- Co, H. & G.W., Sanderson. 1970. Biochemistry of Tea Fermentation. Conversion of Amino Acids to Black Tea Aroma Constituents. J. Food Sci. 35: 160-164.
- Collier, P.D., T. Bryce, R. Mallows, P.E. Thomas, D.J. Frost, O. Korver & C.K. Wilkins. (1973). The theaflavins of black tea. Tetrah. 29: 125-142.
- Chung, H.Y., T. Yokosawa, D.Y. Soung, I.S. Kye, K. No, B.S. Baek, 1998. Peroxynitrite-scavenging activity of green tea tannin, 1. Agric. Food Chem, 46 : 4484-4486.

- Dalimoenthe, S.L. dan Y. Rachmiati. 2010. Pengaruh Pemupukan K dan ZPT pada Tanaman Teh untuk Mengurangi Resiko Musim Kemarau. Jurnal Penelitian Teh dan Kina 13 (1-2) 2010 : 14-21.
- Debere, N., F. Lemessa, K. Urgessa, & G. Berecha. 2014. Influence of Combined Application of Inorganic-N and Organic-P Fertilizers on Growth of Young Tea Plant (*Camellia sinensis* var. *assamica*) in Humid Growing Area of SW Ethiopia. Journal of Agronomy, 13:179-186.
- De Costa, W.A.J.M., A. Anandacoomaraswamy, & P.L.K. Tennakoon. 2000. Effect of Nitrogen Supply on the Response of Leaf Photosynthesis to Light in Young Clonal Tea. Indian J. Plant Physiol. 5:244-247.
- De Costa, W.A.J.M., A. J. Mohotti & M. A. Wijeratne. 2007. Ecophysiology of Tea. Braz. J. Plant Physiol., 19(4):299-332, 2007.
- Deka, R.L. 2013. Climate change in The Brahmaputra Valley and Impact of Rice and Tea production. Ph.D.Dissertation, Centre For The Environment Indian Institute of Technology Guwahati, Asam, India.
- De Silva L.D.S.M. 2007. The effects of soil amendments on selected properties of tea soils and tea plants (*Camellia sinensis* L.) in Australia and Sri-Lanka. Ph.D. dissertation, James Cook University, Australia.
- Dewi, N.R., 2005. Kesesuaian Iklim Terhadap Pertumbuhan Tanaman. Mediagro vol. 1 no. 5. 2005 : 1-15.
- Douglas, J.S., 1985. Advanced Guide to Hydroponics (soilless cultivation) . Pelham Books LTD. London. p.368.
- Du, X.H., F.R. Peng, J. Jiang, P.P Tan, Z.Z.Wu, Y.W. Liang, & Z. K. Zhong. 2015. Inorganic Nitrogen Fertilizers Induce Changes in Ammonium Assimilation and Gas Exchange in *Camellia sinensis* L., Turk J Agric For(2015) 39: 28-38 © TÜBİTAK doi:10.3906/tar-1311-82.
- Duncan J.M., S.D. Saikia, N. Gupta, & E.M. Bigg. 2016. Observing climate impacts on tea yield in Assam, India. Appl. Geogr. 77: 64-71.
- Effendi, D.S., M. Syakir, M. Yusron, dan Wiratno. 2010. Budidaya dan Pasca Panen Teh. Pusat Penelitian dan Pengembangan Perkebunan, Badan Penelitian dan Pengembangan Pertanian, Kementrian Pertanian Indonesia, 56 hal.
- Food And Agriculture Organization Of The United Nations (FAO). 2016. Report of the Working Group on Climate Change of the FAO Intergovernmental Group on Tea. FAO, Rome, Italy.
- Gomez,K. & A.A. Gomez. 1994. Statistical Procedures For Agricultural Research. Second Edition. A Wiley-Interscience Publication John Wiley & Sons, Canada.

- Goodwin, T.G. & E.I. Mercer. 1983. Introduction to Plant Biochemistry Second Edition, Copyright 1983, reprinted 1990. Pergamon Press plc. 645 : 4465-479 p
- Hajiboland R., S. Bastani, & S.B. Rad. 2011. Effect of light intensity on photosynthesis and antioxidant defense in boron deficient tea plants. *Acta Biol. Szeged.* 55: 265-272.
- Hajiboland, R. 2017. Environment and Nutritional Requirements for Tea Cultivation. *Folia Hort*, 29/2 (2017) : 199-220.
- Halliwell, B. 1981. Chloroplast Metabolism, The Structure and Function of Chloroplasts in Green Leaf Cells. Clarendon Press, Oxford. 247 p.
- Halliwell, B., & Gutteridge, J. M. C. (1999). Free radicals in biology and medicine. In B. Halliwell & J. M. C. Gutteridge (Eds.), *Free radicals in biology and medicine* (3rd ed., pp. 1–25). Oxford: Oxford University Press.
- Hamid, F.S., T. Ahmad, A. Waheed, N. Ahmad, & S. Aslam. 2014. Effect of Different Levels of Nitrogen on the Chemical Composition of Tea (*C. sinensis* L.) grown at higher altitude. *J. Mater. Environ. Sci.* 5 (1) (2014) 73-80.
- Haq, M.S., Y. Rachmiati, dan Karyudi. 2014. Pengaruh Pupuk Daun Terhadap Hasil dan Komponen Hasil Pucuk Tanaman Teh (*Camellia sinensis* (L.) O. Kuntze var. *Assamica* (Mast.) Kitamura). *Jurnal Penelitian Teh dan Kina*, 17(2), 2014: 47-56.
- Hara, T. 1981. Volatile Compounds Formed on Roasting L-Theanine with D-glucose. *Nippon Nogei Kagaku Kaishi* 55: 1069-1072.
- Hara, Y. 1999. Tea in Japan. In Jain N.K. (ed.). *Global Advances in Tea Science*, p. 89-102. Aravali Book International (P) Ltd., New Delhi.
- Hara, Y., S. Luo, R.I. Wickremasinghe & Yamanishi. 1995. Flavor of Tea. *Food Rev. Int.* 11: 477-525.
- Hara, T. & E. Kubota. 1974. Changes in Aroma Compounds During Heating of Green Tea. *Nippon Nogei Kagaku Kaishi* 55: 1069-1072.
- Hara, T. & E. Kubota. 1982a. Aroma Compounds Formed on Heating L-Theanine with D-xylose. *Study Tea* 62: 55-56.
- Hara, T. & E. Kubota. 1983a. Aroma Compounds Formed on Heating Catechin with L-Theanine. *Study Tea* 64: 32-33.
- Harbowy, M.E. & Balentine D.A. 1997. Tea Chemistry. *Crit. Rev. Plant Sci.* 16: 415-480.
- Hartiko, H. 1983. Leaf and Root In Vivo Nitrate Reductase Activities of Coconut (*Cococ nificera* L.) Cultivars and Hybrids. Doctor of Philosophy (Agric. Chemistry) Dissertation. University of the Philippines Los Banos, 204 p.

- Hawkesford M., W. Horst, T. Kichey, H. Lambers, J. Schjoerring, I. Skrumsager Møller, & P. White. 2012. Functions of macronutrients. In: Marschner's Mineral Nutrition of Higher Plants. P. Marschner (Ed.), Academic Press, UK: 135-189.
- Hazarika, M., S.K. Chakravarty & P.K. Mahanta. 1984. Studies on Thearubigin Pigments in Black Tea Manufacturing Systems. J. Sci. Food Agric. 35: 1208-1218.
- Hendriyani, I. S., & N. Setiari. 2009. Kandungan Klorofil dan Pertumbuhan Kacang Panjang (*Vigna sinensis*) pada Tingkat Penyediaan Air yang Berbeda. J. Sains & Mat. 17(3): 145-150.
- Hilton, P.J. & R. Palmer-Jones. 1973. Relationship Between Flavonol Composition of Fresh Tea Shoots and The Theaflavin Content of Manufactured Tea. J. Sci. Food Agric. 24: 813-818.
- Hitachi, Inc. 1989. Instruction Manual High Speed Amino Acid Analyzer (AA 835 series). Tokyo-Japan: Hitachi Inc., Press.
- Hukom, Z.F.M. 2000. Pengaruh Kadar Larutan Landeto dan Gandasil Terhadap Pertumbuhan dan Hasil Buncis Tegak (*Phaseolus vulgaris L.*) yang Dibudidayakan Secara Hidroponik. Tesis Fakultas Pertanian UGM. Tidak dipublikasikan.
- Hukom, Z.F.M. dan Kusbaryunadi. 2007. Tanggapan Tanaman Caesim (*Brassica compestris L.*) Akibat Perlakuan Perbandingan Komposisi Media Tanam dan Frekuensi Pemberian Larutan Landeto Pada Budidaya Vertikultur. Jurnal Agro UPY, ISSN: 1978-2276 Juli 2007 Vol.1 No 1. p.1-12.
- Hukom, Z.F.M. 2008. Respon Tanaman Seledri (*Apium graveolens L.*) Terhadap Penggunaan Beberapa Tingkat Konsentrasi Pupuk Organik Cair Landeto Melalui Metode Potting Culture. Jurnal Agro UPY, ISSN: 1978-2276 Juli 2008 Vol.2 No.1. p.14-24.
- Indradewa, D., S. Sastrowinoto, S. Notohadisuwarno, & H. Prabowo. 2004. *Metabolisme Nitrogen pada Tanaman Kedelai yang Mendapat Genangan dalam Parit*. Ilmu Pertanian vol. 11 No. 2, 2004: 68 – 75.
- International Tea Committee. 2003. Annual Bulletin of Statistics 2003.
- International Tea Committee. 2014. Annual Bulletin of Statistics 2014.
- IPPA, International Pectins Procedures Association. 2002. What is Pectin. http://www.ippa.info/history_of_pektin.htm, diakses 23-10-2016.
- Islama, S., F.S. Hamid, K. Aminc, S. Sumreend, Q.-uzZamane, N. Khanf, A. Khang, & B.H. Shahh. 2017. Effect of Organic fertilizer on The Growth of Tea (*Camelia sinensis L.*) International Journal of Science Basic and Applied Research (IJBAR) (2017) Volume 36, no.8, p 1-9.

- Jones, J.B., B.Wolf, & H.A. Mills. 1991. Plant Analysis Handbook. A Pratical Sampling, preparation, Analysis, and Interpretation Guide. Micro-Macro Publishing Inc. Georgia, USA. 214 p.
- Kawakami, M., & Yamanishi T. 1983. Flavour Constituents of Longjing Tea. Agric. Biol. Chem. 47: 2077-2083.
- Kamus Besar Bahasa Indonesia (KBII) online : <http://kbii.web.id/musim>, diakses 4 September 2017.
- Khomaeni, H.S., V. P. Rahadi, N. Wicaksana, N. Rostini, & N. Carsono. 2016. Identifikasi Kandungan Katekin dan Derivatnya pada Klon Aksesori Kolerasi Plasma Nutfah Teh. Jurnal Penelitian Teh dan Kina, (19)1, 2016:2.
- Kosuge, M., H. Isaka & T. Yamanishi. 1981. Flavour Constituents of Chinese and Japanese Pan-Fired Green Tea. Eiyo to Shokuryou 34: 545-549.
- Krishnapillai, S., & Ediriweera, V. L. 1986. Influence of levels of nitrogen and potassium fertilizers on chlorophyll content in mature clonal tea leaves. Sri Lanka J. Tea Sci. 55: 71-76.
- Krusekopf, H. H., J.P. Mitchell, & T.K. Hartz, 2002. Pre-sideress Soil Nitrate Testing Identifies Processing tomato Fields Not Requiring Sidedress N Fertilizer. Hort. Science 37(3): 520-524.
- Kubota, E. & T. Hara. 1976. Evaluating Methods of Green Tea Grade by Chemical and Physical Techniques. Study Tea 50: 63-67.
- Kumar, R. & B. Bera. 2013. Seasonal Response of Photosynthetic Characteristics and Productivity of young Darjeeling tea clone to organic and inorganic fertilization. Journal of Crop and Weed, 9(2):142-153.
- Kumar, R., M. Singh, & B. Bera. 2015. Influence of Organic, Inorganic and Combined Based Fertilizers on Bush Physiology of Darjeeling tea (*Camellia sinensis* L.). International Journal of Basic and Applied Biology, Volume 2(4); 265-271.
- Lawlor, D.W. (2002). Limitation to Photosynthesis in Watter-stress Leaves : Stomata vs Metabolism and Role of ATP. Annals of Botany 89: 871-885.
- Li, J. 2005. The Effect of Plant Mineral Nutrition on Yield and Quality of Green Tea (*Camellia sinensis* L.) Under Field Conditions. Dissertation zur Erlangung des Doktorgrades der Agrar- und Ernährungswissenschaftlichen Fakultät der Christian-Albrechts-Universität zu Kiel. 173 p.
- Li, S., Z. Wang, & B.A. Steward. 2013. Responses of Crop Plants to Ammonium and Nitrate N. Advances in Agronomy, 118, 210-397.

- Liang, Y.R., J.L. Lu & L.Y. Zhang. 2002. Comparative Study of Cream in Tea Infusions of Black Tea and Green Tea (*Camellia sinensis* (L.) O. Kuntze). Int. J. Food Sci. Technol. 37: 627–634.
- Liu, M., H-lu. Tian, J-Hua. Wu, R-Rong. Cang, R-Xian. Wang, X-Hua. Qi, Q. Xu, & X-Hao. Chen. 2015. Relationship Between Gene Expression and The Accumulation of Catechin During Spring and Autumn in Tea Plants (*Camellia sinensis* L.). Citation: Horticulture Research (2015) 2, 15011; doi:10.1038/hortres. Nanjing Agricultural University.
- Lu, J., H.F. Wei & C.H. Li. 1994. Comparison of Major Free Amino Acids in Young Shoots and Effects on Quality of Tea. J. Southwestern Agric. 7 (suppl.): 13-16.
- Mahanta, P.K. & S. Baruah. 1988. Flavour Volatiles of Assam CTC Black Teas Manufactured from Different Plucking Standard and Orthodox Teas Manufactured from Different Altitudes of Darjeeling. J. Sci. Food Agric. 45:317-324.
- Maghanga, J.K., J.L. Kituyi, P.O. Kisinyo, & W.K. Ng'etich. 2013. Impact of Nitrogen Fertilizer Applications on Surface Water Nitrate Levels within A Kenyan Tea Plantation. Hindawi Publishing Corporation Journal of Chemistry Volume 2013. Article ID 196516, 4 pages.
- Malenga, N.E.A. 1987. The Effects of Diferent Levels of Nitrogen on The Yield, Quality and Value of Made Tea Form Clones in Agronomi Trials. Newsl., Tea Res. Found. Cent. Africa, 87:7-11.
- Malenga, N. E. A. & A.S. Wilkie. 1994. Clonal Response To High Nitrogen Rates Under Rain-Fed Conditions. Quarterly Newsletter. 115: 6-15.
- Manaker, G.H. 1981. Interior Plantscapes. Prentice-Hall Englewood Cliffs, New Jersey.
- Martono B. dan R.T. Setiyono. 2014. Skrining Fitokimia Enam Genotipe Teh. J. TIDP 1(2), 63-68, Juli, 2014.
- McDowell I., S.Taylor and C. Gay. 1995. The Phenolic Pigment Composition of Black Liquors. Part 1: predicting quality. J. Sci. Food Agric. 69: 467-474.
- Millin, D.J., D.J. Crispin & D. Swaine, 1969. Nonvolatile Components of Black Tea and Their Contribution To The Character of The Beverage. J. Agric. Food Chem. 17: 717-722.
- Mitrowihardjo, S., W. Mangoendidjoya, H. Hartiko, dan P. Yodono. 2009. Hasil Pucuk dan Kadungan Katekin Enam Klon Teh (*Camellia sinensis* (L.), O. Kuntze) di Ketinggian Berbeda. Jurnal Penelitian Teh dan Kina 12 (1-2) 2009: 14-20.

- Mitrowihardjo, S., M. Woerjono, H. Hartiko, dan P. Yudono. 2012. Kandungan Katekin dan Kualitas (Warna Air Seduhan, Flavor, Kenampakan) Enam Klon Teh (*Camellia sinensis* (L.) O. Kuntze) Di Ketinggian yang Berbeda. Agritech, Vol. 32, No. 2, Mei 2012.
- Mohammadi, R.T., S.G. Hatima, & R.P.R. Arsham. 2014. Yield and Quality Response of Tea Plant to Fertilizers. International Journal of Manures and Fertilizers Vol. 3(3) pp: 495-496.
- Mohotti A.J. 1998. Effect of irradiance and N nutrition on photosynthesis of tea (*Camellia sinensis* (L.) O. Kuntze) in comparison with sunflower (*Helianthus annus* L.). Ph.D. dissertation, University of Reading, UK.
- Mohotti A.J., M.D. Dennett, & D.W. Lawlor. 2000. Electrontransport as a limitation to photosynthesis of tea (*Camellia sinensis* (L.) O. Kuntze): a comparison with sunflower (*Helianthus annus* L.) with specia reference to irradiance. Trop. Agric. Res. 12: 1-10.
- Mohotti A.J., & D.W. Lawlor. 2002. Diurnal variation of photosynthesis and photoinhibition in tea: effects of irradiance and nitrogen supply during growth in the field. J. Exp. Bot. 53: 313-322.
- Mohotti A.J., D.S.D. Wickremaratne, S.P. Nissanka, P.S. Munasinghe, & L.S.K. Hettiarachchi. 2003a. Effect of foliar application of potassium on drought tolerance of young tea (*Camellia sinensis* L.). In: Proceedings of the 23rd Annual Sessions of Institute of Biology of Sri Lanka. Sri Lanka, pp.8-9.
- Mohotti A.J. 2004. Shade in tea: Is it beneficial? Sri Lanka J. Tea Sci. 69: 27-39.
- Mukai, T., H.Horie, & T. Goto.1992. Differences in Free Amino Acids and Total Nitrogen Contents Among Various Prices of Green Teas. Tea Research J., 76, 45-50.
- Mukai, T., H. Horie, & T. Goto,1992. Differences in Free Amino Acids and Total Nitrogen Contents Among Various Prices of Green Teas. Tea Research J., 76, 45-50.
- Mokaya, B.N. 2016. Effect of varying rates of organic and inorganic fertilizers on growth, yield and nutrient use efficiency of clonal tea (*Camellia sinensis* [L.] O. Kuntze). M.Sc. thesis, University of Nairobi, Kenya: 78.
- Nakagawa, M. 1970. Constituents in Tea Leaf and Their Contribution to the Taste of Green Tea Liquor. Japan Agricultural Research Quaterly 5(3): 43-47.
- Nakagawa, M. 1975. Contribution of Green Constituents to The Intensity of Taste Elements of Brew. Study Tea 48: 77-83.
- Nakagawa M., T. Anan & N. Ishima. 1981. The Relation of Green Tea Taste with Its Chemical Make-up. Bull. Natl. Res. Inst. Tea 17: 69-123.

- Natr, L. 1972. Influence of mineral nutrition on photosynthesis of higher plants. *Photosynthetica*.6: 80-99.
- Nobel P.S. 1999. *Plant Physiochemistry and Environment*. 2nd. Academic Press. New San Diego.
- Oaki, S. 1987. Varietal Differences and Effect of Nitrogen Fertilization on Decline of Photosynthetic rate in Overwintering Tea Leaves. *Jap.J.Crop Sci*. 56:252-256.
- Obanda, M., P.O. Owuor & S.J. Taylor. 1997. Flavanol Composition and Caffeine Content of Green Leaf as Quality Potential Indicators of Kenyan Black Teas. *J. Sci. Food Agric*. 79: 209-215.
- Okano K., Komaki S., Matsuo K., Hirose D., Tatsumi J., 1995. Analysis of canopy photosynthesis in mature tea (*Camellia sinensis* L.) bush at late autumn. *Jpn. J. Crop Sci*. 64: 310-316.
- Orona, V.U., A. Rascón-Chu, J. Lizardi-Mendoza, E. Carvajal-Millán, A. Alfonso. Gardea 2 & B. Ramírez-Wong 3. 2010. A Novel Pectin Material: Extraction, Characterization and Gelling Properties. *Int. J. Mol. Sci*. 2010, 11, 3686-3695.
- Othieno, C.O. 1988. Summary of Recommendations and Ob-servations from TRFK. Tea, Vol. 9, No. 2, 1988, pp. 50-65.
- Owour, O.P., M.A.Obanda, T. Tsushida, H. Horita & T. Murai. 1987. Effects of Nitrogen Fertilizer on The Chemical Composition of CTC Black Tea. *Agric. Biol. Chem.*, 51:2665-2670.
- Owuor, P.O. dan Obanda, M., 1998. The Changes in black tea quality due to variation of plucking standard and fermentation time, *Food Chem.*, 61: 435-441.
- Owour, P. O., S.O.Obaga, & C.O.Othieno. 1990. The of Altitude on The Chemical Composition of Black Tea. *J. Sci. Food Agri.*, 50:9-17.
- Owour, P.O. 2001. Effect of Fertilizers on Tea Yield and special reference to Africa and Sri Lanka. *International Journal of Tea Science* Vol. 1 No.1 2001.
- Owuor, P. O., W.K. Ngetich, & M. Obanda. 2002. Quality Response of Clonal Black Tea to Nitrogen Fertilizer, Plucking Interval and Plucking Standard. *Journal of the Science of Food and Agriculture*, 80, 439-446.
- Owuor, P. O., M. Obanda, Z. Apostolides, L.P. Wright, H.E. Nyirenda, & N. I.K. Mphangwe. 2006. The Relationship Between The Chemical Plain Black Tea Quality Parameters and Black Tea Colour, Brightness and Sensory Evaluation. *Food Chemistry*, 97, 644-653.
- Owuor, P.O., D.M. Kamau, S.M. Kamunya, S.W. Msomba, M.A. Uwimana, A.W. Okal, & B.O. Kwach. 2011. Effect of Genotype, Environment on Yields and Quality of Black Tea. E. Lichtfouse (ed.), *Genetics, Biofuels and Local Farming*

Systems, Agriculture Reviews 7, DOI 10.1007/979-94-007-1521-910, © Springer Science+Business Media B.V. 2011.

- Pambayun, R., M. Gardjito, S. Sudarmadji, dan K. Rahayu, 2007. Kandungan Fenolik Ekstrak Daun Gambir (*Uncaria gambir* Roxb.) dan Aktivitas Antibakterinya.
- Pranoto, E. 2010. Pengaruh Aplikasi Kombinasi Berbagai Pupuk Anorganik dan Pupuk Hayati Terhadap Kesehatan Tanaman Teh Dewasa. Jurnal Penelitian Teh dan Kina 13(3). 2010 : 61-68.
- Price, W.E. and C. Spitzer, 1993. Variation in the amounts of individual flavanols in a range of green tea, Food Chem, 47:271-276.
- Pusat Penelitian Teh dan Kina, PPKT. 2008. Petunjuk Teknis Pengelolaan Teh (p. 109). Gambung: Pusat Penelitian Teh dan Kina.
- Qiu Sl., L.M. Wang, D.F. Huang, & X.J. Lin. 2014. Effects of fertilization regimes on tea yields, soil fertility, and soil microbial diversity. Chil. J. Agr. Res. 74: 333-339.
- Ranganathan, V. & S. Natesan.1987. Manuring of Tea, Recommendation for High Yielding Field. In : Hand Book of Tea Culture. Section 11. UPSAI Tea Research Institute. Valparai.India.
- Resh, H.M. 1981. Hydroponic Food Production. Woodbrigde Press Publishing Company, Santha Barbara, California. 335 p.
- Roberts, E.A.H. 1958a. The Phenolic Substances of Manufactured Tea. II. Their origin as enzymic oxidation products in fermentation. J. Sci. Food Agric. 9: 212-216.
- Roberts, E.A.H. 1958b. The Chemistry of Tea Manufacture. J. Sci. Food Agric. 9: 381-390.
- Roberts, E.A.H. 1962. Economic Importance of Flavonoid Substances: Tea Fermentation. In: Geissman, T.A. (Ed). The Chemistry of Flavonoid Compounds. Pergamon press, Oxford, pp 409-512.
- Roberts, E.A.H. 1963. The Phenolic Substances of Manufactured Tea. X. The Creaming Down of Tea Liquors. J. Sci. Food Agric. 14: 700-705.
- Roberts, E.A.H. & R.F. Smith. 1963. The Phenolics of Manufactured Teas – Spectrophotometric Evaluation of Tea Liquors. J. Sci. Food Agric. 14: 689-700.
- Rohdiana, D., 1999. Evaluasi Kandungan Theavavin dan Thearubigins pada Teh Kering dalam Kemasan. JKTI. Vol.9 No. 1-2, Deseember 1999.
- Roeding-Penman, A. & M.H. Girdon. 1997. Antioxidant properties of catechin and green tea extract in model food amulsion, 3 A_qric. Food Chem. 45, 42674270.

- Ruan, J. 2005. Quality-Related Constituents in Tea (*Camellia sinensis* (L.) O. Kuntze) as Affected by The Form and Concentration of nitrogen. Dissertation zur Erlangung des Doktorgrades der Agrar- und Ernährungswissenschaftlichen Fakultät der Christian-Albrechts-Universität zu Kiel and the supply of chloride. 96 p.
- Ruan, J. & X.Wu. 2004. Nutrient Input and Evaluation of Fertilization Efficiency in Typical Tea Growing Areas of China. In Härdter R, Xie J, Zhou J and Fan Q eds, Nutrient Management in China. Part 1 Nutrient Balances and Nutrient Cycling in Agro-Ecosystems. pp. 367-375. International Potash Institute, Basel, Switzerland.
- Saijo, R. & T.Takeo. 1970a. The Formation of Aldehydes from Amino Acids by Tea Leaves Extracts. Agric. Biol. Chem. 34: 227-233.
- Saijo, R. & T. Takeo. 1970b. The production of Phenylacetaldehyde from L-Phenylalanine in Tea Fermentation. Agric. Biol. Chem. 34: 222-226.
- Saito, S.T., A.Welzel, E. S. Suyenaga, F. Bueno. 2006. A Method for Fast Determination Of Epigallocatechin Gallate (Egcg), Epicatechin (Ec), Catechin (C) and Caffeine (Caf) In Green Tea Using HPLC. Ciênc. Tecnol. Aliment., Campinas, 26(2): 394-400.
- Salisbury, F. B. & C.V. Ross. 1992. Plant Physiologi. 4th Edition. Wadsworth Publishing Co., Belmont, California.
- Sanderson, G.W. & H.N.Graham. 1973. On The Formation of Black Tea Aroma. J. Agric. Food Chem. 21: 576-585.
- Sanyal, S. 2011. Tea Manufacturing Manual. Assam India: Tea Research Association Toklai Experimental Station. Page: 207.
- SAS Institute Inc. 1990. SAS/STAT Users Guide. SAS Publishing, North Caroline.
- Sen, S., Chakraborty, R., Sridhar, C., Reddy, Y. S. R., & De, B. 2010. Free radicals, antioxidants, diseases and phytomedicines: Current status and future prospect. International Journal of Pharmaceutical Sciences Review and Research, 3, 91–100.
- Sitienei, K., P.G. Home, D.M. Kamau, & J.K. Wanyoko. 2013. The Influence of Fertilizer Type and Application rates in Tea Cultivation on Nitrogen and Potassium efficiencies. African Journal of Agriculture Research, Vol 8(28). pp.3770-3777, 26 Juli, 2013.
- Sitompul, S.M. dan B. Guritno. 1995. Analisis Pertumbuhan Tanaman. Gadjah Mada University Press. 409 p.

- Smith, B.G., W. Stephens, P.Burgess, & M.K.V. Carr. 1993. Effect of Light, Temperature, Irrigation and Fertilizer on Photosyntetic Rate in Tea (*Camellia sinensis*) Exp.Agriculture 29(03):291-306, July 1993.
- Squire, G.R. & B.A.Callander. 1981 . Tea Plantations. In: Kozlowski TT (ed), Water Deficits and Plant Growth, Vol. VI, pp.471-510. Academic Press, New York.
- Subantoro, R. 2005. Peran Stek Daun Dalam Meningkatkan Kualitas Produksi Teh (*Camellia sinensis* (L.)O.Kuntze). MEDIARGO Vol 1. No. 2, 2005: Hal: 75 – 85.
- Sud, R.G. & B. Asha. 2000. Seasonal Variation in Theaflavins, Thearubigins, Total Collour and brightness of Kanggra Orthodox Tea (*Camellia sinensis* (L.) O. Kuntze in Himachal Pradesh. J. Sci. Food Agric. 80: 1291-1299.
- Sukarman & A. Dariah. 2014. Tanah Andosol di Indonesia. Karakteristik,Potensi, Kendala, dan Pengelolaannya untuk Pertanian. Balai Besar Penelitian dan Pengembangan Sumberdaya Lahan Pertanian, Badan Penelitian dan Pengembangan Pertanian, Kementrian Pertanian. ISBN 798-602-8977-84-5. 144 p.
- Sultana J., M.N.A. Siddique, M. Kamaruzzaman, & M.A. Halim. 2014. Conventional to ecological: Tea plantation soil management in Panchagarh District of Bangladesh. J. Sci. Technol. Environ. Inform. 1: 27-35.
- Sundstrom, A.C. 1982. Simple Hidroponics for Australian Home. Gardeners Thomas Nelson Australia. Melbourne. 134 p.
- Tabu I.M., V.M. Kekana, & D.M. Kamau. 2015. Effects of varying ratios and rates of enriched cattle manure on leaf nitrogen content, yield and quality of tea (*Camellia sinensis*). J. Agric. Sci. 7: 175-181.
- Taulo, J.L. 2017. A Multi-Objective Optimization Tool for The Malawian Tea Industry with Sustainability Conciderations. Disseratatiion Presented for The Degree of Doctor of Philosophy in The Faculty of Engineering of Stellenbosch University, <https://scholar.sun.ac.za>. p.202.
- Tea Research Foundation Of Kenya (TRFK). 2002. Tea Growers' Handbook. 5th ed. Kijabe Printing Press, Kijabe, Kenya.
- Tim Rekomendasi Pemupukan PPTK Gambung. 2007. Rekomendasi Pemupukan Tanaman Teh.
- Tounekti T., E. Joubert, I. Hernández & S. Munné-Bosch. 2012. Improving the Polyphenol Content of Tea. Critical Reviews in Plant Sciences Publication details, including instructions for authors and subscription information: <http://www.tandfonline.com/loi/bpts20>. Akses Desember 2018.Towaha, J. 2013. Kandungan Senyawa Kimia pada Daun Teh (*Camellia sinensis*). Warta Penelitian dan Pengembangan Tanaman Industri , Balitri. Volume 19 no.3 Desember 2013. p. 12-16.

- Tanaka, T., R. Kusano, I. Kouno, 1998. Synthesis and antioxidant activity of novel amphipathic derivatives of tea polyphenol. *Organic and Medical Chem* 8:1801-1806.
- Towaha, J. 2013. Kandungan Senyawa Kimia pada Daun Teh (*Camellia sinensis*). *Warta Penelitian dan Pengembangan Tanaman Industri*, Balitri. Volume 19 no.3 Desember 2013. p. 12-16.
- Tristantini, D., A. Ismawati, B.T. Pradana, & J. G. Jonathan. 2016. Pengujian Aktivitas Antioksidan Menggunakan Metode DPPH pada Daun Tanjung (*Mimusops elengi* L.). *Prosiding Seminar Nasional Teknik Kimia "Kejuangan"* ISSN 1693-4393 Pengembangan Teknologi Kimia untuk Pengolahan Sumber Daya Alam Indonesia Yogyakarta, 17 Maret 2016.
- Tsuji, M. & T. Kinoshita. 2001. Effect of Liquid Fertilizer Application Under The Canopy of Tencha Tea Garden. Aichi-Ken Agricultural Research Center, Toyohashi Research and Extension Station, 1148 Takayama Imurecho, Toyohashi-shi, Aichi, 440-0833, Japan. <http://www.ocha-festival.jp/archive/english/conference/ICOS2001/files/PROC/II-198.pdf>.
- Ulfah A. dan W. Sulistya, 2015. Penentuan Kriteria Musim Alternatif di Wilayah Jawa Timur. *Jurnal Meteorologi dan Geofisika*, Vol 16 no. 3 Tahun 2015 : 145-153.
- Van Dang, M. 2007. Quantitative and Qualitative Soil Quality Assessments of Tea Enterprises in Northern Vietnam. *African Journal of Agricultural Research* Vol. 2 (9), pp. 455-462, September 2007.
- Venkatesan S. & M.N. Ganapathy. 2004. Nitrate reductase activity in tea as influenced by various levels of nitrogen and potassium fertilizers. *Commun. Soil Sci. Plant Anal.* 35: 1283-1291.
- Venkatesan S., S. Murugesan, M.N. Ganapathy, & D.P.Verma. 2004. Long-term impact of nitrogen and potassium fertilizers on yield, soil nutrients and biochemical parameters of tea. *J. Sci. Food Agric.* 84: 1939-1944.
- Verma, D.P. 1997. Balanced Fertilisation for Sustainable Productivity of Tea. *Fertilizer News*. 42(4): 113-125.
- Wachjar, Ade; Junaedi, dan Ahmad. 1991. Pematangan Dormansi Pucuk Burung pada Tanaman Teh (*Camellia sinensis* L.) Produktif Secara Manual dan Kimia di Dataran Sedang. *Buletin Agronomi* Vol.XX No. 2.
- Wang, Y. G., Q.K. Cheng, Y.C. Ruan & W.H. Liu. 1988. Discussion on The Chemical Standards on Quality of Chinese Roasted Green Tea. *J. Tea Sci.* 8(2): 13-20.
- Wang, H. & X.You. 1996. Free and glycosidically bound monoterpene alcohols in Qimen black tea. *Food Chem.* 56: 395-398.

- Wang, H., G.J.Provan & K. Helliwell. 2000. Tea Flavonoids: Their Functions, Utilisation and Analysis. Trends Food Sci. Technol. 11: 152-160.
- Omwoyo, W.N. 2017. Effects of Nitrogenous Fertilizer Rates, Plucking Intervals and Geographical Location of Production on Selected Micronutrient Levels of the Black Tea. Journal of Tea Science Research, 2017, Vol. 7, No. 1.
- Wijeratne M.A. 1996. Vulnerability of Sri Lanka tea production to global climate change. Water Air Soil Poll. 92: 87-94.
- Wijeratne M.A. & R. Fordham. 1996. Effects of environmental factors on growth and yield of tea (*Camellia sinensis* L.) in the low-country wet zone of Sri Lanka. Sri Lanka J. Tea Sci. 64: 21-34.
- Wijeratne M.A., A. Anandacoomaraswamy, M.K.S.L.D. Amarathunga, J. Ratnasiri, B.R.S.B. Basnayake, & N. Kalra. 2007a. Assessment of impact of climate change on productivity of tea (*Camellia sinensis* L.) plantations in Sri Lanka. J. Natn. Sci. Foundation Sri Lanka 35: 119-126.
- Willson, K. C. 1975. Studies on The Mineral Nutrition of Tea. II. Nitrogen. Plant and Soil. 43: 501-516.
- Wirjohamidjojo, S. & Y.S. Swarinoto, 2007. Praktek Meteorologi Pertanian. Jakarta. BMG. 2007.
- Wright, L.P., I.K.M. Nicholas, E.N. Hastings & A. Zeno. 2002. Analysis of Theaflavin Composition in Black Tea (*Camellia sinensis*) for Predicting The Quality of Tea Produced in Central and Southern Africa. J.Sci. Food Agric. 82:517-525.
- Zhonghua, L., H. Jianan, S. Zhaopeng & W. Zengsheng. 1995. Stuies on Some Factors Affecting The Quality of Tea Catechins. Oceeding of '95 Internasional Tea Quality Human Health Symposium. Sanghai. China. 211 p.