

DAFTAR PUSTAKA

- Anastasisdis, S.; Rehm, H. J., Continuous Production of Citric Acid Secretion by A High Specific pH Dependent Active Transport System in Yeast *Candida oleophila*, ATCC 20177. Electronic Journal of Biotechnology, 2005, 8, 26-42.
- Angumeenal, A. R.; Venkappayya, D., Effect of Transition Metal Ions on The Metabolism of *Aspergillus niger* in The Production of Citric Acid With Molasses as Substrate. Journal of Scientific and Industrial Research, 2005, 64, 125-128.
- Anne Carolinaa, Abubakar Sidikb, Iman P. Maksumb, Saadah D. Rachmanb, Agus Safarib, & Safri Ishmayanab2015: fermentasi baik direndam molases dengan fermentasi *aspergillus niger*untuk produksi asam sitratchimica *et natura acta vol.3 no.1*.
- Apelblat, A. 2014. *Citric Acid*. Springer International Publishing Switzerland. P 357.
- Azis, R. 2016. Analisis Pengaruh Natrium Metabisulfit (Na₂S₂O₅) dan Lama Penyimpanan terhadap Proses Browning Buah Pir menggunakan Rancangan Faktorial. Jtech 5(2), 54 – 58.
- Badan Pusat Statistika Indonesia (BPS). 2016. Konsumsi Buah Dan Sayur Susenas Maret 2016 <http://gizi.depkes.go.id/wp-content/uploads/2017/01/Paparan-BPS-Konsumsi-Buah-Dan-Sayur.pdf>. Diakses tanggal 4 Desember 2017.
- Badan Pusat Statistika Indonesia (BPS). 2017. Konsumsi Buah dan Sayur Susens Maret 2016.http://gizi.depkes.go.id/wp-content/uploads/2017/01/Paparan-BPS_Konsumsi-Buah-Dan-Sayur.pdf. Diakses tanggal 11 Januari 2018.
- Baeza-Rita. 2007. Comparison of Technologies to Control the Physiological, Biochemical and Nutritional Changes of Fresh-cut Fruit. <http://krex.kstate.edu>. Diakses 5 Juni 2018.
- Cahyono, R.A.2013. Zat Pengawet yang Aman Dikonsumsi. riskyanang.blogspot.co.id/2013/05/zat-pengawet-yang-amandikonsumsi.html diakses pada 20 Desember 2017.
- Candra. 2019. Pengaruh berbagai konsentrasi natrium bisulfit sebagai anti browning produk fresh-cut apel Manalagi. Agroteknologi. Universitas Muhammadiyah Yogyakarta.
- Chandra, A., Inggrid, H.M, dan Verawati. 2013. Pengaruh pH dan jenis pelarut pada perolehan dan karakterisasi pati dari biji alpukat, LPPM UNPAR, Bandung.

- Calegario, F. F., R. G. Cocco, F. V. Almeida, A. E. Vercesi, dan W. F. Jardim. 2000. —Determination of The Respiration Rate of Tomato Fruit Using Flow Analysis.|| *Journal of Postharvest Biology and Technology* : 1-8
- Coskun, A.L., Imaz., M.T., Aksu, O.T., Koc, B.E., Yemis, O., and Ozkan, M. 2013. Effects of various sulphuring methodd and storage temperatures on the physical and chemical quality of dried apricots. *Food Chemistry*, 141. 3670–3680.
- Darmajana, Doddy A. 2010. Upaya Mempertahankan Derajat Putih Pati Jagung dengan Proses Perendaman dalam Natrium Bisulfit. *Jurnal ISSN 1693 – 4393. LIPI. Subang.*
- Darouneh, E.; Alavi, A.; Vosoughi, M.; Arjmand, M.; Seifkordi, A.; Rajabi, R., Citric Acid Production: Surface Culture Versus Submerged Culture. *African Journal of Microbiology Research*, 2009, 3(9), 541-545.
- De Man, J.M. 1997. Kimia Makan. Institut Pertanian Bogor (IPB). Bogor.
- Dodi Pratama, Ismed Suhaidi, Elisa Julianti. 2013.Pengaruh Konsentrasi Natrium Bisulfit dan Jenis Kemasan Terhadap Mutu Jamur Tiram Putih (*Pleurotus ostreatus*) pada Penyimpanan Suhu Rendah. *Ilmu dan Teknologi Pangan J.Rekayasa Pangan dan Pert., Vol.I No. 3 Th. 2013.*
- Dyah Hesti Wardhani, Ardha Eri Yuliana, dan Atiqoh Sabrina Dewi. 2013. Natrium Metabisulfit sebagai *Anti-Browning Agent* pada Pencoklatan Enzimatik Rebung Ori (*Bambusa Arundinacea*). *Jurnal Aplikasi Teknologi Pangan* 5 (4) 2016.
- Elvira. 2014. Pengembangan Agribisnis Pedesaan Melalui Pemanfaatan Kulit Kakao Sebagai Sumber Pektin * Agrisep Vol (15) No. 2
- Ernawati 2012.Pengaruh Suhu Dan Lama Perendaman Blansir Terhadap Mutu Selada Kepala (*Lactuca Sativa L*)Terolah Minimal Selama Penyimpanan. *Fakultas Teknologi Pertanian .Institut Pertanian Bogor. Bogor.*
- Food and Agriculture Organization of The United Nations (FAO). 2008. International year of The Potato 2008. www.fao.org. Diakses tanggal 16 Maret 2018.
- Frazier. W.C dan D.C. Westhoff.1983.Food Microbiology. Tata McGraw-Hill. Pub.co.id., New Delhi.
- Gardjito, M dan Swasti, Y R. 2014. Fisiologi Pasca Panen Buah dan Sayur. Gajah Mada University Press: Yogyakarta

- Hobson, P.N., R. Summers, and C. Harries. 1984. Single- and multi-stage fermenters for treatment of agricultural wastes. In : Microbiological Methods for Environmental Bio-technology. J.M. Grainger, and J.M. Lynch (eds.). USA: Academic Press Inc., Florida.
- Hyang *et al.*, 2008. The crystal structure and identification of NQM1/YGR043C, a transaldolase from *Saccharomyces cerevisiae*. *Proteins* 73(4):1076-8.
- Indriyani, A. 2006. *Mengkaji Pengaruh Penyimpanan rajungan (Portunus pelagicus Linn) Mentah dan Matang di Mini Plant Terhadap Mutu Daging di Plant*. www.eprints.undip.ac.id/. Di akses tanggal 31 Oktober 2017.
- Islakhul, 2016. Penambahan L-arginin dalam susu skim kuning telur terhadap viabilitas dan motilitas spermatozoa sapi limousin post thawing pada semen beku. ADLN Universitas Airlangga. Surabaya.
- Jennylynd B.J. and Tipvanna N. 2010. *Processing of Fresh-cut tropical fruits and vegetables: A technical guide*. Food and Agriculture Organization of the United Nations. Bangkok.1, 15, 25, 26p.
- Jiang Y. (2004). Advances in understanding of enzymatic browning in harvested litchi fruit. *Food Chemistry* 88: 443–446.
- Kiky Julynasary, 2018. Efektifitas Pemberian L-arginin, Asam Askorbat Dan Asam Sitrat dalam Menghambat Browning pada Fresh-Cut Apel Manalagi (*Malus Sylvestris* Mill). Agroteknologi. Universitas Muhammadiyah Yogyakarta.
- Kirana Sanggrami Sasmitalokal. 2017. Produksi Asam Sitrat Oleh *Aspergillus Niger* Pada Kultivasi Media Cair. Jurnal Integrasi Proses Website: <http://jurnal.untirta.ac.id/index.php/jip>. Diakses tanggal 11 Januari 2018.
- Kuijpers TFM, Narv_aez-Cuenca CE, Vincken JP, Verloop AJW, van Berkel WJH, Gruppen H. 2012. Inhibition of enzymatic browning of chlorogenic acid by sulfur-containing compounds. *J Agric Food Chem*. 60:3507–3514.
- Latifa. 2009. Pengaruh *Edible Coating* Pati Ubi Jalar Putih (*Ipomoea batatas* L.) Terhadap Perubahan Warna Apel Potong Segar (*Fresh-cut Apple*). Fakultas Teknologi Pertanian. Institut Pertanian Bogor (IPB). Bogor.
- Leshem, Y.Y., Haramaty, E., 1996. The characterization and contrasting effects of the nitric oxide free radical in vegetative stress and senescence of *Pisum sativum* Linn. foliage. *J. Plant Physiol.* 148, 258–263.

Lin dan Hou. Structure-function studies on nitric oxide synthases. *J Inorg Biochem* 2007;99:293–305.

Max, B; Salgado, J.M.; Rodríguez, N.; Cortés, S.; Converti, A.; Dominguez, J.M., Biotechnological Production of Citric Acid. *Brazilian Journal of Microbiology*, 2010, 41, 862-875.

Marina Dohitra Yanuparinda Hapsari¹, Teti Estiasih. 2015. Variasi Proses dan Grade Apel (*Malus sylvestris mill*) pada Pengolahan Minuman Sari Buah APEL: KAJIAN PUSTAKA.

Marshall, M.R., Kim, J., dan Wei, C-I. 2000. Enzymatic Browning in Fruits, Vegetables, and Seafoods. www.fao.org.

Mianti Mandira. 2010. Pengelolaan Budidaya Apel di Kusuma Agrowisata, Malang, Jawa Timur.

Minolta, K., 2002. Precise color communication : color control for perception to instrumentation, Japan: Konica Minolta.

Morris, S.M., 2007. Arginine metabolism: boundaries of our knowledge. *J. Nutr.* 137, 1602S–1609S.

Muchtadi, Deddy, 2010, Sulfit Dipermasalahkan Dan Nitrit Dikurangi.<http://web.ipb.ac.id/%7Etpg/de/pubde.php>.

Muchtadi TR. 1984. Pengetahuan Bahan Pangan. Pusat Antar. Universitas Pangan dan Gizi. Institut Pertanian Bogor, Bogor. 412.

Nelson, D.L. and M.M Cox. 2008. Principles of Biochemistry. WH Freeman and Company, New York. 105-115.

O'Flaherty, C., P. Rodriguez and S. Srivastava. 2004. L-arginine promotes Capacitation and Acrosome Reaction in Cryopreserved Bovine Spermatozoa. *Biochimica et Biophysica Acta*. 1647: 215-221.

Oktarina Husaini, 1317021059 (2017) Anti-Browning Material Characterization Of The Water Extract Of Guava Fruit (*Psidium guajava L.*) In Malang Apples (*Malus Sylvestris L. Mill.*). Fakultas Matematika Dan Ilmu Pengetahuan Alam, Universitas Lampung.

Prihatman, 2000. Apel (*Malus sylvestris* Mill). Jakarta: BAPPENAS.

Pristijono, P., Wills, R.B.H., Golding, J.B., 2006. Inhibition of browning on the surface of apple slices by short term exposure to nitric oxide (NO) gas. *Postharvest Biol. Technol.* 42, 256–259.

- Rahman, Farida, 2007, Pengaruh Konsentrasi Natrium Metabisulfit ($\text{Na}_2\text{S}_2\text{O}_5$) Dan Suhu Pengeringan Terhadap Mutu Pati Biji Alpukat (*Persea americana Mill*), Skripsi, Fakultas Pertanian, Universitas Sumatera Utara.
- Queiroz,C., Lopes, M.L., Fialho, E and Valente-Mesquita, V.L. 2008. Polyphenol oxidase: characteristics and mechanisms of browning control. Food Review International. Volume 24. 361-375.
- Rahayu, 2018. Definisi Gizi. <http://eprints.umm.ac.id/36841/3/jiptummpp-gdl-rahmirahay-51292-3-babii.pdf>. Universitas Muhammadiyah Malang. Diakses 1 April 2018.
- Resti nurani. 2012. Jenis Bahan Pengawet Makanan. *restinurani-entoetkoepoe.blogspot.co.id/2012_04_01_archive.html*. Diakses pada : 17 Maret 2018.
- Robinson, T. 1991. Kandungan Senyawa Organik Tumbuhan Tinggi. Diterjemahkan oleh Prof. Dr. Kosasih Padmawinata. Penerbit: ITB. Bandung.
- Sayid agung wardoyo. 1987. Pengaruh penambahan batrium bisulfit, asam sitrat, dan bahan pengisi terhadap muru tepung konsentrat pisang. Institut pertanian Bogor.
- Sa'adah, Lailufary I. N. dan Estiasih, Teti. 2015. Karakterisasi Minuman Sari Apel Produksi Skala Mikro dan Kecil di Kota Batu: Kajian Pustaka. Jurnal Pangan dan Agroindustri. 3. 2 p.374-380.
- Saifur Rizal, Sumardi Hadi Sumarlan, Rini Yulianingsih,. 2013. Pengaruh Konsentrasi Natrium Bisulfit Dan Suhu Pengeringan Terhadap Sifat Fisik-Kimia Tepung Biji Nangka (*Artocarpus heterophyllus*). *Jurnal Bioproses Komoditas Tropis* Vol. 1 No. 2, Agustus 2013. Jurusan Keteknikan Pertanian - Fakultas Teknologi Pertanian - Universitas Brawijaya.
- Schorge *et.al.*, 2008. Menopause dalam Williams Gynecology edisi 23. New York: The McGraw-Hill Companies
- SNI 01-0222. 1995. Bahan Tambahan Makanan. Badan Standardisasi Nasional. Jakarta.
- Soccol,C.R.; Vandenberghe, L.P.; Rodrígues, C.; Pandey, A., New Perspective for Citric Acid Production and Application. *Food Technology and Biotechnology*, 2006, 44(2), 141-149.

Sufrida, Irlansyah, dkk. 2004 Khasiat dan Manfaat Apel, Jakarta-Selatan:AgroMedia.

Tan, T. C., Cheng, L. H., Bhat, R., Rusul, G., and Easa, A. M. 2015. Effectiveness of ascorbic acid and sodium metabisulfite as anti-browning agent and antioxidant on green coconut water (*Cocos nucifera*) subjected to elevated thermal processing, International Food Research Journal, 22 (2), 631-637.

Taufik, Rahmat. 2009. *Browning Pada Makanan*<http://taufiq80.multiply.com/journal/item/10>. United States Departemen of Agriculture (USDA). 2015. Clasification.

Utama, Nafi A. dan Setiawan, Chandra Kurnia. 2016. Kajian Penambahan Minyak Atsiri Sebagai Antimikrobia pada Edible Coating Berbasis Caroxymethyl Celulose pada Fresh-Cut Buah Apel Manalagi. <http://repository.umy.ac.id/handle/123456789/11667>. Diakses tanggal 11 Januari 2018.

Hikmatyar, Eka. Utama, Nafi A, Chandra Kurnia Setiawan. 2017. Kajian Berbagai Minyak Atsiri dalam *Edible Coating* Berbasis CMC Sebagai Antibakteri *Fresh-Cut* Apel Manalagi (*Malus sylvestris Mill*). <http://repository.umy.ac.id/handle/123456789/11667>. Diakses tanggal 11 Januari 2018.

Valero dkk, 2011). Valero, D. (1998). Influence of postharvest treatment with putrecine and calcium on endogenous poliamins, firmness, and abscisic acid in lemon (*Citrus lemon*, L. Burm Cv. Verna). *Journal of Agriculture and Food Chemistry* 46: 2102-2109.

Vandenberghe, L.P., Soccol, C.R., Pandey, A. & Lebeault, J-M. (1999). Microbial production of citric acid. *Brazilian Archives of Biology and Technology*, 42(2), 263-276.

Wills, R.B.H., 2015. Potential of nitric oxide as a postharvest technology. In: Wills, R. B.H., Golding, J. (Eds.), *Advances in Postharvest Fruit and Vegetable Technology*. CRC Press, Boca Raton, FL, pp. 191–210. Wills, R.B.H., Pristijono, P., Golding, J.B., 2008. Browning on the surface of cut lettuce slices inhibited by short term exposure to nitric oxide (NO). *Food Chem.* 107, 1387–1392.

Winarno, FG. 2002. Kimia Pangan dan Gizi. PT Gramedia Putaka Utama. Jakarta.

Wojtatawics, M.; Marchin, G. L.; Erickson, L. E., Attempts to Improve Strain A-10 of *Yarrowia lipolytica* for Citric Acid Production from N-Paraffins. *Process Biochemistry*, 1993, 28, 453-460.

- Wong, D.W.S., Camirand, W.M., dan Pavlath, A.E. 1994. Development of Edible Coatings for Minimally Processed Fruits and Vegetables. Di dalam : Kroccta, J.M., Baldwin, E.A., dan Nisperos Carriedo, M.O. (Eds), Edible Coatings and Films to Improve Food Quality.
- Yanovitz Klapp and Richard.F.C.1993.cysstein as nhibition of enzymatic Browning.kinetic Studies.agric.food Cbbem.41,532-536.
- Zhang, X., Shen, L., Li, F., Zhang, Y., Meng, D., Sheng, J., 2010. Up-regulating arginase contributes to amelioration of chilling stress and the antioxidant system in cherry tomato fruits. *J. Sci. Food Agric.* 90, 2195–2202.
- Zhang, X., L, Shen, Li, F., Meng, D., Sheng, J., 2013. Amelioration of chilling stress by arginine in tomato fruit: changes in endogenous arginine catabolism. *Postharvest Biol. Technol.* 76, 106–111.

