BIBLIOGRAPHY

Aisyah, Y., Irwanda, L.P., Haryani, S. and Safriani, N. 2018. Characterization of corn starch-based edible film incorporated with nutmeg oil nanoemulsion. IOP Conference Series: Materials Science and Engineering 352(1): 1-7

Akili, M.S., Ahmad U. and Suyatma, N.E. 2012. Characterization of edible film based on pectin extracted from banana peel. Jurnal Keteknikan Pertanian 26(1): 39-46.

American Society for Testing and Materials (ASTM). 1995. Standard Test Method for Water Vapor Transmission of Material. ASTM Book of Standard.

Anal, A.K. 2017. *Food Processing By-Products and Their Utilization*. Hoboken: John Wiley & Sons.

Arham, R., Mulyati, M.T., Metusalach, M. and Salengke, S. 2016. Physical and mechanical properties of agar based edible film with glycerol plasticizer. International Food Research Journal 23(4): 1669-1675.

Ardiansyah, G., Hamzah, F. and Efendi, R. 2014. Variasi tingkat keasaman dalam ektraksi pektin kulit buah durian. Jurnal Online Mahasiswa 1(2): 1-7.

Association of Official Analytical Chemist (AOAC). 1994. *Official Methods of Analysis. 16th edition*. Virginia: Association of Official Analytical Chemist Inc.

Association of Official Analytical Chemist (AOAC). 2005. *Official Methods of Analysis. 18th edition*. Maryland: Association of Official Analytical Chemist Inc.

Azad, A.K.M., Ali, M.A., Akter, M.S., Rahman, M.J. and Ahmed, M. 2014. Isolation and characterization of pectin extracted from lemon pomace during ripening. Journal of Food and Nutrition Sciences 2(2): 30-35.

Aziz, T., Johan, M.E.G. and Sri, D. 2018. Pengaruh jenis pelarut, temperatur dan waktu terhadap karakterisasi pectin hasil ekstraksi dari kulit buah naga. Jurnal Teknik Kimia 1(24): 17-27.

Badan Pengawas Obat dan Makanan Republik Indonesia. 2016. Peraturan Kepala Badan Pengawas Obat dan Makanan Republik Indonesia. No 16 Tahun 2016. Kriteria Mikrobiologi dalam Pangan Olahan.

Baldwin, E.A., Hagenmaier, R. and Bai, J. 2011. *Edible Coatings and Films to Improve Food Quality. 2nd ed.* Boca Raton: CRC Press.

Barman, K., Sharma, S. and Siddiqui, M.Q. 2018. *Emerging Postharvest Treatment of Fruits and Vegetables*. Oakville: Academic Press.

Bhattacharya, S. 2015. *Conventional and Advanced Food Processing Technologies*. Sussex: John Wiley & Sons.

Bourtoom, T. 2008. Edible films and coatings: characteristics and properties. International Food Research Journal 15(3): 237-248.

Caballero, B., Finglas, P.M. and Toldra, F. 2015. *Encyclopedia of Food and Health*. Oxford: Academic Press.

Caivano, J.L. and Buera, M.P. 2012. *Color in Food: Technological and Psychophysical Aspects*. Boca Raton: CRC Press.

Campos, C.A., Greschenson, L.N. and Flores, S.K. 2010. Development of edible films and coatings with antimicrobial activity. Food Bioprocess Technology 4(6): 849-875.

Cerqueira, M.A.P.R., Pereira, R.N.C., Ramos, O.L.S., Teixeira, J.A.C. and Vicente, A.A. 2016. *Edible Food Packaging: Materials and Processing Techniques*. Boca Raton: CRC Press.

Chan, S.Y. and Choo, W.S. 2013. Effect of extraction conditions on the yield and chemical properties of pectin from cocoa husks. Journal of Food Chemistry 141(1): 3752-3758.

Chiabrando, V. and Giacalone, G. 2013. Maintaining quality of fresh-cut apple slices using calcium ascorbate and stored under modified atmosphere. Acta Alimentaria 42(2): 245-255.

Dashipour, A., Khaksar, R., Hosseini, H., Shojae-Aliabadi, S. and Ghaanati, K. 2014. Physical, antioxidant and antimicrobial characteristics of carboxymethyl cellulose edible film cooperated with clove essential oil. Zahedan Journal of Research in Medical Sciences 16(8): 34-42.

Davila-Avina, J.E.J., Villa-Rodriguez, J., Cruz-Valenzuela, R., Rodriguez-Armenta, M., Espino-Diaz, M., Ayala-Zavala, J.F., Olivas-Orozco, G.I., Heredia, B. and Gonzalez-Aguilar, G. 2011. Effect of edible coatings, storage time and maturity stage on overall quality of tomato fruits. American Journal of Agricultural and Biological Sciences 6(1): 162-171.

Davis, J.R. 2004. *Tensile Testing. 2nd ed*. Ohio: ASM International.

Embuscado, M.E. and Huber, K.C. 2009. *Edible Films and Coatings for Food Applications*. New York: Springer.

Etienne, A., Genard, M., Lobit, P., Mbeguie, D.M.A. and Bugaud, C. 2013. Malate and citrate accumulation in fruit cells. Journal of Experimental Botany 64(6): 1451-1469.

Fazilah, A., Maizura, M., Karim, A.A., Bhupinder, K., Rajeev, B., Uthumporn, U. and Chew, S.H. 2011. Physical and mechanical properties of sago starch-alginate films incorporated with calcium chloride. International Food Research Journal 18(3): 1027-1033.

Ferree, D.C. and Warrington, I.J. 2003. *Apples: Botany, Production and Uses*. Oxford: CABI Publishing.

Fralish, J.S. and Franklin, S.B.. 2002. *Taxonomy and Ecology of Woody Plants in North American Forests: Excluding Mexico and Subtropical Florida*. New Jersey: John Wiley & Sons.

Galus, S., Turska, A. and Lenart, A. 2012. Sorption and wetting properties of pectin edible films. Czech Journal Food Science 30(5): 446-455.

Ghasemzadeh, R., Karbassi, A. and Ghoddousi, H.B. 2008. Application of edible coating for improvement of quality and shelf-life of raisins. World Applied Sciences Journal 3(1): 82-87.

Ghavidel, R.A., Davoodi, M.G., Asl, A.F.A., Tanoori, T. and Sheykholeslami, Z. 2013. Effect of selected edible coatings to extend the shelf-life of fresh-cut apples. International Journal of Agriculture and Crop Sciences 6(16): 1171-1178.

Gol, N.B., Pater, P.R., and Rao, T.V.R. 2013. Improvement of quality and shelf-life of strawberries with edible coatings enriched with chitosan. Postharvest Biology and Technology 85(1): 185-195.

Gomez-Lopez, V.M. 2012. *Decontamination of Fresh and Minimally Processed Produce*. Iowa: John Wiley & Sons.

Gould, G.W. 2000. *Innovations in Food Processing*. Boca Raton: CRC Press.

Grumezescu, A.M. and Holban, A.M.. 2018. *Role of Materials Science in Food Bioengineering*. London: Academic Press.

Hapsari, M.D.Y. and Estiasih, T. 2015. Variasi proses dan grade apel (*Malus sylvestris* Mill) pada pengolahan minuman sari buah apel: Kajian Pustaka. Jurnal Pangan dan Argoindustri. 3(3): 939-949.

Hernawati, Setiawan, N.A., Shintawati R., and Priyandoko, D. 2018. The role of red dragon fruit peel (*Hylocereus polyrhizus*) to improvement blood lipids levels of hyperlipidaemia male mice. Journal of Physics 1013(1): 1-5

Hui, Y. H. 2005. *Handbook of Food Science, Technology and Engineering. Volume 4*. Boca Raton: CRC Press.

International Pectin Producers Association (IPPA). 2003. Specifications for Pectins. Available from: https://ippa.info/specification_for_pectins.htm. Accessed 2018 December 13.

Izalin, M.Z.N., Kharidah, M., Jamilah, B., and Noranizan, M.A. 2016. Functional properties of pectin from dragon fruit (*Hylocereus polyrhizus*) peel and its sensory attributes. Journal of Tropical Agriculture and Food Science 44(1): 95-101.

Jackson, J.E. 2003. *The Biology of Apples and Pears*. New York: Cambridge University Press.

Jantrawut, P., Chaiwarit, T., Jantanasakulwong, K., Brachais, C.H. and Chambin, O. 2017. Effect of plasticizer type on tensile propertiy and in vitro

indomethacin release of thin films based on low-methoxyl pectin. Journal of Polymers 9(7): 289-303.

Jenks, M.E., and Bebeli, P. 2011. *Breeding for Food Quality*. West Sussex: John Wiley&Sons.

Jongen, W. 2005. *Improving the Safety of Fresh Fruit and Vegetables*. Cambridge: Woodhead Publishing.

Kokoszka, S. and Lenart, A. 2007. Edible coating-formation, characteristics and use. Polish Journal of Food and Nutrition Sciences 57(4): 399-404.

Kumar, P. and Sethi, S. 2018. Edible Coating for Fresh Fruit: A Review. Journal of Current Microbiology and Applied Sciences 7(5): 2619-2626.

Malik, A., Erginkaya, Z., Ahmand, S. and Erten, H. 2014. *Food Processing: Strategies for Quality Assessment*. New York: Springer.

Martial-Didier, A.K., Hubert, K.K., Parfait, K.E.J. and Kablan, T. 2017. Phytochemical properties and proximate composition of Papaya (*Carica Papaya* L. var solo 8) peels. Turkish Journal of Agriculture 5(6): 676-680.

Martin-Belloso, O. and Fortuny, R.S. 2010. *Advances in Fresh-Cut Fruits and Vegetables Processing*. Boca Raton: CRC Press.

Megawati and Ulinuha, A.Y. 2015. Ekstraksi pektin kulit buah naga (dragon fruit) dan aplikasinya sebagai edible film. JBAT. 4(1): 16-23.

Miskiyah, W. and Winarti, C. 2011. Aplikasi edible coating berbasis pati sagu dengan penambahan vitamin C pada paprika: preferensi konsumen dan mutu mikrobiologi. Journal Horticulture 21(1): 68-76.

Mu, T., Sun, H., Zhang, M. and Wang, C. 2017. Sweet Potato Processing Technology. Beijing: Academic Press.

Mohamed, H.. 2015. Extraction and characterization of pectin from grapefruit peels. MOJ Food Process Technology 2(1): 31-38.

Montemor, M.F. 2015. *Smart Composite Coatings and Membranes: Transport Structural, Environmental and Energy Applications*. Amsterdam: Elsevier.

Nugroho, A.A., Basito, and Katri, R.B. 2013. Kajian pembuatan edible film tapioka dengan pengaruh penambahan pectin beberapa jenis kulit pisang terhadap karakteristik fisik dan mekanik. Jurnal Teknosains Pangan 2(1): 73-79.

Nurdjanah, M. and Usmiati, S. 2006. Ekstraksi dan karakterisasi pektin dari kulit labu kuning. Jurnal Penelitian Pascapanen Pertanian 3(1): 13-23.

Nurmahani, M.M., Osman, A., Hamid, A., Ghazali, M. and Dek, M.S.P. 2012. Antibacterial property of Hylocereus polyrhizus and Hylocereus undatus peel extracts. International Food Research Journal 19(1): 59-66.

Nussinovitch, A. 2012. *Hydrocolloid Applications: Gum Technology in the Food and Other Industries*. Dordrecht: Springer.

Ogawa, H., Fukushima, K., Kubo, Y. and Fukumoto, H. 1990. Pressure inactivation of yeasts, molds, and pectinesterase in satusuma mandarin juice: effects of juice concentration, pH, and organic acids and comparison with heat sanitation. Journal of Agricultural and Biological Chemistry 54(5): 1219-1225.

Pareek, S. 2016. *Fresh-cut Fruits and Vegetables: Technology, Physiology and Safety*. Boca Raton: CRC Press.

Pareek, S. 2017. *Novel Postharvest Treatments of Fresh Produce*. Boca Raton: CRC Press.

Paull, R.E. and Duarte, O. 2012. *Local Fruits: Crop Production Science in Horticulture. 2nd edition*. Oxfordshire: CADI.

Poliskie, M. 2016. *Solar Module Packaging: Polymeric Requirements and Selection*. Boca Raton: CRC Press.

Polnaya, F.J., Talahatu, J., Haryadi, and Marseno, D.W. 2012. Properties of biodegradable films from hydroxypropyl sago starches. Asian journal of Food and Agro-Industry 5(3): 183-192.

Provost, J.J., Colabroy, K.L., Kelly, B.S. and Wallert, M.A. 2016. *Science of Cooking: Understanding the Biology and Chemistry Behind Food and Cooking*. Hoboken: John Wiley&Sons.

Radzi, S.M., Hanafiah, M.H.M., Sumarjan, N., Mohi, Z., Sukyadi, D., Suryadi K. and Purnawarman, P. 2016. *Heritage, Culture, and Society: Research Agenda and Best Practices in the Hospitality and Tourism Industry*. Leiden: CRC Press.

Rai, V.R. and Bai, J.A. 2017. *Food Safety Protection*. Boca Raton: CRC Press.

Ribeiro, C., Vincente, A.A., Teixeira, J.A. and Miranda, C. 2007. Optimization of edible coating composition to retard strawberry fruit senescence. Journal of Posharvest Biology and Technology 44(1): 63-70.

Rocha, A.M.C.N and Morais, A.M.M.B. 2003. Shelf life of minimally processed apple (cv. Jonagored) determined by colour changes. Journal of Food Control 24(1): 13-20.

Rodrigues, S., Silva, E.O., Brito, E. and Brito, S. 2018. *Exotic Fruits Reference Guide*. London: Academic Press.

Rolland-Sabate, A., Sanchez, T., Buleon, A. Colonna, P., Jaillais, B., Ceballos, H. and Dufour, D. 2012. Structural Characterization of Novel Cassava Starches with Low and High-amylose Contents in Comparison with other Commercial Sources. Journal of Food Hydrocolloids 27(1): 161-174.

Rosida, Sudaryati, and Yahya, A.M. 2018. Edible film from the pectin of papaya skin (The study of cassava starch and glycerol addition). Journal of Physics 953(1): 1-6

Santoso, B., Saputra, D. and Pambayun, R. 2004. Kajian teknologi edible coating dari pati dan aplikasinya untuk pengemas primer lempok durian. Jurnal Teknologi dan Industri Pangan 15(3): 239-252.

Sayah, M.Y., Chabir, R., Madani, N.E., Kandri, Y.R.E., Chahdi, F.O., Touzani, H. and Errachidi, F.. 2014. Comparative study on pectin yield according to the state of the orange peels and acids used. IJIRSET. 3(8): 15658-15665.

Shit, S.C. and Shah, P.M. 2014. Edible polymers: challenges and opportunities. Journal of Polymer 2014: 1-13.

Siddiq, M. 2012. Tropical and Subtropical Fruits: Postharvest Physiology, Processing and Packaging. Oxford: John Wiley & Sons.

Siddiqui, M.W. and Rahman, M.S. 2014. *Minimally Processed Foods: Technologies for Safety, Quality and Convenience*. Switzerland: Springer.

Siddiqui, M.W., Zavala, J.F.A. and Hwang, C.A. 2016. *Postharvest Management Approaches for Maintaining Quality of Fresh Produce*. Switzerland: Springer.

Simpson, B.K. 2012. *Food Biochemistry and Food Processing. 2nd ed*. Hoboken: John Wiley&Sons.

Small, E. 2011. *Top 100 Exotic Food Plants*. Boca Raton: CRC Press.

Sobir and Amalya, M.. 2011. *Bertanam 20 Buah Koleksi Eksklusif*. Jakarta: Niaga Swadaya.

Steele, R. 2004. *Understanding and Measuring the Shelf-life of Food*. Boca Raton: CRC Press.

Suwoto, Septiana, A. and Puspa, G. 2017. Ekstraksi pectin pada kulit buah naga super merah (*Hylocereus constaricencis*) dengan variasi suhu ekstraksi dan jenis pelarut. Jurnal Ilmiah Teknik Kimia UNPAM 1(2):1-10.

Tandoko, R. 2016. Pengaruh Pemanfaatan Pati Biji Durian (*Durio zibethinus l.)* sebagai Edible Coating terhadap Mutu Anggur. Bachelor thesis, Universitas Pelita Harapan.

Trivedi, P.C. 2013. *Advances in Plant Physiology*. New Delhi: I.K. International Publishing House.

Tuhuloula, A., Budiyarti, L. and Fitriana, E.N. 2013. Karakterisasi pectin dengan memanfaatkan limbah kulit pisang menggunakan metode ekstraksi. Journal Konversi UNLAM 2(1): 21-27.

Valdes, A., Burgos, N., Jiminéz, A. and Garrigós, M.C. Natural pectin polysaccharides as edible coatings. Coatings 5(1): 865-886.

Varzakas, T. and C. Tzia. 2015. *Handbook of Food Processing: Food Preservation*. Boca Raton: CRC Press.

Velickova, E., Winkelhausen, E., Kuzmanova, S., Alves, V.D. and Moldao-Martins, M. 2013. Impact of chitosan-beeswax edible coatings on the quality

of fresh strawberries (Fragaria ananassa cv Camarosa) under commercial storage conditions. LWT-Food Science and Technology 52(1): 80-92.

Vergnaud, J.M. and Rosca, I.D. 2016. *Rubber Curing and Properties*. Boca Raton: CRC Press.

Walter, R.H. 2012. *The Chemistry and Technology of Pectin*. California: Academic Press.

Wang, Y., Zhang, W. and Fu, L. 2017. *Food Spoilage Microorganisms: Ecology and Control*. Boca Raton: CRC Press.

Warkoyo, B., Rahardjo, Marseno, D.W. and Karyadi, J.N.W. 2014. Sifat fisik, mekanik, dan barrier edible film berbasis pati umbi kimpul (Xanthosoma sagittifolium) yang diinkorporasi dengan kalium sorbat. Journal Argitech 34(1): 72-81.

Williams, P.A. and Phillips, G.O. 2000. *Gums and Stabilisers for the Food Industry 10*. Cornwall: Royal Society of Chemistry.

Yapo, B.M. and Koffi, K.L. 2014. Extraction and characterization of highly gelling low methoxy pectin from cashew apple pomace. Journal Foods 3(1): 1-12.

Yati, K., Ladeska, V. and Wirman, A.P. 2017. Pectin isolation of dragon fruit (*Hylocereus polyrhizus*) and utilization as a binder on toothpaste. Media Farmasi 14(1): 1-14.

Zaidel, D.N.A., Rashid, J.M., Hamidon, N.H., Salleh, L.M. and Kassim, A.S.M. 2017. Extraction and characterisation of pectin from dragon fruit (Hylocereus Polyrhizus) peels. Chemical Engineering Transactions 56(1): 805-810.