

## REFERENCES

- Ali, A., Muhammad, M. T. M., Sijam, K., & Siddiqui, Y. (2010). Potential of chitosan coating in delaying the postharvest anthracnose (*Colletotrichum gloeosporioides* Penz.) of Eksotika II papaya. *International journal of food science & technology*, 45(10), 2134-2140.
- Amira, E., Behija, S., Beligh, M., Lamia, L., Manel, I., Mohamed, H., & Lotfi, A. (2012). Effects of the Ripening Stage on Phenolic Profile, Phytochemical Composition and Antioxidant Activity of Date Palm Fruit. *Journal Of Agricultural And Food Chemistry*, 60(44), 10896-10902. doi: 10.1021/jf302602v
- Association of Official Agricultural Chemists. (2011). Method for the Determination of Antioxidant Activity in Foods and Beverages by Reaction with 2, 2'-diphenyl-1-picrylhydrazyl (DPPH): Collaborative Study.
- Atkinson, R. G., & Sutherland, P. W. Johnston and RJ Schaffer, 2012. Down-regulation of Polygalacturonase1 alters firmness, tensile strength and water loss in apple (*Malus x domestica*) fruit. *BMC PLANT BIOLOGY*, 12(1), 129.
- Bahado-Singh, P. S., Wheatley, A. O., Ahmad, M. H., Morrison, E. S. A., & Asemota, H. N. (2006). Food processing methods influence the glycaemic indices of some commonly eaten West Indian carbohydrate-rich foods. *British journal of nutrition*, 96(3), 476-481.
- Bakkali, F., Averbeck, S., Averbeck, D., & Idaomar, M. (2008). Biological effects of essential oils—a review. *Food and chemical toxicology*, 46(2), 446-475.
- Bill, M., Sivakumar, D., Korsten, L., & Thompson, A. K. (2014). The efficacy of combined application of edible coatings and thyme oil in inducing resistance components in avocado (*Persea americana* Mill.) against anthracnose during post-harvest storage. *Crop Protection*, 64, 159-167.
- Branen, A. (2002). *Food additives*. New York: Marcel Dekker.
- Brown, D. (2015). *U.S. Patent Application No. 14/568,275*.
- Carrington, C. M. S., Maharaj, R., & Sankat, C. K. (2011). Breadfruit (*Artocarpus altilis* [Parkinson] Fosberg). Postharvest Biology and Technology of Tropical and Subtropical Fruits, 251–272e. doi:10.1533/9780857092762.251
- Chafer, M., Sanchez-Gonzalez, L., Gonzalez-Martinez, C., & Chiralt, A. (2012). Fungal decay and shelf life of oranges coated with chitosan and bergamot, thyme, and tea tree essential oils. *Journal of Food Science*, 77(8), E182-E187.
- Corain, L., & Salmaso, L. (2007). A critical review and a comparative study on conditional permutation tests for two-way ANOVA. *Communications in Statistics—Simulation and Computation*<sup>®</sup>, 36(4), 791-805.
- Das, D.K., Dutta, H., and Mahanta, C.L. (2013). Development of a rice starch-based coating with antioxidant and microbe-barrier properties and study of its effect on tomatoes stored at room temperature. *LWT – Food Sci. Technol.* 50 : 272-278.
- Dhall, R.K. (2013). Advances in Edible Coatings for Fresh Fruits and Vegetables: A Review, *Critical Reviews in Food Science and Nutrition*, 53:5, 435-450, DOI: [10.1080/10408398.2010.541568](https://doi.org/10.1080/10408398.2010.541568)
- Ding P, Ahmad Sh, Ghazali Hm. (2007). Changes in selected quality characteristics of minimally processed carambola (*Averrhoa carambola* L.) when treated with ascorbic acid. *J Sci Food Agric* 87:702-709.
- Fadda, A., Serra, M., Molinu, M. G., Azara, E., Barberis, A., & Sanna, D. (2014). Reaction time and DPPH concentration influence antioxidant activity and kinetic parameters of bioactive molecules

- and plant extracts in the reaction with the DPPH radical. *Journal of Food composition and analysis*, 35(2), 112-119.
- FAO. (2019). The State of Food and Agriculture 2019. Moving Forward on Food Loss and Waste Reduction. Rome. License: CC BY-NC-SA. 3.0. IGO.
- Hameed, A., Sheikh, M. A., Hameed, A., Farooq, T., Basra, S. M. A., & Jamil, A. (2013). Chitosan priming enhances the seed germination, antioxidants, hydrolytic enzymes, soluble proteins and sugars in wheat seeds. *Agrochimica*, 57(2), 97-110.
- Hamed, I., Özogul, F., & Regenstein, J. M. (2016). *Industrial applications of crustacean by-products (chitin, chitosan, and chitooligosaccharides): A review. Trends in Food Science & Technology*, 48, 40–50. doi:10.1016/j.tifs.2015.11.007
- Hewajulige, I. G. N., Sultanbawa, Y., Wijeratnam, R. S. W., & Wijesundara, R. L. (2009). Mode of action of chitosan coating on anthracnose disease control in papaya. *Phytoparasitica*, 37(5), 437-444.
- Hunter Lab. (2008). CIE L\* a\* b\* color scale. Application note.
- Jiang, T., Feng, L., & Li, J. (2012). Changes in microbial and postharvest quality of shiitake mushroom (*Lentinus edodes*) treated with chitosan–glucose complex coating under cold storage. *Food Chemistry*, 131(3), 780-786.
- Jiang, Y., & Li, Y. (2001). Effects of chitosan coating on postharvest life and quality of longan fruit. *Food Chemistry*, 73(2), 139-143.
- Jianglian, D., & Shaoying, Z. (2013). Application of chitosan based coating in fruit and vegetable preservation: A review. *J. Food Process. Technology*, 4(5), 227.
- Jones, A. M. P., Ragone, D., Bernotas, D. W., & Murch, S. J. (2011). Beyond the bounty: Breadfruit (*Artocarpus altilis*) for food security and novel foods in the 21st century. *Ethnobotany Research and Applications*, 9, 129-149.
- Kader, A. A., Barrett, D. M., Raghavan, G. S. V., Vigneault, C., Markarian, N. R., Gariépy, Y., ... & Nolle, F. (2005). *Processing Fruits Science and Technology*.
- Kerch, G. (2015). Chitosan films and coatings prevent losses of fresh fruit nutritional quality: A review. *Trends in Food Science & Technology*, 46(2), 159-166.
- Kong, M., Chen, X.G., Xing, K., and Park, H.J. (2010). Antimicrobial properties of chitosan and mode of action: a state of the art review. *Int. J. Food Microbiol.* 144 : 51-63.
- Li, P. and Barth, M. M. (1998). Impact of edible coatings on nutritional and physiological changes in lightly processed carrots. *Postharvest Biol. Technol.* 14:51–60.
- Li, H. and Yu, T. (2000). Effect of chitosan on incidence of brown rot, quality and physiological attributes of postharvest peach fruit. *J. Sci. Food Agric.* 81:269–274.
- Maharaj, R., & Sankat, C. K. (2004). Effect of shrink-wrapping and controlled atmosphere storage on the postharvest browning and quality of breadfruit. *ASEAN FOOD JOURNAL*, 13(1), 29.
- Maharaj, R., Sankat, C.K. (1990). The shelf-life of breadfruit stored under ambient and refrigerated conditions. *Acta Horticulturae*, 269, 411–424.
- Mahmudah, I. (2008). Memperpanjang Umur Simpan Buah Manggis Segar (*Garcinia Mangostana* L.) dengan Kombinasi Proses Pre-Cooling, Pelilinan, Stretch Film Single Wrapping Pada Penyimpanan Dingin 50C. *Skripsi. Fakultas Teknologi Pertanian, Institut Pertanian Bogor*.
- Moradi, M., Tajik, H., Rohani, S. M. R., Oromiehie, A. R., Malekinejad, H., Aliakbarlu, J., & Hadian, M. (2012). Characterization of antioxidant chitosan film incorporated with *Zataria multiflora* Boiss essential oil and grape seed extract. *LWT-Food Science and Technology*, 46(2), 477-484.
- Motulsky, H.J. (2017). GraphPad Prism 7.0 statistic guide. GraphPad Software. <http://www.graphpad.com/guides/prism/7/statistics/index.htm>.

- New Guyana Marketing Corporation. (2004). Waxing Fruits and Vegetables. Postharvest Handling Technical Bulletin, no. 33 (Georgetown, Guyana: New Guyana Marketing Corporation).
- Nielsen, S. (2010). *Food Analysis*.
- Nieto, G., Ros, G., & Castillo, J. (2018). Antioxidant and Antimicrobial Properties of Rosemary (*Rosmarinus officinalis*, L.): A Review. *Medicines*, 5(3), 98. doi: 10.3390/medicines5030098.
- Nunes, M.C.N. & Edmond, J.P. (2007). Relationship between weight loss and visual quality of fruits and vegetables. *Proceedings of the Florida State Horticultural Society* 120: 235-245.
- O'Mahony, M. (1986). *Sensory evaluation of food*. New York u.a.: Dekker.
- Oms-oliu G, Aguiló-aguayo I, Martín-belloso Ao. 2006. Inhibition of browning on fresh-cut pear wedges by natural compounds. *J Food Sci* 71(3): S216-S224.
- Palma-Guerrero, J., Huang, I. C., Jansson, H. B., Salinas, J., Lopez-Llorca, L. V., & Read, N. D. (2009). Chitosan permeabilizes the plasma membrane and kills cells of *Neurospora crassa* in an energy dependent manner. *Fungal Genetics and Biology*, 46(8), 585-594.
- Perdones, A., Sánchez-González, L., Chiralt, A., & Vargas, M. (2012). Effect of chitosan–lemon essential oil coatings on storage-keeping quality of strawberry. *Postharvest biology and technology*, 70, 32-41.
- Petriccione, M., De Sanctis, F., Pasquariello, M. S., Mastrobuoni, F., Rega, P., Scortichini, M., & Mencarelli, F. (2015). The effect of chitosan coating on the quality and nutraceutical traits of sweet cherry during postharvest life. *Food and bioprocess technology*, 8(2), 394-408.
- Pisoschi, A. M., & Negulescu, G. P. (2011). Methods for total antioxidant activity determination: a review. *Biochem Anal Biochem*, 1(1), 106.
- Ponce, A. G., Roura, S. I., del Valle, C. E., & Moreira, M. R. (2008). Antimicrobial and antioxidant activities of edible coatings enriched with natural plant extracts: in vitro and in vivo studies. *Postharvest biology and technology*, 49(2), 294-300.
- Puerta-Gomez, A. F., & Cisneros-Zevallos, L. (2011). *Postharvest studies beyond fresh market eating quality: Phytochemical antioxidant changes in peach and plum fruit during ripening and advanced senescence*. *Postharvest Biology and Technology*, 60(3), 220–224.
- Ragone, D., & Cavaletto, C. G. (2006). Sensory evaluation of fruit quality and nutritional composition of 20 breadfruit (*Artocarpus*, Moraceae) cultivars. *Economic botany*, 60(4), 335-346.
- Ragone, D. (2007, April). Breadfruit: Diversity, conservation and potential. In *1 International Symposium on Breadfruit Research and Development* 757 (pp. 19-30).
- Ragone, D. (2018). Breadfruit—*Artocarpus altilis* (Parkinson) Fosberg. In *Exotic Fruits* (pp. 53-60). Academic Press.
- Robles-Sánchez, R. M., Rojas-Graü, M. A., Odriozola-Serrano, I., González-Aguilar, G. A., & Martín-Belloso, O. (2009). Effect of minimal processing on bioactive compounds and antioxidant activity of fresh-cut 'Kent' mango (*Mangifera indica* L.). *Postharvest Biology and Technology*, 51(3), 384-390.
- Romanazzi, G., Feliziani, E., Baños, S., & Sivakumar, D. (2016). Shelf life extension of fresh fruit and vegetables by chitosan treatment. *Critical Reviews In Food Science And Nutrition*, 57(3), 579-601. doi: 10.1080/10408398.2014.900474
- Salvador-Figueroa, M., Aragón-Gómez, W. I., Hernández-Ortiz, E., Vazquez-Ov, J. A., & de Lourdes Adriano-Anaya, M. (2011). Effect of chitosan coating on some characteristics of mango (*Mangifera indica* L.) Ataulfo subjected to hydrothermal process. *African Journal of Agricultural Research*, 6(27), 5800-5807.

- Samsouandar, J., Maharaj, V. and Sankat, C. K. (2000), 'Inhibition of browning of the fresh breadfruit through shrink-wrapping', *Acta Hort*, 518, 131 – 136.
- Sánchez-González, L., Pastor, C., Vargas, M., Chiralt, A., González-Martínez, C., & Cháfer, M. (2011). Effect of hydroxypropylmethylcellulose and chitosan coatings with and without bergamot essential oil on quality and safety of cold-stored grapes. *Postharvest Biology and Technology*, 60(1), 57-63.
- Santos NSD, Aguiar AJA, Oliveira CED, Sales CVD, Silva SDM, et al. (2012). Efficacy of the application of a coating composed of chitosan and *Origanum vulgare* L. essential oil to control *Rhizopus stolonifer* and *Aspergillus niger* in grapes (*Vitis labrusca* L.). *Food Microbiol* 32: 345-353.
- Shao, X.F., Tu, K., Tu, S., and Tu, J. (2012). A combination of heat treatment and chitosan coating delays ripening and reduces decay in "Gala" apple fruit. *J. Food Qual.* 35 : 83-92.
- Shin, Y., Ryu, J. A., Liu, R. H., Nock, J. F., & Watkins, C. B. (2008). Harvest maturity, storage temperature and relative humidity affect fruit quality, antioxidant contents and activity, and inhibition of cell proliferation of strawberry fruit. *Postharvest Biology and Technology*, 49(2), 201-209.
- Sikarwar, M. S., Hui, B. J., Subramaniam, K., Valeisamy, B. D., Yean, L. K., & Balaji, K. (2014). Antioxidant activity of *Artocarpus altilis* (Parkinson) Fosberg leaves. *Free Radicals & Antioxidants*, 4(2).
- Siripatrawan, U., & Harte, B. R. (2010). Physical properties and antioxidant activity of an active film from chitosan incorporated with green tea extract. *Food Hydrocolloids*, 24(8), 770–775. doi:10.1016/j.foodhyd.2010.04.003
- Sivakumar, D., Bill, M., Korsten, L., & Thompson, K. (2016). Integrated Application of Chitosan Coating with Different Postharvest Treatments in the Control of Postharvest Decay and Maintenance of Overall Fruit Quality. *Chitosan In The Preservation Of Agricultural Commodities*, 127-153. doi: 10.1016/b978-0-12-802735-6.00005-7
- Smith, J., & Hong-Shum, L. (2011). *Food Additives Data Book, 2nd Edition*. John Wiley & Sons.
- Statistics of Annual Fruit and Vegetable Plants Indonesia. (2017). BPS-Statistics Indonesia, p.12.
- Stefanovits-Bányai, É. (2003). Antioxidant effect of various rosemary (*Rosmarinus officinalis* L.) clones. *Acta Biologica Szegediensis*, 47(1-4), 111-113.
- Stice, K. N., McGregor, A. M. and Kumar, S. N. (2007), 'A review of fresh breadfruit exports from Fiji', *Acta Hort*, 757, 243 – 249.
- Sun, X., Narciso, J., Wang, Z., FERENCE, C., Bai, J., & Zhou, K. (2014). Effects of chitosan-essential oil coatings on safety and quality of fresh blueberries. *Journal of Food Science*, 79(5), M955-M960.
- Suprapti, M. L. (2002). *Tepung Sukun*. Yogyakarta: Kanisius.
- Supriati, Y. (2015). Sukun sebagai sumber pangan alternatif substitusi beras. *Iptek Tanaman Pangan*, 5(2).
- Thompson, K. (2014). *Fruit and Vegetables: Harvesting, Handling and Storage, 2 Volume Set*. John Wiley & Sons.
- Waibel, K., Haney, B., Moore, M., Whisman, B., & Gomez, R. (2011). Safety of Chitosan Bandages in Shellfish Allergic Patients. *Military Medicine*, 176(10), 1153-1156. doi: 10.7205/milmed-d-11-00150.
- Widowati, S. (2016). Prospek sukun (*artocarpus communis*) sebagai pangan sumber karbohidrat dalam mendukung diversifikasi konsumsi pangan. *Jurnal Pangan*, 18(4), 67-75.
- Wills, R. B., & Golding, J. B. (2014). Reduction of energy usage in postharvest horticulture through management of ethylene. *Journal of the Science of Food and Agriculture*, 95(7), 1379–1384. doi:10.1002/jsfa.6930