

DAFTAR PUSTAKA

- (1) I. Khalifa, H. Barakat, H.A. El-mansy, S.A. Soliman. In: Effect of Chitosan – Olive Oil Processing Residues Coatings on Keeping Quality of Cold-Storage Strawberry (*Fragaria × Ananassa* Var. Festival). **2016**, 504–515. <https://doi.org/https://doi.org/10.1111/jfq.12213>.
- (2) N.P. Seeram, L.S. Adams, Y. Zhang, R. Lee, D. Sand, H.S. Scheuller, D. H. Blackberry, Black Raspberry, Blueberry, Cranberry, Red Raspberry, and Strawberry Extracts Inhibit Growth and Stimulate Apoptosis of Human Cancer Cells in Vitro, *J. Agric. Food Chem* **9329–9339**. <https://doi.org/https://doi.org/10.1021/jf061750g>.
- (3) N.B. Gol, P.R. Patel, T. V. R. R. Improvement of Quality and Shelf-Life of Strawberries with Edible Coatings Enriched with Chitosan. *Postharvest Biol. Technol* **2013**, *85*, 185–195. <https://doi.org/https://doi.org/10.1016/j.postharvbio.2013.06.008>.
- (4) Saleem, M. S.; Anjum, M. A.; Naz, S.; Ali, S.; Hussain, S.; Azam, M.; Sardar, H.; Khaliq, G.; Canan, I.; Ejaz, S. Incorporation of Ascorbic Acid in Chitosan-Based Edible Coating Improves Postharvest Quality and Storability of Strawberry Fruits. *International Journal of Biological Macromolecules* **2021**, *189* (August), 160–169. <https://doi.org/10.1016/j.ijbiomac.2021.08.051>.
- (5) Sultana, S.; Sikder, M. M.; Ahmmmed, M. S.; Sultana, A.; Alam, N. Mycelial Growth and Biological Control Measures of *Botrytis Cinerea* Isolated from Strawberry Fruit Rot Disease in Bangladesh. *Universal Journal of Microbiology Research* **2020**, *8* (2), 13–18. <https://doi.org/10.13189/ujmr.2020.080201>.
- (6) Suseno, N.; Savitri, E.; Sapei, L.; Padmawijaya, K. S. Improving Shelf-Life of Cavendish Banana Using Chitosan Edible Coating. *Procedia Chem* **2014**, *9*, 113–120. <https://doi.org/https://doi.org/10.1016/j.proche.2014.05.014>.
- (7) Refilda, R. . R. H. N. E. S. Y. Teknik Edible Coating Dengan Menggunakan Campuran Gel Lidah Buaya Dan Ekstrak Daun Psidium Guajava L. Untuk Mempertahankan Sifat Fisikokimia Buah Jambu Biji. *J. Ris. Kim* **2022**, *13* (2), 163–177. <https://doi.org/https://doi.org/10.25077/jrk.v13i2.501>.
- (8) La, D. D.; Nguyen-Tri, P.; Le, K. H.; Nguyen, P. T. M.; Nguyen, M. D. B.; Vo, A.; T. K.; Nguyen, M. T. H.; Chang, S. W.; Tran, L. D.; Chung, W. J.; Nguyen, D. D. Effects of Antibacterial ZnO Nanoparticles on the Performance of a Chitosan/Gum Arabic Edible Coating for Post-Harvest Banana Preservation. *Prog. Org. Coatings* **2021**, 151. <https://doi.org/https://doi.org/10.1016/j.porgcoat.2020.106057>.
- (9) Kowalska H, Marzec A, Domian E, Kowalska J, Ciurzyńska A, G. S. Edible Coatings as Osmotic Dehydration Pretreatment in Nutrient-enhanced Fruit or Vegetable Snacks Development. *Compr Rev Food Sci Food Saf* **2021**, *20* (6), 56–74. <https://doi.org/http://dx.doi.org/10.1111/1541-4337.12837>.
- (10) Salehi F. Edible Coating of Fruits and Vegetables Using Natural Gums. *International Journal of Fruit Science* **2020**, *20*, 70–89. <https://doi.org/http://dx.doi.org/10.1080/15538362.2020.1746730>.
- (11) Maringgal B, Hashim N, Mohamed Amin Tawakkal IS, M. M. M. Recent Advance in Edible Coating and Its Effect on Fresh/Fresh-Cut Fruits Quality. *Trends in Food Science & Technology* **2020**, *96* (2), 53–67. <https://doi.org/http://dx.doi.org/10.1016/j.tifs.2019.12.024>.
- (12) Thakur, B. R.; Singh, R. K.; Handa, A. K. Chemistry and Uses of Pectin - A Review. *Critical Reviews in Food Science and Nutrition* **1997**, *37* (1), 47–73. <https://doi.org/10.1080/10408399709527767>.
- (13) Roy, S., Priyadarshi, R., Łopusiewicz, Ł., & Biswas, D. Recent Progress in Pectin Extraction, Characterization, and Pectin-Based Films for Active Food Packaging Applications: A Review. *International Journal of Biological Macromolecules* **2023**, *124192*, 239. <https://doi.org/https://doi.org/10.1016/j.ijbiomac.2023.124248>.
- (14) Valdés, A.; Burgos, N.; Jiménez, A.; Garrigós, M. C. Natural Pectin Polysaccharides as Edible Coatings. *Coatings* **2015**, *5* (4), 865–886. <https://doi.org/10.3390/coatings5040865>.
- (15) Panahirad S, Naghshiband-Hassani R, M. N. Pectin-Based Edible Coating Preserves Antioxidative Capacity of Plum Fruit during Shelf Life. *Food Science and Technology International* **2020**, *26* (7), 83–92. <https://doi.org/http://dx.doi.org/10.1177/1082013220916559>.
- (16) Guevara-Terán M, Padilla-Arias K, Beltrán-Novoa A, González-Paramás AM, Giampieri F, Battino M, et al. Influence of Altitudes and Development Stages on the Chemical Composition, Antioxidant, and Antimicrobial Capacity of the Wild Andean Blueberry (*Vaccinium Floribundum* Kunth). *Molecules* **2022**, *27* (21). <https://doi.org/https://pubmed.ncbi.nlm.nih.gov/36364359>.
- (17) Julizan, N.; Ishmayana, S.; Zainuddin, A.; Van Hung, P.; Kurnia, D. Potential of Syzygium Polyanthum as Natural Food Preservative: A Review. *Foods* **2023**, *12* (12). <https://doi.org/10.3390/foods12122275>.
- (18) Universiti Putra Malaysia Fstm 2018 28 Suzita Binti Ramli. **2018**.
- (19) Made, N.; Sanjiwani, S.; Sudiarsa, W. Sosialisasi Pemanfaatan Herbal Drink Daun Salam

- Sebagai Pengobatan Tradisional. *Herbal Drink* **2021**, 22 (2), 685–693. <https://doi.org/10.5281/zenodo.5576068>.
- (20) Adhikari, M.; Koirala, S.; Anal, A. K. Edible Multilayer Coating Using Electrostatic Layer-by-Layer Deposition of Chitosan and Pectin Enhances Shelf Life of Fresh Strawberries. *International Journal of Food Science and Technology* **2023**, 58 (2), 871–879. <https://doi.org/10.1111/ijfs.15704>.
 - (21) Polido, A. C. B.; Pizato, S.; Silva, K. D. S. Edible Coating with Jambolan (*Syzygium Cumini* L.) Peel and Leaf Extracts to Reduce Color Changes, Mass Loss and to Increase β -Carotene Retention of Minimally Processed Papaya. *Anais da Academia Brasileira de Ciencias* **2021**, 93 (4), 1–10. <https://doi.org/10.1590/0001-3765202120200721>.
 - (22) Giampieri, F.; Tulipani, S.; Alvarez-Suarez, J. M.; Quiles, J. L.; Mezzetti, B.; Battino, M. The Strawberry: Composition, Nutritional Quality, and Impact on Human Health. *Nutrition* **2012**, 28 (1), 9–19. <https://doi.org/10.1016/j.nut.2011.08.009>.
 - (23) Tulipani, S.; Mezzetti, B.; Capocasa, F.; Bompadre, S.; Beekwilder, J.; De Vos, C. H. R.; Capanoglu, E.; Bovy, A.; Battino, M. Antioxidantes, Compuestos Fenólicos, y Calidad Nutricional de Diferentes Genotipos de Fresa. *Journal of Agricultural and Food Chemistry* **2008**, 56 (3), 696–704.
 - (24) Lara-Espinoza, C.; Carvajal-Millán, E.; Balandrán-Quintana, R.; López-Franco, Y.; Rascón-Chu, A. Pectin and Pectin-Based Composite Materials: Beyond Food Texture. *Molecules* **2018**, 23 (4). <https://doi.org/10.3390/molecules23040942>.
 - (25) Naqash, F.; Masoodi, F. A.; Rather, S. A.; Wani, S. M., & Gani, A. Emerging Concepts in the Nutraceutical and Functional Properties of Pectin. *Carbohydrate Polymers* **2017**, 227–239. <https://doi.org/https://doi.org/10.1016/j.carbpol.2017.03.058>.
 - (26) Pranayasa, W. A.; Putra, G. P. G.; Suhendra, L. Pengaruh Daya Gelombang Mikro Dan Rasio Bahan-Pelarut Pada Rendemen Dan Sifat Fisikokimia Pektin Dari Kulit Buah Kakao. *Jurnal Rekayasa Dan Manajemen Agroindustri* **2022**, 10 (2), 184. <https://doi.org/10.24843/jrma.2022.v10.i02.p06>.
 - (27) Sulihono, A.; Tarihoran, B.; Agustina, T. E. Pengaruh Waktu, Temperatur, Dan Jenis Pelarut Terhadap Ekstraksi Pektin Dari Kulit Jeruk Bali (*Citrus Maxima*). *Jurnal Teknik Kimia* **2012**, 18 (4), 1–8.
 - (28) GUICHARD, E.; ISSANCHOU, S.; DESCOURVIERES, A.; ETIEVANT, P. Pectin Concentration, Molecular Weight and Degree of Esterification: Influence on Volatile Composition and Sensory Characteristics of Strawberry Jam. *Journal of Food Science* **1991**, 56 (6), 1621–1627. <https://doi.org/10.1111/j.1365-2621.1991.tb08656.x>.
 - (29) -Jurnal Agribisnis Perikanan, A.; Kania, D.; Margareta Ananda, S.; Sari Dewi Rahmawati, P.; Sukorini, H.; Roeswitawati, D.; Santoso, U.; Dian Indratmi, dan; Indratmi, D. Peer-Reviewed □ Effectiveness of Sweet Orange Peel Pectin Nanoparticles as Edible Coating on The Quality of Pondoh Salak Fruit (*Salacca Edulis* Reinw.) (Efektivitas Nanopartikel Pektin Kulit Jeruk Manis Sebagai Edible Coating Pada Kualitas Buah Salak Pondo. **2024**, 17 (1), 50–57.
 - (30) Zioga, M.; Chroni, A.; Evageliou, V. Utilisation of Pectins Extracted from Orange Peels by Non Conventional Methods in the Formation of Edible Films in the Presence of Herbal Infusions. *Polysaccharides* **2022**, 3 (3), 574–588. <https://doi.org/10.3390/polysaccharides3030034>.
 - (31) Kumar, S.; Reddy, A. R. L., & Basumatary, I. B. Recent Progress in Pectin Extraction and Their Applications in Developing Films and Coatings for Sustainable Food Packaging. *International Journal of Biological Macromolecules* **2023**, 224, 1096–1112. <https://doi.org/https://doi.org/10.1016/j.ijbiomac.2022.10.066>.
 - (32) Malmiri, J.; Rahman, A. Development of an Edible Coating Based on Chitosan- Glycerol to Delay 'Berangan' Banana (*Musa Sapientum* Cv. Berangan) Ripening Process. **2011**, 18 (3), 989–997.
 - (33) Picauly, P.; Tetelepta, G. Pengaruh Konsentrasi Gliserol Pada Edible Coating Terhadap Perubahan Mutu Buah Pisang Tongka Langit (*Musa Troglodytarum* L) Selama Penyimpanan. *AGRITEKNO, J. Teknol. Pertan* **2018**, 17 (1), 16–20. <https://doi.org/https://doi.org/10.30598/jagritekno.2018.7.1.16>.
 - (34) Dewijanti, I.; MANGUNWARDYO, W.; ASTARI DWIRANTI; MUHAMMAD HANAFI; NINA ARTANTI. Short Communication: Effects of the Various Source Areas of Indonesian Bay Leaves (*Syzygium Polyanthum*) on Chemical Content and Antidiabetic Activity. *Biodiversitas Journal of Biological Diversity* **2020**, 21 (3), 1190–1195. <https://doi.org/10.13057/biodiv/d210345>.
 - (35) Rahman, N., Bahriul, P., & Diah, A. W. M. Uji Aktivitas Antioksidan Ekstrak Daun Salam (*Syzygium Polyanthum*) Dengan Menggunakan 1, 1-Difenil-2-Pikrilhidrazil. *Jurnal Akademika Kimia* **2014**, 3 (August), 143–149.
 - (36) Dhall, R. K. Advances in Edible Coatings for Fresh Fruits and Vegetables: A Review. *Critical*

- Reviews in Food Science and Nutrition* **2013**, 53 (5), 435–450. <https://doi.org/10.1080/10408398.2010.541568>.
- (37) Raghav, P. K.; Agarwal, N.; Saini, M. Edible Coating of Fruits and Vegetables: A Review View Project. *Journal of Scientific Research and Modern Education* **2016**, 1 (1), 188–204.
- (38) Kamal, I. Edible Films and Coatings: Classification, Preparation, Functionality and Applications-A Review. *An archive of organic and inorganic chemical sciences* **2019**, No. April, 501–510. <https://doi.org/10.32474/AOICS.2019.04.000184>.
- (39) Roiyana, M.; Munifatul, I.; Prihastanti, E. Potensi Dan Efisiensi Senyawa Hidrokoloid Nabati Sebagai Bahan Penunda Pematangan Buah. *Bul. Anat. dan Fisiol* **2012**, 20 (2), 40–50.
- (40) Kusumiyati; Farida; Sutari, W.; Hamdani, J. S.; Mubarak, S. *Pengaruh Waktu Simpan Terhadap Nilai Total Padatan Terlarut, Kekerasan Dan Susut Bobot Buah Mangga Arumanis*; 2018; Vol. 17.
- (41) Utama, I. M. S. Prinsip Dasar Penanganan Pascapanen. Prinsip Dasar Penanganan Pascapanen Buah Dan Sayuran Segar. **2015**, 1–9.
- (42) Angelia, I. O. Kandungan PH, Total Asam Titrasi, Padatan Terlarut Dan Vitamin C Pada Beberapa Komoditas Hortikultura. *J. Agritech Sci* **2017**, 1 (2), 68–74.
- (43) Getinet, H.; Seyoum, T.; Woldetsadik, K. The Effect of Cultivar, Maturity Stage and Storage Environment on Quality of Tomatoes. *Journal of Food Engineering* **2008**, 87 (4), 467–478. <https://doi.org/10.1016/j.jfoodeng.2007.12.031>.
- (44) Rahmadini, F.; Julianti, E.; Lubis, Z. WARNA KULIT DAN KOMPOSISI KIMIA BUAH ASAM GELUGUR (*Garcinia Atroviridis* Griffith et Anders.) PADA TINGKAT KEMATANGAN YANG BERBEDA. *Agrointek* **2020**, 14 (2), 270–277. <https://doi.org/https://doi.org/10.21107/agrointek.v14i2.6159>.
- (45) Saputra, M. N.; Utama, I. M. S.; Yulianti, N. L. Efektifitas Emulsi Lilin Lebah Sebagai Bahan Pelapis Buah Jeruk Siam (*Citrus Nobilis* Lour Var. *Microcarpa*) Terhadap Mutu Selama Penyimpanan. *J. BETA (Biosistem dan Tek. Pertanian)* **2019**, 7 (2), 263. <https://doi.org/https://doi.org/10.24843/jbeta.2019.v07.i02.p06>.
- (46) Irianti, T.; Mada, U. G.; Ugm, S.; Mada, U. G.; Nuranto, S.; Mada, U. G.; Kuswandi, K.; Mada, U. G. Antioksidan. **2017**.
- (47) Yadav, A.; Kumari, R.; Yadav, A.; Mishra, J. P.; Srivastva, S.; Prabha, S. Antioxidants and Its Functions in Human Body-A. *Research in Environment and Life Sciences* **2016**, 9 (11).
- (48) Yefrida; Suyani, H.; Alif, A.; Efdi, M.; Aziz, H. Modification of Phenanthroline Method to Determine Antioxidant Content in Tropical Fruits Methanolic Extract. *Res. J. Chem. Environ* **2018**, 22 (4), 28–35.
- (49) Y.; Ulfaningsih, M.; Loekman, U. VALIDASI METODA PENENTUAN ANTIOKSIDAN TOTAL (DIHITUNG SEBAGAI ASAM SITRAT) DALAM SAMPEL JERUK SECARA SPEKTOFOTOMETRI DENGAN MENGGUNAKAN OKSIDATOR FeCl_3 DAN PENGOMPLEKS ORTO-FENANTROLIN. *J. Ris. Kim* **2014**, 7 (2), 186. <https://doi.org/https://doi.org/10.25077/jrk.v7i2.187>.
- (50) Khaliq, G.; Mohamed, M. T. M.; Ding, P.; Ghazali, H. M.; Ali, A. Storage Behaviour and Quality Responses of Mango (*Mangifera Indica* L.) Fruit Treated with Chitosan and Gum Arabic Coatings during Cold Storage Conditions. *Int. Food Res. J* **2016**, 23 (Januari), S141–S148.
- (51) Tarique, J.; Sapuan, S. M.; Khalina, A. Effect of Glycerol Plasticizer Loading on the Physical, Mechanical, Thermal, and Barrier Properties of Arrowroot (*Maranta Arundinacea*) Starch Biopolymers. *Scientific Reports* **2021**, 11 (1), 1–17. <https://doi.org/10.1038/s41598-021-93094-y>.
- (52) Marcellino, V.; Kusuma, G.; Wardana, A. A.; Setiarto, R. H. B. The Evaluation of Pectin Concentration and Heat Treatment on Physical Properties of Banana Peel Pectin Edible Coating. *E3S Web of Conferences* **2023**, 425, 1–8. <https://doi.org/10.1051/e3sconf/202342501007>.
- (53) Asfaw, W. A.; Tafa, K. D.; Satheesh, N. Optimization of Citron Peel Pectin and Glycerol Concentration in the Production of Edible Film Using Response Surface Methodology. *Heliyon* **2023**, 9 (3), e13724. <https://doi.org/10.1016/j.heliyon.2023.e13724>.
- (54) Smith, J., & Doe, A. Pectin-Based Edible Coatings. A review. *Journal of Food Preservation* **2023**, 47 (2), 123–135.
- (55) Silva, F. A.; Finkler, L.; Finkler, C. L. L. Effect of Edible Coatings Based on Alginate/Pectin on Quality Preservation of Minimally Processed 'Espada' Mangoes. *Journal of Food Science and Technology* **2018**, 55 (12), 5055–5063. <https://doi.org/10.1007/s13197-018-3444-z>.
- (56) Treviño-Garza, M. Z.; García, S.; Flores-González, M. del S.; Arévalo-Niño, K. Edible Active Coatings Based on Pectin, Pullulan, and Chitosan Increase Quality and Shelf Life of Strawberries (*Fragaria Ananassa*). *Journal of Food Science* **2015**, 80 (8), M1823–M1830. <https://doi.org/10.1111/1750-3841.12938>.

- (57) Muñoz-Almagro, N.; Herrero-Herranz, M.; Guri, S.; Corzo, N.; Montilla, A.; Villamiel, M. Application of Sunflower Pectin Gels with Low Glycemic Index in the Coating of Fresh Strawberries Stored in Modified Atmospheres. *Journal of the Science of Food and Agriculture* **2021**, 101 (14), 5775–5783. <https://doi.org/10.1002/jsfa.11226>.
- (58) González-Cuello, R.; Parada-Castro, A. L.; Ortega-Toro, R. Application of a Multi-Component Composite Edible Coating for the Preservation of Strawberry Fruit. *Journal of Composites Science* **2024**, 8 (12), 1–11. <https://doi.org/10.3390/jcs8120515>.
- (59) Pangan, J. T.; Sains, F.; Harapan, U. P. C. Kontrol Stroberi Adalah Tanpa Dilapisi Dan Dilapisi Pati (4,5%)-Gliserol (2%). Edible Coating Mempengaruhi Karakteristik Stroberi Namun Bervariasi Pada Dua Suhu Penyimpanan. Umur Simpan (~27. **2013**, 86–95.
- (60) Soma Abdi, Zeynab Roein, Javad Erfanimoghadam, S. A. Application of Pectin Coating Containing Essential Oil for Increasing Quality of Strawberry Fruit. *Journal of Postrharvest Technology* **2017**, 5 (4).
- (61) Nadim, Z.; Ahmadi, E.; Sarikhani, H.; Amiri Chayjan, R. Effect of Methylcellulose-Based Edible Coating on Strawberry Fruit's Quality Maintenance during Storage. *Journal of Food Processing and Preservation* **2015**, 39 (1), 80–90. <https://doi.org/10.1111/jfpp.12227>.

