

DAFTAR PUSTAKA

- Anandito, R.B.K., Nurhartadi, E. & Bukhori, A., 2012. Pengaruh gliserol terhadap karakteristik edible film berbahan dasar tepung jali (Coix lacryma-jobi L.). *Jurnal Teknologi Hasil Pertanian*, 5(2), pp.17-23.
- Alves, V. D., Mali, S., Beléia, A., & Grossmann, M. V. E. 2007. Effect of glycerol and amylose enrichment on cassava starch film properties. *Journal of Food Engineering*, 78(3), 941-946.
- Astuti. 2008. Pengembangan Edible Film Kitosan dengan Penambahan Asam Lemak dan Esensial Oil: Upaya Perbaikan Sifat Barrier dan Aktivitas Antimikroba. Skripsi Teknologi Pertanian, Departemen Ilmu dan Teknologi Pangan, Fakultas Teknologi Pertanian, Institut Pedrtanian Bogor.
- Bakry, N.F., Isa, M.I.N. and Sarbon, N.M., 2017. Effect of sorbitol at different concentrations on the functional properties of gelatin/carboxymethyl cellulose (CMC)/chitosan composite films. *International Food Research Journal*.
- Baldwin, EA. 1999. Surface treatments and edible coatings in food preservation. In: Rahman MS (ed) *Handbook of food preservation*, 477–507.
- Ballesteros-Mártinez, L., Pérez-Cervera, C. and Andrade-Pizarro, R., 2020. Effect of glycerol and sorbitol concentrations on mechanical, optical, and barrier properties of sweet potato starch film. *NFS journal*, 20, pp.1-9.
- Bebartta, R.P., Katekhaye, K.P., Gajbharkar, R.S., Mishra, A. and Sahoo, N.R., 2020. Development of edible packaging film from banana peels and effect of glycerol concentration on the film properties. *Int. J. Chem. Stud*, 8(1), pp.1269-1273.
- Bourtoom, T. 2008. Edible films and coatings: characteristics and properties. *International food research journal*, 15(3), 237-248.
- Cao., Lele., Liu., Wenbo., Wang., Lijuan. 2018. Developing a green and edible film from Cassia gum: The effects of glycerol and sorbitol. *Journal of Cleaner Production*, 175, 276–282.
- Chillo, S., Flores, S., Mastromatteo, M., Conte, A., Gerschenson, L., & Del Nobile, M. A. (2008). Influence of glycerol and chitosan on tapioca starch-based edible film properties. *Journal of Food Engineering*, 88(2), 159-168.
- Cuq, B., Gontard, N., Aymard, C., Guilbert, S. 1997. Relative Humidity and Temperature Effects on Mechanical and Water Vapor Barrier Properties of Myofibrillar Protein-Based Films. *Journal Polymer gels and networks*, 5(1). 1-15.
- Fennema, O. and Greener, D.I., 1994. Edible films and coatings: characteristics, formation, definitions and testing methods. *Edible Coatings and Films to Improve Food Quality*. JM Krochta, EA Baldwin y M. Nisperos-Carriedo (Eds.) Technomic, Lancaster, Pensilvania, EUA, pp.1-21.
- Dauqan, E. and Abdullah, A., 2013. Utilization of gum arabic for industries and human health. *American Journal of Applied Sciences*, 10(10), p.1270.
- DeJong, A.E. and Hartel, R.W., 2019. Factors impacting sorbitol polymorphism and polymorphic transitions during aging. *Journal of Food Engineering*, 253, pp.72-78.
- De Moraes, J.O., Scheibe, A.S., Sereno, A. and Laurindo, J.B., 2013. Scale-up of the production of cassava starch based films using tape-casting. *Journal of Food*

- Engineering*, 119(4), pp.800-808.
- Dou, L., Li, B., Zhang, K., Chu, X., & Hou, H. 2018. Physical properties and antioxidant activity of gelatin-sodium alginate edible films with tea polyphenols. *International journal of biological macromolecules*, 118, 1377-1383.
- Fardhyanti Dewi Selvia., Syara SJ. 2015. Karakteristik Edible film Berbahan Dasar Ekstrak Karagenan Dari Rumput Laut (*Eucheuma Cottonii*). *Jurnal Bahan Alam Terbarukan (JBAT)* 4(2):68-73.
- Ghasemlou, M., Khodaiyan, F. and Oromiehie, A. 2011. Physical, mechanical, barrier, and thermal properties of polyol-plasticized biodegradable edible film made from kefirin. *Carbohydrate Polymers* 84(1): 477-483.
- Godwin, A. D. (2017). Plasticizers. In *Applied plastics engineering handbook* (pp. 533-553). William Andrew Publishing.
- Gontard, N., Guilbert, S., and Cuq, J. L., 1993. Water And Glycerol as Plasticizers Affect Mechanical and Water Vapor Barrier Properties of An Edible Wheat Gluten Film, *Journal of Food Science*, 58. 206-211.
- Han, J. H. and Krochta, J. M. 1999. Wetting properties and water vapor permeability of whey-protein-coated paper. *Transactions of the ASAE* 42(5): 1375–1382.
- Hasibuan, Machrani. 2009. Pembuatan Film Layak Makan dari Pati Sagu menggunakan Bahan Pengisi Serbuk Batang Sagu dan Gliserol sebagai Plastisiser. Tesis. Universitas Sumatera Utara. Medan.
- Hecht, H. and Srebnik, S., 2016. Structural characterization of sodium alginate and calcium alginate. *Biomacromolecules*, 17(6), pp.2160-2167.
- Huri, Daman, Fithri Choirun Nisa. 2014. Pengaruh Konsentrasi Gliserol dan Ekstrak Ampas Kulit Apel Terhadap Karakteristik Fisik Dan Kimia Edible film. *Jurnal Pangan dan Agroindustri* 2 No 4.
- Irianto, H.E., Darmawan, M. and Mindarwati, E., 2007. Pembuatan edible film dari komposit karaginan, tepung tapioka dan lilin lebah (beeswax). *Jurnal Pascapanen dan Bioteknologi Kelautan dan Perikanan*, 1(2), pp.93-100.
- Jacoeb, A. M., Nugraha, R., & Utari, S. P. S. D. 2014. Pembuatan edible film dari pati buah lindur dengan penambahan gliserol dan karaginan. *Jurnal Pengolahan Hasil Perikanan Indonesia*, 17(1), 14-21.
- Krochta, J.M., & C. De Mulder-Johnston. (1997). Edible and Biodegradable Polymer Films: Challenges and Opportunities. *Food Tech* 51 (2): 61-74.
- La, D. D., Nguyen-Tri, P., Le, K. H., Nguyen, P. T., Nguyen, M. D. B., Vo, A. T., & Nguyen, D. D. 2021. Effects of antibacterial ZnO nanoparticles on the performance of a chitosan/gum arabic edible coating for post-harvest banana preservation. *Progress in Organic Coatings*, 151, 106057.
- Lasztity, R. (1986). Recent results in the investigation of the structure of the gluten complex. *Die Nahrung*, 30, 235–244.
- McHugh, T. H., & Krochta, J. M. 1994. Milk-protein-based edible films and coatings. *Food technology Chicago*, 48(1), 97-103.
- McHugh, T.H., Aujard, J.F., and Krochta, J.M., 1994. Plasticized Whey Protein Edible Films: Water Vapor Permeability Properties, *Journal of Food Science*, 59. 416-419.
- Mikkonen, K.S., Heikkilä, M.I., Willför, S.M. and Tenkanen, M., 2012. Films from glyoxal-

- crosslinked spruce galactoglucomannans plasticized with sorbitol. *International Journal of Polymer Science*, 2012.
- Özeren, H.D., Wei, X.F., Nilsson, F., Olsson, R.T. and Hedenqvist, M.S., 2021. Role of hydrogen bonding in wheat gluten protein systems plasticized with glycerol and water. *Polymer*, 232, p.124149.
- Putra Anugerah Dwi, Vonny S. J., Raswen E. 2017. Penambahan Sorbitol Sebagai Plasticizer dalam Pembuatan Edible film Pati sukun. *Jurnal Pertanian*, 4(2).
- Quispe, C.A., Coronado, C.J. and Carvalho Jr, J.A., 2013. Glycerol: Production, consumption, prices, characterization and new trends in combustion. *Renewable and sustainable energy reviews*, 27, pp.475-493.
- Rahmawati, M., Arief, M. and Satyantini, W.H., 2019, February. The effect of sorbitol addition on the characteristic of carrageenan edible film. In *IOP Conference Series: Earth and Environmental Science* (Vol. 236, No. 1, p. 012129). IOP Publishing.
- Rasyid, Abdullah. 2010. Ekstraksi Natrium Alginat Dari Alga Coklat (*Sargassum echinocarpum*). *Jurnal Pusat Penelitian Oseanografi*. 36(3): 393-400.
- Riyanto, D. N., Utomo, A. R., & Setijawati, E. 2017. Pengaruh Penambahan Sorbitol terhadap Karakteristik Fisikokimia *Edible film* Berbahan Dasar Pati Gandum. *Jurnal Teknologi Pangan dan Gizi*, 16(1), 14-20.
- Rosida, R., 2017. Edible Film from the Pectin of Papaya Skin (The Study of Cassava Starch and Glycerol Addition): *Journal of Physics Conference Series*, 953, 012248.
- Sanyang, M.L., Sapuan, S.M., Jawaid, M., Ishak, M.R., & Sahari, J. 2016. Effect of plasticizer type and concentration on physical properties of biodegradable films based on sugar palm (*Arenga pinnata*) starch for food packaging. *Journal of food science and technology*, 53(1): p. 326-336.
- Setyaningrum, A., Sumarni, N.K. and Hardi, J., 2017. Sifat Fisiko-Kimia Edible Film Agar-Agar Rumput Laut (*Gracilaria sp.*) Tersubtitusi Glyserol. *Natural Science: Journal of Science and Technology*, 6(2).
- Setyorini, D., & Nurcahyani, P. R. 2016. Effect of addition of semi refined carrageenan on mechanical characteristics of gum arabic edible film. In *IOP Conference Series: Materials Science and Engineering*. Vol. 128, No. 1, p. 012011. IOP Publishing.
- Shrotri, A., Kobayashi, H. and Fukuoka, A., 2018. Cellulose depolymerization over heterogeneous catalysts. *Accounts of chemical research*, 51(3), pp.761-768.
- Sitompul, A. J. W. S., & Zubaidah, E. 2017. Pengaruh jenis dan konsentrasi plasticizer terhadap sifat fisik edible film kolang kaling (*Arenga pinnata*). *Jurnal Pangan dan Agroindustri*, 5(1).
- Suderman, N. Isa, M.I.N. Sarbon, N.M. 2018. The effect of Plasticizers on the functional properties of biodegradable gelatin-based film: A review. *Food Bioscience*, 24, 111–119.
- Speight, J.G., 2002. *Chemical process and design handbook*. McGraw-Hill Education.
- Ulfah, M., Salsabila, A. and Rohmawati, I., 2018, March. Characteristics of water solubility and color on edible film from bioselulosa nata nira siwalan with the additional of glycerol. In *Journal of Physics: Conference Series*. Vol. 983, No. 1, p. 012191. IOP Publishing.
- Verbeken, D., Dierckx, S. and Dewettinck, K., 2003. Exudate gums: occurrence, production, and applications. *Applied microbiology and biotechnology*, 63(1), pp.10-21.

- Vieira MGA, Da Silva MA, Dos Santos LO, Beppu MM. 2011. Natural-based plasticizers and biopolymer films: a review. *European Polymer Journal*. 47: 254-263.
- Warkoyo, W., Rahardjo, B., 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. *Agritech*, 34(1), pp.72-81.
- Wang, Y., Chen, Y., Zhou, Y., Nirasawa, S., Tatsumi, E., Li, X. and Cheng, Y., 2017. Effects of konjac glucomannan on heat-induced changes of wheat gluten structure. *Food chemistry*, 229, pp.409-416.
- Wieser, H., 2007. Chemistry of gluten proteins. *Food microbiology*, 24(2), pp.115-119.
- Winarti, C., 2012. Teknologi produksi dan aplikasi pengemas edible antimikroba berbasis pati. *Jurnal Litbang Pert.* Vol 31 (3).
- Zulferiyenni, Marniza, dan E. N. Sari. 2014. Pengaruh konsentrasi gliserol dan tapioka terhadap karakteristik biodegradable film berbasis ampas rumput laut (*Eucheuma cottonii*). *Jurnal Teknologi dan Industri Hasil Pertanian*. 19:257–273.