

## DAFTAR PUSTAKA

- Afif, Muhammad; Nanik Wijayati; dan Sri Mursiti. 2018. Pembuatan dan karakterisasi bioplastik dari pati biji alpukat-kitosan dengan plasticizer sorbitol. *Indonesian Journal of Chemical Science*, Vol. 7, No. 2.
- Angka, S. L. dan Suhartono M. T. 2000. *Bioteknologi Hasil Laut*. Pusat Pengkajian Sumberdaya dan Pesisir Lautan IPB. Bogor.
- Anik, Khusana. 2019. *Pemanfaatan Nasi Aking Sebagai Bahan Baku Pembuatan Bioplastik Dengan Campuran Kitosan dan Gliserol* [skripsi]. UGM. Yogyakarta.
- Anonim. 2019. Polyethylene (PE): LDPE, LLDPE, and HDPE Properties comparison. Dalam [omnexus.specialchem.com/selection-guide/polyethylene-plastic/hdpe-ldpe-lldpe-comparison](http://omnexus.specialchem.com/selection-guide/polyethylene-plastic/hdpe-ldpe-lldpe-comparison). Diakses pada 29 Desember 2020 pukul 10.47 WIB.
- Astuti, Beti Cahyaning. 2008. *Pengembangan Edible Film Kitosan Dengan Penambahan Asam Lemak dan Esensial Oil: Upaya Perbaikan Sifat Barrier dan Aktivitas Antimikroba* [Skripsi]. IPB. Bogor.
- Azeredo, Henriette M. C.; Kelvi W. E. Miranda; Morsyleide F. Rosa; Diego M. Nascimento; Marcia R. de Moura. 2012. Edible *films* from alginate-acerola pureereinforced with cellulose whiskers. *LWT-Food Science and Technology*, Vol. 46, Hal. 294 – 297.
- Bergo, P. dan P.J.A. Sobral. 2007. Effects of plasticizer on physical properties of pigskin gelatin *films*. *Food Hydrocolloids* Vol. 21, Hal. 1285–1289.

- Blick, Ana Paula; Carmen Maria Olivera Müller; Juliana Bonametti Olivato; Suzana Mali; Maria Victoria Eiras Grossmanm; Fabio Yamashita. 2015. Using glycerol produced from biodiesel as a *plasticizer* in extruded *biodegradable films*. *Polimeros*. Vol. 25, No.24.
- Bourtoom, Thawien dan Manjeet S. Chinnan. 2008. Preparation and properties of rice starchchitosan blend *biodegradable film*. *LWT - Food Science and Technology*, Vol. 41, Hal. 1633 -1641.
- Briston, J. H. (1988). *Plastic films*. New York: John Wiley & Sons.
- Budiman, Johan; Rodiana Nopianti; dan Shanti Dwita Lestari. 2018. Karakteristik Bioplastik dari Pati Buah Lindur (*Bruguiera gymnorrizha*). *Jurnal Teknologi Hasil Perikanan*. Vol. 7, No.1, Hal. 49-59.
- d'Ambrières, Woldemar. 2019. Plastics recycling worldwide: current overview and desirable changes. *The Field Actions Science Reports*. Hal:12-21.
- Dias, Amanda B.; Carmen M.O. Muller; Fabio D.S. Larotonda, Joao B. Laurindo. 2011. Mechanical and Barrier properties of composite films based on rice flour and cellulose fibers. *Food Science and Technology*. Vol. 44, Hal. 535-542.
- Darni, Yuli dan Herti Utami. 2010. Studi pembuatan dan karakteristik sifat mekanik dan hidrofobilitas bioplastik dari pati sorgum. *Jurnal Rekayasa Kimia & Lingkungan*. Vol. 7, No.4, Hal. 190-195.
- Espitia, Paula Judith Pérez; Wen-XianDu; Roberto de Jesús Avena-Bustillos; Nilda de Fátima FerreiraSoares; Tara H.McHugh. 2013. Edible *films* from pectin:

- Physical-mechanical and antimicrobial properties - A review. *Food Hydrocolloids*. Vol 35, Hal. 287-296.
- European Bioplastics. 2018. *New Market Data: The Positive Trend For The Bioplastics Industry Remains Stable*. Nova Institute. Berlin.
- Farhan, Abdulaal dan Norziah Mohd Hani. 2017. Characterization of edible packaging *films* based on semi-refined kappa-carrageenan plasticized with glycerol and sorbitol. *Food Hydrocolloids*. Vol. 64, Hal. 48-58.
- Fatnasari, Anjani; Komang Ayu Nocianitri; dan I Putu Suparthana. 2018. Pengaruh konsentrasi gliserol terhadap karakteristik edible *film* pati ubi jalar (*Ipomoea batatas L.*). *Scientific Journal of Food Technology*, Vol. 5, No.1.
- García-Casal, M. N.; A. C. Pereira; I. Leets; J. Ramirez; M. F. Quiroga. 2007. High iron content and bioavailability in humans from four species of marine algae. *Journal of Nutrition*. Vol. 137, Hal. 2691–2695.
- Geyer, Roland; Jenna R. Jambeck; Kara Lavender Law. 2017. Production, use, and fate of all plastics ever made. *Science Advance*. Vol 3, Hal 1:5.
- Hariyadi, Tri. 2018. Pengaruh suhu operasi terhadap penentuan karakteristik pengeringan busa sari buah tomat menggunakan *tray dryer*. *Jurnal Rekayasa Proses*. Vol. 12, No.2.
- Hassan, Bilal; Shahzad Ali Shahid Chatha; Abdullah Ijaz Hussain; Khalid Mahmood Zia. 2018. Recent advances on polysaccharides, lipids and protein based edible *films* and coating:A review. *International Journal of Biological Macromolecules*. Vol. 109, hal. 1095-1107.

- Hobbs, Hon Marian L. 2001. *Book Of An Action Plan For Reducing Discharges Of Dioxin To Air: Ministry For The Environment*. Wellington. New Zealand.
- Jambeck, Jenna R.; Roland Geyer; Chris Wilcox; Theodore R. Siegler; Miriam Perryman; Anthony Andrady; Ramani Narayan; Kara Lavender Law. 2015. Plastic waste input from land into the ocean. *Research Report*. Vol 347.
- Janjarasskul, Theeranun dan John M. Krochta. 2010. Edible Packaging Materials. *Annu. Rev. Food Sci. Technol.* Vol. 1.
- Jumaidin, R.; S. M. Sapuan; M. Jawaid; M. R. Ishak; J. Sahari. 2017. Characteristics of *Eucheuma cottoni* waste from East Malaysia: Physical, thermal and chemical compositon. *European Journal of Phycology*. Vol. 52, No. 2, Hal. 200-207.
- Kasanah, Noer; Setyadi; Triyanto; Tyas Ismi T. 2018. *Rumput Laut Indonesia: Keanekaragaman Rumput Laut Gunung Kidul Yogyakarta*. UGM Press. Yogyakarta.
- Khalil, H. P. S. Abdul; Y. Y. Tye<sup>1</sup>; C. K. Saurabh<sup>1</sup>; C. P. Leh<sup>1</sup>; T. K. Lai<sup>1</sup>; E. W. N. Chong<sup>1</sup>; M.R.Nurul Fazita<sup>1</sup>; J. Mohd Hafiidz<sup>1</sup>; A. Banerjee; M. I. Syakir. 2017. *Biodegradable polymer films from seaweed polysaccharides: A review on cellulose as a reinforcement materia*. *eXPRESS Polymer Letters*. Vol.11, No.4, Hal. 244–265.
- Khalil, H. P. S. Abdul; Suk Wy Yap; Ying Ying Tye; Paridah Md. Tahir; Samsul Rizal; M. R. Nurul Fazita. 2018. Effects of corn starch and *Kappaphycus alvarezii* seaweed blend conentration on the optical, mechanical, and water

vapor barrier properties of composite *films*. *Bioresources*. Vol. 13, No. 1, Hal. 1157-1173.

Kim, K. W.; R. L. Thomas.; C. Lee.; and H. J. Park. 2003. Antimicrobial Activity of Antive Chitosan, Degraded Chitosan, and O-Carboxymethylated Chitosan. *Journal of Food Protection*. Vol. 66, No. 8, Hal. 1495-1498.

[KKP] Kementerian Kelautan dan Perikanan. 2015. *Potensi dan Volume Produksi Rumput Laut Indonesia 2014*. Jakarta (ID): KKP.

Liang, Chengyuan; Minyi Jia; Danni Tian; Yonghong Tang; Weihui Ju; Shunjun Ding; Lei Tian; Xiaodong Ren; Xuechuan Wang. 2017. Edible sturgeon skin gelatine films: Tensile strength and UV light-barrier as enhanced by blending with esculine. *Journal of Functional Foods*. No. 37, Hal. 219 – 228.

Lindriati, Triana dan Hari Arbiantara. 2011. Pengembangan proses *compression molding* dalam pembuatan *edible film* dari tepung koro pedang (*Canavalia ensiformis L.*). *Jurnal Teknologi dan Industri Pangan*. Vol. 22, No. 11.

Masarin, Fernando; Fernando Roberto Paz Cedenol; Eddyn Gabriel Solorzano Chavez<sup>1</sup>; Levi Ezequiel de Oliveira; Valéria Cress Gelli; dan Rubens Monti. 2016. Chemical analysis and biorefinery of red algae *Kappaphycus alvarezii* for efficient production of glucose from residue of carrageenan extraction process. *Biotechnology for Biofuels* Vol 9 No 122.

Mustapa, Ricki; Fajar Restuhadi; Raswen Efendi. 2017. Pemanfaatan kitosan sebagai bahan dasar pembuatan *edible film* dari pati ubi jalar kuning. *Jom Paferta*. Vol. 4, No.2.

Naguit, Maria Rio A. dan Wilson L. Tisera. 2009. Pigment analysis on eucheuma denticulatum (collins & hervey) and kappaphycus alvarezii (doty) cultivars cultured at different depths. *Journal The Threshold* Vol. 4, Hal 29-37.

Ningsih, Sri Hastuti. 2015. Pengaruh Plasticizer Gliserol Terhadap Karakteristik Edible *Film* Campuran Whey dan Agar [Skripsi]. Universitas Hasanuddin. Makasar.

Oses, Javier; Mayra Fabregat-Vázquez; Ruth Pedroza-Islas; Sergio A. Tomás; Alfredo Cruz-Orea; Juan I. Maté. 2009. Development and characterization of composite edible *films* based on whey protein isolate and mesquite gum. *Journal of Food Engineering* Vol. 92, Hal. 56–62.

Plastics Europe. 2017. *Plastics-the Facts 2017, an Analysis of european Plastics*. Konigin Astradiaan. Wemmel

Poeloengasih, C.D.; Y. Pranoto; F.D. Anggraheni; dan D. W. Marseno. 2017. Potential of sago starch/carrageenan mixture as gelatin alternative for hard capsule material. *AIP Conference Proceedings* 1823 (1), Article ID 020035. DOI: 10.1063/1.4978108.

Poonia, Amrita. 2018. *Antimicrobial Edible Films and Coatings for Fruits and Vegetables*. IGI Global. India.

Pongrácz, Eva. 2007. *The Environmental Impacts of Packaging. Book Chapter 9*. University of Oulu, Finland Department of Process and Environmental Engineering. Finlandia.

Pramananta, I Ketut; Bambang Admadi Harsojuwono; Amna Hartiati. 2019.

Pengaruh perbandingan rumput laut segar *Ulva lactuca* dengan larutan asam cuka terhadap karakteristik bioplastik alginat. *Jurnal Rekayasa dan Manajemen Agroindustri*, Vol. 7, No. 3, Hal. 450-456.

Putri, Elsari Tanjung. 2017. *Pemanfaatan Ampas Rumput Laut, Kitosan Dan Polivinil Alkohol (Pva) Dalam Pembuatan Plastik Biodegradable* [tesis]. UGM. Yogyakarta.

Rinaudo, M. 2008. Main properties and current applications off some polysaccharides as biomaterials. *Polym. Int.* Vol. 57, No. 3, Hal. 397-430.

Rusli, Arham; Metusalach; Salengke; Mulyati Muhammad Tahir. 2017. Karakterisasi edible *film* karagenan dengan pemlastis gliserol . *JPHPI*. Vol. 20, No. 2.

Selpiana., Riansya, J.F dan Yordan, Kevin. 2015. Pembuatan Plastik *Biodegradable* dari Tepung Nasi Aking. Seminar Nasional Added Value 101 of Energy Resources Avoer VII Proceeding, VII. pp. 130-138.

Siah, W. M.; A. Aminah; A. Ishak. 2015. Edible *films* from seaweed (*Kappaphycus alvarezii*). *International Food Research Journal*. Vol. 22, No. 6, Hal. 2230-2236.

Sofia, Aya; Agung Tri Prasetya; Ella Kusumastuti. 2017. Kompromi bioplastik kulit labu kuning-kitosan dengan *plasticizer* dari berbagai variasi sumber gliserol. *Indonesian Journal of Chemical Science*. Vol. 6, No. 2.

- Srinivasa, P. C.; M.N. Rameshb; R.N. Tharanathan. 2007. Effect of plasticizers and fatty acids on mechanical and permeability characteristics of chitosan *films*. *Food Hydrocolloids*, Vol. 21, Hal. 1113 – 1122.
- Salim, Zamroni dan Ernawati. 2015. *Info Komoditi Rumput Laut*. Badan Pengkajian dan Pengembangan Kebijakan Perdagangan Kementerian Perdagangan Republik Indonesia. Jakarta.
- Vieira, Melissa Gurgel; Mariana Altenhofen da Silva; Lucielen Oliveira dos Santos; Marisa Masumi Beppu. 2011. Natural-based *plasticizers* and biopolymer *films*: a review. *European Polymer Journal*. Vol 47, Hal. 254-263.
- Warkoyo; Budi Rahardjo; Djagal Wiseso Marseno; Joko Nugroho Wahyu Karyadi. 2014. Sifat fisik, mekanik dan barrier edible *film* berbasis pati umbi kimpul (*Xanthosoma sagittifolium*) yang diinkorporasi dengan kalium sorbat. *Agritech*, Vol. 34, No. 1.
- Wenno, Max Robinson; Johanna LourethaThenu, Cynthia Gracia Cristina Lopulalan. 2012. Karakteristik kappa karaginan dari *Kappaphycus alvarezii* pada berbagai umur panen. *JPB Perikanan* Vol. 7 No. 1
- Wonggo, Djuhria. 2010. Penerimaan konsumen terhadap selai rumput laut (*Kappaphycus alvarezii*). *Jurnal Perikanan dan Kelautan*. Vol. 6, No. 1
- Wu, Y.; F. Geng; P.R. Chang; J. Yu dan X. Ma. 2009. Effect of Agar on The Microstructure and Performance of Potato Strach Plastik. *Carbohydrate Polymer*, Vol 76, Hal. 299-304.