

## DAFTAR PUSTAKA

- Afifah, N., Sholichah, E., Indrianti, N., & Darmajana, D. A. (2018). Pengaruh Kombinasi Plasticizer Terhadap Karakteristik Edible Film Dari Karagenan Dan Lilin Lebah (The Effect Of Plasticizer Combination On Characteristics Of Edible Film From Carrageenan And Beeswax). *Biopropal Industri*, 9(1). 49-61.
- Akesowan, A. (2002.). Viscosity and Gel Formation of a Konjac Flour from *Amorphophallus oncophyllus*. *AU Journal of Technology*. 5(3). 139-146.
- Alfian, A., Wahyuningtyas, D., Sukmawati, P. D., Kimia, J. T., Teknologi, F., Ist, I., Yogyakarta, A., & Lingkungan, J. T. (2020). Pembuatan Edible Film Dari Pati Kulit Singkong Menggunakan Plasticizer Sorbitol Dengan Asam Sitrat Sebagai Crosslinking Agent (Variasi Penambahan Karagenan Dan Penambahan Asam Sitrat). *Jurnal Inovasi Proses*, 5(2). 46-57.
- Anandito, K.Rb., Siswanti, S., & Jati Manuhara, G. (2013). Karakterisasi Edible Film Komposit Dari Glukomanan Umbi Iles-Iles (*Amorphophallus Muelleri Blume*) Dan Maizena Characterization Of Composite Edible Film From Glucomanan Of Iles-Iles (*Amorphophallus Muelleri Blume*) Tuber And Maizena. *Jurnal Teknologi Hasil Pertanian*. 6(2). 111-120.
- Ariani Hendra, A., Rulianto Utomo, A., & Setijawati, E. (2019). Kajian Karakteristik Edible Film Dari Tapioka Dan Gelatin Dengan Perlakuan Penambahan. *Journal of Food Technology and Nutrition*. 14 (2). 95-100.
- Arifani, E. N. (2021). *Karakteristik Fisik Dan Kimia Pengemas Aktif Berbasis Kitosan Dengan Penambahan Ekstrak Daun Bambu (*Bambosa sp.*) Dan Aplikasinya Dalam Produk Daging Segar*. Thesis, Fakultas Teknologi Pertanian Universitas Gadjah Mada, Yogyakarta.
- Aryanti, N., Kharis, D., & Abidin, Y. (2015). Ekstraksi Glukomanan Dari Porang Lokal (*Amorphophallus oncophyllus* dan *Amorphophallus muerelli Blume*). In *METANA*, 11(1). 21-30.
- Asfaw, W. A., Tafa, K. D., & Satheesh, N. (2023). Optimization of citron peel pectin and glycerol concentration in the production of edible film using response surface methodology. *Heliyon*, 9(3). <https://doi.org/10.1016/j.heliyon.2023.e13724>
- ASTM. 2001. Standard test method for tensile properties of thin plastic sheeting. Annual book of ASTM standards. Designation D882-01. Philadelphia: ASTM.
- Bezerra, M. A., Santelli, R. E., Oliveira, E. P., Villar, L. S., & Escaleira, L. A. (2008). Response surface methodology (RSM) as a tool for optimization

in analytical chemistry. In *Talanta* (Vol. 76, Issue 5, pp. 965–977). Elsevier. <https://doi.org/10.1016/j.talanta.2008.05.019>

Contessa, C. R., da Rosa, G. S., & Moraes, C. C. (2021). New active packaging based on biopolymeric mixture added with bacteriocin as active compound. *International Journal of Molecular Sciences*, 22(19). <https://doi.org/10.3390/ijms221910628>

de Carli, C., Aylanc, V., Mouffok, K. M., Santamaria-Echart, A., Barreiro, F., Tomás, A., Pereira, C., Rodrigues, P., Vilas-Boas, M., & Falcão, S. I. (2022). Production of chitosan-based biodegradable active films using bio-waste enriched with polyphenol propolis extract envisaging food packaging applications. *International Journal of Biological Macromolecules*, 213, 486–497. <https://doi.org/10.1016/j.ijbiomac.2022.05.155>

Dewi, M. Y. (2019). *Karakterisasi Edible Film Dari Alginat, Gliserol Dan Minyak Biji Bunga Matahari*. Skripsi, Fakultas Pertanian Universitas Gadjah Mada, Yogyakarta.

Fahrullah, F., & Ervandi, M. (2022). Karakterisasi mikrostruktur film whey dengan penambahan konjac glucomannan. *Agrointek : Jurnal Teknologi Industri Pertanian*, 16(3), 403–411. <https://doi.org/10.21107/agrointek.v16i3.12303>

Gan, L., Jiang, G., Yang, Y., Zheng, B., Zhang, S., Li, X., Tian, Y., & Peng, B. (2022). Development and characterization of levan/pullulan/chitosan edible films enriched with  $\epsilon$ -polylysine for active food packaging. *Food Chemistry*, 388. <https://doi.org/10.1016/j.foodchem.2022.132989>

Giovani, V. (2018). *Ekstraksi Glukomanan dari Porang (*Amorphophallus oncophyllus*) dengan Perlakuan Awal Penyosohan dan Pencucian Etanol pada Berbagai Variasi Ketebalan Chips*. Skripsi. Fakultas Teknologi Pertanian Universitas Gadjah Mada, Yogyakarta.

Handayani, A. (2021). *Pengaruh Penambahan Sorbitol Dan Selulosa Eceng Gondok (*Eichornia crassipes*) Terhadap Karakteristik Plastik Biodegradabel Pati Tapioka*. Thesis. Fakultas MIPA Universitas Gadjah Mada, Yogyakarta.

Harmayani, E., Aprilia, V., & Marsono, Y. (2014). Characterization of glucomannan from *Amorphophallus oncophyllus* and its prebiotic activity in vivo. *Carbohydrate Polymers*, 112, 475–479. <https://doi.org/10.1016/j.carbpol.2014.06.019>

Hidayati, S., Zuidar, A. S., & Ardiani, A. (2015). Aplikasi Sorbitol Pada Produksi Biodegradable Film Dari Nata De Cassava. *Reaktor*. 15(3). 196–204. <https://doi.org/10.14710/reaktor.15.3.196>

- Juwayriyah, J., & Nugraha, I. (2019). Sintesis dan Karakterisasi Komposit Edible Film Berbahan Dasar Gelatin Ikan Cucut dan Montmorillonit. *Indonesian Journal of Material Chemistry*. 2(2). 43-49.
- Jeevahan, J., & Chandrasekaran, M. (2019). Nanoedible films for food packaging: a review. In *Journal of Materials Science*. 54(9), pp. 12290–12318. Springer New York LLC. <https://doi.org/10.1007/s10853-019-03742-y>
- Kanani, N., Wardalia, W., Wardhono, E. Y., & Rusdi, R. (2017). Pengaruh Temperatur Pengeringan Terhadap Swelling Dan Tensile Strength Edible Film Hasil Pemanfaatan Pati Limbah Kulit Singkong. *Jurnal Konversi*. 6(2). 75-83.
- Krisnadi, R., Handarni, Y., Udyani, K., & Kimia, J. T. (2019). Pengaruh Jenis Plasticizer Terhadap Karakteristik Plastik Biodegradable dari Bekatul Padi. *Seminar Nasional Sains dan Teknologi Terapan VII*. 125-131.
- Lee, H. v., Hamid, S. B. A., & Zain, S. K. (2014). Conversion of lignocellulosic biomass to nanocellulose: Structure and chemical process. *Scientific World Journal*, 2014.1-21. <https://doi.org/10.1155/2014/631013>
- Lei, Y., Wu, H., Jiao, C., Jiang, Y., Liu, R., Xiao, D., Lu, J., Zhang, Z., Shen, G., & Li, S. (2019). Investigation of the structural and physical properties, antioxidant and antimicrobial activity of pectin-konjac glucomannan composite edible films incorporated with tea polyphenol. *Food Hydrocolloids*, 94, 128–135. <https://doi.org/10.1016/j.foodhyd.2019.03.011>
- Leiviska, K. (2013). *Introduction of Experiment Design*. Control Engineering Laboratory, University of Oulu : Swedia.
- Liu, Z., Lin, D., Shen, R., Zhang, R., Liu, L., & Yang, X. (2021). Konjac glucomannan-based edible films loaded with thyme essential oil: Physical properties and antioxidant-antibacterial activities. *Food Packaging and Shelf Life*, 29.1-11. <https://doi.org/10.1016/j.fpsl.2021.100700>
- Mardiani, M. (2018). *Optimasi Komponen Pembuatan Sabun Padat Dari Vco Dan Minyak Alpukat Dengan Metode Respon Permukaan*. Skripsi. Fakultas MIPA Universitas Gadjah Mada, Yogyakarta.
- Montgomery, C. D. (2005). *Design and Analysis of Experiments* (6th ed.). John Wiley and Son : New York.
- Mulyani, T. S., Sudaryati, H.P., & Egha Rodhu. (2010). Sifat Fisik dan Mekanis Edible Film Dari Tepung Porang (*Amorphophallus oncophyllus*) dan Karboksimetilselulosa. *Jurnal Teknologi Pertanian* 11(3).196-201.
- Niknam, R., Ghanbarzadeh, B., Ayaseh, A., & Hamishehkar, H. (2019). Plantago major seed gum based biodegradable films: Effects of various plant oils on microstructure and physicochemical properties of emulsified films.

*Polymer Testing*, 77.  
<https://doi.org/10.1016/j.polymertesting.2019.04.015>

- Nurazizah, N., Amraini, S. J., & Bahrudin, B. (2019). Pengaruh Sorbitol Terhadap Karakteristik Bioplastik Berbasis Pati Sagu-Polivinil Alkohol (PVA). *JOM FTEKNIK*. 6(1). 1-8.
- Nurdiana, H. (2022). *Sintesis Dan Karakterisasi Biodegradabilitas Bioplastik Dari Mikrofiber Selulosa Kulit Jagung (Zea Mays) Dengan Plasticizer Polyvinyl Alcohol (Pva) Dan Sorbitol*. Thesis. Fakultas MIPA Universitas Gadjah Mada, Yogyakarta.
- Ongkowijoyo, S., Jaka Mulyana, I., & Mulyono, J. (2016). Penentuan Parameter Setting Mesin Pada Proses Corrugating. In *MediaTeknika Jurnal Teknologi* (Vol. 11, Issue 1).22-29.
- Pakpahan, N., Kusnandar, F., Syamsir, E., & Maryati, S. (2020). Pendugaan Umur Simpan Kerupuk Mentah Tapioka Dalam Kemasan Plastik Polypropylene dan Low Density Polyethylene Menggunakan Metode Kadar Air Kritis. *Jurnal Teknologi Pangan* , 14(2), 52–63.
- Putra, A.D., Setiaries Johan, V., Efendi, R., Studi Teknologi Hasil Pertanian, P., & Teknologi Pertanian, J. (2017). Penambahan Sorbitol Sebagai Plasticizer Dalam Pembuatan Edible Film Pati Sukun. *Jom Fakultas Pertanian*. 4(2).1-15.
- Putra, H. B. P. (2021). *Karakteristik Active Edible Film Berbasis Kitosan Dengan Penambahan Ekstrak Daun Waru (Hibiscus Tiliaceus L.)*. Thesis. Fakultas Teknologi Pertanian Universitas Gadjah Mada, Yogyakarta.
- Qin, J., Xiao, M., Wang, S., Peng, C., Wu, X., & Jiang, F. (2023). Effect of drying temperature on microstructural, mechanical, and water barrier properties of konjac glucomannan/agar film produced at industrial scale. *LWT*, 173, 114275. <https://doi.org/10.1016/j.lwt.2022.114275>
- Rabbani, S. S. (2020). *Aplikasi Glukomanan Porang (Amorphophallus oncophyllus) Sebagai Bahan Coating dan Pengaruhnya Terhadap Kualitas Fisik Serta Umur Simpan Sorgum (Sorghum bicolor L. Moench)*. Skripsi. Fakultas Teknologi Pertanian Universitas Gadjah Mada, Yogyakarta.
- Ramdhani, R., Amalia, V., & Junitasari, D. A. (2022). Pengaruh Konsentrasi Sorbitol terhadap Karakteristik *Edible Film* Pati Kentang (*Solanum tuberosum* L.) dan Pengaplikasiannya pada Dodol Nanas. Prosiding Seminar Nasional Kimia 2022 Seminar Nasional Kimia 2022 UIN Sunan Gunung Djati Bandung. *Gunung Djati Conference Series*, 15.
- Rowe, R. C., Sheskey, P. J., & Owen, S. C. (2009). *Handbook of Pharmaceutical Excipients Fifth Edition*. Pharmaceutical Press, UK.

- Safitri, E. L. D., Warkoyo, W., & Anggriani, R. (2020). Kajian Karakteristik Fisik dan Mekanik Edible Film Berbasis Pati Umbi Suweg (*Amorphophallus paeoniifolius*) dengan Variasi Konsentrasi Lilin Lebah. *Food Technology and Halal Science Journal*. 3(1). 57-70. <https://doi.org/10.22219/fths.v3i1>
- Sanyang, M. L., Sapuan, S. M., Jawaid, M., Ishak, M. R., & Sahari, J. (2015). Effect of plasticizer type and concentration on tensile, thermal and barrier properties of biodegradable films based on sugar palm (*Arenga pinnata*) starch. *Polymers*, 7(6), 1106–1124. <https://doi.org/10.3390/polym7061106>
- Saputro, E. A., Lefiyanti, O., & Mastuti, I. E. (2014). Pemurnian Tepung Glukomanan Dari Umbi Porang (*Amorphophallus muelleri* Blume) Menggunakan Proses Ekstraksi/Leaching Dengan Larutan Etanol. *Symposium Nasional RAPI XIII-2014 FT UMS*.
- Setyaningrum, A., Sumarni, N. K., Hardi, J., Kimia, J., Matematika, F., & Pengetahuan, D. I. (2017). Sifat Fisiko-Kimia Edible Film Agar-Agar Rumput Laut (*Gracilaria* sp.) Tersubstitusi Glycerol. *Natural Science: Journal of Science and Technology*, 6(2), 136–143.
- SISWANTI, S., ANANDITO, R. B. K., & MANUHARA, G. J. (2009). Characterization of composite edible film from glucomanan of iles-iles (*Amorphophallus muelleri*) tuber and cornstarch. *Biofarmasi Journal of Natural Product Biochemistry*, 7(1), 10–21. <https://doi.org/10.13057/biofar/f070102>
- Srichuwong, S., Sunarti, T. C., Mishima, T., Isono, N., & Hisamatsu, M. (2005). Starches from different botanical sources II: Contribution of starch structure to swelling and pasting properties. *Carbohydrate Polymers*, 62(1), 25–34. <https://doi.org/10.1016/j.carbpol.2005.07.003>
- Sun, D. X., & Wu, C. F. J. (1994). Interaction Graphs for Three-Level Fractional Factorial Designs. *Journal of Quality Technology*, 26(4), 297–307. <https://doi.org/10.1080/00224065.1994.11979541>
- Syarifuddin, A., Dirpan, A., Nur, A., & Rahman, F. (2019). Difusi Teknologi Pembuatan Edible Film Berbasis Karagenan/Pati Sebagai Kemasan Primer Dodol Rumput Laut Di Kabupaten Takalar. In *Jurnal Dinamika Pengabdian* (Vol. 5, Issue 1).
- Unsa, L. K., & Paramastri, G. A. (2018). Kajian jenis plasticizer campuran gliserol dan sorbitol terhadap sintesis dan karakterisasi edible film pati bonggol pisang sebagai pengemas buah apel. *Jurnal Kompetensi Teknik*, 10(1), 35–48.
- V, A. K., Hasan, M., Mangaraj, S., M, P., Verma, D. K., & Srivastav, P. P. (2022). Trends in Edible Packaging Films and its Prospective Future in Food: A Review. In *Applied Food Research* (Vol. 2, Issue 1). Elsevier B.V. <https://doi.org/10.1016/j.afres.2022.100118>

- Warkoyo, Purnomo, I., Siskawardani, D. D., & Husna, A. (2022). The effect of konjac glucomannan and Aloe vera gel concentration on physical and mechanical properties of edible film. *Food Research*, 6(3), 298–305. [https://doi.org/10.26656/fr.2017.6\(3\).415](https://doi.org/10.26656/fr.2017.6(3).415)
- Xiao, M., Luo, L., Tang, B., Qin, J., Wu, K., & Jiang, F. (2022). Physical, structural, and water barrier properties of emulsified blend film based on konjac glucomannan/agar/gum Arabic incorporating virgin coconut oil. *LWT*, 154. <https://doi.org/10.1016/j.lwt.2021.112683>
- Yustiani, W. (2018). *Optimasi Pembuatan Sabun Padat Vco-Minyak Biji Pepaya Dengan Metode Respon Permukaan*. Skripsi, Fakultas Teknologi Pertanian Universitas Gadjah Mada, Yogyakarta.
- Zhang, L., Yu, D., Regenstein, J. M., Xia, W., & Dong, J. (2021). A comprehensive review on natural bioactive films with controlled release characteristics and their applications in foods and pharmaceuticals. In *Trends in Food Science and Technology* (Vol. 112, pp. 690–707). Elsevier Ltd. <https://doi.org/10.1016/j.tifs.2021.03.053>
- Zhang, L., Chen, D., Yu, D., Regenstein, J. M., Jiang, Q., Dong, J., Chen, W., & Xia, W. (2022). Modulating physicochemical, antimicrobial and release properties of chitosan/zein bilayer films with curcumin/nisin-loaded pectin nanoparticles. *Food Hydrocolloids*, 133. <https://doi.org/10.1016/j.foodhyd.2022.107955>