

LIST OF REFERENCES

- Adib, A., Wahid, M. H., Sudarmono, P., & Surono, I. S., 2013. *Lactobacillus plantarum* Pada Feses Individu Dewasa Sehat Yang Mengonsumsi *Lactobacillus plantarum* IS-10506 dari Dadih [*Lactobacillus plantarum* in Stool of Apparently Healthy Adults Consuming *Lactobacillus plantarum* IS-10506 from Dadih]. *Jurnal Teknologi dan Industri Pangan*, 24(2), 154-154.
- Altamirano-Ríos, A.V., Guadarrama-Lezama, A.Y., Arroyo-Maya, I.J., Hernández-Álvarez, A.J., & Orozco-Villafuerte, J., 2022. Effect of encapsulation methods and materials on the survival and viability of *Lactobacillus acidophilus*: A review. *International Journal of Food Science & Technology*, 57(7), pp.4027-4040.
- Amelia, J.R., Ma'arif, S., & Arkeman, Y., 2014. Yoghurt susu jagung manis kacang hijau sebagai strategi inovasi produk alternatif pangan fungsional. *Jurnal Teknik Industri*, 4(3).
- Ansari, F., Pourjafar, H., Jodat, V., Sahebi, J., & Ataei, A., 2017. Effect of Eudragit S100 nanoparticles and alginate chitosan encapsulation on the viability of *Lactobacillus acidophilus* and *Lactobacillus rhamnosus*. *AMB express*, 7(1), p.144.
- Ariaputri, F. J., 2022. *Karakterisasi Isolat dan Bakteriosin Bakteri Asam Laktat Asal Sedimen Mangrove Pantai Logending*. Skripsi, Universitas Jenderal Soedirman, Purwokerto.
- Aýun, Q., Muthiáh, S.N., & Sukmalara, D., 2023. Potensi bakteri asam laktat (BAL) dari jus tempe sebagai kandidat probiotik. *Jurnal Al-Azhar Indonesia Seri Sains dan Teknologi*, 8(2), pp.171-177.
- Ayuti, S.R., Nurliana, N., Yurliasni, Y., Sugito, S., & Darmawi, D., 2016. Dinamika pertumbuhan *Lactobacillus casei* dan karakteristik susu fermentasi berdasarkan suhu dan lama penyimpanan. *Jurnal Agripet*, 16(1), pp.23-30.
- Barraquio V. L., Karna B. K. L., & Emata O. C., 2007. Lactic Acid and Probiotic Bacteria from Fermented and Probiotic Dairy Products. *Philippines Science Diliman*, 19(2), pp. 23-34.
- Bilang, M., Tahir, M., & Haedar, D., 2018. Mempelajari Viabilitas Enkapsulasi Sel Probiotik (*Lactobacillus Plantarum* dan *Streptococcus Thermophilus*) pada Es Krim:(Study Viability Encapsulation of Probiotic Cells (*Lactobacillus plantarum* and *Streptococcus thermophilus*) on Ice Cream). *Canrea Journal: Food Technology, Nutritions, and Culinary Journal*, pp.41-52.
- Cahyono, K., & Nurcahyani, E., 2021. Imobilisasi Bakteri Asam Laktat Dengan Menggunakan Alginat. *Jurnal Ilmiah Farmasi Farmasyifa*, 4(1), pp. 33-40.
- Chan, E.S., Wong, S.L., Lee, P.P., Lee, J.S., Ti, T.B., Zhang, Z., Poncelet, D., Ravindra, P., Phan, S.H., & Yim, Z.H., 2011. Effects of starch filler on the physical properties of lyophilized calcium–alginate beads and the viability of encapsulated cells. *Carbohydrate polymers*, 83(1), pp.225-232.

- de Vos, P., Faas, M.M., Spasojevic, M., & Sikkema, J., 2010. Encapsulation for preservation of functionality and targeted delivery of bioactive food components. *International dairy journal*, 20(4), pp.292-302.
- Diza, Y.H., Wahyuningsih, T., & Hermianti, W., 2016. Penentuan Jumlah Bakteri Asam Laktat (BAL) dan cemaran mikroba patogen pada yoghurt bengkuang selama penyimpanan. *Jurnal Litbang Industri*, 6(1), pp.1-11.
- Fitriani, I., Kusharyati, D., & Hendrati, P. M. 2017. Pengaruh Lama Inkubasi Soyghurt Menggunakan Inokulan dengan Penambahan Bifidobacterium sp. terhadap Daya Hambat Bacillus cereus. *Biosfera*, 33(1), 5.
- Goldstein, E.J., Tyrrell, K.L., & Citron, D.M., 2015. Lactobacillus species: taxonomic complexity and controversial susceptibilities. *Clinical Infectious Diseases*, 60 (suppl_2), pp.S98-S107.
- García-Ceja, A., Mani-López, E., Palou, E., & López-Malo, A., 2015. Viability during refrigerated storage in selected food products and during simulated gastrointestinal conditions of individual and combined lactobacilli encapsulated in alginate or alginate-chitosan. *LWT-Food Science and Technology*, 63(1), pp.482-489.
- Harti, A.S., Estuningsih, E., & Kusumawati, H.N., 2013. Pemanfaatan bakteri asam laktat dalam proses pembuatan tahu dan tempe untuk peningkatan kadar isoflavon, asam linoleat dan asam linolenat. *Jurnal Kesehatan Kusuma Husada*.
- Herawati, H., 2018. Potensi hidrokoloid sebagai bahan tambahan pada produk pangan dan nonpangan bermutu. *Jurnal Litbang Pertanian*, 37(1), pp.17-25.
- Hidayah, T. N. Djaenudin, D., & Lubis, N., 2021. Enkapsulasi Probiotik *Lactobacillus* sp. Menggunakan Biopolimer Alginat dan Kitosan dengan Metode Satu Tahap. *Jurnal Serambi Engineering*, 6(2).
- Hill, C., Guarner, F., Reid, G., Gibson, G. R., Merenstein, D. J., Pot, B., & Sanders, M. E., 2014. The International Scientific Association for Probiotics and Prebiotics consensus statement on the scope and appropriate use of the term probiotic. *Nature reviews Gastroenterology & hepatology*, 11(8), 506-514.
- Hossain, M.A., & Rahman, S.M., 2011. Total phenolics, flavonoids, and antioxidant activity of tropical fruit pineapple. *Food Research International*, 44(3), pp.672-676.
- Jangnga, I.P., Haskito, A.E.P., & Sari, C., 2023. Total lactic acid bacteria (LAB) and antioxidant activity of goat's milk yoghurt with the addition of red rice bran during refrigeration storage. *Journal of Applied Veterinary Science and Technology*, 4(2), pp.61-66.
- Julian, A., 2021. Effect of calcium lactate concentration on biological activity and structural properties of alginate gel capsules containing pineapple juice. *Tropical Journal of Natural Product Research*, 9(4), pp.1882-1888.
- Jumazhanova, M., Kakimova, Z., Zharykbasov, Y., Kassymov, S., Zhumadilova, G., Muratbayev, A., Tashybayeva, M., & Suychinov, A., 2023. Effect of the

- encapsulation process on the viability of probiotics in a simulated gastrointestinal tract model medium. *Processes*, 11(9), p.2757.
- Kailasapathy, K., 2002. Microencapsulation of probiotic bacteria: technology and potential applications. *Current issues in intestinal microbiology*, 3(2), 39-48.
- Kamwa, R., Khurajog, B., Muangsin, N., Pupa, P., Hampson, D.J., & Prapasarakul, N., 2024. Water-soluble microencapsulation using gum Arabic and skim milk enhances viability and efficacy of *Pediococcus acidilactici* probiotic strains for application in broiler chickens. *Animal bioscience*, 37(8), p.1440.
- Khalil, I., & Anwar, N., 2016, Isolation, Identification and Characterization of Lactic Acid Bacteria from Milk and Yogurts. *Research & Reviews: Journal of Food and Dairy Technology*, 4(3), pp. 17-26.
- Klayraung, S., Viernstein, H., & Okonogi, S., 2009. Development of tablets containing probiotics: Effects of formulation and processing parameters on bacterial viability. *International Journal of Pharmaceutics*, 370(1-2), pp.54-60.
- Kusharyati, D. F., Satwika, T. D., & Mariana, A., 2021. Potensi Bakteri Asam Laktat Asal Sedimen Mangrove Pantai Logending sebagai Agen Biopreservasi Produk Makanan Laut secara In Vitro. *Prosiding*, 10(1), pp. 141-150.
- M.K. Cheruvatur, N Najeeb, & TD Thomas, "In vitro propagation and conservation of Indian sarsaparilla, *Hemidesmus indicus* LR. Br. through somatic embryogenesis and synthetic seed production," *Acta Physiol Plant*, vol. 35, no. 3, pp. 771-779, 2013.
- Masengi, K.I.E.G., Siampa, J.P., & Tallei, T.E., 2020. Penyalutan Bakteri Asam Laktat Hasil dari Fermentasi Kulit Buah Nanas (*Ananas comosus*) dengan Pewarna Bunga Telang (*Clitoria ternatea*). *Jurnal Bios Logos*, 10(2), pp.86-92.
- Nazir, S., Afzaal, M., Saeed, F., Ahmad, A., Ateeq, H., Ikram, A., Rasheed, A., Kiran, F., Akram, N., Ahmed, F., & Asghar, A., 2024. Survivability and behavior of probiotic bacteria encapsulated by internal gelation in non-dairy matrix and In Vitro GIT conditions. *Plos one*, 19(6).
- Ngoc, H.B., Thiep, V.V., Hoang, H.T., & Nguyet, N., 2025. Effect of Calcium Lactate Concentration on Biological Activity and Structural Properties of Alginate Gel Capsules Containing Pineapple Juice. *Tropical Journal of Natural Product Research*, 9(4).
- Nguyen, T.H., Kim, Y., Kim, J.S., Jeong, Y., Park, H.M., Kim, J.W., Kim, J.E., Kim, H., Paek, N.S., & Kang, C.H., 2020. Evaluating the cryoprotective encapsulation of the lactic acid bacteria in simulated gastrointestinal conditions. *Biotechnology and bioprocess engineering*, 25(2), pp.287-292.
- Nuaman, M., Afzaal, M., Saeed, F., Ahmed, A., Asghar, A., Kamilah, H., Hussain, S., & Ndagire, C., 2024. Survivability of probiotics under simulated gastrointestinal conditions as affected by synbiotic (alginate-arabinoxylan) encapsulation. *International Journal of Food Properties*, 27(1), pp.1021-1032.
- Olivares, A., Soto, C., Caballero, E., & Altamirano, C., 2019. Survival of microencapsulated *Lactobacillus casei* (prepared by vibration technology) in

fruit juice during cold storage. *Electronic Journal of Biotechnology*, 42, pp. 42–48.

- Permanadewi, I., Kumoro, A.C., Wardhani, D.H., & Aryanti, N., 2021. Analysis of temperature regulation, concentration, and stirring time at atmospheric pressure to increase the density precision of the alginate solution. *Teknik*, 42(1), pp.29-34.
- Pradipta, M. S. I., 2017. Pengaruh mikroenkapsulasi probiotik bakteri asam laktat indigenous unggas menggunakan bahan penyalut maltodekstrin terhadap viabilitas selama penyimpanan. *Journal of Livestock Science and Production*, 1(1), 37-43.
- Purukan, C., Siampa, J.P., & Tallei, T.E., 2020. Enkapsulasi bakteri asam laktat hasil fermentasi buah salak (*Salacca zalacca*) lokal menggunakan aginat dengan pewarna kembang sepatu (*Hibiscus rosa-sinensis* L.). *Jurnal Bios Logos*, 10(2), pp.93-98.
- Putri, A.L., & Kusdiyantini, E., 2018. Isolasi dan identifikasi bakteri asam laktat dari pangan fermentasi berbasis ikan (Inasua) yang diperjualbelikan di Maluku-Indonesia. *Jurnal Biologi Tropika*, 1(2), pp.6-12.
- Putri, T.N.N., Kusharyati, D.F., & Ryandini, D., 2024. Characteristics and Antibacterial Activities of Bacteriocin Produced by Lactid Acid Bacteria Isolate LG-50 and LG-90. *BioEksakta: Jurnal Ilmiah Biologi Unsoed*, 5(3), pp.187-193.
- Putri, W.D.R., Widyaningsih, D., & Ningtyas, D.W., 2008. Dried mixed culture of *Lactobacillus* sp and *Saccharomyces cereviceae* production. *Jurnal Teknologi Pertanian*, 9(2).
- Rizal, S., Erna, M., Nurainy, F., & Tambunan, A.R., 2016. Karakteristik probiotik minuman fermentasi laktat sari buah nanas dengan variasi jenis bakteri asam laktat. *Indonesian Journal of Applied Chemistry*, 18(01), pp.63-71.
- Smetanková, J., Hladíková, Z., Valach, F., Zimanová, M., Kohajdová, Z., Greif, G., & Greifová, M., 2012. Influence of aerobic and anaerobic conditions on the growth and metabolism of selected strains of *Lactobacillus plantarum*. *Acta Chimica Slovaca*, 5(2), p.204.
- Suerni, E., Alwi, M., & Guli, M.M., 2013. Uji daya hambat ekstrak buah nanas (*Ananas comosus* L. Merr.), salak (*Salacca edulis* Reinw.) dan mangga kweni (*Mangifera odorata* Griff.) terhadap daya hambat *Staphylococcus aureus*. *Biocelbes*, 7(1).
- Susanti, I., Kusumaningtyas, R.W., & Illaningtyas, F., 2007. Uji Sifat Probiotik Bakteri Asam Laktat Sebagai Kandidat Bahan Pangan Fungsional [Probiotic Characteristics of Lactic Acid Bacteria as Candidate for Functional Food]. *Jurnal Teknologi dan Industri Pangan*, 18(2), pp.89-95.
- Tiffany, M.H., Samang, A.M.B., & Al Islamiyah, S., 2023. Enkapsulasi Senyawa Lipid Bioaktif Menggunakan Nanoteknologi: Ulasan Ilmiah. *JASATHP: Jurnal Sains dan Teknologi Hasil Pertanian*, 3(2), pp.82-98.

- Tjiptoningsih, U.G., & Trisanto, N.K., 2022. Pengaruh Pemberian Ekstrak Buah Nanas (*Ananas comosus*) terhadap Bakteri Aggregatibacter Actinomycetemcomitans Secara in Vitro. *Jurnal Ilmiah dan Teknologi Kedokteran Gigi*, 18(1), pp.24-30.
- Urbaninggar, A., & Fatimah, S., 2021. Pengaruh penambahan ekstrak kulit nanas dan gula pada karakteristik nata de soya dari limbah cair tahu. *Indonesian Journal of Chemical Analysis (IJCA)*, 4(2), pp.82-91.
- Vinayamohan, P.G., Viju, L.S., Joseph, D., & Venkitanarayanan, K., 2023. Fermented foods as a potential vehicle of antimicrobial-resistant bacteria and genes. *Fermentation*, 9(7), p.688.
- Wahyuni, E., & Taufiq, T.T., 2016. Isolation and identification of goat milk-derived *Lactobacillus paracasei* M104 and *Pediococcus pentosaceus* M103 and their potential use as starter culture for fermentation. *Journal of Microbiology, Biotechnology & Food Sciences*, 5(4).
- Wang, Y., Wu, Y., Wang, Y., Xu, H., Mei, X., Yu, D., Wang, Y., & Li, W., 2017. Antioxidant properties of probiotic bacteria. *Nutrients*, 9(5), p.521.
- Wijaya, P.S., Sri, W., & Nur, A., 2017. Morfologi dan Karakterisasi Pertumbuhan Bakteri Asam Laktat (um 1.4 a) dari Proses Fermentasi Wikau Maombo Untuk Studi Awal Produksi Enzim Amilase. *Jurnal Sains dan Teknologi Pangan*, 2(4), pp.657-663.
- Yeung, TW, Üçok, EF, Tiani, KA, McClements, DJ., & Sela, DA., 2019. Microencapsulation of probiotics in alginate–pectin microgels improves viability during simulated gastrointestinal digestion, *Food Hydrocolloids*, vol. 94, pp. 1–10.
- Yulinery, T., & Nurhidayat, N., 2012. Analisis viabilitas probiotik *Lactobacillus* terenkapsulasi dalam penyalut dekstrin dan jus markisa (*Passiflora edulis*). *Jurnal Teknologi Lingkungan*, 13(1), pp.109-121.
- Zalán, Z., Hudáček, J., Štětina, J., Chumchalová, J., & Halász, A., 2010. Production of organic acids by *Lactobacillus* strains in three different media. *European Food Research and Technology*, 230(3), pp.395-404.