

## DAFTAR PUSTAKA

- Anal, A.K. and Singh, H. (2007). Recent advances in microencapsulation of probiotics for industrial applications and targeted delivery. *Trends in Food Science and Technology*, 18(5), 240–251.
- Areesirisuk, A., Wanlapa, A., Teeka, J., Kaewpa, D., & Chiu, C. H. (2023). Potential of infrared drying and cell-protective agent efficiency on survival of *Lactobacillus plantarum* probiotic in fermented soybean meal. *Biocatalysis and Agricultural Biotechnology*, 53: 102843
- Barbosa, J., Borges, S., Amorim, M., Pereira, M.J., Oliveira, A., Pintado, M.E. and Teixeira, P. (2015). Comparison of spray drying, freeze drying and convective hot air drying for the production of a probiotic orange powder. *Journal of Functional Foods*, 17, 340–351.
- Bertrand, R. L. (2019). Lag phase- a dynamic, organized, adaptive, and evolvable period that prepares bacteria for cell division. *Journal of Bacteriology*.
- BPOM. (2021). Pedoman Penilaian Produk Suplemen Kesehatan Mengandung Probiotik. Nomor 17 Tahun 2021.
- Broeckx, G., Vandenheuvel, D., Claes, I.J.J., Lebeer, S. and Kiekens, F. (2016). Drying techniques of probiotic bacteria as an important step towards the development of novel pharmabiotics. *International Journal of Pharmaceutics*, 505(1–2), 303–318.
- Brown, S., Maria, J. P. S., Walker, S. (2013). Wall teichoic acids of gram-positive bacteria. *Annu. Rev. Microbiol*, 67: 313-336.
- Chizhayeva, A., Amangeldi, A., Oleinikova, Y., Alybaeva, A., & Sadanov, A. (2022). Lactic acid bacteria as probiotics in sustainable development of aquaculture. *Aquatic Living Resources*, 35: 10
- Darmastuti, A., Hasan, P. N., Wikandari, R., Utami, T., Rahayu, E. S., & Suroto, D. A. (2021). Adhesion properties of *Lactobacillus plantarum* Dad-13 and *Lactobacillus plantarum* Mut-7 on Sprague Dawley rat intestine. *Microorganisms*, 9: 1-13.
- De Brabandere, A. G. and De Baerdemaeker, J. G. 1999. Effects of process conditions on the pH development during yogurt fermentation. *Journal of Food Engineering* 41: 221-227.
- Deepika, G., Charalampopoulos, D. *Chapter 4- Surface and Adhesion Properties of Lactobacilli. In Advance in Applied Microbiology 1<sup>st</sup>ed.* Elseiver Inc: Amsterdam, The Netherlands.
- Del Re, B., Sgorbati, B., Miglioli, M., & Palenzona, D. (2000). Adhesion, auto aggregation, and hydrophobicity of 13 strains of *Bifidobacterium longum*. *Lett. Appl. Microbiol*, 31: 438-442.
- Eckert, C., Serpa, V.G., Felipe dos Santos, A.C., Marinês da Costa, S., Dalpúb, V., Lehn, D.N. and Volken de Souza, C.F. (2017). Microencapsulation of *Lactobacillus plantarum* ATCC 8014 through spray drying and using dairy whey as wall materials. *LWT - Food Science and Technology*, 82, 176–183.
- FAO/WHO. (2001). *Health and Nutrition Properties of Probiotics in Food including Powder Milk with Live Lactic Acid Bacteria*. Retrieved from

- WHO website: [http://www.who.int/foodsafety/fs\\_management/en/probiotic\\_guidelines.pdf](http://www.who.int/foodsafety/fs_management/en/probiotic_guidelines.pdf)
- Feng, T., & Wang, J. (2020). Oxidative stress tolerance and antioxidant capacity of lactic acid bacteria as probiotic: a systematic review. *Gut Microbes*, 12(1):1-24.
- Fowler, A. and Toner, M. (2005). Cryo-injury and biopreservation. *Annals of the New York Academy of Sciences*, 1066(1), 119–135.
- Harmayani, E., Ngatirah., Rahayu, E. S., & Utami, T. (2001). Ketahanan dan viabilitas probiotik bakteri asam laktat selama proses pembuatan kultur kering dengan metode *freeze* dan *spray drying*. *Jurnal Teknol dan Industri Pangan*, 7(2): 126-132.
- Hope, C. and Larsen, C. N. 2009. Commercially available human probiotic microorganisms. In Lee, Y. K. and Salminen, S (Eds). *Handbook of Probiotics and Prebiotics*. 2nd ed. p. 441-532. Hoboken: John Wiley and Sons.
- Iaconelli, C., Lemetais, G., Kechaou, N., Chain, F., Bermúdez-humarán, L.G., Langella, P., Gervais, P. and Beney, L. (2015). Drying process strongly affects probiotics viability and functionalities. *Journal of Biotechnology*, 214, 17–26.
- Ifadah, J. (2024). Optimasi Konsentrasi Ekstrak Yeast dalam Media Pertumbuhan untuk Produksi Bubuk Probiotik *Lactiplantibacillus plantarum* subsp *plantarum* Dad-13. *Skripsi*. Universitas Gadjah Mada.
- Jeon, H. J., Kim, J., Seok, W. Y., Kim, G. S., Choi, B., Shin, M., Lee, J. H., Kim, Y., Yang, J., & Jung, Y. H. (2023). Changes in the metabolome of probiotics during stationery phase increase resistance to lyophilization. *Food Bioscience*, 102499.
- Kamil, R.Z., Yanti, R., Murdiati, A., Juffrie, M., Rahayu, E.S. (2020). Microencapsulation of indigenous probiotic *Lactobacillus plantarum* Dad-13 by spray and freeze drying: strain-dependent effect and its antibacterial property. *Food Research*, 4(6): 2181 - 2189
- Kechagia, M., Basoulis, D., Konstantopoulou, S., Dimitriadi, D., Gyftopoulou, K., Skarmoutsou, N. and Fakiri, E.M. (2013). Health Benefits of Probiotics: A Review. *ISRN Nutrition*, 2013, 481651.
- Macho, F. E., Valenti, V., Rockel, C., Hermann, C., Pot, B., Boneca, I. G., & Grangette, C. (2011). Anti-inflammatiry capacity of selected lactobacilli in exoerimental colitis is driven by NOD2-mediated recignition of a specific peptidoglycan derived muropeptide. *Gut*, 60: 1050-1059.
- Madigan, M.T., Martinko, J.M., dan Parker, J. (1984). *Biology of Microorganism*. Prentice Hall, International, Inc. London
- Misra, S., Pandey, P., & Mishra, H. N. (2021). Novel approaches for co-encapsulation of probiotic bacteria with bioactive compounds, their health benefits and fuctional food prodyct development: a review. *Trends in food s Science & Technology*, 109: 340-351.
- Okochi, M., Sugita, T., Asai, Y., Tanaka, M., & Honda, H. (2017). Screening of peptides associated with adhesion and aggregation of *Lactobacillus rhamnosus* GG in vitro. *Biochem Eng Journal*, 128: 178-185.

- Ouweland, A. C., Salminen, S., & Isolauri, E. (2002). An overview of beneficial effects. *Lact. Acid Bact*, 82: 279-289.
- Parvez, S., Malik, K.A., Ah Kang, S. and Kim, H.Y. (2006). Probiotics and their fermented food products are beneficial for health. *Journal of Applied Microbiology*, 100(6), 1171-85.
- Peng, C., Liu, B., & Chen, Z. (2023). Protective effects of enzymatic hydrolysis products of pomelo peel cellulose on *Lactobacillus plantarum* during freeze drying process. *Applied Food Research*, 3: 100301
- Perpres. (2023). Sertifikasi Halal Obat, Produk Biologi, dan Alat Kesehatan. Nomor 6 Tahun 2023
- Purwandhani, S. N., Utami, T., Millati, R., & Rahayu, E. S. (2017). Potensi *Lactobacillus plantarum* yang diisolasi dari dadih dalam meningkatkan kadar folat susu fermentasi. *AGRITECH*, 37(4): 395-401
- Rahayu, E. S., Utami, T., Mariyatun, M., Hasan, P. N., Kamil, R. Z., Setyawan, R. H., Pamungkaningtyas, F. H., Harahap, I. A., Wiryohanjoyo, D. V., Pramesi, P. C., Cahyanto, M. N., Sujaya, I. N., & Juffrie, M. (2019). Gut microbiota profile in healthy Indonesians. *World Journal of Gastroenterology*, 25(12): 1478-1491
- Rahayu, E.S., Mariyatun, M., Manurung, N.E.P., Hasan, P.N., Therdtatha, P., Mishima, R., Komalasari, H., Mahfuzah, N.A., Pamungkaningtyas, F.H., Yoga, W.K., Nurfiana, D.A., Liwan, S.Y., Juffrie, M., Nugroho, A.E., Utami, T., 2021. Effect of probiotic *Lactobacillus plantarum* Dad-13 powder consumption on the gut microbiota and intestinal health of overweight adults. *World J. Gastroenterol.* 126, 107–128.
- Rahayu, E.S., Yogeswara, A., Mariyatun, Windiarti, L., Utami, T. and Watanabe, K. (2015). Molecular Characteristics of Indigenous Probiotic Strains from Indonesia. *International Journal of Probiotics and Prebiotics*, 10(4), 109-116. Retrieved from [https:// www.nchpjournals.com/admin/uploads/article\\_627.pdf](https://www.nchpjournals.com/admin/uploads/article_627.pdf)
- Rhee, S. J., Lee, J. E., & Lee, C. H. (2012). Importance of lactic acid bacteria in asia fermented foods. *Microb Cell Factories*, 10: 55.
- Rine ChR, Roy PCh, Sarkar ShL, et al. 2019. Isolation, characterization, and assessment of lactic acid bacteria toward their selection as poultry probiotics. *BMC Microbiol* 19: 253.
- Risna, Y. K., Harimurti, S., Wihandoyo., & Widodo. Kurva pertumbuhan isolate bakteri asma laktat dari saluran pencernaan itik local asal aceh. *Jurnal Peternakan Indonesia*, 24(1): 1-7.
- Sharah, A., Karnila, R., & Desmelati. (2015). Pembuatan kurva pertumbuhan bakteri asam laktat yang di isolasi dari ikan peda kembung *Rastrelliger sp.*). *JOM*
- Shiphrah, V. H., Sahu, S., Thakur, A. R. and Chaudhuri, S. R. 2013. Screening of bacteria for lactic acid production from whey water. *American Journal of Biochemistry and Biotechnology* 9(2): 118-123.
- Stoyanova LG, Ustyugova EA, Netrusov AI. 2012. Antimicrobial metabolites of lactic acid bacteria: diversity and properties. *Appl Biochem Microbiol* 48: 259–275.

- Sumaryati, B. T., Utami, T. and Suparmo. 2009. The effect of infection of *Escherichia coli* and addition of *Lactobacillus plantarum* Dad 13 to wistar rats fecal microbiota. *Agritech* 29(4): 165-170.
- Teixeira, P., Castro, H., Mohácsi-Farkas, C. and Kirby, R. (1997). Identification of sites of injury in *Lactobacillus bulgaricus* during heat stress. *Journal of Applied Microbiology*, 83(2), 219-26.
- Utami, T., Kasmianti, H., Rahayu, E.S., 2016. Survival of *Lactobacillus plantarum* Dad 13 during spray drying and its application for yoghurt fermentation. *Int. Res. J. Biol. Sci.* 5, 16–22.
- Utami, T., Kusuma, E. N., Satiti, R., Rahayu, E. S., & Cahyanto, M. N. (2019). Hydrolyses if meat and soybean proteins using crude bromelain to produce halal peptone as complex nitrogen source for the growth of lactic acid bacteria. *International Food Research Journal*, 26(1): 117-122.
- Utami, T., Sumaryati, B. T. and Suparmo. 2010. Effects of *Lactobacillus plantarum* Dad 13, inulin and its combination on fecal short chain fatty acid profile of wistar rats. In Kusbiantoro, B., Darusman, L. K., Budianto, S. and Bermawie, N. (Eds). *Proceeding of International Conference on Nutraceuticals and Functional Foods*. p. 505. Denpasar: Indonesia Center for Rice Research (ICRR), Indonesian Agency for Agricultural Research and Development (IAARD), and Ministry of Agricultural.
- Utami. T., Kasmianti, Harmayani, E. and Rahayu, E. S. 2009. Influence of bile on *Lactobacilli* viability and ability to reduce lactose in MRSL broth. In Rahayu, E. S., Suroto, D. A., Cahyanto, M. N. and Setyabudi F. M. C. S. (Eds). *Proceeding of Lactic Acid Bacteria and Culture Collection Seminar*. p. 88. Yogyakarta: Indonesian Society for Lactic Acid Bacteria
- Velly, H., Fonseca, F., Passot, S., Delacroix-Buchet, A., & Bouix, M. (2014). Cell growth and resistance of *Lactococcus lactis* subsp. *lactis* TOMSC161 following freezing, drying and freeze dried storage are differently affected by fermentation conditions. *Journal of Applied Microbiology*, 117: 729-240.
- Virajayo, M. (2024). Optimasi Konsentrasi Pepton Ampas Ikan Gabus Dalam Media Pertumbuhan Untuk Produksi Bubuk Probiotik *Lactiplantibacillus plantarum* subsp *plantarum* Dad-13. *Skripsi*. Universitas Gadjah Mada.
- Wardani, S. K., Cahyanto, M. N., Rahayu, E.S., & Utami, T. (2017). The effect of inoculum size and incubation temperature on cell growth, acid production and curd formation during milk fermentation by *Lactobacillus plantarum* Dad 13. *International Food Research Journal*, 24(4): 921-926
- Zhang, G., Fan, M., Li, Y., Wang, P., & Lv, Q.(2012). Effect of growth phase, protective agents, rehydration media and stress pretreatments on viability of *Oenococcus oeni* subjected to freeze drying. *African Journal of Microbiology Research*, 6: 1478-1484.