

## DAFTAR PUSTAKA

- Aboulfazli, F., Baba, A. S., & Misran, M. (2015). *The rheology and physical properties of fermented probiotic ice creams made with dairy alternatives*. International Journal of Food Engineering, 11(4), 493–504. <https://doi.org/10.1515/ijfe-2014-0343>
- Akin, M. B., & Dasnik, F. (2015). *Effects of ascorbic acid and glucose oxidase levels on the viability of probiotic bacteria and the physical and sensory characteristics in symbiotic ice-cream*. Mljekarstvo, 65, 121–129.
- Alizadeh, M., Azizi-Lalabadi, M., & Kheirouri, S. (2014). *Impact of using stevia on physicochemical, sensory, rheology and glycemic index of soft ice cream*. Food and Nutrition Sciences, 5, 390e396. <https://doi.org/10.4236/fns.2014.54047>
- AOAC. (1999). *Official Methods of Analysis* 16th. 5th revision ed. Maryland: The Association of Official Analytical Chemist.
- AOAC. (2000). *Official Methods of Analysis of AOAC International*. 17th ed. Gaithersburg: AOAC International.
- Arbuckle, W. S. (1996). *Ice Cream*. London: The Avi Publishing Company.
- Badan Standardisasi Nasional. (1995). *Es krim (01-3713)*. Jakarta: BSN.
- Clark, S. (2004). *Stabilizer Usage Has a Greater Impact on Ice Cream Properties Than High Hydrostatic Pressure*. Journal of Food Technology, pp. 41–49
- Cruz, A. G., Antunes, A. E. C., Sousa, A. L. O. P., Faria, J. A. F., & Saad, S. M. I. (2009). *Ice-cream as a probiotic food carrier*. Food Research International, 42(9), 1233–1239. <https://doi.org/10.1016/j.foodres.2009.03.020>
- Da Silva, P. D. L., De Fatima Bezerra, M., Dos Santos, K. M. O., & Correia, R. T. P. (2015). *Potentially probiotic ice cream from goat's milk: Characterization and cell viability during processing, storage and simulated gastrointestinal conditions*. LWT–Food Science and Technology, 62, 452–457. <https://doi.org/10.1016/j.lwt.2014.02.055>
- Dabaj, F. K., Lasekan, O., Manap, M. Y. A., & Ling, F. H. (2020). *Evaluation of the volatilomic potentials of the Lactobacillus casei 431 and Lactobacillus acidophilus La-5 in fermented milk*. CYTA - Journal of Food, 18(1), 291–300. <https://doi.org/10.1080/19476337.2020.1741688>
- de Melo Pereira, G.V. (2018). *How to select a probiotic? A review and update of methods and criteria*. Biotechnology Advances, 36(8), pp. 2060–2076. <https://doi.org/10.1016/j.biotechadv.2018.09.003>.
- Devereux, H. M., Jones, G. P., McCormack, L., & Hunter, W. C. (2003). *Consumer acceptability of low-fat foods containing inulin and oligofructose*. Journal of Food Science, 68, 1850–1854. <https://doi.org/10.1111/j.1365-2621.2003.tb12341.x>
- de Vrese, M., Kristen, H., Rautenberg, P., Laue, C., Schrezenmeir, J. (2011). *Probiotic lactobacilli and Bifidobacteria in a fermented milk product with*

*added fruit preparation reduce antibiotic associated diarrhea and Helicobacter pylori activity.* J. Dairy Res. 78, 396–403.

DeVrese, M., & Schrezenmeir, J. (2008). *Probiotics, prebiotics, and synbiotics. Advances in biochemical engineering/biotechnology*, 111, 1–66. [https://doi.org/10.1007/10\\_2008\\_097](https://doi.org/10.1007/10_2008_097)

Di Criscio, T., Fratianni, A., Mignogna, R., Cinquanta, L., Coppola, R., Sorrentino, E., & Panfili, G. (2010). *Production of functional probiotic, prebiotic, and synbiotic ice creams.* Journal of Dairy Science, 93, 4555–4564. <https://doi.org/10.3168/jds.2010-3355>

Dos Santos Leandro, E., de Araújo, E. A., da Conceição, L. L., de Moraes, C. A., & de Carvalho, A. F. (2013). *Survival of Lactobacillus delbrueckii UFV H2b20 in ice cream produced with different fat levels and after submission to stress acid and bile salts.* Journal of Functional Foods, 5(1), 503–507. <https://doi.org/10.1016/j.jff.2012.10.003>

Eliasson, A. C. & Gudmundsson, M. (2006). *Carbohydrates in Food. Second Edition ed.* London: CRC.

El-Nagar, G., Clowes, G., Tudorica, C. M., & Kuri, V. (2002). *Rheological quality and stability of yog-icecream with added inulin.* International Journal of Dairy Technology, 55, 89–93.

Ferraz, J. L., Cruz, A. G., Cadena, R. S., Freitas, M. Q., Pinto, U. M., Carvalho, C. C., Faria, J. A., & Bolini, H. M. (2012). *Sensory acceptance and survival of probiotic bacteria in ice cream produced with different overrun levels.* Journal of Food Science, 77(1), S24–S28. <https://doi.org/10.1111/j.1750-3841.2011.02508.x>

Goff, H. D. & Hartel, R. W. (2013). *Ice Cream.* Seventh ed. London: Springer.

Gonzalez-Tomás, L., Bayarri, S., & Costell, E. (2009). *Inulin-enriched dairy desserts: Physicochemical and sensory aspects.* Journal of Dairy Science, 92, 4188–4199. <https://doi.org/10.3168/jds.2009-2241>

Jeannette, S. M., & Eugene, B. C. (2018). *In Physiology of the gastrointestinal tract (6th ed., pp. 795–810).* Amsterdam. The Netherlands: Elsevier Inc., 2018

Karimi, R., Azizi, M. H., Ghasemlou, M., Vaziri, M. (2015). *Application of inulin in cheese as prebiotic, fat replacer and texturizer: A review.* Carbohydrate Polymers, 119, 85-100.

Langlands, S. J., Hopkins, M. J., Coleman, N., & Cummings, J. H. (2004). *Prebiotic carbohydrates modify the mucosa associated microflora of the human large bowel.* Gut, 53(11), 1610–1616. <https://doi.org/10.1136/gut.2003.037580>

Li, M., Dia, V. P., & Wu, T. (2021). *Ice recrystallization inhibition effect of cellulose nanocrystals: Influence of sucrose concentration.* Food Hydrocolloids, 121, Article 107011. <https://doi.org/10.1016/j.foodhyd.2021.107011>

Liu, J., Luo, D. L., Li, X., Xu, B. C., Zhang, X. Y., & Liu, J. X. (2016). *Effects of inulin on the structure and emulsifying properties of protein components in dough.* Food Chemistry, 210, 235–241. <https://doi.org/10.1016/j.foodchem.2016.04.001>

- McBain, A. J., & Macfarlane, G. T. (2001). *Modulation of genotoxic enzyme activities by non-digestible oligosaccharide metabolism in in vitro human gut bacterial ecosystems*. Journal of Medical Microbiology, 50(9), 833–842.
- Marshall, R. T. & Arbuckle, W. S. (1996). *Ice Cream*. 5 ed. New York: Internatioan Thopmson Publishing.
- Marshall, R. T., Goff, H. D. & Hartel, R. W. (2003). *Ice Cream*. Sixth ed. New York: Kluwer Academic/Plenum Publishers.
- Matias, N. S., Padilha, M., Bedani, R., & Saad, S. M. I. (2016). *In vitro gastrointestinal resistance of Lactobacillus acidophilus La-5 and Bifidobacterium animalis Bb-12 in soy and/or milk-based symbiotic apple ice creams*. International Journal of Food Microbiology, 234, 83–93. <https://doi.org/10.1016/j.ijfoodmicro.2016.06.037>
- Meyer, D., Bayarri, S., Tarrega, A., & Costell, E. (2011). *Inulin as texture modifier in dairy products*. Food Hydrocolloids, 25(8), 1881–1890. <https://doi.org/10.1016/j.foodhyd.2011.04.012>
- Mohammadi, R., Mortazavian, A. M., Khosrokhavar, R., & Da Cruz, A. G. (2011). *Probiotic ice cream: Viability of probiotic bacteria and sensory properties*. Annals of Microbiology, 61(3), 411–424. <https://doi.org/10.1007/s13213-010-0188-z>
- Mo, J., Guo, E., McCartney, D. G., Eastwood, D. S., Bent, J., Van Dalen, G., et al. (2018). *Time-resolved tomographic quantification of the microstructural evolution of ice cream*. Materials, 11(10). <https://doi.org/10.3390/ma11102031>
- Pan, D. D., Wu, Z., Peng, T., Zeng, X. Q., & Li, H. (2014). *Volatile organic compounds profile during milk fermentation by Lactobacillus pentosus and correlations between volatiles flavor and carbohydrate metabolism*. Journal of Dairy Science, 97(2), 624–631. <https://doi.org/10.3168/jds.2013-7131>
- Parussolo, G., Busatto, R. T., Schmitt, J., Pauletto, R., Schons, P. F., & Ries, E. F. (2017). *Symbiotic ice cream containing yacon flour and Lactobacillus acidophilus NCFM*. LWT, 82, pp. 192–198. <https://doi.org/10.1016/j.lwt.2017.04.049>
- Phillips, G. O. dan Williams, P. A. (2009). *Handbook of hydrocolloids Second edition*. CRC Press. New York, Washington, DC.
- Pinto, S. S., Fritzen-Freire, C. B., Munoz, ~ I. B., Prud'encio, E. S., & Amboni, R. D. (2012). *Effects of the addition of microencapsulated Bifidobacterium BB-12 on the properties of frozen yogurt*. Journal of Food Engineering, 111(4), 563–569. <https://doi.org/10.1016/j.jfoodeng.2012.03.016>
- Pintor, A., Escalona-Buendía, H. B., & Totosaus, A. (2017). *Effect of inulin on melting and textural properties of low-fat and sugarreduced ice cream: Optimization via a response surface methodology*. International Food Research Journal, 24(4), 1728–1734.
- Pintor, A., Severiano-Pérez, P., & Totosaus, A. (2014). *Optimization of fat-reduced ice cream formulation employing inulin as fat replacer via response surface methodology*. Food Science and Technology International, 20(7), 489–500. <https://doi.org/10.1177/1082013213493100>

- Rahayu, E. S. (2003). *Lactic Acid Bacteria in Fermented Foods of Indonesian. Original Agritech*, 23(2).
- Rahayu, E.S., Cahyanto, M.N., Sarwoko, M.A., Haryono, P., Windiarti, L., Sutriyanto, J., Kandarina, I., Nurfiani, S., Zulaichah, E., Utami, T. (2016). *Effect of consumption of fermented milk indigenous probiotic Lactobacillus plantarum Dad-13 on the fecal microbiota of healthy Indonesian volunteers*. Int. J. Probiotics Prebiotics 2016, 11, 91–98.
- Rao, V. A. (2001). *The probiotic properties of oligofructose at low intake levels*. Nutr. Res. 21:843–848.
- Ristiarini, S., Suprijono, M. M. & Dhamarini, N. (2004). *Velva Labu Kuning* (Cucurbita moschata, Duch) : Pengaruh Penambahan CMC dan Pektin. Jakarta, Prosiding Seminar Nasional dan Kongres PATPI.
- Roberfroid, M.B. (1999). *Caloric value of inulin and oligofructose*. J. Nutr. S1436-S1437.
- Salem, M. M., Fathi, F. A., & Awad, R. (2005). *Production of probiotic ice cream*. Polish Journal of Food and Nutrition Sciences, 55(3), 267–271.
- Sarwar, Abid. et al. (2021). *Characterization of symbiotic ice cream made with probiotic yeast Saccharomyces boulardii CNCM I-745 in combination with inulin*. LWT - Food Science and Technology 141 (2021) 110910
- Satriani, Sukainah, A. & Mustarin, A. (2018). *Analisis Fisiko-Kimia Es Krim dengan Penambahan Jagung Manis (Zea Mays L. Saccharata) dan Rumput Laut (Euchema cottonii)*. Jurnal Pendidikan Teknologi Pertanian, Volume 4, pp. 105-124.
- Schaller-Povolny, L. A., & Smith, D. E. (2001). *Viscosity and freezing point of a reduced fat ice-cream mix as related to inulin content*. Milchwissenschaft, 56, 25–29.
- Soeparno. (2015). *Properti dan Teknologi Produk Susu*. Yogyakarta: Gadjah Mada University Press.
- Soukoulis, C., & Fisk, I. (2016). *Innovative ingredients and emerging technologies for controlling ice recrystallization, texture, and structure stability in frozen dairy desserts: A review*. Critical Reviews in Food Science and Nutrition, 56(15), 2543–2559. <https://doi.org/10.1080/10408398.2013.876385>
- Swanson KS, Gibson GR, Hutkins R, Reimer RA, Reid G, Verbeke K, Scott KP, Holscher HD, Azad MB, Delzenne NM et al. (2020). *The International Scientific Association for Probiotics and Prebiotics (ISAPP) consensus statement on the definition and scope of symbiotic*. Nat Rev Gastroenterol Hepatol 2020, 17:687- 701
- Tarrega, A., & Costell, E. (2006). *Effect of inulin addition on rheological and sensory properties of fat-free starch-based dairy desserts*. International Dairy Journal, 16(9), 1104–1112. <https://doi.org/10.1016/j.idairyj.2005.09.002>
- WHO/FAO. (2002). *Guidelines for the evaluation of probiotics in food*. London. Available from: <ftp://ftp.fao.org/es/esn/food/wgreport2.pdf>
- Younesi, E., & Ayseli, M. T. (2015). *An integrated systems-based model for substantiation of health claims in functional food development*. Trends in



**Karakter Mikrobiologi, Fisikokimia, dan Sensoris Es Krim Sinbiotik dari Susu Fermentasi Menggunakan**

***Lactiplantibacillus plantarum* subsp. *plantarum* Dad-13 Dikombinasikan dengan Inulin**

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