

## DAFTAR PUSTAKA

- Barus. T., Giovania. G., Lay. B. W. 2020. Lactic Acid Bacteria from Tempeh and Their Ability to Acidify Soybeans in Tempeh Fermentation. *Microbiology Indonesia*. Vol.14 (4): 149-155
- Bintsis. T. 2018. Lactic acid bacteria as starter cultures: An update in their metabolism and genetics. *AIMS Microbiology*. 4(4): 665-687. <https://doi.org/10.3934/microbiol.2018.4.665>
- BPS. 2021. Jumlah Konsumsi Pangan Berbasis Kedelai di Indonesia. Badan Pusat Statistik
- BPS. 2012. Jumlah Konsumsi Tempe di Indonesia. Badan Pusat Statistik.
- Bruslind. L. 2024. Microbiology. 52-54. *Oregon State University LibreTexts*. [https://bio.libretexts.org/Bookshelves/Microbiology/Microbiology\\_\(Bruslind\)](https://bio.libretexts.org/Bookshelves/Microbiology/Microbiology_(Bruslind))
- Cassimiro DMdJ, Batista NN, Fonseca HC, Naves JAO, Coelho JM, Bernardes PC, Dias DR, Schwan RF. 2023. Wet Fermentation of Coffea Canephora by Lactic Acid Bacteria and Yeasts Using the Self-Induced Anaerobic Fermentation (SIAF) Method Enhances the Coffee Quality. *Food Microbiology*. 110: 1-8 <https://doi.org/10.1016/j.fm.2022.104161>
- Choiron. M., Jayus., Suwasono. S. 2013. Pengaruh Ketersediaan Oksigen pada Produksi Epiglukan oleh Epicoccum ningrum Menggunakan Media Molases. *AGROINTEK*. 7(1):11-20. <https://doi.org/10.21107/agrointek.v7i1.2045>
- Food and Agriculture Organization–World Health Organization. (2017). Regional standard for tempe. Rome, Italy: FAO–WHO Codex Alimentarius
- Fu W, Mathews AP (1999) *Biochemical Engineering Journal* 3: 163—170.
- Goa. T., Beyene. G., Mekonnen. M., Gorems. K. 2022. Isolation and Characterization of Lactic Acid Bacteria from Fermented Milk Produced in Jimma Town, Southwest Ethiopia, and Evaluation of their Antimicrobial Activity against Selected Pathogenic Bacteria. *Hindawi International Journal of Food Science*. Vol 2022: 1-15 <https://doi.org/10.1155/2022/2076021>
- Gupta S, Abu-Ghannam N, Scannell AGM (2011) *Food and Bioproducts Processing* 89: 346—355.
- Ilango. S., Antony. U. 2021. Probiotic microorganisms from non-dairy traditional fermented foods. *Trends in Food Science & Technology*. 118: 617-638 <https://doi.org/10.1016/j.tifs.2021.05.034>
- Jeske, S., Zannini, E., Lynch, K., Coffey, A., and Arendt, E. (2018). Polyol-producing lactic acid bacteria isolated from sourdough and their application to reduce sugar in a quinoa-based milk substitute. *Int. J. Food Microbiol.* 286, 31–36. doi: 10.1016/j.ijfoodmicro.2018.07.013
- Kasmidjo. R.B. 1990. Tempe: Mikrobiologi dan Biokimia Pengolahan Serta Pemanfaatannya. Pusat Antar Universitas Pangan dan Gizi. Universitas Gadjah Mada. Yogyakarta.
- Kiers. J.L., Nout. M.J.R. 2005. Tempe fermentation, innovation and functionality: update into the third millenium. *Journal of Applied Microbiology*. 98: 789–805

Kusumawati, I., Astawan, M., Prangdimurti, E. 2020. Proses Produksi dan Karakteristik Tempe dari Kedelai Pecag Kulit. Pangan. Vol 29(2): 117-126

Laksono, A. S., Marniza., Rosalia. Y. 2019. Karakteristik Mutu Tempe Kedelai Varietas Lokal Anjasmoro dengan Variasi Lama Perebusan dan Penggunaan Jenis Pengemas. Jurnal Agroindustri. Vol 9: 8-18

Laily IN, Utami R, Widowati E. 2013. Isolasi dan karakterisasi bakteri asam laktat penghasil riboflavin daro produk fermentasi sawi asin. Jurnal Aplikasi Teknologi Pangan, 2(4):179-184.

Leoanggraini. U., Muhadi. B. I. 2011. Fermentasi Mikroaerofilik *Lactobacillus acidophilus* untuk Produksi Probiotik. *Industrial Research Workshop and National Seminar*. 188-192. DOI: <https://doi.org/10.35313/irwns.v2i0.385>

Liu. K. 2008. Food Use Of Whole Soybeans. Chemistry, Production, Processing, and Utilization: 441-481

Mani. V., Ming. L.C. 2017. Fermented Foods in Health and Disease Prevention. Academic Press

Meilgaard., M., C. 2016. Sensory Evaluation Techniques. CRC Press. *International Standard Book Number-13: 978-1-4822-1691-2* (eBook - PDF): 108-116

Mulyowidarso. R. K., Fleet. G. H., Buckle. K. A. 1991. Changes in the concentration of carbohydrates during the soaking of soybeans for tempe production. *International Journal of Food Science and Technology* 26: 595-606.

Mulyowidarso. R. K., Fleet. G. H., Buckle. K. A. 1989. The microbial ecology of soybean soaking for tempe production. *International Journal of Food Microbiologr*. Vol 8: 35-46

Nishinari, k., Fang, Y., Naganot, T., Guo, S., Wang, R. 2018. Soy As a Food Ingredient. Woodhead Publishing Series in Food Science, Technology and Nutrition, 2018, Pages 149-186

Nout. M.J.R., Rombouts. F.M. 1990. Recent developments in tempe research. *Journal of Applied Bacteriology*.69:609-633

Nurdini. A. L. 2015. Dinamika Pertumbuhan Bakteri dan Identifikasi Bakteri Asam Laktat Terkultur yang Dominan Selama Fermentasi Tempe pada Dua Industri Rumah Tangga yang Berbeda. Tesis. IPB Reporsitory

Nurliana., Khairunisa. F., Musni. N., Vanda. H., Rasmaidar., Hasan. M., Asmilia. N., Sari. W. E., Isa. M. 2023. The Effect of Anaerobic Condition and Addition of CaCO<sub>3</sub> on The Growth and Antibacterial Activity of Lactic Acid Bacteria Isolated from Layer Hens Intestine After Administrated of AKBISprob. *Jurnal Kedokteran Hewan*. 17(3):90-95. Doi :<https://doi.org/10.21157/j.ked.hewan.v17i3.20309>

Ortiz, M., Bleckwedel, J., Raya, R., and Mozzi, F. (2013). Biotechnological and in situ food production of polyols by lactic acid bacteria. *Appl. Microbiol. Biot.* 97, 4713–4726. doi: 10.1007/s00253-013-4884-z



Pakpahan. M.R.R.B., Ruhiyat. R., Hendrawan. D.I. 2021. Karakteristik Air Limbah Industri Tempe (Studi Kasus: Industri Tempe Semanan, Jakarta Barat. *Jurnal Bhuwana*. Vol 1 (2): 164-172

Peng. X., Liao. Y., Ren. K., Liu. Y., Wang. M., Yu. A., Tian. T., Liao. P., Huang. Z., Wang. H., Jiang. L., 2022. Fermentation performance, nutrient composition, and flavor volatiles in soy milk after mixed culture fermentation. *Process Biochemistry*. 121: 286-297 <https://doi.org/10.1016/j.procbio.2022.07.018>

Puteri. M. D. P. T. G., Hassanein. T. R., Prabawati. E. K., Wijaya. C. H., Mutukumira. A. N. 2015. Sensory Characteristics of Seasoning Powders from Overripe Tempeh, a Solid State Fermented Soybean. *Procedia Chemistry*. 14:263-269. <https://doi.org/10.1016/j.proche.2015.03.037>

Reli. R., Warsiki. E., Rahayuningsih. M. 2017. Modifikasi Pengolahan Durian Fermentasi (Tempoyak) dan Perbaikan Kemasan untuk Mempertahankan Mutu dan Memperpanjang Umur Simpan. *Jurnal Teknologi Industri Pertanian*. 27(1):43-54. <https://doi.org/10.24961/j.tek.ind.pert.2017.27.1.43>

Sari. D., Rahmawati. A. 2020. Analisis Kandungan Limbah Cair Tempe Air Rebusan dan Air Rendaman Kedelai. *Jurnal Ilmiah Media Husada*.9(1):36-41

Smetankova. J., Hladikova. Z., Valach. F., Zimanova. M., Kohajdova. Z., Greif. G., Greifova. M. 2012. Influence of aerobic and anaerobic conditions on the growth and metabolism of selected strains of *Lactobacillus plantarum*. *Acta Chimica Slovaca*, Vol. 5 (2): 204—210, DOI: 10.2478/v10188-012-0031-1

Suknia. S.L., Rahmani. T.P.D. 2020. Proses Pembuatan Tempe Home Industry Berbahan Dasar Kedelai (*Glycine max* (L) Merr) dan Kacang Merah (*Phaseolus vulgaris* L). Di Candiwesi, Salatiga. *Southeast Asian Journal of Islamic Education*. Vol 3 (1): 59-76.

Syukri. D., Silvy. D., Ramadani. S. F. 2022. Effect of Various Cooking Methods on Quality and Sensory Characteristics of Tempeh Made from Soybeans and Corn. *And.Int.j.agric.Nat.Sci*. 3(2): 87-113. <https://doi.org/10.25077/aijans.v3.i02.87-113.2022>

Wang. Y., Wu. J., Lv. M., Shao. Z., Hungwe. M., Wang. J., Xiaojia. B., Xie. J., Wang. Y., Geng. W. 2021. Metabolism Characteristics of Lactic Acid Bacteria and the Expanding Applications in Food Industry. *Frontiers in Bioengineering and Biotechnology*. Vol 9: 1-19

Wikandari. R., Utami. T. A.N., Sardjono. N.H. 2020. Chemical, Nutritional, Physical and Sensory Characterization of Tempe Made from Various Underutilized Legumes. *Pakistan Journal of Nutrition*. 19(4):179-190. <https://doi.org/10.3923/pjn.2020.179.190>

Xiang. Q., Xia. Y., Chen. L., Chen. M., Wang. D., Zong. F. 2023. Flavor precursors and flavor compounds in Cheddar-flavored enzyme-modified cheese due to pre-enzymolysis combined with lactic acid bacteria fermentation. *Food Bioscience*. 53: 1-11 <https://doi.org/10.1016/j.fbio.2023.102698>



**Perubahan Mikrobiologis dan Kimiawi Kedelai Selama Fermentasi Asam Tanpa Perendaman pada Pengolahan**

**Tempe Hemat Air Serta Sifat Sensoris Tempe yang Dihasilkan**

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Xie. J., Ganzle. M. 2023. Microbiology of fermented soy foods in Asia: Can we learn lessons for production of plant cheese analogues?. *International Journal of Food Microbiology*. 407:1-11 <https://doi.org/10.1016/j.ijfoodmicro.2023.110399>