

DAFTAR PUSTAKA

- Abdullah, E. C. & Geldart, D., 1999. The use of bulk density measurements as flowability indicators. *Powder Technology*, 102(2), pp. 151-165.
- AOAC, I., 2008. Method 926.08: Title of the method. In: Official Methods of Analysis of AOAC International. 18 ed. s.l.:AOAC International.
- Arana, I., 2012. *Physical Properties of Foods*. Boca Raton: CRC Press.
- Arygunartha, G. Y., Setianingsih, N. L. P. P. & Sunarso, S. U. P., 2022. Pengaruh Proses Pengolahan Terhadap Sifat Fisik dan Kimia Bubuk Kedelai: Literature Review. *Jurnal Impresi Indonesia*, 1(2), pp. 89-94.
- Barbosa-Canovas, G. V., Jr, A. J. F., Schmidt, S. J. & Labuza, T. P., 2020. *Water Activity in Foods*. 2 ed. USA: Wiley.
- Barokah, G. R., Ibrahim, B. & Tati, N., 2017. Characterization Microencapsul Pepton from Spoiled By Catch Fish Using Spray Drying Methods. *Jurnal Pengolahan Hasil Perikanan Indonesia*, 20(2), pp. 401-412.
- Bell, L. N. & Labuza, T. P., 2000. *Moisture Sorption : Practical Aspects of Isotherm Measurement and Use*. 2 ed. St. Paul: American Association of Cereal Chemists.
- Berk, Z., 2009. *Food Process Engineering and Technology*. 1 ed. United States: Academic Press.
- Bridson, E. Y., 2006. *The Oxoid Manual*. 9th ed. England: Oxoid Limited.
- Buckle, K. A., Edwards, R. A., Fleet, G. H., & Wotton, M., 1987. *Ilmu Pangan*. Jakarta: Universitas Indonesia Press.
- Ding, H. et al., 2020. Effects of Morphology on the Bulk Density of Instant Whole Milk Powder. *Foods*, 9(8), pp. 1-19.
- Ding, H. et al., 2020. Effects of morphology on the dispersibility of instant whole milk powder of instant whole milk powder. *Journal of Food Engineering*, 276(1), pp. 1-20.
- D, K. & Subramaniam, P., 2000. *The Stability and Shelf Life of Food*. England: Woodhead Publishing Limited.
- Dufossé, L. D. L. B. D. & G. F., 2001. Evaluation of nitrogenous substrates such as peptones from fish: a new method based on Gompertz modeling of microbial growth. *Current microbiology*, 42(1), pp. 32-38.
- Fallah, M., Bahram, S. & Javadian, S. R., 2015. Fish peptone development using enzymatic hydrolysis of silver carp by-products as a nitrogen source in *Staphylococcus aureus* media. *Food Science & Nutrition*, 3(2), pp. 153-157.
- FAO/WHO, 2001. *Health and Nutritional Properties of Probiotics in Food including Powder Milk with Live Lactic Acid Bacteria*. Italy: Food and Agriculture Organization of the United Nations and World Health Organization.
- Faridah, D. N., Yasni, S., Suswantinah, A. & Aryani, G. W., 2013. Pendugaan Umur Simpan Dengan Metode Accelerated Shelf-Life Testing pada Produk Bandrek Instan dan Sirup Buah Pala (*Myristica fragrans*). *Jurnal Ilmu Pertanian Indonesia*, 18(3), pp. 144-153.

- Floros, J. D. & V, G., 1993. *Shelf life Prediction of Packaged Foods: Chemical, Biological, Physical, and Nutritional Aspects*. London: Elsevier.
- Fournaise, T., Petit, J. & Gaiani, C., 2021. Main Powder Physicochemical Characteristics Influencing their Reconstitution Behavior. *Powder Technology*, 383(1), pp. 65-73.
- Garcia, R. A. et al., 2010. The non-nutritional performance characteristics of peptones made from rendered protein. *Journal of Industrial Microbiolotu and Biotechnology*, 37(1), pp. 95-102.
- Gul, S. & Durante-Mangoni, E., 2024. Unraveling the Puzzle: Health Benefits of Probiotics-A Comprehensive Review. *Journal of Clinical Medicine*, 13(5), pp. 1-27.
- Gupta, R., Jeevaratnam, K. & Fatima, A., 2018. Lactic Acid Bacteria: Probiotic Characteristic, Selection Criteria, and its Role in Human Health (A Review). *Journal of Emerging Technologies and Innovative Research (JETIR)*, 5(10), pp. 411-424.
- Handoyo, A. M. F. & Sarofa, U., 2023. Estimation of Edamame Flour Shelf Life Using the Critical Moisture Approach. *Asian Journal of Applied Research for Community Development and Empowerment*, 7(2), pp. 213-220.
- Haryati, S., Sukarno, Budijanto, S. & Prangdimurti, E., 2019. Characterization Of Functional Properties Catfish Protein Isolate (Clalrias sp.). *IOP Conference Series: Earth and Environmental Science*, 404(1), pp. 1-11.
- Hasbullah, R. & Mahdania, N. F. I., 2023. Pendugaan Umur Simpan Bubuk Kakao dengan Pendekatan Sorpsi Isotermis. *Jurnal Keteknikaan Pertanian*, 11(3), pp. 294-306.
- Huang, C., Lin, I., Liu, Y. & Mau, J., 2021. Composition, enzyme and antioxidant activities of pineapple. *International Journal of Food Properties*, 24(1), pp. 1244-1251.
- IFST, 1993. *Shelf Life of Foods: Guidilines for its Determination and Prediction*. s.l.:Insitute of Food Science and Food.
- Ijayanti, N., Listanti, R. & Ediati, R., 2020. Pendugaan Umur Simpan Serbuk Wedang Uwuh Menggunakan Metode Aslt (Accelerated Shelf Life Testing) Dengan Pendekatan Arrhenius. *Journal of Agricultural and Biosystem Engineering Research*, 1(1), pp. 46-60.
- Ikrawan, Y. et al., 2023. Effect of trehalose and butterfly pea (*Clitoris ternatea* L.) on physicochemical characteristics of drum dried milk powder. *Food Science and Technology*, 43(1), pp. 1-7.
- Inayah, A. F., Siregar, Y. H. A., Rotua, M. & Terati, 2023. Penentuan Umur Simpan Minuman Sereal Berbasis Tepung Mocaf dan Tepung Ikan Seluang. *Jurnal Pustaka Padi*, 2(2), pp. 53-57.
- Jannah, S. R., Rahayu, E. S., Suroto, D. A. & Wikandari, R., 2022. Study of Viability, Storage Stability, and Shelf Life of Probiotik Instant Coffee *Lactiplantibacillus plantarum* subps. *plantarum* Dad-13 in Vacuum and Non Vacuum Packaging at Different Storage Temperature. *International Journal of Food Science*, pp. 1-7.

- Jariyah, Utami, S. S., Sari, N. K. & Mas'udah, K. W., 2021. Shelf-life Prediction of Soneca Using Accelerated Shelf-life Tests Approach to Critical Water Levels. *NST Proceedings*, 1(1), pp. 80-88.
- Jumiono, A., Mardiah, Amalia, L. & Puspasari, E., 2024. Identifikasi Titik Kritis Kehalalan Produk Mikrobiologi. *Jurnal Ilmiah Pangan Halal*, 6(1), pp. 84-88.
- Junianto, Afrianto, E. & Hasan, Z., 2020. Functional properties and proximate compositions of bony barb protein hydrolysate. *Egyptian Journal of Aquatic Biology & Fisheries*, 24(6), pp. 331-341.
- Khan, M. U. et al., 2025. Evaluation of Atlantic cod hydrolysate properties in innovative freeze concentration techniques. *Food Chemistry*, Volume 27, pp. 1-11.
- Khan, S., Khan, S., Khan, M. & Muzammil, H. S., 2025. Comparative Studies on the Quality and Safety of Commercially Available Dried Milk Powder. *Journal of Global Innovations in Agricultural Sciences*, 13(1), pp. 343-357.
- Khoirunnissa, R., Ningrum, A., Fitriani, A. & Supriyadi, 2022. Isoterm Adsorpsi Serta Pendugaan Umur Simpan Tepung Polong-Polongan Indigenous Indonesia. *Jurnal Teknologi Pertanian*, 23(2), pp. 129-138.
- Klompong, V., Benjakul, S., Kantachote, D. & Shahidi, F., 2009. Characteristics and Use of Yellow Stripe Trevally Hydrolysate as Culture Media. *Journal of Food Science*, 74(6), pp. 19-25.
- Klompong, V., Benjakul, S., Kantachote, D. & Shahidi, F., 2012. Storage Stability of Protein Hydrolysate from Yellow Stripe Trevally (*Selaroides Leptolepis*). *International Journal of Food Properties*, Volume 15, pp. 1042-1053.
- Kosasih, W. et al., 2018. Scaling Up Process For Fish Peptone Production. *IOP Concerence Series: Earth and Environmental Science*, 160(1), pp. 1-6.
- Kusnandar, F., 2006. *Modul Pelatihan Pendugaan dan Pengendalian Masa Kadaluarsa Bahan dan Produk Pangan*. Bogor: Departemen Ilmu dan Teknologi Pangan dan Seafast Center IPB.
- Kyzas, G. & Lazaridis, N., 2020. *Sorption in 2020s*. 1 ed. London: IntechOpen.
- Latief, R. & Safitry, E., 2021. The Effect of the Use of Perkamen Paper Packaging on the Shelf Life Estiamtion of Bolu Cukke Using the Accelerated Shelf Life Testing (ASLT) method. *IOP Conference Series: Earth and Environmental Science*, 807(1), pp. 1-10.
- Magan, J. B. et al., 2019. Physicochemical properties of whole milk powder derived from cows fed pasture or total mixed ration diets. *Journal of Dairy Science*, 102(11), pp. 9611-9621.
- Moretro, T., Hagen, B.F. and Axelsson, L., 1998. A new, completely defined medium for meat lactobacilli. *Journal of Applied Microbiology*, 85(1), pp. 715 -722.
- Morishita, T., Deguchi, Y., Yajima, M., Sakurai, T and Yura, T., 1981. Multiple nutritional requirements of lactobacilli: Genetic lesions affecting amino acids byisynthetic pathways. *Journal of Bacteriology*, 148(1), pp. 64 -71.

- Nijdam, J. J. & Langrish, T. A. G., 2005. An Investigation of Milk Powder Produced by a Laboratory-Scale Spray Dryer. *Drying Technology*, 23(1), pp. 1043-1056.
- Nurhayati, R. et al., 2018. Accelerated Shelf Life Testing of Chocomix Using Critical Moisture Content Approach. *Reaktor*, 18(2), pp. 63-70.
- Nurhayati, T. et al., 2015. Karakterisasi Pepton Ikan Hasil Tangkap Sampingan Tidak Layak Konsumsi Sebagai Sumber Nutrien Pertumbuhan Mikroorganisme. *Jurnal Teknologi Industri Pertanian*, 25(1), pp. 68-77.
- Nurhayati, T., Nurjanah & Sanapi, C. H., 2013. Karakterisasi Hidrolisat Protein Ikan Lele Dumbo (*Clarias gariepinus*). *JPHI*, 16(3), pp. 207-214.
- Nurhayati, T., Wirayudha, R. H. & Suptijah, P., 2023. Karakteristik Pepton dari Limbah Jeroan Ikan Sidat (*Anguilla bicolor*) sebagai Nutrien untuk Pertumbuhan Bakteri. *Jurnal Pengolahan Hasil Perikanan*, 25(3), pp. 1-12.
- Nurkholis, Z., Saputro, A. D., Hardiyanto, F. & Setiadi, P. A., 2021. Physical characteristics of instantized cocoa drink formulated with maltodextrin produced using continuous-type steam jet agglomerator. *IOP Conference Series: Earth and Environmental Science*, 653(1), pp. 1-7.
- Ozdemir, E. E., Gorguç, A., Gençdag, E. & Yılmaz, F. M., 2022. Physicochemical, functional and emulsifying properties of plant protein powder from industrial sesame processing waste as affected by spray and freeze drying. *LWT-Food Science and Technology*, 154(1), pp. 1-9.
- Petrova, I., Tolstorebrov, I. & Eikevik, T. M., 2018. Production of fish protein hydrolysates step by step technological aspects, equipment used, major energy costs and methods of their minimizing. *International Aquatic Research*, 10(1), pp. 223-241.
- Petrova, I., Tolstorebrov, I., Zhivlyantseva, I. & Eikevik, T. M., 2021. Utilization of fish protein hydrolysates as peptones for microbiological culture medias. *Food Bioscience*, Volume 42, pp. 1-10.
- Poernomo, A., Ariyani, F. & Murdinah, 2019. Store Stability of Fish Waste Peptone at Ambient Temperature. *Bulletin of Marine and Fisheries Postharvest and Biotechnology*, 14(2), pp. 55-64.
- Ramadhan, W., Santoso, J. & Trilaksani, W., 2024. Moisture sorption isotherm and shelf-life estimation of freeze-dried surimi powder. *BIO Web Conference*, 112(1), pp. 1-15.
- Robertson, G. L., 2009. *Food Packaging and Shelf Life: a Practical Guide*. 1 ed. Boca Raton: CRC Presss.
- Rockland, L. B. & Stewart, G. F., 1981. *Water Activity: Influences on Food Quality. A Treatise on the Influence of Bound and Free Water on the Quality and Stability of Foods and Other Natural Products*. 1 ed. New York: Academic Press.
- Roongruangsri, W. & Bronlund, J., 2016. Effect of Air-Drying Temperature on Physico-Chemical, Powder Properties and Sorption Characteristics of Pumpkin Powders. *International Food Research Journal*, 23(3), pp. 962-972.

- Rossi, E., Efendi, R., Rahmayuni & Reval, O., 2022. Effect of Storage Time of Halal Peptone at Ambient Temperature on Bacterial Growth. *IOP Conference Series: Earth and Environmental Science*, Volume 1059, pp. 1-9.
- Ryabova, A. E., Semipyatny, V. K., & Galstyan, A. G. , 2023. Effect of Storage Conditions on Milk Powder Properties. *Journal of Dairy Science*, 106(10), pp. 6741-6758.
- Sanguir, F. M. & Nadra, M. C. M. d., 2007. Improvement of a chemically defined medium for the sustained growth of *Lactobacillus plantarum*: nutritional requirements. *Current Microbiology*, 54(1), pp. 414-418.
- Saragih, P. et al., 2024. Optimasi Yeast Extract pada Media Halal untuk Produksi Bubuk Probiotik *Lactiplantibacillus plantarum* Kita-3. *Itepa: Jurnal Ilmu dan Teknologi Pangan*, 13(3), pp. 573-587.
- Sarita, B., Samadhan, D., Hassan, Z. & Kovaleva, E. G., 2024. A Comprehensive Review of Probiotics and Human Health-Current Prospective and Applications. *Frontiers*, 15(1), pp. 1-14.
- Septiani, T., 2024. *Pengembangan Media Halal Berbasis Bubuk Pepton Daging untuk Produksi Bakteri Probiotik*, s.l.: Universitas Gadjah Mada.
- Setijawati, D. et al., 2020. Characteristics and Use of Peptones from Catfish (*Clarias gariepinus*) and Pangas Catfish (*Pangasius pangasius*) Heads as Bacterial Growth Media. *Squalen Bulletin of Marine and Fisheries Postharvest and Biotechnology*, 15(1), pp. 19-29.
- Sundararajan, P. et al., 2023. Driving Spray Drying toward Better Yield: Tackling a Problem That Sticks Around. *Pharmaceutics*, 15(8), 2137.
- Supriyatno, E., 2003. *Albumin Ikan Gabus (Ophiocephalus striatus) sebagai Makanan Fungsional Mengatasi Permasalahan Gizi Masa Depan*. Malang: Fakultas Perikanan Universitas Brawijaya.
- Suryani, R., 2023. *Pemanfaatan Ampas Ikan Sebagai Sumber Pepton Media Produksi Lactiplantibacillus plantarum subsp. plantarum Dad-13*, s.l.: Universitas Gadjah Mada.
- Suzihaque, M., Hashib, S. A. & Ibrahim, U. K., 2015. Effect of Inlet Temperature on Pineapple Powder and Banana Milk Powder. *Prodecia - Social and Behavioral Sciences*, 195(1), pp. 2829-2838.
- Swastika, A. D. & Juwitaningtyas, T., 2024. Pendugaan Umur Simpan Tepung Salak (*Salacca zalacca*) Menggunakan Metode Accelerated Shelf Life Test (ASLT) Pendekatan Kadar Air Kritis. *Jurnal Keteknik Pertanian Tropis dan Biosistem*, 12(1), pp. 46-54.
- Thu, T. T. M., Thuy, L. T. M. & Truc, T. T., 2023. Effects of material types and enzymatic hydrolysis treatments on the production of fish protein hydrolysate powder from snakehead fish (*Channa striata*) head by using endoproteases and exoproteases. *AAFL Bioflux*, 16(5), pp. 2495-2505.
- Utami, T. et al., 2020. Preparation of Indigenous Lactic Acid Bacteria Starter Culture for Large Scale Production of Fermented Milk. *Digital Press Life Science*, 2(2), pp. 1-7.

- Wijanarti, S., Ambarwati, G. & Sabarisman, I., 2019. Shelf Life Determination of Pegagan (*Centella asiatica*) Chips Using Accelerated Shelf-Life Testing (ASLT) Method. *Agroindustrial Journal*, 6(1), pp. 396-404.
- Yousefi, N. & Abbasi, S., 2022. Food proteins: Solubility & thermal stability improvement techniques. *Food Chemistry Advances*, 1(1), pp. 1-17.